Growing pains

2018 Global CEO Outlook

KPMG International

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Foreword

For our fourth annual Global CEO Outlook, we reached out to 1,300 CEOs of large companies from around the world to get their views of the highest-priority opportunities and most daunting challenges they and their businesses face. As in prior years, we've seen how quickly the world is changing for today's business leaders, and what this means for how they are leading and growing their organizations.

Exploring a broad range of business drivers, risks and pain points, this year's report offers insights into how new and evolving forces are continuing to raise the bar for CEOs in all countries and all sectors.

In 2017, we found CEOs excited about the future: they saw technology-driven change as a significant opportunity to disrupt their sector. That optimism continues in 2018, with business leaders showing great faith in the economic environment, both nationally and globally.

However, that optimism is tempered by caution and realism, with a clear recognition that, in order to grow their businesses, they need to respond to an ever-expanding spectrum of complex challenges and 'growing pains'. While the CEOs surveyed still predict that their businesses will grow in the coming year, forecasts are lower than last year and a majority say they need to hit growth targets before they start hiring new people.

Reviewing the results and the insights from these senior executives, you can't help but be struck by the sheer volume and depth of the issues CEOs are facing and how they are personally focusing their efforts as leaders to face them.

It's not surprising in the current environment to see geopolitical issues rising up the CEO radar. Technology continues to command considerable attention — as an enabler, a disruptor and, with the threat of cyber attacks, a very significant risk. Data privacy is also understandably high on the CEO agenda. And even with the increased reliance on data-driven models and analytics to make decisions, the CEOs we have spoken with are still relying on the value of their experience and intuition in making the difficult strategic calls for the future of their organizations.

Our thanks go to all the CEOs who gave their time and spoke so candidly about the issues they face in their roles. Being a CEO in this period of such profound disruption and opportunity poses immense personal and professional challenges. The CEOs I speak with around the world are more open to new thinking, learning new skills and challenging convention than ever before.

If you would like to talk to our professionals about the perspectives and issues raised here, we would welcome the opportunity to discuss how your business can gain from these insights.

Bill Thomas
Chairman, KPMG International

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Key findings

Growth headwinds

The strategic issues CEOs face in the pursuit of growth

- **Cyber certainty**
  49 percent say that becoming the victim of a cyber attack is a case of 'when', not 'if'
- **Generational shifts**
  Over a third **(38 percent)** say they need to reposition their business to meet the needs of Millennials
- **Geopolitics hits the boardroom**
  'A return to territorialism' is the **number one** threat to growth

Realistic growth

Optimism tempered by pragmatism

- **Optimistic macroeconomic outlook**
  - **90 percent** are confident in their company's growth prospects and
  - **67 percent** are confident in the growth prospects for the global economy
- **A healthy dose of pragmatism**
  55 percent predict cautious revenue growth of less than 2 percent
- **52 percent** say they will need to hit growth targets before hiring new skills

Digital gets personal

CEOs take personal ownership of driving digital transformation and trust

- **Owning transformation**
  71 percent are personally ready to lead a radical organizational transformation
- **CEO as data protector**
  59 percent see protecting customer data as a critical personal responsibility
- **Robots manufacture jobs**
  62 percent expect artificial intelligence (AI) to create more jobs than it destroys

Instinct over data

CEOs say agility and intuition are key to turning digital disruption into opportunity

- **59 percent** believe agility is the new currency of business
- **67 percent** have put their own intuition over data-driven insights in the past 3 years

Growth headwinds

> Geopolitics now has to be seen on par with other strategic challenges and CEOs need to develop their awareness and skills to manage an increasingly uncertain environment.

Gary Reader
Global Head of Clients and Markets
KPMG International

In our 2017 Global CEO Outlook, we found chief executives excited about the future: they saw technology-driven change as an opportunity to disrupt their business. That optimism continues in 2018, with CEOs showing great faith in the economic environment, both nationally and globally, to grow their business.

However, CEOs' optimism is tempered by greater anxiety about existential threats. They are having to manage their exposure to three primary headwinds: geopolitical volatility, cyber security risk and demographic shifts.

Geopolitics hits the boardroom

After many years of widespread international consensus on globalization, the potential withdrawal from trade agreements by some developed countries and the UK's decision to exit the EU show that nationalism is now on the rise.

For **Dan Schulman, CEO of electronic payments company PayPal**, this return to nationalist sentiments has an impact on the way business leaders operate. "During these times of profound political and economic change, business leaders cannot sit on the sidelines and watch," he says. "We need to be a force for change, and draw on our missions and our values to make a difference — and we need to partner across the public and private sectors to address the economic pain points."

For CEOs, a more nationalistic approach to trade is worrying: a 'return to territorialism' is their number one threat to growth.

Interestingly, there are some notable differences at a country level on the risk landscape. In the US, where organizations are charging ahead with their digital agendas, cyber is the number one ranked growth risk. And, as China undergoes sweeping changes to tackle pollution issues, Chinese CEOs are making environmental/climate change risk their top concern.

The risk landscape of 2018 shows some significant differences from 2017. Last year, operational risk topped the risk agenda and cyber security was fifth.

With a return to territorialism topping the risk agenda, Gary Reader,

Chart 1: Threats to growth

1	Return to territorialism
2	Cyber security risk
3	Emerging/disruptive technology risk
4	Environmental/climate change risk
5	Operational risk

Source: 2018 Global CEO Outlook, KPMG International

KPMG's Global Head of Clients and Markets, says leadership teams need to embed geopolitical intelligence into their strategic thinking and risk assessments. "Now more than ever, CEOs need to develop their geopolitical skills and antennae. Increased political uncertainty around the world has to be factored in to board thinking and decision-making," he says. "Geopolitics now has to be seen on par with other strategic challenges and CEOs need to manage in an increasingly uncertain environment."

For **Ken Allen, CEO of logistics company DHL Express**, it is about being prepared for political events while remaining impartial. "We try to be very non-political," he says. "The people have decided on Brexit — now, our job is to understand what the new rules and regulations are. We need to be right on top of it and prepared to move as soon as those new things are put in place."

CEOs play a critical role in tax risk

A renewed focus on national tax policies is one significant impact of the increasingly nationalistic approach. As they manage the implications of political shifts and changes, CEOs also need to be attuned to how public sentiment about corporate tax behavior is changing. "If you're a global business, you need to understand how societal expectations are developing in different countries, and also try to look forward — because tax risk has a long tail," says Jane McCormick, KPMG's Global Head of Tax. "You have to anticipate how society will be thinking in the future. You also have to find a way of engaging in the discussion about the formulation of policy with government. At the moment, the voice of business is not being heard in that discussion."

When we asked CEOs who they thought was responsible for oversight of tax risk, 46 percent named the CFO, 29 percent the chair of the audit committee and 25 percent laid responsibility at their own door.

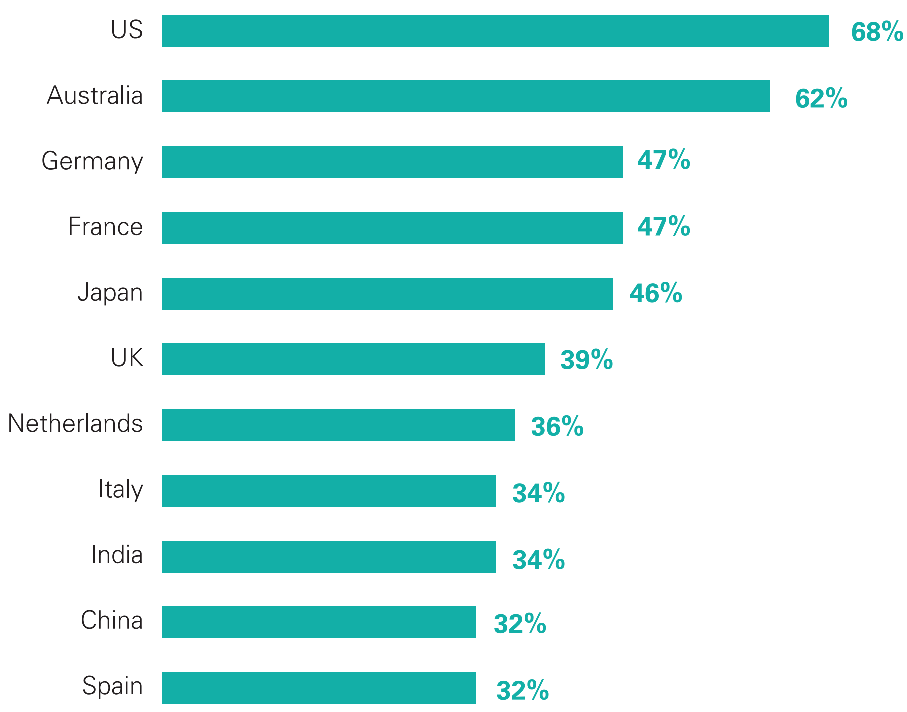
While CEOs will of course remain heavily reliant on their organization's specialists to monitor tax risk, the perceived correlation between tax and reputational risk means that they will need to take more responsibility in the future.

> “The people have decided on Brexit — now, our job is to understand what the new rules and regulations are.”

Ken Allen
CEO
DHL Express

While the seeming inevitability of a cyber event crosses all borders, this threat is perceived to be highest by American CEOs, with 68 percent of CEOs saying it’s just a matter of time.

Chart 2: The inevitability of a cyber attack on their business, by country



Source: 2018 Global CEO Outlook, KPMG International

Cyber certainty

For Dani Michaux, Head of KPMG Asia Pacific's Cyber Security practice, cyber's rise from last year reflects how leadership teams are embracing this issue. "Cyber security has become a mandatory boardroom topic, particularly as governments and regulatory bodies increase their scrutiny," she says.

Digital innovation can create significant value across business models, customer experience and operations. But greater connectivity brings increasing cyber vulnerability, and about half of all CEOs (49 percent) say that a cyber attack is now a case of 'when', instead of 'if'.

"The challenge is to constantly be ahead of the cyber criminals — a task which is very difficult to achieve," says **Ali Ahmed Al-Kuwari, CEO of Qatar-based QNB Group**, the largest bank in the Middle East and North Africa region. "While cyber security used to be considered an issue primarily for the IT department, these days it is a permanent agenda item for the entire C-suite — one that we are all responsible for."

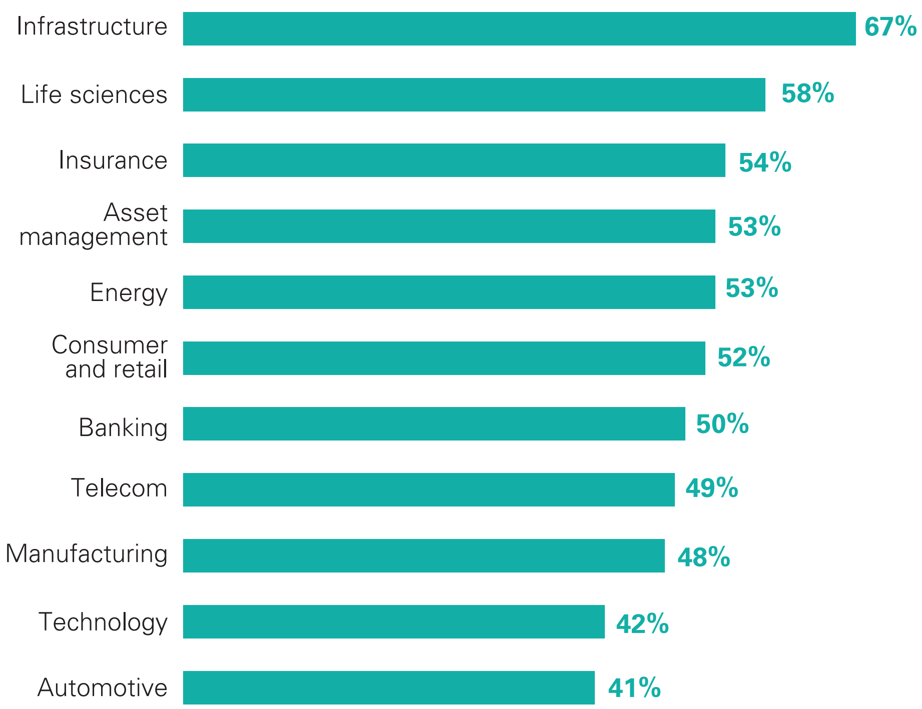
And while the seeming inevitability of a cyber event crosses all borders, this threat is perceived to be highest by American CEOs, with 68 percent of CEOs saying it's just a matter of time.

"It [cyber risk] is a very big issue because as the technology changes, it opens up more loopholes," explains **Tim Murray, CEO of manufacturing company Aluminium Bahrain**. "We have manufacturing systems that control things, so if they were hacked or frozen or locked-up, it could obviously have a major impact on us."

Many CEOs are concerned about the robustness of their defenses. Only about half of CEOs (51 percent) believe they are well-prepared for a cyber attack. It's perhaps not surprising, given the importance of energy and power to countries' economy and society, that CEOs from the infrastructure sector consider themselves to be the most well-prepared against potential cyber aggressors compared to their colleagues.

Only 51 percent believe they are well-prepared for a cyber attack.

Chart 3: How well-prepared sectors are for a cyber attack, by industry



Source: 2018 Global CEO Outlook, KPMG International

> Smart leaders are making cyber preparedness a board priority, stress testing the resilience of their systems and people to withstand an attack.

Dani Michaux
Head of KPMG Asia Pacific's Cyber Security practice

KPMG's Michaux agrees that cyber vigilance has moved up the agenda. "No matter what industry you're in, data is the lifeblood of modern business," she says. "Smart leaders are making cyber preparedness a board priority, stress-testing the resilience of their systems and people to withstand an attack. Businesses are also looking for a competitive edge from this investment and the increased insight they get on their systems and data."

Robust cyber defenses are also critical to building trust. Over half of CEOs (55 percent) said that a strong cyber strategy is critical to secure key stakeholders' trust.

Generational shifts

To drive long-term growth, organizations need to appeal to consumer markets of the future. Millennials[1] represent significant spending power, but they are engaging with organizations and brands in new ways and businesses need to make sure they are in sync.

The survey finds that many CEOs are concerned that their businesses are not keeping up. Asked about the key challenges of meeting Millennials' needs, 45 percent of CEOs say their organization struggles to understand how the needs of this generation differ from those of older customers. Over a third believe they need to reposition their brand.

Dutch companies are the most likely to be focused on the challenge of understanding how Millennials' needs differ from other cohorts, whereas Japanese companies see this as less of a challenge.

[1] This report defines Millennials as those born between 1980 and 2000.

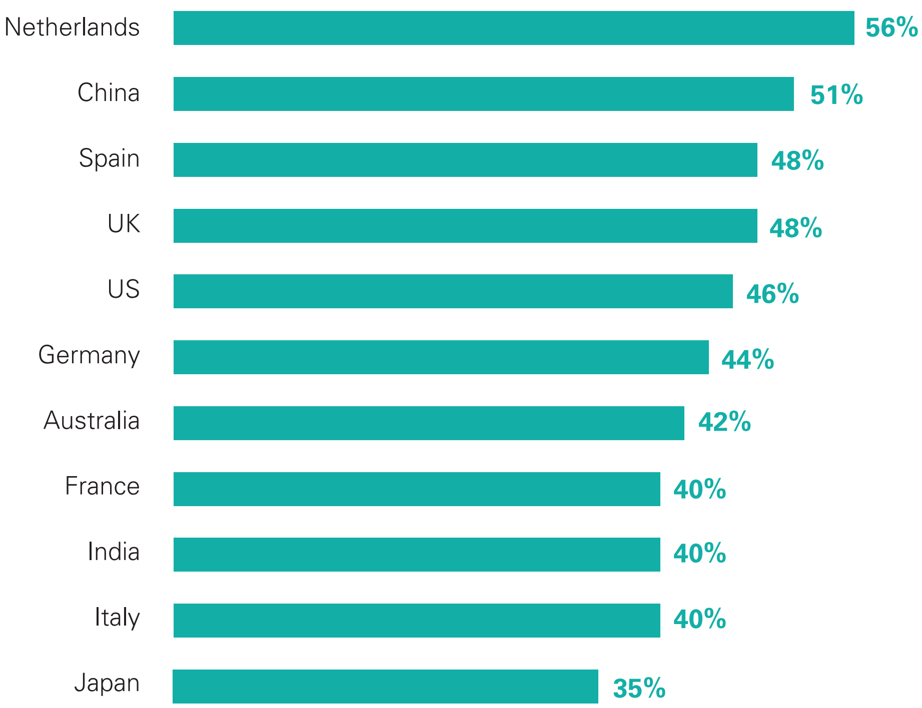
> The challenge is to constantly be ahead of the cyber criminals — a task which is very difficult to achieve.

Ali Ahmed Al-Kuwari
CEO
QNB Group

> It [cyber risk] is a very big issue because as the technology changes, it opens up more loopholes.

Tim Murray
CEO
Aluminium Bahrain

Chart 4: Understanding how Millennials' needs differ vs older customers, by country



Source: 2018 Global CEO Outlook, KPMG International

To drive long-term growth, organizations need to appeal to the consumer markets of the future.

Winning over new generations

To form a rounded, nuanced view of the motivations of Millennials and understand how they make decisions, CEOs need to listen.

"Organizations that listen to Millennials will see that they respond well," says Carmen Bekker, Partner with KPMG's Customer Brand and Marketing practice. "They want to feel that what's important to them is also important to the organization they're dealing with. Tomorrow's successful organizations will listen, think about what their corporate and brand values are, and ask if they are aligned with the values of Millennials and future cohorts."

Understanding new generations is also about empathy with the values they consider important, such as sustainability. "Millennials have often a clear philosophy on this," says **Feike Sijbesma, CEO of global science-based company Royal DSM**.

"They really want to do something meaningful with their lives. They want to make an impact, and they see sustainability as a key element of this. You will only continue to be successful if you adapt and make your company future-proof."

However, for **Enrique Díaz-Rato, CEO of global transportation infrastructure company Cintra**, it is also important not to buy into generalized 'myths' about new generations' behavior and consumption patterns. "During the Great Recession, traffic in the US didn't grow as it used to," he says. "However, recent data show that reduction in driving was a temporary effect of the Great Recession in the employment of Millennials, and that there is a negligible change in travel behavior of new generations. Millennials are now the fastest-growing category of US car buyers."[2]

[2] "Millennials drive new cars sales with the US market forecast to reach 18.46 million units sold in 2017", Mintel, 10 February 2017. (http://www.mintel.com/press-centre/retail-press-centre/millennials-drive-new-cars-sales-in-the-us)

"Millennials have often a clear philosophy on this. They really want to do something meaningful with their lives."

Feike Sijbesma
CEO
Royal DSM

> I think the trick of being successful in innovation is being successful in technology.

Hikmet Ersek
CEO
Western Union

The role technology plays in meeting customers' changing wants and needs across generations is also critical. According to **Hikmet Ersek, CEO of money transfer services company Western Union**, "I think the trick of being successful in innovation is being successful in technology," he says. "It's not sitting in the corner office having an idea about technology. It's really about listening to the customer and adapting that technology to their needs, you need to listen to the voice of the customer to be successful."

> Tomorrow's successful organizations will listen, think about what their corporate and brand values are, and ask if they are aligned with the values of Millennials and future cohorts.

Carmen Bekker
Partner, KPMG's Customer Brand and Marketing practice

Realistic growth

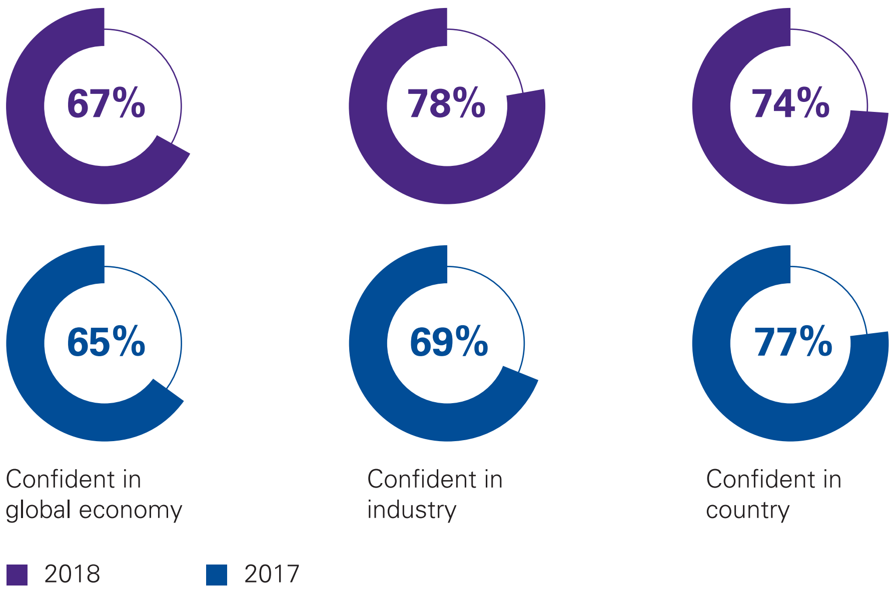
CEOs are are largely confident but their optimism is not translating into bullishness about their own company's revenue growth.

CEOs are confident in the prospects for national, global and industry growth, but their optimism is not translating into bullishness about their own company's topline revenue growth.

Optimistic macroeconomic outlook

Many of the world's major economies are experiencing positive growth momentum and CEOs are optimistic about the next 3 years at the global and industry levels. At a country level, while we see broad confidence across most of the world's largest economies, there has been a drop-off in confidence for some of the European powerhouses — notably the UK, Germany, Spain and Italy (see Chart 5b), all of which experienced substantial political turmoil over the past 12 to 18 months. India is an interesting outlier, having seen major structural reforms around its GST implementation and demonetization in 2017, which may help explain what appears to be a short-term drop in confidence reported by Indian CEOs compared to the previous year.

Chart 5a: Confidence in 3-year growth prospects, 2018 and 2017

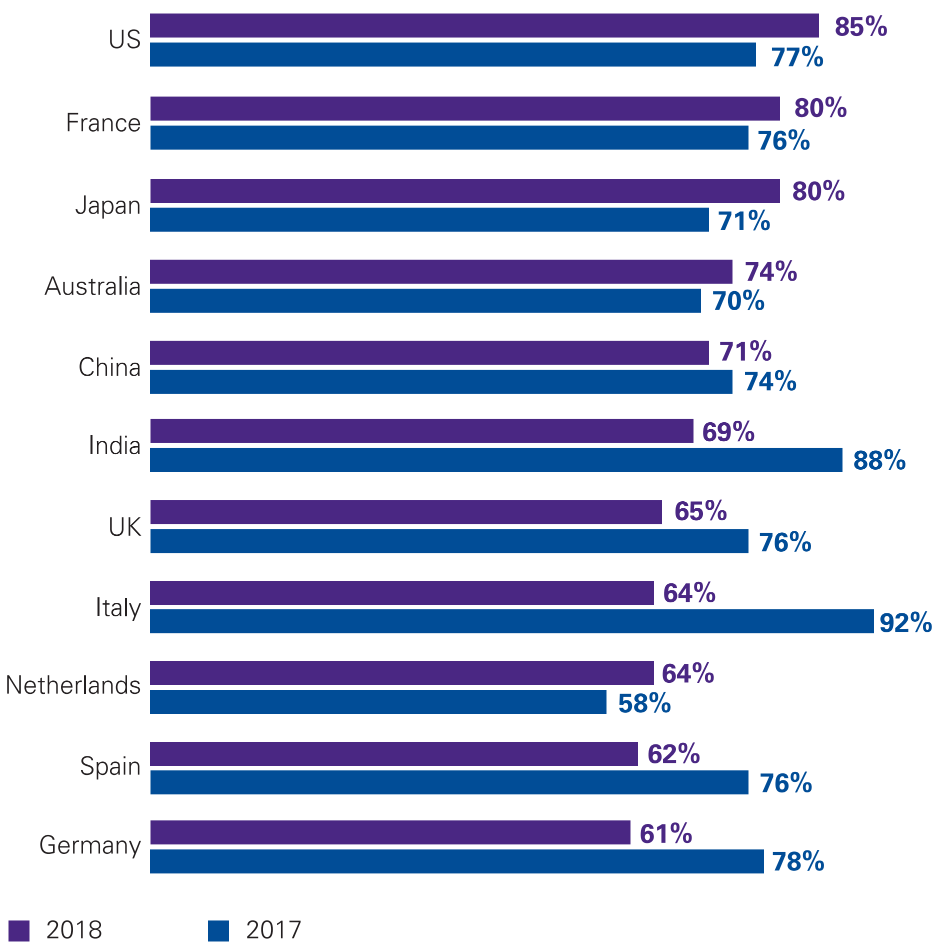


Source: 2018 Global CEO Outlook, KPMG International

> We have very good news on global growth.

Fernando A. González
CEO
CEMEX

Chart 5b: Confidence in their own country's 3-year growth prospects, 2018 and 2017, by country



Source: 2018 Global CEO Outlook, KPMG International

55 percent expect conservative topline growth of less than 2 percent.

Meanwhile, CEOs' confidence in the global economy and in their own industry has increased since last year: for example, 78 percent say they are confident in growth prospects for their sector — a 9 percentage point increase versus 2017.

"We have very good news on global growth," says **Fernando A. González, CEO of global building materials company CEMEX**. "The last time I reviewed this, there were only a couple of countries in the world that are not expected to grow this year. It's been quite a long time since we've seen such synchronized global growth."

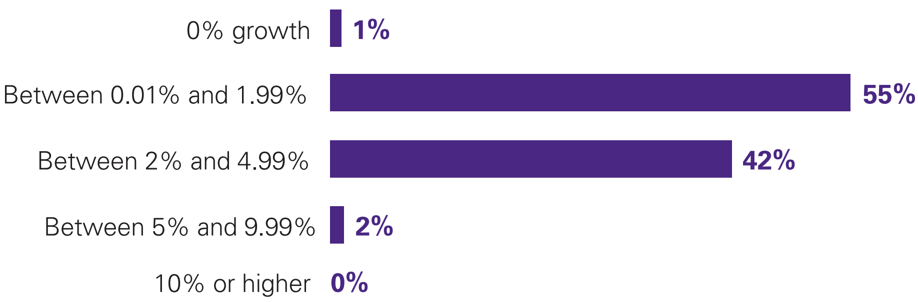
A healthy dose of pragmatism

However, CEOs' confidence in the macroeconomic environment is not translating into ambitious growth targets. The majority of CEOs (55 percent) expect conservative topline growth of less than 2 percent.

This greater caution could reflect CEOs' concerns about the headwinds they face, particularly the return to territorialism that tops their growth risks. It could also reflect the difficulties of driving growth from new digital business models and revenue streams. As traditional products and services become obsolete, and CEOs work to make their portfolios relevant to the digital age, it will take time to replace historical revenue streams.

"The CEOs we're advising have realized that topline revenue growth is no longer the most important measure of success in the digital era," says Mark A. Goodburn, KPMG's Global Head of Advisory. "They are focused on how they can achieve better profitability: investing in technology and their people and looking at different business models. These CEOs recognize that success is achieved with a stronger products and services portfolio profitability."

Chart 6: Outlook for annual topline revenue growth over the next 3 years



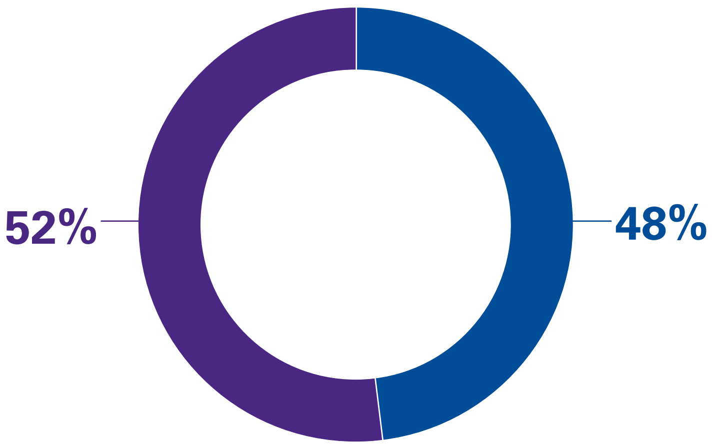
Source: 2018 Global CEO Outlook, KPMG International

Only 37 percent predict headcount growth of more than 6 percent over the next 3 years, which is a 10 percentage point decrease versus 2017.

Hiring cautiously

CEOs' hiring plans are also pragmatic. Only 37 percent predict headcount growth of more than 6 percent over the next 3 years, which is a 10 percentage point decrease versus 2017. In addition, many are cautious about going ahead with wholesale hiring of new skills into the enterprise. Over half (52 percent) say they will not hire new skills until growth targets are met.

Chart 7: Approach to recruiting new skills



- We are waiting to achieve certain growth targets before hiring new skills
- We are hiring new skills — regardless of future growth targets

Source: 2018 Global CEO Outlook, KPMG International

"Our customers are having to reinvent their existing business models using digital technology, so they may be automating and applying AI [artificial intelligence] to their traditional solutions."

Duncan Tait
SEVP, Head of Americas and EMEIA
Fujitsu

The rate at which technology is evolving adds complexity to decisions around hiring strategy: CEOs need to achieve the right balance of reskilling the existing workforce and adding fresh talent — even as the implications of new technologies remain uncertain.

"Our customers are having to reinvent their existing business models using digital technology, so they may be automating and applying AI [artificial intelligence] to their traditional solutions," explains **Duncan Tait, SEVP, Head of Americas and EMEIA at Japanese IT company Fujitsu**.

Driving growth: strategic alliances to the fore

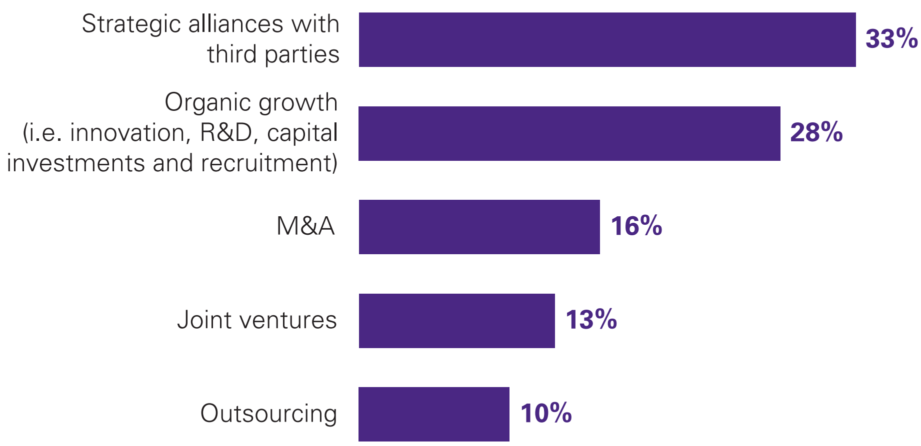
In terms of where growth will come from, CEOs are looking to inorganic methods. Only 28 percent say that organic growth, through tactics such as R&D and recruitment, is their primary strategy; the other 72 percent are choosing other strategies (see Chart 8).

While only 16 percent cite M&A as their most important growth strategy, more than a quarter (27 percent) of CEOs indicate a high M&A appetite over the next 3 years.

And when asked about the geographic markets they will prioritize for expansion, 70 percent of CEOs cite emerging markets — and Central and South America are targeted by a third of these CEOs. "Central and South America are becoming more attractive as it's a significant market that is getting wealthier," says KPMG's Reader.

"Let's not forget about Africa either, a continent rich in natural resources and

Chart 8: The most important strategies to drive growth over the next 3 years



Source: 2018 Global CEO Outlook, KPMG International

While only 16 percent cite M&A as their most important growth strategy, more than a quarter (27 percent) of CEOs indicate a high M&A appetite over the next 3 years.

with an age demographic that presents some great growth opportunities."

For Christoph Zinke, KPMG's Asia Pacific Head of Global Strategy Group, the emphasis on strategic alliances reflects the disruption CEOs face — collaboration gives them answers to problems that M&A cannot always solve. "Strategic alliances are driven by the capabilities you need to succeed in the future," he says. "Take a look at the automotive industry, which is now focused on mobility and not just producing cars. It's a totally new ecosystem that redefines the value chain. Alliances also offer flexibility if you need to add new partners or get rid of certain partners you aren't happy with."

But Zinke also points out that strategic alliances, similar to M&A, often fail to deliver the hoped-for results — often because leaders lack the right attitude.

"You need to sit at the negotiation table with a partnership spirit — not as a buyer or as a target," he says. "You need more time to discuss ambition and not price. This is very different from an M&A standpoint. It's much more about understanding what each party brings to the table and how you achieve your joint objective."

Miles Roberts, Group Chief Executive of UK-based international packaging business DS Smith Plc, agrees that it's important to strive for growth, but growth has to come in the right way. "We have to be a better company, not just a bigger company, and it's better through the eyes of the receiver, how they feel we are a more responsible company and earning the right to be a larger company. That's what we're working on. Those hurdles are only going to increase for all of us."

"You need to sit at the negotiation table with a partnership spirit — not as a buyer or as a target."

Christoph Zinke
KPMG's Asia Pacific Head of Global Strategy Group

Digital gets personal

To win the digital race, CEOs are taking close personal ownership of driving digital transformation.

CEOs are optimistic about the sweeping changes that digital brings. The vast majority — 95 percent — see technological disruption as more of an opportunity than a threat. Many are determined to seize the competitive edge it offers and get on the front foot. Over half of CEOs (54 percent) are actively disrupting the sector in which they operate, rather than waiting to be disrupted by competitors.

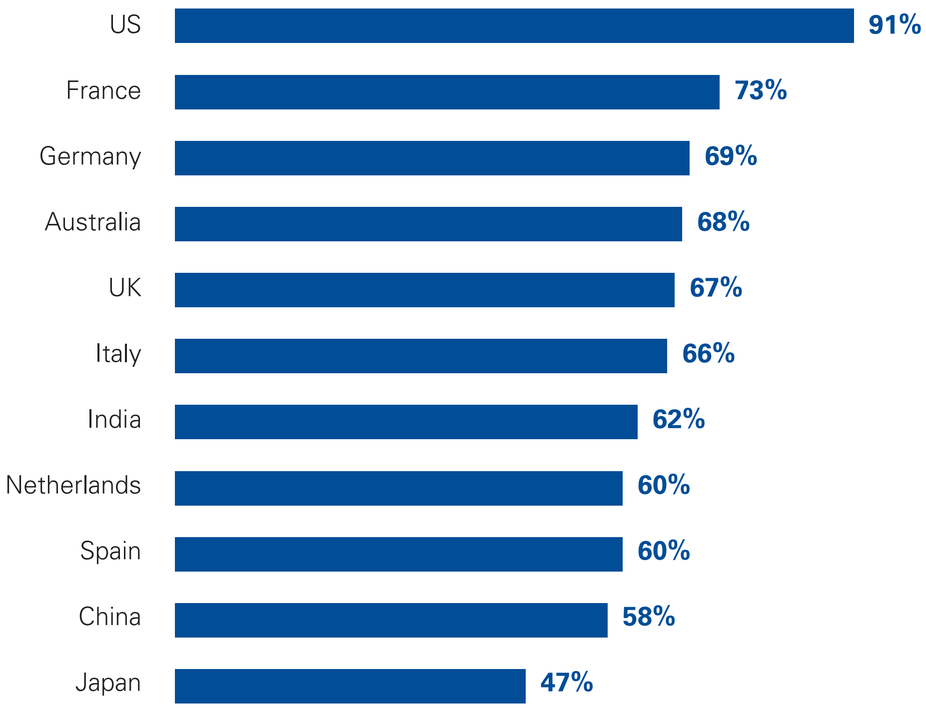
To win the digital race, CEOs are taking close personal ownership of driving digital transformation. They recognize the power of data to personalize the customer experience, though only 23 percent claim to be exceeding customer expectations today. They are embracing the likes of AI and the Internet of Things to reshape their businesses. They are taking on — as a personal responsibility — the obligation to protect data and earn the public's trust. And, as automation and AI reconfigure the workforce, CEOs are planning how to prepare their people for the age of the smart machine.

KPMG's Goodburn welcomes these developments: "more and more of the CEOs I speak with are telling me, 'I am personally leading our digital charge'. That says to me, 'I'm creative, adaptive and agile, and prepared to transform my business to be successful in a digital world'."

"The word 'disruption'...has an antagonistic feel that I've never liked. Instead, we need to look at it as a transformation..."

Samuel Tsien
Group CEO
OCBC Bank

Chart 9: How prepared CEOs are to personally lead radical operating model transformation, by country



Source: 2018 Global CEO Outlook, KPMG International

71 percent of CEOs say they are prepared to lead their organization through a radical transformation of its operating model.

Samuel Tsien, Group CEO of Singapore-headquartered OCBC Bank, has a similar view of how CEOs should approach transformation. "The word 'disruption', often used in association with digital technologies, has an antagonistic feel that I've never liked," he says. "Instead, we need to look at it as a transformation that is brought about by the change in our market environment."

Owning transformation

In the digital age, CEOs are prepared to lead their organization through a radical transformation of its operating model. In fact, 71 percent of CEOs say this.

American CEOs are most prepared to drive this transformative change, with 91 percent saying that they are prepared to step up to the plate.

They are keen to be first-movers, too: 86 percent of CEOs in the US feel their organization is actively disrupting the sector in which they operate.

For **Susan Story, President and CEO at American Water**, the largest publicly traded water and wastewater utility company based in the US, CEOs' focus on transformation reflects the fact that business and technology are now intertwined. "In the old days, you had business and then you laid technology on top of it," she explains. "Today, business is technology and everything we do has technology threaded through it. How you most effectively and efficiently do that is what distinguishes companies that are digitally transformed from those companies that aren't."

Keeping up with expectations

As well as acting as champions of change, CEOs are under the spotlight in terms of delivering results on technology investments — and expectations can be challenging. Over half of CEOs (51 percent) say that their board of directors has an unreasonable expectation of returns on digital transformation investments.

Vinod Kumar, Managing Director and Group CEO of Tata Communications, believes that "the largest challenge with getting a return on technology investment is the adoption of it." He explains, "once you have the technology, your people and processes have to evolve to leverage it. There's usually a lag effect, so adoption tends to be slower than planned."

Setting clear expectations will be critical, as CEOs recognize that a degree of patience is required. We found that 65 percent of CEOs say that the lead times to achieve significant progress on transformation can seem overwhelming.

Steven Hill, KPMG's Global Head of Innovation, believes that leaders need to challenge ROI conventions by fundamentally rethinking how they view digital investments and how returns are measured. "Business leaders need to rethink their innovation equation," he says. "You can't look at investments and returns in the way you did in the past. First, you will only get marginal benefits if you just digitize an existing process — leading organizations rethink analogue system workflow at a minimum and the entire business model in many cases."

Jim Kavanaugh, CEO of World Wide Technology, advises taking a long-term view on technology investing. "You can no longer evaluate technology investments through only a traditional lens. When the goal is market disruption or to create a new business model or level of engagement, understand that the return is more complex and may materialize over time."

"Today, business is technology and everything we do has technology threaded through it."

Susan Story
President and CEO
American Water

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Jim Kavanaugh
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> Business leaders need to rethink their innovation equation.

Steven Hill
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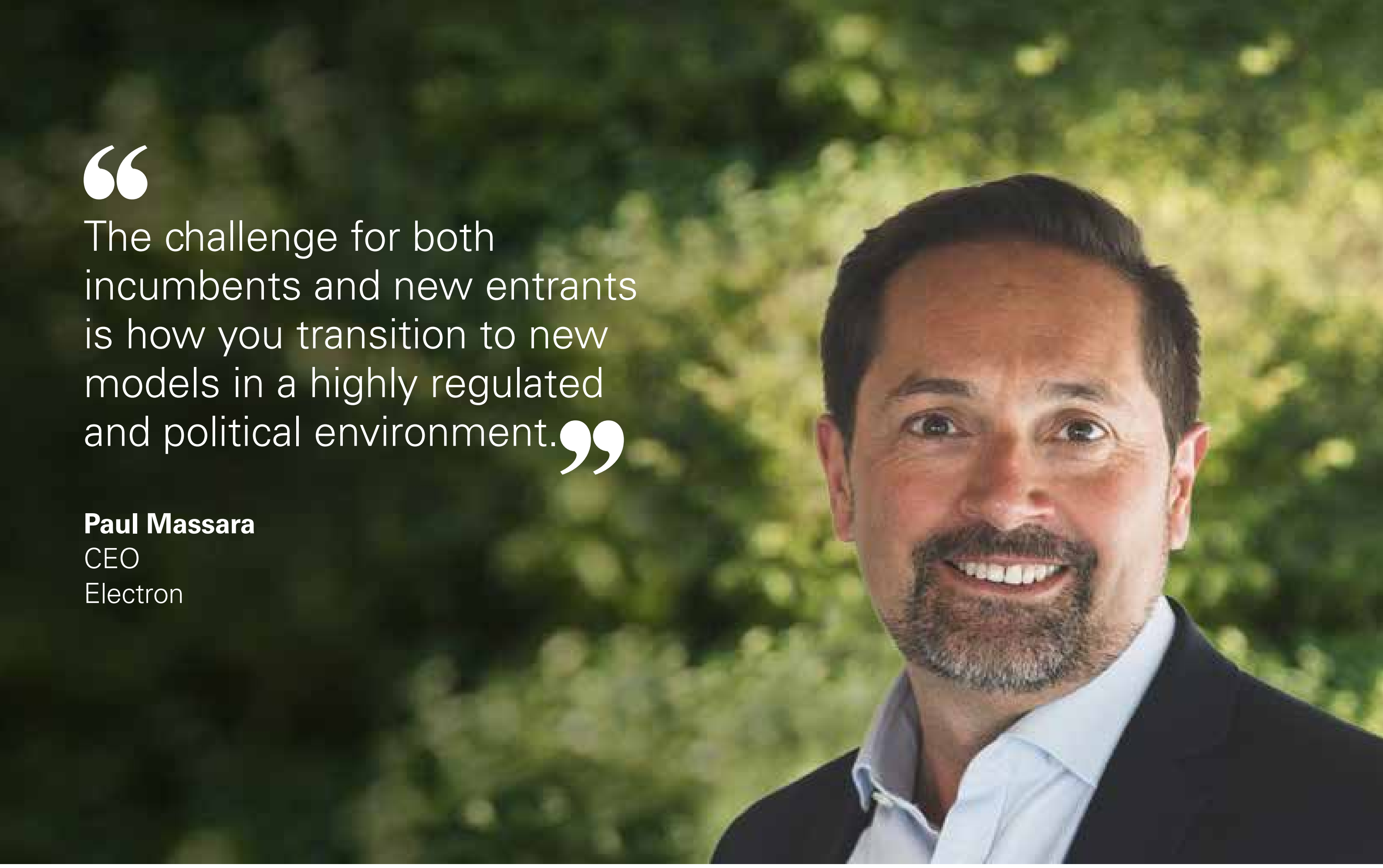


> The challenge for both incumbents and new entrants is how you transition to new models in a highly regulated and political environment.
>
> **Paul Massara**
> CEO
> Electron

CEOs recognize that customer data could be their most valuable asset, transforming their ability to personalize products and services.

Paul Massara, CEO of UK-based Electron, a company that provides blockchain solutions to the energy sector, agrees that digital innovation is top of mind for today's business leaders. "Nearly every industry is being disrupted by technology of some sort and the energy industry is no exception — battery storage, AI, electric vehicles and blockchain are just some," he says. "The challenge for both incumbents and new entrants is how you transition to new models in a highly regulated and political environment. My money would still be on the new entrants but any new models need to be grounded in the reality of the market rules."

Traci Gusher of KPMG's Data & Analytics Center of Excellence says a combination of quantitative and qualitative measures are needed to measure the benefits of AI. "It's a bit short-sighted to focus solely on quantitative metrics. Some of the qualitative measures we've looked at are things like general competitive advantage. So, while you may not see a direct benefit of putting investment dollars into AI for your supply chain, you're going to lose competitive advantage over time if you're not using it," she explains.

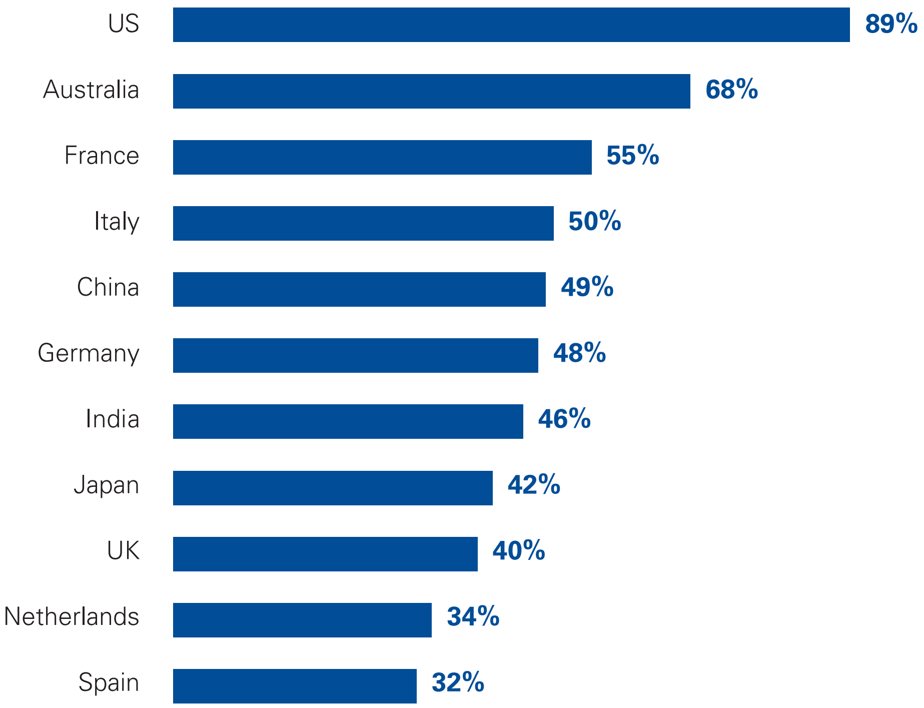
"Another measure is around attracting high-performing talent. The most attractive talent wants to be part of an innovative culture where cutting-edge approaches and technologies are being implemented."

CEO as data protector

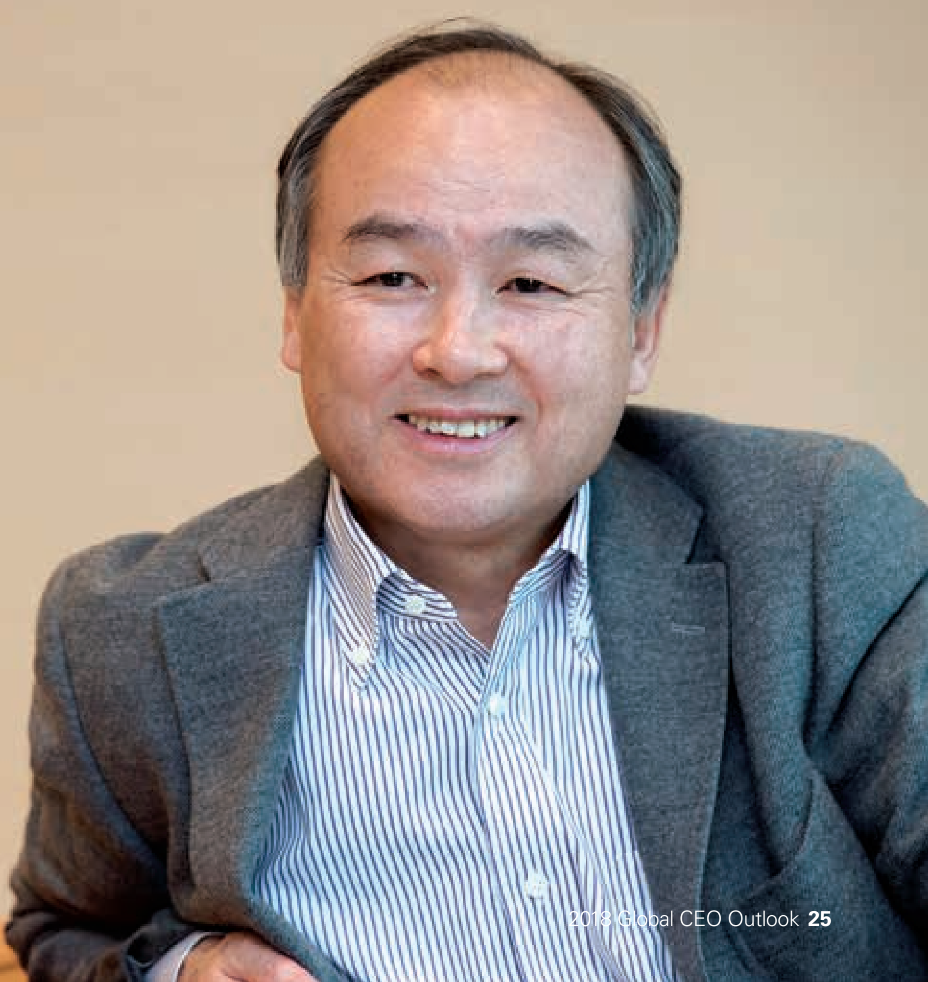
CEOs recognize that customer data could be their most valuable asset, transforming their ability to personalize products and services.

American Water's **Story**, for example, cites the opportunity to rethink the customer experience. "As a utility, we want to deliver an Amazon-type experience to our customers," she says. "We're enhancing our customer service systems to integrate AI and natural language machine learning to provide even better service to our customers."

Chart 10: Protection of customer data is a top personal responsibility for CEOs, by country



Source: 2018 Global CEO Outlook, KPMG International



> "I believe that almost all blue-collar workers will be replaced by 'metal-collar' workers."

Masayoshi Son
Chairman and CEO
SoftBank Group Corp

59 percent say that protecting customers' data is one of their most important responsibilities.

However, CEOs also know that customer data comes with significant responsibilities: 59 percent say that protecting customers' data is one of their most important responsibilities. If customer trust is threatened by misuse of data or a breach, the consequences for the company can be devastating — and very public. CEOs in the US are particularly conscious of how difficult it is to earn trust in a digital world, with 89 percent saying that protecting customer data is a personal priority.

CEOs who ensure their organization's data-handling procedures are robust will be rewarded by consumers.

"Today, there's a fault line in society between institutions and people, and that line is trust," says KPMG's Bekker. "The trust in big institutions is waning, while trust in personal, such as one-to-one recommendations from friends, is increasing. Corporates that recognize and enable the personal, such as protecting an individual's data and instilling confidence that their data has not been misrepresented, will win customers' trust."

Robots manufacture jobs

As well as driving digital transformation and protecting customer data, CEOs are reconfiguring their workforces for a future where smart machines and talented people work together.

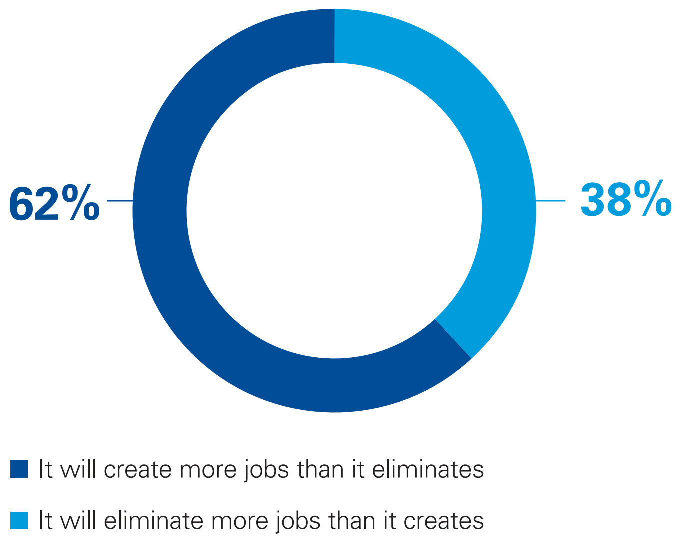
"Humans will continue to do jobs in high-touch segments such as the arts, social enterprises and entertainment, selling and marketing, where humans pull on people's heartstrings," says **Masayoshi Son, Chairman and CEO of Japanese conglomerate SoftBank Group Corp**. "But I believe that almost all blue-collar workers will be replaced by 'metal-collar' workers. By that, I mean robots equipped with intelligence and super-intelligence. They are no longer robots without brains, as they were in the past — they have become smart-robots."

There is considerable unease about the potential negative impact of automation and AI, with employees understandably anxious about the impact on jobs. For many CEOs, however, the long-term implications are positive: 62 percent say that AI will create more jobs than it destroys.

"New technologies are going to allow our people to do a lot more with less."

Tarek Sultan
CEO and Vice Chairman
Agility

Chart 11: CEOs' views on the most likely impact of AI and robotics technologies on their workforce



Source: 2018 Global CEO Outlook, KPMG International

As well as driving digital transformation and protecting customer data, CEOs are reconfiguring their workforces for a future where smart machines and talented people work together.

"I think the history of the world has proven that technology doesn't cost jobs at the end of the day," says DHL Express' **Allen**. "Uber is creating jobs. Airbnb is creating jobs."

Refocusing the workforce

According to **The Dow Chemical Company's Chairman and CEO, Andrew Liveris**, the business world is in the midst of a significant disruption to the workforce. "We're in the 1918 equivalent of industrialization and we are at the tipping point where we're redefining work and what the future job will look like."

Tarek Sultan, CEO and Vice Chairman of integrated logistics provider Agility, believes that AI and automation will make roles more interesting and will drive significant efficiency improvements. "New technologies are going to allow our people to do a lot more with less," he says. "They will be able to focus on the important parts of our business, which are serving the customer, analyzing the data and making good decisions. Much of the mundane work will be taken care of by automation, AI and the use of data and digitization. That should play a big role in making our jobs a lot more interesting."

Positive or negative, AI demands a communications strategy for the implications of new technologies and the need for personal reinvention and development. "Business leaders need to arm the workforce for a new 'machine age' of artificial intelligence (AI) and increasing automation. We have to face up to the fact that AI and automation will have a significant impact on the way we work — so let's redevelop our workforces," says Fujitsu's **Tait**.

Instinct over data

> Acting with agility is not just the new currency of business; it's the most valuable currency today.

Mark A. Goodburn
Global Head of Advisory
KPMG International

With customer demands changing continually, and the technology landscape in a constant state of flux, CEOs now see agility as the dominant currency of business.

But the quest for ever-greater agility does not mean they simply have to embrace data and intelligent technologies wholesale at the expense of human qualities. CEOs are also bringing their own intelligence to bear, combining their experience and intuition with data-driven, predictive intelligence to spot new growth opportunities.

Agility

In a digital economy, where new technologies are constantly reshaping industries and business models, the ability to innovate quickly is a strategic imperative. In the survey, 59 percent of CEOs say that acting with agility is the new currency of business and that if they are too slow they will go bankrupt.

"Acting with agility is not just the new currency of business; it's the most valuable currency today," says KPMG's Goodburn. "If you succeed, you succeed faster, and if you fail, you fail quicker — both of which add to the health of a business."

Build the ecosystem

To get more agile and put digital innovation on the fast track, organizations are aggressively building their networks (or 'ecosystems') of third-party innovation partners. More than half of organizations (53 percent), for instance, will set up accelerator or incubator programs for startups.

Chart 12: Top five barriers to extracting value from third-party networks

1	Challenges measuring ROI from third-party partnerships
2	Difficulty sharing data securely with third parties
3	Concerns about sharing commercially sensitive data
4	Procurement processes are lengthy and complex
5	Legacy IT systems are incompatible with nimble approaches by startups

Source: 2018 Global CEO Outlook, KPMG International

But simply having a startup-friendly ecosystem is no guarantee of success. CEOs need to focus on driving value from their networks and ensure that cultural barriers and concerns about data sharing don't limit the success of innovative ideas.

For Dow's **Liveris**, the innovation process is a mix of freedom and collaboration with customers. "If you're going to move a consumer on digital speed, you can't govern and control every last thing. We'll build something to a minimal viable product — maybe 60 percent completion — and then co-create with a customer so we can bring value to them much faster."

For Tata Communications' **Kumar**, cultural alignment is another significant issue. "There is a challenge around aligning cultures and speeds of large companies with those of startups," he says. "Also, larger companies tend to be more inclined to keep the pie to themselves, whereas startups need to work with multiple players to test their technology and proofs of concept. There's an expectation mismatch."

In the past 3 years, 67 percent of CEOs say they have overlooked the insights provided by data and analytics models because they contradicted their intuition.

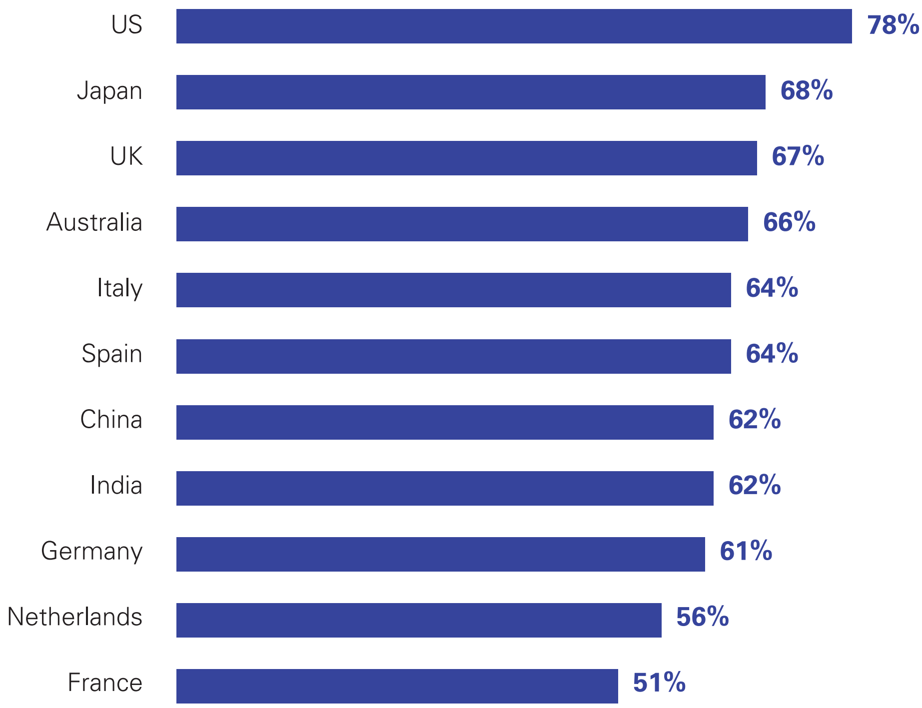
"There is a challenge around aligning cultures and speeds of large companies with those of startups."

Vinod Kumar
Managing Director and Group CEO
Tata Communications

> If you're going to move a consumer on digital speed, you can't govern and control every last thing.

Andrew Liveris
Chairman and CEO
The Dow Chemical Company

Chart 13: CEOs who have overlooked data-driven insights to follow intuition instead, by country



Source: 2018 Global CEO Outlook, KPMG International

Intuition

Data and analytics have changed how CEOs and the rest of the C-suite make business decisions. And they continue to get more sophisticated: AI that draws on deep learning techniques, for example, will transform predictive analytics.

Yet CEOs have not lost sight of the importance of their own intuition, experience and judgment. In our survey, in the past 3 years, 67 percent say they have overlooked the insights provided by data and analytics models or computer-driven models because they contradicted their own experience or intuition.

KPMG's Hill likens this to the experience behind the wheel of a race car. "There's a mountain of technical data — brake pressure, angles of steering input — all coming at once. At some point, experience kicks in and, if necessary, overrides all the other signals."

CEOs in the US are particularly likely to draw on their domain expertise and unique insights when making critical strategic decisions, with three-quarters saying they have overlooked computer-driven models in the past and followed their intuition instead.

CEOs also show some skepticism about data. Over half (51 percent) say they are less confident about the accuracy of predictive analytics than historic data. They want to understand where the data that informs predictive models has come from and whether it can be trusted.

"Understanding where the data comes from is crucial for us," says Cintra's **Díaz-Rato**. "We have seen exciting insights that would be powerful provided they were representative of our overall customer base, but they weren't. You get fascinated by the degree of granularity you get from customers' behavior from a certain app, but the question is, are the users of this app representative of the whole population a project is serving? You can be driven to wrong conclusions if you just follow the data blindly."

51 percent say they are less confident about the accuracy of predictive analytics than historic data.

"Understanding where the data comes from is crucial for us."

Enrique Díaz-Rato
CEO
Cintra

The social media CEO

Perhaps surprisingly, CEOs place a high degree of trust in data and information from social media sources. We asked CEOs which data sources they trusted to make strategic decisions, and social media emerged as easily the most trusted source. For example, 42 percent of CEOs say they have very strong trust in social media, but only 12 percent say the same for open data from government agencies.

Chart 14: Ranking of trusted sources of insight

1	Social media
2	Traditional media
3	Independent secondary information providers
4	Open data from government agencies
5	Government-commissioned research

Source: 2018 Global CEO Outlook, KPMG International

“My decision-making is a combination of data-driven information, input from many and decades of experience.”

Patricia Kampling
CEO
Alliant Energy

KPMG's Gusher is not surprised that social is the most trusted source. "Social media is direct from the customer," she says. "A CEO might find the opinions of a business reporter interesting and useful, but they may not trust it as much as they would the direct word-of-mouth of one of their customers."

She continues, "if I'm an airline CEO, for example, I'm going to listen closely to people posting feedback about customer service on our Twitter feed. If I get 2,000 tweets that are direct quotes from my customers that say they're annoyed about how difficult it is to get an on-time plane, that's something I can't deny."

What is critical is to be able to control data, and not get lost in the weeds. According to **Patricia Kampling, CEO of Alliant Energy**, "there is more data today without a doubt, but it is important to focus on the data that helps decision-making or reveals trends, and not get overwhelmed with the quantity. It's also very important to go beyond the data and realize that nothing is more valuable than having constant communications with employees, customers and technology partners. My decision-making is a combination of data-driven information, input from many and decades of experience."

> A CEO might find the opinions of a business reporter interesting and useful, but they may not trust it as much as they would the direct word-of-mouth of one of their customers.

Traci Gusher
Principal
KPMG Data & Analytics Center of Excellence

Conclusions

Growth headwinds

CEOs operate in a connected world where events can quickly snowball and the risk agenda is constantly changing. A wait-and-see approach to these issues is not an option. CEOs will need to play a leading role in cyber security, particularly in terms of vulnerabilities in their extended ecosystem of suppliers and partners. While they cannot be political players, they need to put geopolitics on the agenda. This is so that they — and their board — understand the implications of geopolitical risk for their finance, business and operating models and for the growth of their business. To maximize growth, they also need to be in tune with generational shifts. Tomorrow's critical consumer cohort, Millennials, will expect organizations to understand their priorities and values. CEOs play an essential role in pivoting their organizations to the consumers of tomorrow in order to seize every opportunity to grow.

Driving realistic growth

CEOs feel good about the macroeconomic environment: they are confident about global and industry growth prospects. However, that does not mean they are setting aggressive revenue targets. In fact, they are playing a patient game, predicting pragmatic rather than bullish growth. CEOs recognize that in a digital age, their organizations still depend on traditional revenue streams. As they look to replace them with new growth engines, they recognize that traditional sources will decline and need to be replaced. CEOs play a critical role in driving business model innovation and growth by challenging the status quo in their organizations to stimulate new thinking and shift the innovation equation.

Making digital a personal crusade

As they look to drive growth in a digital age, CEOs are leading the transformation agenda. But to ensure their long-term digital strategy does not get derailed by pressure to deliver short-term results, they must manage the expectations of key stakeholders. Working with boards and other stakeholders, they can map different scenarios for the future of the business and set new key performance indicators. Making the most of their customer data will be a critical element of their growth strategies, and with the public's trust in institutions waning, CEOs are taking personal responsibility for safeguarding data. Their employees will also be looking to CEOs for guidance in a world where AI and automation will replace both manual and more specialized roles. CEOs need to lead the workforce transition, and create a compelling and candid narrative for their employees about what the future holds.

Putting instinct over data

In an environment where customer demands are constantly changing, new technologies are emerging and new competitive threats are surfacing, acting with agility is the dominant currency of business. To achieve agility and move at digital speed, many organizations are investing in innovation networks and collaborations with startups. However, many are also failing to see results from those investments. CEOs need to focus on driving value from their networks and play a leadership role in overcoming critical barriers, such as cultural challenges. Agility is also about being able to spot new opportunities, and effectively using sophisticated data and analytics — including predictive and prescriptive analytics — will be key. High-performing CEOs will be those who can marry their experience and intuition with data-driven insight. With CEOs still prizing intuition over data-driven fact, leaders need to work with their insight teams to ensure that data and analytics efforts are focused on the most valuable opportunities and that the new forms of data that underpin their models can be trusted.

In summary:

The 2018 Global CEO Outlook finds chief executives optimistic about the economy and excited by the growth opportunities offered by disruption. At the same time, CEOs are managing their exposure to a range of headwinds. Driving growth will require CEOs to combine equal amounts of resourcefulness and realism.

Methodology and acknowledgments

The data published in this report is based on a survey of 1,300 chief executive officers (CEOs) in 11 of the world's largest economies: Australia, China, France, Germany, India, Italy, Japan, the Netherlands, Spain, the UK and the US. The survey was conducted between 22 January and 27 February 2018.

The CEOs operate in 11 key industries: asset management, automotive, banking, consumer and retail, energy, infrastructure, insurance, life sciences, manufacturing, technology and telecom.

Of the 1,300 CEOs, 314 came from companies with revenues between US$500 million and US$999 million; 546 from companies with revenues between US$1 billion and US$9.9 billion; and 440 from companies with revenues of US$10 billion or more.

KPMG would like to thank the following for their contributions:

— Ali Ahmed Al-Kuwari, CEO, QNB Group, Qatar

— Ken Allen, CEO, DHL Express, Germany

— Enrique Díaz-Rato, CEO, Cintra, Spain

— Hikmet Ersek, CEO, Western Union, US

— Fernando A. González, CEO, CEMEX, Mexico

— Patricia Kampling, CEO, Alliant Energy, US

— Jim Kavanaugh, CEO, World Wide Technology, US

— Vinod Kumar, Managing Director and Group CEO, Tata Communications, Singapore

— Andrew Liveris, Chairman and CEO, The Dow Chemical Company, US

— Paul Massara, CEO, Electron, UK

— Tim Murray, CEO, Aluminium Bahrain B.S.C., Bahrain

— Miles Roberts, Group Chief Executive, DS Smith Plc, UK

— Dan Schulman, CEO, PayPal, US

— Feike Sijbesma, CEO, Royal DSM, Netherlands

— Masayoshi Son, Chairman and CEO, SoftBank Group Corp, Japan

— Susan Story, President and CEO, American Water, US

— Tarek Sultan, CEO and Vice Chairman, Agility, Kuwait

— Duncan Tait, SEVP, Head of Americas and EMEIA, Fujitsu, UK

— Samuel Tsien, Group CEO, OCBC Bank, Singapore

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Designed by Evalueserve.

Publication name: Growing pains 2018 Global CEO Outlook

Publication number: 135402-G

Publication date: May 2018