

Is the future of finance new technology or new people?

Preparing for the future finance function
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EY is grateful to all the participants in this study. In particular, we would like to thank those who readily shared their insights and personal experiences in a series of interviews:

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Methodology

We surveyed 769 finance leaders across the Americas, Europe, the Middle East and Asia-Pacific from December 2015 to February 2016, and conducted one-on-one interviews with 22 CFOs, listed above. To view the demographics of survey respondents, go to pages 28-29 of this report.

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Executive summary

In part 1 of this series, *Do you define your CFO role? Or does it define you? The disruption of the CFO's DNA*¹, we showed how the CFO's role is being reshaped by four major forces:

- Digital
- Risk and uncertainty
- Data
- Stakeholder scrutiny and regulation

For CFOs to meet these challenges, they must not only re-evaluate their own competencies, but also equip their function with the right tools, and surround themselves with the right team.

In part 2 of this series we explore the finance tools and team of the future, as we answer the question: Is the future of finance new technology or new people? Drawing on our survey of 769 CFOs and finance leaders in 32 countries and in-depth interviews with 22 CFOs, we envision a finance function that embraces technological innovations to improve effectiveness, increase efficiency and enhance insight. We also envision the people required to make the most of this technology, and provide the complementary skills and competencies to drive decision-making in support of the organization's purpose and strategy.

Our research shows that many CFOs believe that their current finance function is not equipped to meet the demands the future will place on it. Forty-seven percent say their current function does not have the right mix of capabilities to meet its future priorities. Sixty-nine percent see the finance leader role fundamentally changing as traditional finance tasks are automated or managed in shared services centers.

We believe that many senior executives are, in fact, underestimating the changes on the horizon for the finance function. As technology, globalization and demographic trends continue to disrupt organizations, whole industries and indeed the working world as a whole, the role of the finance function will increasingly be brought into question. Where once its remit was predominantly that of a reporting function that focused on balancing the books, it will become a data-driven decision-center. Technology will play an increasingly significant role in executing many traditional finance tasks while at the same time generating greater insight. Meanwhile, finance people will spend a greater proportion of their time working with colleagues across the organization to make decisions in support of the strategy.

¹ *Do you define your CFO role? Or does it define you? The disruption of the CFO's DNA*, EY, 2016



We explore the future of the finance function in two parts:

1. Technology

Advances in new technologies – such as in-memory computing, the cloud, analytics, mobility, artificial intelligence (AI), blockchain and robotic process automation (RPA) – offer CFOs an exciting opportunity to reimagine what the finance function should look like. In addition, many CFOs are now key players in driving adoption of these technologies more broadly in the organization, and in leading the transformation that ensues from technology innovation.

But to make the most of new technologies' ability to save costs, manage risks and increase insight, finance leaders must challenge assumptions, take calculated risks and encourage experimentation. At the same time, they must also manage the risks inherent in each technological innovation.

2. People

CFOs must make bold moves to build a finance function that has the right people, with the right skills, to complement and get the most out of new technologies. Furthermore, many will play an important role in the people strategy for the organization as a whole. Success as a CFO will depend on combining the intelligence of smart technologies with the brains, emotional intelligence and interpersonal skills of talented people.

Building the future finance function: technology plus people

Technology

Automating the future

65%

of respondents say that standardizing and automating processes and building agility and quality into processes will be a significant priority for tomorrow's finance function.

State-of-the-art tech

58%

of respondents say combining state-of-the-art technology with process improvement will be a major focus for the future finance function.

People

Focus on partnering

67%

of respondents believe that improving business partnering between finance and the business is a major priority.

New skills

57%

of respondents say that building skills in predictive and prescriptive analytics is critical for the future.

The answer to the question "Is the future of finance new technology or new people?" is, of course, neither one nor other but both. In the finance function of the future, leading CFOs will be those that strike the right balance between technology and people, and continually work to focus each on the tasks that best suit their skill sets. This will free the CFO up to focus on innovation, responding to the rapidly changing business context and driving the business forward.

We hope you enjoy reading this study.

Part 1: Technology



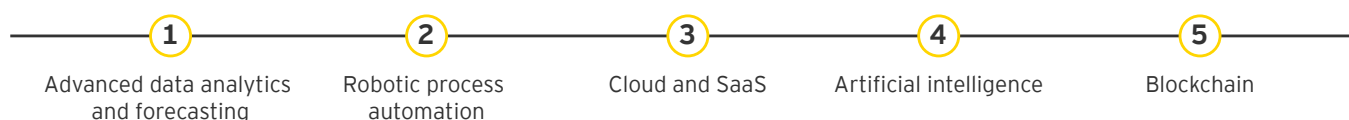
A convergence of technologies is now driving the next phase of finance transformation, accelerating the journey that CFOs began toward delivering greater insight in the 1990s with enterprise resource planning (ERP) implementations. This next wave of technologies will transform the way that finance adds value. Finance leaders need to understand key emerging technologies, make pragmatic decisions about the optimum time to invest, decide when to run pilots or other initiatives to test new innovations, and determine the people skills and capabilities they will require.

“Technology is changing so rapidly and arriving so fast, there is a certain motivation to be cautious and take a wait-and-see approach. You might think, ‘I’m going to be smart and sit back a little bit and see what happens before I make a decision.’ The problem is that the change is so significant and the new capabilities so advantageous, that if you take a wait-and-see approach, you run the risk of being put at a severe competitive disadvantage.”

Tony Klimas

EY Global Finance Performance Improvement Advisory Leader

We explore five key technologies that we believe will play a significant role in transforming the finance function:



1. Advanced data analytics and forecasting

The value to the finance function

- ▶ Improve ability to predict outcomes – and manage strategic risk – through scenario analysis and forecasting
- ▶ Better understand the financial impact of key strategic and operational decisions
- ▶ Provide better and faster information to key stakeholders, from investors to supervisory boards
- ▶ Improve enterprise performance measurement by combining financial and non-financial data

Current market activity

- ▶ Active take-up – most organizations have made dedicated investments and are committed to using advanced analytics across decision-making processes

In the future, contending with volatility and uncertainty will be the new normal. A range of forces – including growing pressure on natural resources, more frequent and severe climate events, and increasingly sophisticated cyber attacks – will create ever-greater challenges for multinational organizations, particularly as global operations become increasingly connected.

To be able to set the right course for the future, finance functions must get better at processing – and extracting forward-looking insights from – large amounts of data, keeping track of new types of data and incorporating them into their models as they emerge.

CFOs must actively investigate how they can use sophisticated, forward-looking analytics to enhance their organization's performance in a range of areas, for example by:

- ▶ Deploying big data platforms that are designed to be interrogated by computers rather than humans, using machine learning to analyze massive data sets to make fine-grained predictions, such as how an asset on a balance sheet will behave.
- ▶ Combining structured and unstructured data (such as social media and web monitoring) to identify rogue activities, patterns and trends and mitigate risks such as fraud or cyber breaches.

CFO stories

Chris Chen

COO & CFO, DDB Greater China

"A priority for me is to explore the future of the business. We are doing business in China and I need to make sure that everything here is legal and complies with both the company's policies and the country's laws. But, on the other hand, I think the most important thing for a senior executive of this company – the CEO and myself – is to explore: 'What is the future for the business? Where do we want the company to be in five years' time?' Part of our job as an agency is to find creative ideas. So we need to know what the future is. I recently had a discussion about virtual reality. In another meeting we were talking about mobility. These are the things a CFO needs to look at and discuss."



The future of tax management: managing data as a strategic asset

In their efforts to meet the increasing compliance demands of tax authorities, tax teams already consume and distribute significant amounts of data. But in some countries, tax authorities now expect that data in real time – an expectation that is likely to become more common as tax administration around the world becomes increasingly sophisticated. Many organizations are not ready for this change. In particular, organizations that continue to rely on manual spreadsheets, which can be inefficient and raise the risk of tax statement errors and potential reputational damage, will find it difficult to comply.

According to Carolyn Bailey, Americas Digital Government Tax Transformation Leader at EY, tax teams need to radically streamline the collection of data through information management systems. “The data they collect should be aligned with a global data management strategy that addresses tax requirements across multiple jurisdictions,” she said. “Once collected, the data should be analyzed to identify the value it contains for the organization, then assessed for sensitivity and various audit risks before being shared with tax authorities around the world. By establishing robust data management and analysis processes for tax information, CFOs can help make this possible.”

For Simon Kelly, former CFO and COO at Australian media company Nine Entertainment Co., this means historical data is losing some of its importance. “While historical information is important for areas such as reporting and tax, it doesn’t add a great deal of value beyond that,” he says. “Value-add is in the real-time data about how things are trending in our business right now.”

“In the future, the investment is going to need to be in real-time data and in generating insights so businesses can respond to changing consumer preferences without waiting for accountants to pull together historical financials. The historical transactional part of finance is really a commodity, not a competitive advantage,” said Kelly.

For Vincent dell’Anno, EY Executive Director, Performance Improvement, Ernst & Young LLP, part of the investment CFOs should be making is in real-time data, and the other part is in real-time analytics. “For example, there are sensors that are required to act in real-time or as close to that as possible,” he says. “That means you want to facilitate analytics as close to the source of data as possible, you want to be able to drive streaming analytics where possible and relevant to the business problem.”

This is also reflected by our survey, in which “improving data and analytics capabilities to transform forecasting, risk management and understanding of value drivers” was the priority most cited by finance leaders as number one for their finance function (see Figure 1).

Reaching your analytics potential

Many organizations find it difficult to introduce the technology needed to generate forward-looking insights. For example, they are often impeded by multiple ERP systems, legacy applications and non-integrated architecture.

In the future finance function, however, inflexible and costly IT infrastructure will be replaced by scalable and innovative IT. Many CFOs are already incorporating new advances into their ERP systems, such as:

- ▶ In-memory computing
- ▶ Cloud and hybrid cloud deployments (see p.10)
- ▶ Better and more mobile user experiences
- ▶ RPA to federate data from different systems.

Choosing the right tools to capture and mobilize data and enable the insight-driven enterprise is a complex challenge, particularly given the rapid pace of technological innovation. But CFOs also need to focus on the “consumption” side. Finance leaders need to think about, for example, where technological innovations such as those cited might come up against the brick wall of organizational resistance, or what incentives systems are needed to encourage adoption. Change management will be essential to address this critical “people” dimension.

Figure 1: Priorities for the future finance function

Improve big data and analytics capabilities to transform forecasting, risk management and understanding of value drivers	23%*
Meet the need for new skills by transforming how finance talent is recruited, retained and developed	22%*
Make significant changes to the finance function skill set	17%*
Reduce finance function costs through new technologies such as robotics and process automation	14%*
Refine risk management capability, including cyber	13%*
Drive efficiency improvements through offshoring, shared services and outsourcing	12%*

* % of finance leaders that chose this priority as number one

CFO stories

Mavinakere Ranganath

CFO, Infosys

“Technology is changing the way businesses are run. But if you look at most of the large companies, their internal financial systems are lagging the technology trend. It is important that internal financial processes adopt the latest technology like mobility, AI and digital experience, to ensure straight through processing, predictive controls and analytics for timely decision making. CFOs need to be aware of the technological changes that are happening and understand how they can leverage them for their own internal financial processes.”



2. Robotic process automation

The value to the finance function

- ▶ Reduce costs significantly by automating key processes
- ▶ Improve consistency, control and traceability
- ▶ Improve quality through reduction in error rates
- ▶ Overcome systems fragmentation by consolidating data from disparate systems

Current market take-up

Developing – organizations are growing their understanding of the technology and its benefits. Take-up poised for significant growth

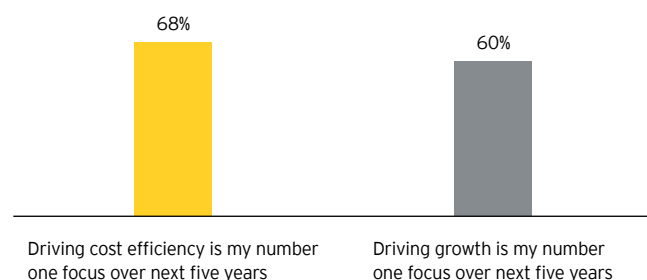
Imagine a team member in tomorrow's finance function who:

- ▶ Represents no significant overhead
- ▶ Works much faster than their colleagues
- ▶ Completes huge volumes of repetitive tasks without ever making an error
- ▶ Keeps a perfect audit trail

In the future finance function, RPA technology will play an important role. 65% of respondents worldwide said that "standardizing and automating processes and building agility and quality into processes" is a significant priority for the finance function. And while it is a particular priority for cost-focused CFOs, it is also important for those focused on growth (see Chart 1).

Chart 1: Automation a priority for tomorrow's finance function

Percentage of respondents who say that standardizing and automating processes and building agility and quality into processes is a significant priority



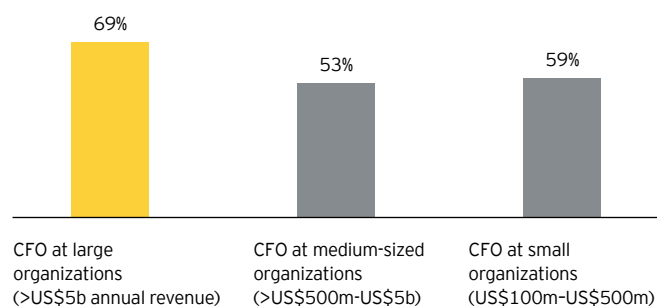
Claude Changarnier, Vice President of International Finance at Microsoft International, believes that automation plays a key role in helping the finance function strike a balance between adding value and effective control. "The approach we have taken over the past years and that we are continuing to take today is trying to automate, centralize and/or outsource transaction-based activities," he says. "This is so that we can free up time for people to be able to do two things. One, to add value to the business by providing business insight. Two, to put in place a very strong controls and compliance environment in the different subsidiaries that we are operating in the world."

For EY's Tony Klimas, automation offers the opportunity to drive the next evolution in how finance is delivered. "The traditional offshore model is starting to fall apart," he explains. "Many popular offshore locations are becoming more prosperous, and what used to be 'cheap' isn't so 'cheap' anymore. People are looking for alternatives and they're looking to leverage technology advances, from robotics to artificial intelligence."

This point of view is echoed in our research: 58% of respondents worldwide said that "combining state-of-the-art technology with process improvement" is a significant priority. And it is a particular focus for large and complex global organizations, whose CFOs must often seek to cut waste, standardize approaches and combat bureaucracy and inflexibility.

Chart 2: Tech-enabled process improvement critical for large organizations

Percentage of respondents who believe that combining state-of-the-art technology with process improvement is a critical/significant priority for tomorrow's finance operating model



The shift to RPA can help improve organization performance in a number of ways by enabling CFOs to:

- ▶ **Automate key finance processes, from data reporting to payments**
For example, improving corporate reporting by using RPA to access and present data from multiple systems.
- ▶ **Target system inefficiencies**
RPA can bridge the gaps between different ERP systems in cases where organizations have not yet achieved a single integrated system. They can also act as an interface between an ERP and critical legacy systems.
- ▶ **Improve the quality and speed of finance processes**
RPA provides a clear audit trail record, which can make compliance with regulatory requirements easier to manage.

Is the future of finance robotic?

For EY’s Chris Lamberton, Robotics and Process Automation Global Center of Excellence Leader, successful finance functions in the future will be those that find the right balance between robotics and people, with each doing what they do best. “Ultimately, what you want to establish is the right combination of people and robots,” he says. “Quite often it’s not just a cost play.”

It’s also about how you improve your service or create new services.

“The best way to think about robots is as the ultimate companion to humans. Let robots do the grunt work, and free up people to do things they’re really good at, which is analyzing all the data that robots can pull together,” says Lamberton.

3. Cloud and SaaS

The value to the finance function	<ul style="list-style-type: none"> ▶ Reduce costs, as organizations only pay for what they use ▶ Provide greater flexibility, in terms of adopting new technologies and flexing to changes in demand ▶ Improve disaster recovery, as back-up solutions and capacity can be accessed from anywhere, taking into account different circumstances, such as loss of power
Current market take-up	Deploying – widespread adoption by organizations across the world is growing fast

Although a company’s financial management system is critical to its success, many organizations have outdated and fragmented systems. Cloud and SaaS solutions now offer opportunities to transform system functionality and drive standardization in a faster, smarter way. Cloud-based infrastructure and cloud-based SaaS applications can:

- ▶ **Streamline operations**
Cloud-based ERP, for example, can allow disparate teams to create and access the same data, which can enable quicker decision-making.
- ▶ **Reduce costs**
Because organizations can quickly increase or decrease the number of applications they use, they only pay for what they need, rather than what they thought they would need six months ago. Maintenance costs can also be cut because systems upgrades can happen automatically. Cloud and SaaS solutions may also avoid the need for costly and complex rationalizations of on-premise ERP.
- ▶ **Provide greater flexibility**
SaaS can help organizations keep pace with rapid developments in technology, such as new analytics tools, and help the function respond to fluctuations in demand.

While these tools can provide significant opportunities to improve performance, they will need to be weighed against two key concerns.

1. Security

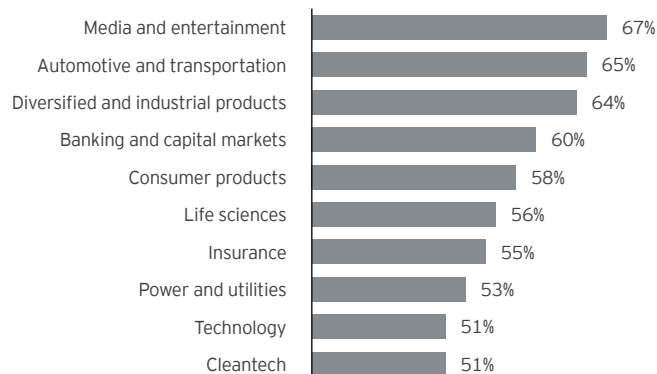
CFOs will need to proactively manage the associated risks of these tools, particularly in relation to data security and compliance with different regulatory regimes.

2. Developing the skills to make best use of technologies

In our research, 55% of respondents said that “improving digital technology skills in areas such as mobility, the cloud and SaaS” would be a significant people and skills priority for the future finance function. This improvement in digital technology skills is important across many industries, but it is a particularly high priority in the media and entertainment sector, where companies need a scalable infrastructure to manage and monetize all the digital content they produce.

Chart 3: Building cloud and SaaS skills

Percentage of respondents by sector who believe that improving digital technology skills in areas such as mobility, cloud and SaaS will be a significant priority over the next five years



4. Artificial intelligence

The value to the finance function	<ul style="list-style-type: none"> ▶ Improve strategic insight by analyzing unstructured data and helping business analysts find signals and patterns in large data sets ▶ Improve risk management by identifying patterns in large data sets that are indicative of fraud or other concerns
Current market take-up	Developing – leading organizations are making early investments and developing practical applications

AI systems are capable of ingesting information and instructions, learning from interactions with human beings and responding to new situations and questions in a human-like way. In addition, AI complements technologies such as RPA, as it involves systems that do not just follow rules, but can recognize patterns, learn and adapt to new situations. For example, rules-based automation approaches often run up against exceptions to the defined process, and AI can be used to target those exceptions.

With these attributes, AI could be used to transform how tomorrow's finance function provides key services. AI systems could be trained to ingest tax regulations that are relevant to a business, and also to absorb new regulations as they come online, proactively advise the relevant person of the changes, and answer questions that he or she may have about their nature and implications.

Loren Williams, Chief Data Scientist at EY's Global Analytics Center of Excellence, believes that although AI will play an increasingly important role, it will not do away with the need for human financial experience and insight. "There are many cases where an AI system will augment the intelligence, knowledge and awareness of an expert like a finance executive," he says. "With routine transactions, the AI system could have the authority to declare something out of bounds or to respond in a particular way to something that's unusual. But with big, important and complex decisions, you may see AI systems providing advice or recommendations to help the human decision-maker, and back up those recommendations based on its ability to gather, ingest and make sense of vast amounts of structured and unstructured data."

5. Blockchain

The value to the finance function	<ul style="list-style-type: none"> ▶ Streamline finance processes, such as contract enforcement, by integrating delivery and payment into the contract itself ▶ Increase IT security, utilizing the unprecedented protection that blockchain offers against fraud and hacking ▶ Improve transparency by accessing accurate transaction data from across your company's extended value chain
Current market take-up	Exploratory – organizations are researching, assessing potential use and value, and discussing within executive team

Blockchain has the power to challenge many of the accepted principles and norms of global trade, global financing and global supply chain management. It reinvents that basic building block of commerce, the ledger, for a digital, connected age.

A blockchain is a digital ledger – a distributed database that can be shared across a network of computers based in different sites and geographies. An identical copy of the ledger is held by all of the people participating in a blockchain network. Any changes to the ledger are reflected in just minutes or even seconds, thus providing all involved with real-time information and the capacity to track trends.

The security of the information in the ledger, and its accuracy, are protected cryptographically, with the participants in the

network agreeing who can do what within the ledger. With Bitcoin, for example, individuals within the network (called "miners") had permission to validate an aggregated group of transactions (a "block"), with these miners rewarded for their efforts with 25 Bitcoins. Once validated, the block was placed in the "chain." Instead of a central authority like a bank validating transactions, validation for Bitcoin is essentially crowdsourced.

While blockchain emerged as a technology for Bitcoin, its attraction is more the algorithmic technologies that underpin it. This technology makes it possible to transform the ability of a ledger to record, enable and secure a huge number of transactions, and could be used in multiple sectors, from financial services to tax collection in the public sector.

CFO stories

Frank H. Lutz

CFO and Member of the Management Board, Labor Director, Covestro AG

"I think wherever we can be supported by technology, we should try to do that. I think that financial engineering will become more and more important, which means looking for better ways to take out risk, for example, by hedging, by insurance policies and also by markets. Turning data into information will become more and more crucial too. If you have a situation where the data is available within the company, there is, for sure, a person who knows the answer to a question that the CFO has."



In the future finance function, CFOs will use blockchains to:

► **Increase IT security**

Blockchains are considered by commentators to be tamper-proof, providing unprecedented protection against fraud and hacking. There have been incidents where users have entrusted their private keys to exchange operators and the operators have had their security broken, but the blockchain security itself has not been breached.

► **Manage extended value chains**

Instead of having to reconcile the internal system of record with information from suppliers and partners, CFOs will be able to pull data from multiple blockchains to create their system of record.

► **Streamline contract enforcement**

A smart contract feature means that the delivery and payment relating to a transaction can be integrated into the contract itself. With blockchains, the ledger is programmable and contains logic, so you can have a rule that makes a payment on the completion of a service.

Paul Brody, EY Americas Technology Strategy Leader, outlines how smart contracts could transform international trade, saying:

“Imagine a container ship, carrying cotton from an Australian farmer to a Chinese vendor for processing into clothing, with an Internet-of-Things (IoT) device tracking the ship as it travels across the ocean. The farmer has a contract with the Chinese vendor that states that the farmer gets paid based on the weight of the cotton adjusted for its humidity level when it enters the port of Hong Kong – you could actually write that into the blockchain software code as a smart contract.

“When the GPS of the container ship enters Hong Kong harbor, and the digitally connected weighing and humidity sensors assess the cotton, then those two pieces of data combine and trigger the smart contract. That then pays the Australian

farmer from the Chinese vendor, transfers ownership of the cotton to the Chinese textile mill and automatically pays and files the documentation for customs and duty with the Chinese Government. “Smart contracts automate this process that, today, has a lot of manual steps and paperwork involved.”

However, blockchain is still a new technology that still requires development in areas such as contract dispute management. “What has yet to be fully designed is a mechanism for handling disputes in smart contracts, a topic that I believe will emerge as an important area of blockchain research in the future” says Paul Brody. “Ultimately, I expect to see hybrid contracts that blend the automation of smart contracts with the provisions for dispute resolution that exist in traditional agreements.”

Blockchain technology is likely to play an important role in the finance function in coming years. CFOs should be anticipating how they are going to build the relevant competencies and skill sets. They also need to start discussing the future of their system of record, given that organizations could move from working with a single, monolithic system of record inside the enterprise to working with many different systems.

New technology, but old challenges remain

Before making large investments and diving into major overhauls, CFOs will of course want to build a clear understanding of which new technologies will be most beneficial to their finance function, and they will need to be highly selective. Importantly, CFOs must also remember that the success of any technology greatly depends on the skills of the people using it. In our research, CFOs cited “staff capacity to adapt to change” as the main barrier to adopting new technologies. Effective change management – including transparency about the rationale, and continuous communication – will be critical for technology transformations to be a success.

Part 2: People



Technological breakthroughs are disrupting both business strategy and the ways that finance teams work and collaborate. As CFOs build tomorrow's finance function, they will need to find people with the skills – and motivation – to complement the technological innovations, as well as to embrace rapid change, different roles and new approaches. As the tools of tomorrow begin to arrive and play a role, the need and importance of finance people will not abate, but the skills they require will evolve.

Traditional approaches to finding and developing talent are under pressure as a result of major demographic and technological shifts:

- ▶ **A talent shortage has hit in the developed world.**
Organizations face extremely tough competition for the best data analytics and digital talent.
- ▶ **Millennials will become increasingly influential.**
The millennial generation is a digital generation, and they collaborate in different ways to their older colleagues.
- ▶ **Increasing use of smart machines means that organizations must remodel the roles of smart people.**
As technology advances, people's roles will also have to change. Smart machines should be used in a way that drives value and complements an organization's people, impacting productivity and making day-to-day roles more engaging.

Given these challenges, CFOs will need to:

- ▶ Design a future operating model that focuses their best people on key priorities and delivers a smarter, more forward-looking and resilient finance function.
- ▶ Challenge their own and others' assumptions about what constitutes finance talent, how to find the right profiles and develop the skills needed to thrive in an increasingly connected, data-rich future.

Building a smarter, more forward-looking and resilient finance function

The transformation of finance function operating models has already delivered greater efficiency and has freed on the best finance talent to focus on high-value activities. Many CFOs have brought transactional accounting and finance processes into centralized "finance factory" models, featuring shared services, managed services and outsourcing. Where this has occurred, finance functions have become leaner and more efficient, and CFOs and their key executives have more time to focus on their organization's strategic priorities.

The next evolution for the finance function will be to become a data-driven decision center. Finance professionals will be even less focused on generating reports and information, and far more focused on using the available data to drive decision-making.

The finance function's operating model must evolve to support this shift. The future operating model will need to be:

- ▶ **Smarter**
All transactional finance processes will be fully automated in outsourced or captive finance factories. Finance headcount in these factories will reduce, with teams focused largely on managing exceptions.
- ▶ **More forward-looking**
The future finance function will combine finance data with external information to help model and predict business outcomes, identifying the most profitable opportunities.
- ▶ **Better aligned to the business**
There will be much closer alignment and engagement with the business, with finance professionals spending more time working alongside key internal stakeholders, challenging their strategic plans and modeling and predicting different scenarios.
- ▶ **More resilient**
The future finance function will be more focused on managing uncertainty through strategic risk management. Finance will use predictive analytics to investigate the implications of strategic decisions, to plan for possible shocks and to manage the growing threat of cyber risk.

CFOs believe that strategic risk management is among the top capabilities that organizations will demand of their future finance functions (see Chart 4, p.17). This capability is considered particularly important by Group CFOs, 62% of whom consider it critical, compared with 53% of Regional and Divisional CFOs.

"The role of finance in data analytics and forecasting is, I think, at the core of what we have to do, and what we're going to have to do more and more. Let's assume that all our customers are on the cloud. We're going to know in real time what they do, how they use the systems, what they do with it and the kind of competitive software they buy, so we're going to have full visibility on what the customer will do with our software. Consumption is the new currency."

Claude Changarnier

Vice President of International Finance, Microsoft International

CFO stories

Zlatko Todorcevski

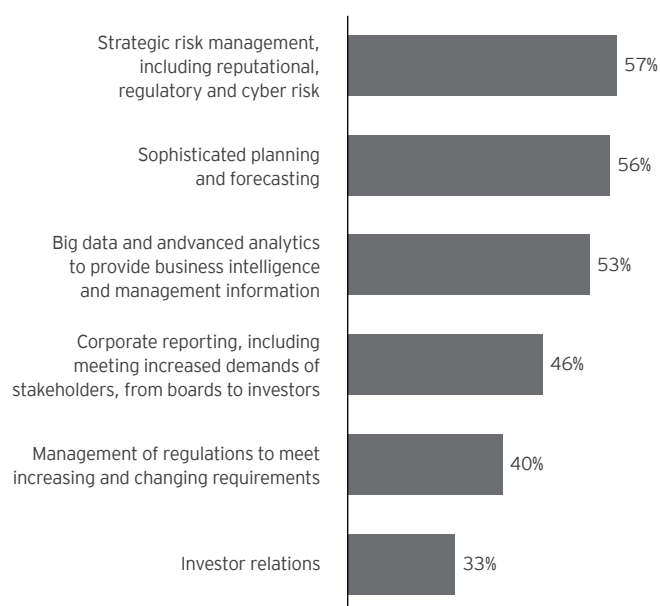
CFO, Brambles

“Building rapport with people is absolutely critical today, and will probably become more critical, particularly if you think about the diversity of where we go and who we deal with. Thinking through how we give those skills to people is critical. I’m concerned that today we don’t necessarily have those skills at the mid-level of our finance organization. I’m not writing that level off, but in terms of what we need in the next 10 to 15 years, we probably need to focus on building better people skills with the younger people, right at the outset of their careers.”



Chart 4: Managing tomorrow's risks

Looking ahead five years from now, what are the top finance capabilities that will be critical to meeting the demands of your organization?



Designing the future finance operating model

Tomorrow's finance operating model will look very different from today's as finance leaders respond to a more demanding and connected world. As Figure 2 (p.18) illustrates, the future operating model will be shaped by a number of drivers:

- ▶ As the CFO role in many organizations expands to such a degree that it becomes too big for one individual to do well, CFOs will need to pull their best leaders into a finance

executive function. This team will lead on major priorities, from back-office operations/shared services to accounting and control. Job titles will become less important as people demonstrate their value through the skills they bring and the responsibilities they assume.

- ▶ As the economy becomes more connected, and collaboration and effective information flows become increasingly important, finance business partners and centers of excellence will provide the interface not only with internal stakeholders, but also external stakeholders and their counterparts in ecosystem partners. Business partners and centers of excellence will become the heart of the function, with permeable organizational borders that allow them to build effective relationships and accelerate data and information flows to (and from) external stakeholders, such as technology partners.
- ▶ As finance and accounting processes are increasingly automated, the finance back-office will shrink, as a virtual workforce begins to replace large numbers of full-time employees in shared service or outsourced arrangements. The concentration of people effort and headcount in the finance function will instead shift up into the business partnering and center of excellence layers.

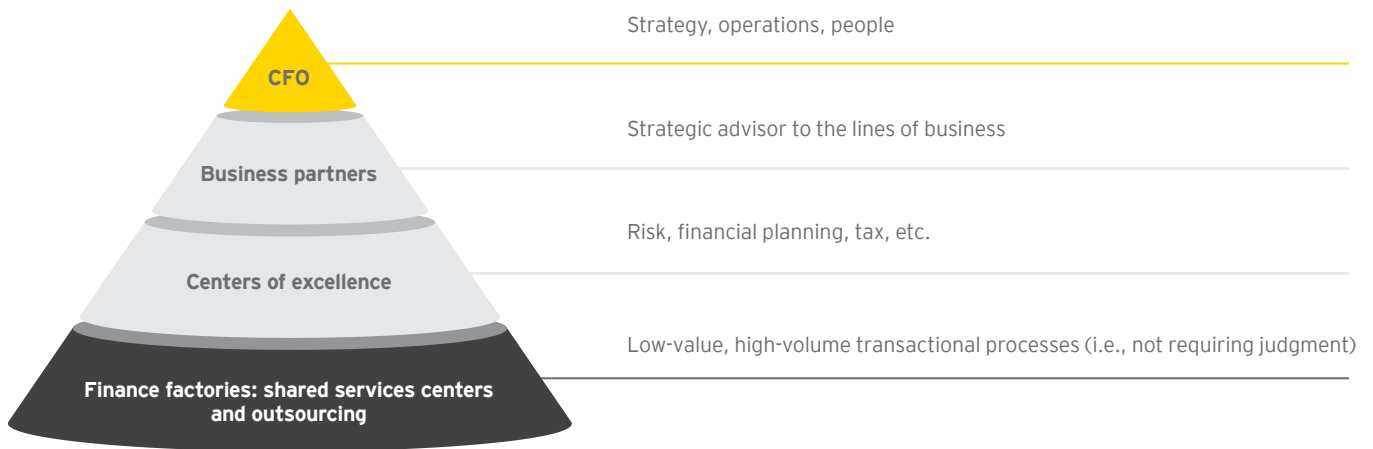
Centers of excellence: an evolving concept

In many organizations, finance centers of excellence emerged as a means of streamlining and centralizing expertise for the use of stakeholders across the business, particularly in areas of specialism, such as analytics or tax. However, as the demands on finance functions and the tools available to them change, finance leaders should be open-minded about revisiting how to use these centers to their best advantage.

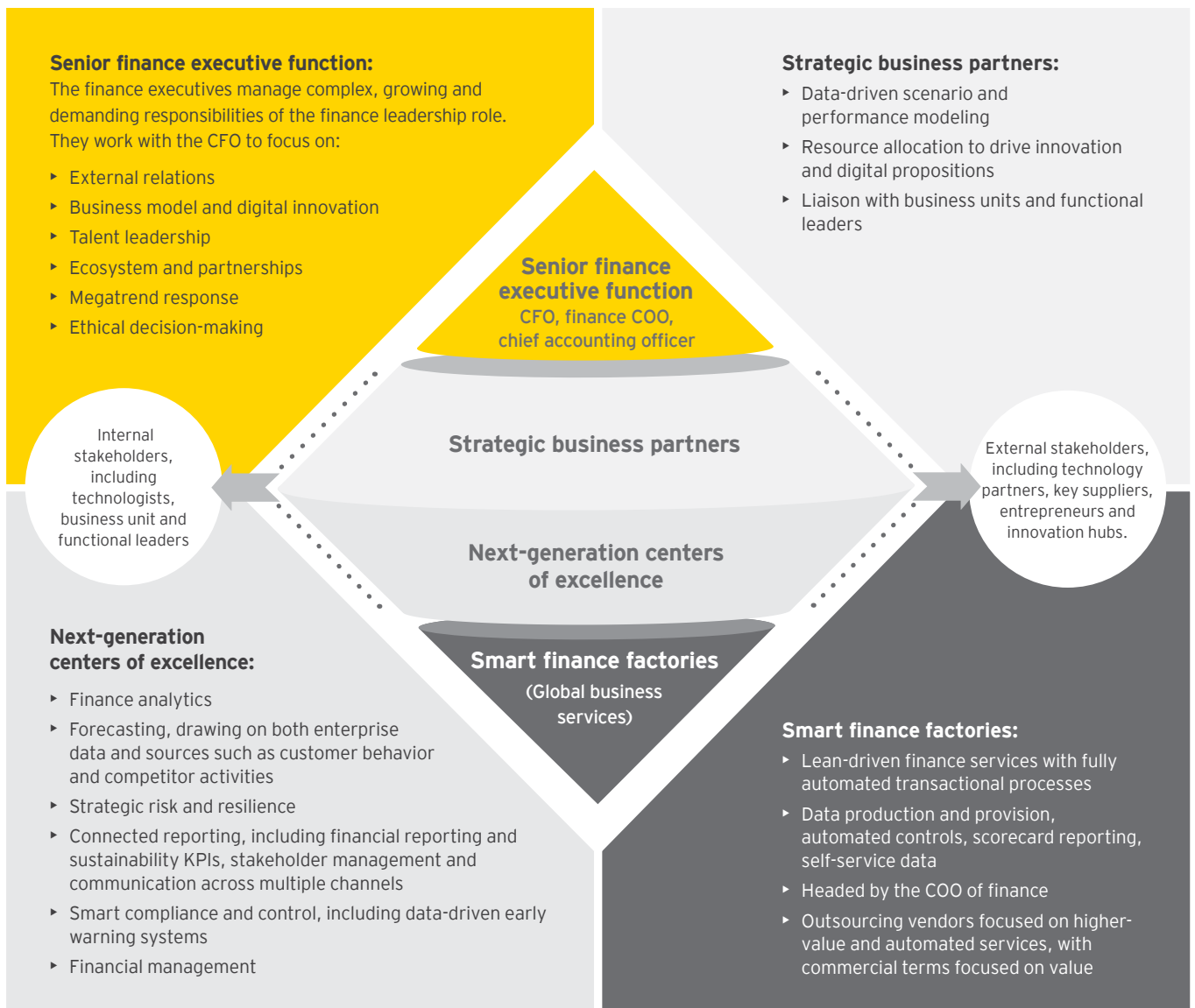
For example, analytics centers of excellence – rather than being located at the organization's head office – might be more strategically located with proximity to the best skills, such as near an academic or university hub where there is the best chance of finding graduates with analytics education and experience.

Figure 2: Design principles for tomorrow's finance function operating model

Today



Tomorrow



Tomorrow's operating model in action

Imagine the leader of a business unit needs to understand why demand for a once-market-leading product is steadily falling. In the future finance function, the business unit leader would speak to their finance business partner, who would ask the data factory to pull together internal data on the product line, but also combine it with external data on wider market movements in the product segment and on competitor moves.

Using AI tools, a data scientist in the financial analytics center of excellence would analyze this massive data set to identify trends and use visualization tools to model different scenarios. The business unit's finance partner would go through the scenarios with the unit's leadership and marketing team and help begin the work to develop possible solutions.

Aligning people management with the new operating model

Driving value from new structures will have significant people implications. In the future model, there will be people whose main focus is on running the business, and others who are more concerned with changing the business, driving growth and business model innovation.

For Chris Chen, COO and CFO at Shanghai-headquartered marketing agency DDB Group Greater China, this split has effectively created two finance teams. "One team, based in Shanghai, is like a machine, dealing with the daily accounting transactions," he says. "The other is the commercial side, including budgeting and analytics, which creates more value for the company. That team can really perform well and the value is tremendous."

For this operating model to work effectively, CFOs will need to put the right people management approach in place for each constituency, including:

- ▶ Skills profile
- ▶ Ongoing education and training, including exposure to new technologies and analytic approaches
- ▶ Career path and development
- ▶ Performance measurement and rewards framework

For example, the leader of a finance factory will need to have skills and experience in driving process excellence through lean techniques and state-of-the-art technologies. This is a very different profile from that of an economist in the forecasting center of excellence, whose skills and experience may be in analyzing and modeling changes to the business model, such as the introduction of new digital services and products. To realize the promise of the future operating model, CFOs will need to rethink how they develop, measure and reward people with very different skills, from financial insight to operational management.

CFO stories

Deborah Gibbins

CFO, Mary Kay

"From a skill-set perspective, we are constantly looking to slowly shift the organization to automate manual processes. Analytics are key, so we are growing our base of skills and positions that do more analytics for our business partners than we are spending time processing invoices or expense reports."



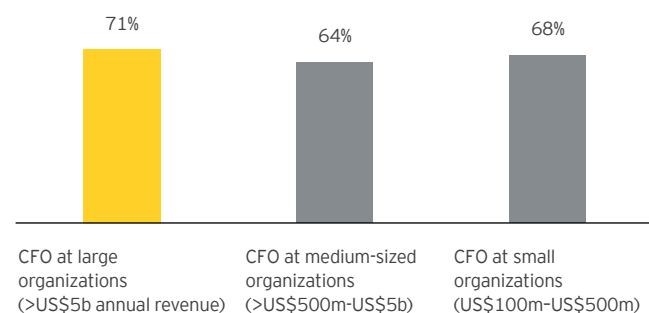
A new form of business partnering

If organizations are to succeed in turning increasing amounts of data into better strategic decision-making, then finance functions will have to make business partnering even more of a priority. CFOs must have a team of highly credible finance executives who are capable of acting as finance's interface with its internal clients. This team's role will include helping to align the work of the analytics teams with business priorities, and helping leaders to understand the implications of their data.

Our research shows that 67% of CFOs worldwide believe that "improving business partnering between finance and the business" is a major priority for the finance function. It is a priority for organizations of all sizes, but a particular focus for large and complex organizations.

Chart 5: Business partnering a priority for all

Improving business partnering between finance and business units or functions is a significant or critical priority for tomorrow's finance function



Finding people with these abilities is not easy. Zlatko Todorcevski, CFO at Australian-headquartered supply chain logistics company Brambles, believes that finance functions often struggle to get the right people to serve as partners to the wider business. He says that those chosen are often more inclined, or better suited, to act in a controller role: "Their natural inclination is to get into financial reporting without necessarily having the ability or desire to sit back and think about what's happening in the market."

He also argues that many who do have the right skill set for the partnering role often find themselves unable to take it on. "Because of the lack of clarity around [the partnering role] – and how their [own] roles have been developed or how their organizations have been constructed – they're actually being tasked with developing statutory accounts, filing tax returns, running a whole bunch of analysis on a country basis and so on."

To build that partnering capability, CFOs must:

- ▶ Shift what is expected of finance business partners, from challenging budgets to challenging business models
- ▶ Find and reward those who combine subject matter expertise with the right abilities and skills to challenge business units' strategies

CFO stories

Peter Vekslund

Executive Vice President & CFO,
PANDORA A/S

"I have Peter's formula: your business impact or success is the product of the technical quality of what you do multiplied by the acceptance you get in the organization. Success = quality x acceptance. We, the finance professionals, tend to focus a lot on the technical quality of what we do and too little time on acceptance. We make the world's best reports and spreadsheets that will win the European excel award for technical sophistication and use of macros, but we spend no time explaining how they work, what the content is, or how it can drive business decisions. If it's so complicated that you can't explain it, and your line manager doesn't understand it, then acceptance is zero, meaning success equals zero. So focus on acceptance and increase your business impact."



Challenging the assumptions about what constitutes finance talent

As CFOs transform their function's operating model, they will need to abandon many traditional ideas about what a finance executive and members of the finance team bring to the table:

▶ **Look beyond traditional financial analysis skills.**

Data gurus – such as statisticians and data scientists, and even behavioral scientists – will be critical in helping the finance function of the future turn data into fresh perspectives and strategic insight.

▶ **Find digital finance talent.**

In the digital age, finance functions will increasingly rely on those rare executives who are steeped in finance but are also literate in technologies such as blockchain and AI. Digital expertise will be needed not only to lead technology-driven changes to the finance operating model, but also to identify the implications of digital for the organization's business model and growth agenda.

▶ **Develop better finance business partners.**

Great business partners have the influencing and communication skills to be able to convey fresh insights to internal clients on the strategic challenges faced by the business.

▶ **Use alliances to go beyond what your organization can deliver alone.**

As the world becomes more volatile, uncertain, complex and ambiguous, organizations are increasingly needing to look beyond their own borders to address business challenges and keep on top of innovations. Alliances with universities, start-ups and other third parties will be essential to providing the ongoing development that will be necessary for the organization to remain nimble and continually adapt.

Competing for talent

Finding the right talent for the future finance function is becoming an ever more critical challenge, complicated by demographic trends, intense competition and changes in the ambitions and expectations of young finance professionals. In fact, 22% of CFOs cited "meeting the need for new skills by transforming how finance talent is recruited, retained and developed" as their number one strategic priority for the finance function of the future.

To help attract, retain and develop the right talent, CFOs should consider these two key steps:

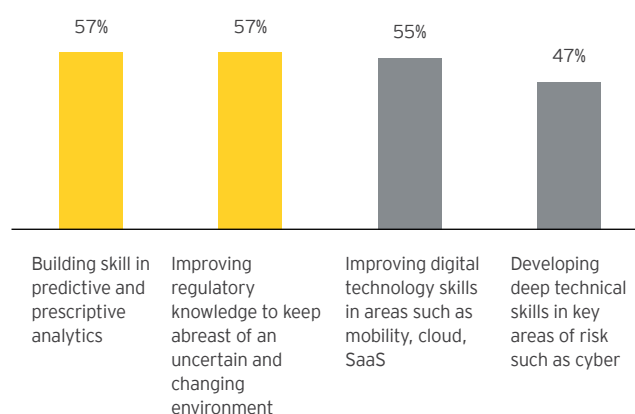
1. Plan today for tomorrow's critical talent

CFOs need to get better at strategic workforce planning for their finance function. Drawing on market trends and business units' forward-looking plans, finance leaders can more accurately forecast what talent is going to be needed, where the major gaps are and how those gaps can be addressed.

Our research revealed that CFOs see skills in sophisticated analytics and deep regulatory knowledge as critical over the coming years (see Chart 6).

Chart 6: Skills for managing uncertainty and volatility

Looking ahead five years from now, how important will the following people and skills initiatives be for your finance function?



As increasing automation of transactional finance tasks alters the finance professional's traditional career path, finance leaders will need to redefine a new development curve. This will include mapping out how they intend to develop people to acquire the breadth of skills necessary to progress through the finance function, and nurture the finance leaders of the future.

As they plan, CFOs may also keep their eye on several time horizons in the near, medium and distant future. For Richard Baker, EY Thames Valley and South Markets Leader, UKI, while technical skills are at a premium now, they may ultimately take a back seat. "If I were advising a teenager on what to study now, I would recommend they learn IT and digital skills, as demand for those skills will continue to grow for at least the next 10 years. But for the generation being born now, the skills needed when they enter the workforce may be different. Many jobs that are done today will be largely automated. However, the interpersonal and strategic skills that technology cannot replace will be more in-demand than ever," he says.

2. Make use of the diverse workforce models of tomorrow's on-demand economy

In the future, organizations will increasingly rely not only on their own workforce to get the job done, but also on non-employees – in other words, the external or contingent workforce, including freelancers and sub-contractors.

A number of trends, from demographic changes to technology shifts, are driving the move toward a contingent workforce. Many workers now do not want to be tethered to one company, and so they seek more flexible employment conditions. And in volatile markets, the need for specific skills fluctuates wildly as technologies change and consumer behavior shifts. This means that companies must

take a flexible approach to sourcing the skills they need to confirm they meet capacity demands without scaling up in areas that may then become obsolete.

For Carl Smith, EY Global Talent Marketplace Leader, this requires a fundamental shift, as most large organizations and multinationals are not well equipped to manage contingent workers. "Many companies do not have a good handle on the sourcing and management of their contingent workforce, because organizations have been built over the years to deal with a permanent employee base," he says. "Organizations need to think about 'integrated strategic workforce planning' and rationalize processes, systems, roles and responsibilities, and analytics to enable effective sourcing and management of their contingent workforce."

Contingent workforce: key success factors

Manage risk by being very purposeful in how you select contingent workers – for example, looking not just at skills, but also cultural fit.

Establish processes to help source contingent workers when needed, and create a rigorous on-boarding process.

Establish mechanisms to help contingent workers feel connected to the organization, so the relationship does not end up as purely transactional.

Consider whether you have the right culture to attract contingent workers with key skills, and the right diversity policies to attract people with different backgrounds and experiences.

Provide contingent workers with access to ongoing management and continuous learning.

Implement the technology required to effectively source, manage, pay and assess contingent workers.

CFO stories

Darren Tan Siew Peng

CFO, OCBC Bank

"The vision that we've created is called 'SMART Finance.' This means the need to think Strategically, and Mine data for insights. With an understanding beyond numbers, we are then in a better position to Analyze and Advise our business partners in terms of their performance and their utilization of Resources. This way, we can help to facilitate the formulation and refinement of the business strategies of the bank, and optimize the allocation of resources to these strategies. Most importantly, we need to groom Talent to make all these SMART things – strategy, mining data, analysis and resource allocation – happen."

Thinks **S**trategically

Mines data and information for insights

Analyzes and Advises business partners

Facilitates **R**esource allocation

Grooms **T**alent

The CFO: the pragmatic visionary

The synthesis of technology and people will be critical for the future finance function. Tomorrow's finance function will only succeed if it has people who can lead the technology debate and who are willing to innovate in finance's risk-averse culture. Equally, the function's team members will only be able to focus on higher-value tasks, such as analytics and forecasting, if the technology is in place both to take care of transactional processes and to provide the data needed for the generation of strategic insight.

To build tomorrow's digitally enabled and talent-rich finance function, we suggest three priorities for CFOs:

1. Define a vision

A clear vision for the future finance function, which is aligned with the organization's overall purpose and business strategy, gives finance team members around the world a common ambition, and provides focus for efforts and investment decisions. In the digital age, CFOs' vision for the future finance function needs to include how smart technology and smart people should work together to create value.

2. Rethink technology

A bold technology strategy for the finance function will be critical. The function will need to build systems and tools

that enable disparate teams to share information and make connected, data-driven decisions. And the function must introduce state-of-the-art automation to take care of the transactional components of finance.

CFOs should be continually identifying and assessing new technologies, modeling the potential return on investment and making the investments required. When new technology investments are made, effective change management will be crucial to their successful implementation.

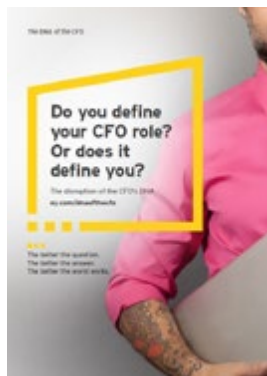
3. Invest in people

Widespread changes to the operating model of the finance function, including the use of shared services and outsourcing, are disrupting the traditional route to the top.

CFOs need to find the new skills and capabilities required to exploit new technologies and increasing volumes of data. They also need to build their people's softer skills, such as their communication and influencing skills. A coordinated approach will be one of the cornerstones to an effective finance function in the future.

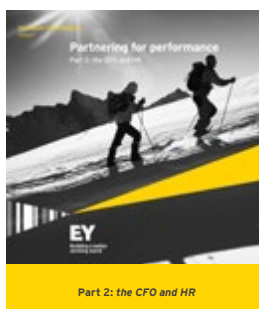
Other publications of interest

The DNA of the CFO series:



Coming soon

Partnering for performance series:

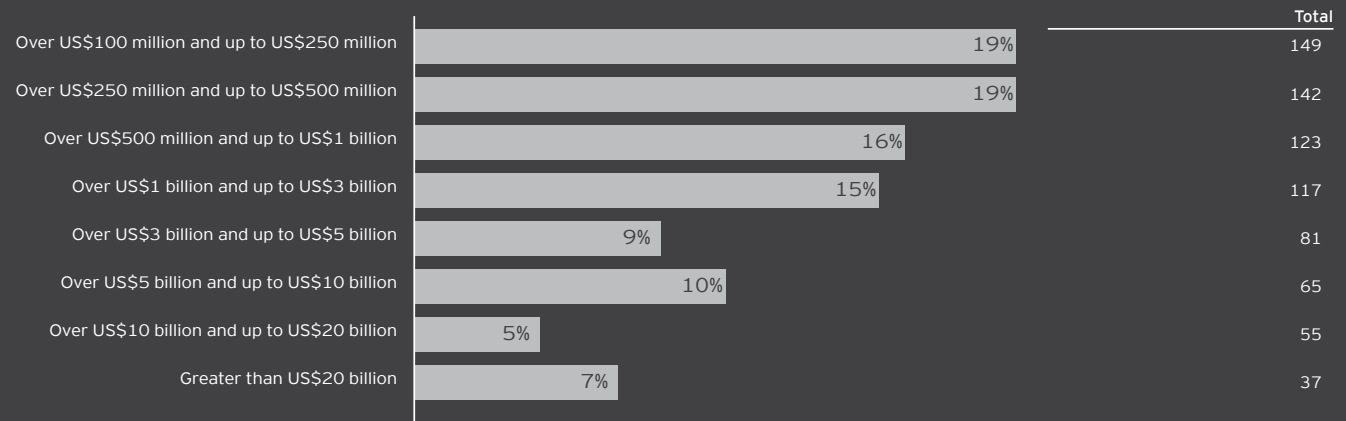


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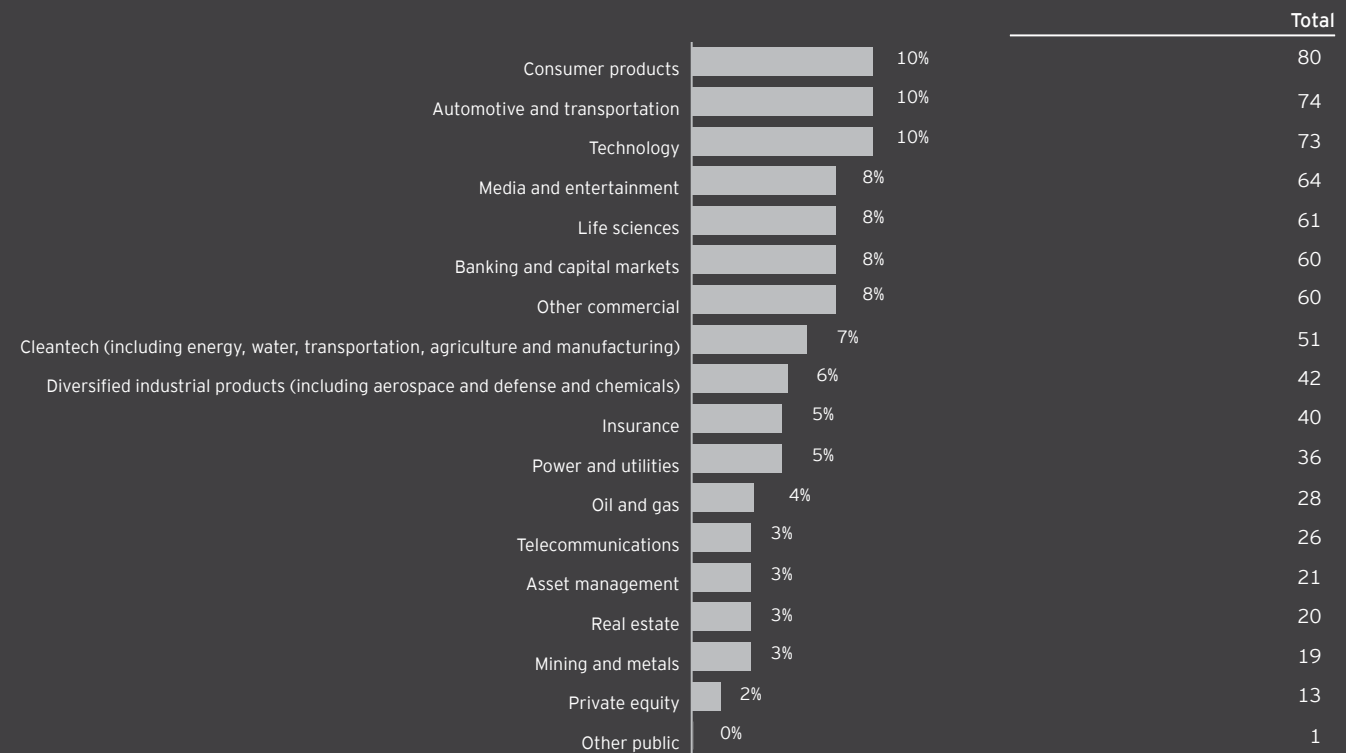
Survey demographics

We surveyed 769 finance leaders around the world from December 2015 to February 2016.

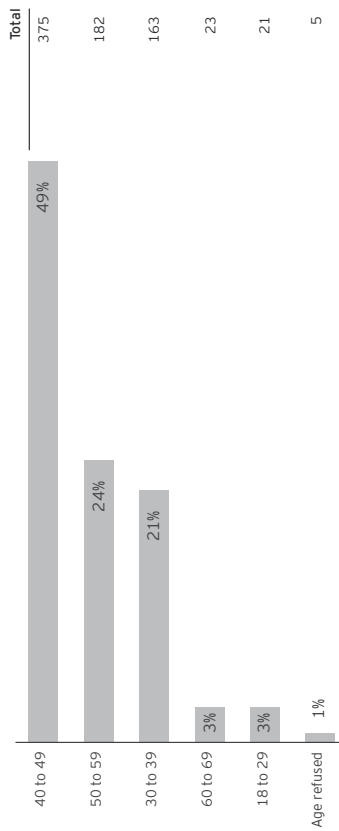
Revenue



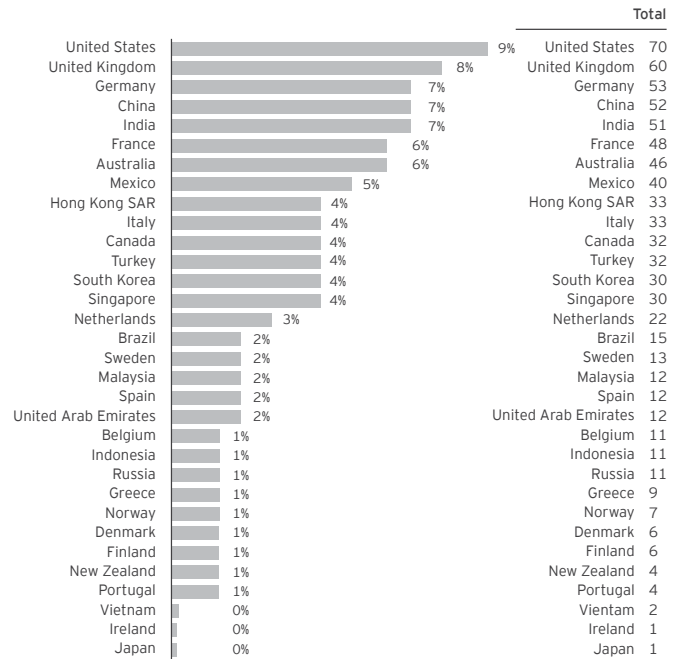
Industry



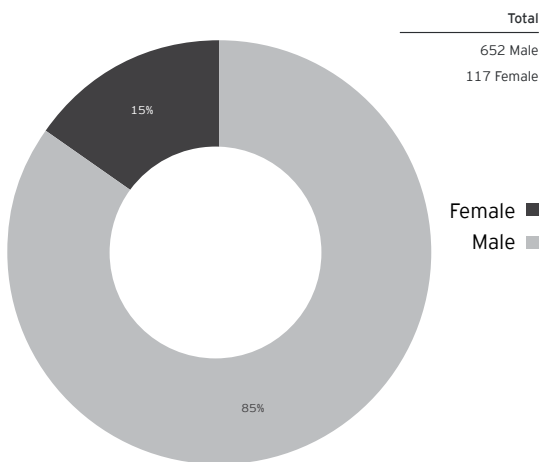
Age



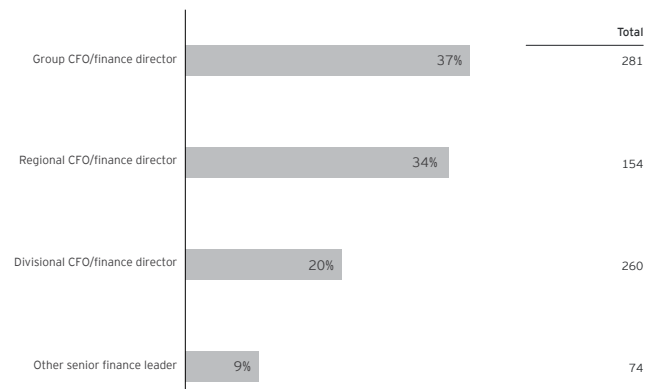
Region



Gender



Role



Note: Some charts do not add to 100% due to rounding.

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