

**Forbes** insights

# Future-Proofed: How Technology Is Driving Change In Finance And Audit

Insights From The 2021 KPMG Finance  
And Audit Technology Survey

IN ASSOCIATION WITH



# Table Of Contents

3	Introduction
4	Methodology
5	Key Findings
8	<b>PART 1</b> Must-Have Finance Technology
10	<b>PART 2</b> How Finance Tech Meets Many Demands
12	<b>PART 3</b> Cybersecurity Is Still A Top Challenge
14	<b>PART 4</b> Cloud Usage Points To Importance Of Partnerships
18	<b>PART 5</b> With Tech, External Auditors Lead The Way
21	<b>PART 6</b> Must-Haves For External Auditors
25	<b>PART 7</b> The Challenge Of Setting Timelines
27	<b>PART 8</b> How To Get Ahead In Finance

# Introduction

The future of finance technology is bright and arriving daily, and most executives are ready to greet it with open arms. They expect this technology to deliver more accurate and reliable data; drive deeper insights into their businesses; detect heightened risk factors; and help their finance functions identify data outliers and anomalies—ideally, in real time.

Though executives don't universally agree on precisely which technologies will fundamentally underpin their future finance functions—Artificial intelligence? Robotic process automation? Blockchain? — they're unanimous in believing that technology will continue to drive change in varying ways.

Likewise for the audit, which has also seen monumental changes in recent decades. In fact, audit firms are seen as leading the way in many aspects of this digital innovation—an important facet of these changes, considering the tight relationship between finance and audit.

This, according to a survey of 250 finance executives conducted by Forbes Insights in partnership with KPMG. These executives represent all major sectors and work at organizations that posted at least \$1 billion in global revenue for the most recent fiscal year. We also spoke with several prominent executives to add context to the data.

Perhaps the best news is this: Most executives report that the finance functions within their organizations are technologically current—with smart analytics, artificial intelligence and cloud computing already in widespread use.

And as the survey makes clear, finance professionals aren't embracing new technology just for its novelty factor. It's imperative to them that these costly investments in digital transformation deliver tangible benefits.

One key deliverable, says Heather Paquette, national technology assurance leader, KPMG, is getting more meaningful views into their own business.

"Companies are constantly looking for greater insights related to their business," says Paquette. "Leveraging smart analytics and artificial intelligence gives them

those insights, both to generate business value and make financial decisions."

The path to a future-proofed finance function is not without its stumbling blocks. As the rate of finance tech adoption is increasing, so too are concerns over potential vulnerabilities in digital supply chains. In a similar survey conducted in 2017<sup>1</sup>, roughly one-third of executives cited unauthorized use of data as their top concern. Today, more than half are most worried about cybersecurity and data privacy.

Though valid, such concerns are no reason to resist or postpone digital transformation, says Scott Flynn, Vice Chair, Audit, KPMG.

"The folks who are leading the pack are not fearful about making change. They embrace change. And this is significant change," he says. "The long-term payback [is] ensuring that your organization has the technological capabilities to be competitive in the new environment we're entering."

Finally, in this report we consider, too, how the human factor is transforming. According to our executives, the next generation of finance and audit professionals will be expected to possess technological know-how, but also a more cerebral skill set that includes critical thinking, problem-solving and—for some—even storytelling.

*"Executives must be able to play the long game, because what we're talking about is not simple. In some cases, there's significant cost to making the type of change we're talking about. But the long-term payback [is] ensuring that your organization has the technological capabilities to be competitive."*

**SCOTT FLYNN**  
Vice Chair, Audit, KPMG

<sup>1</sup> Source: KPMG International and Forbes Insights, "Digital transformation: How advanced technologies are impacting financial reporting and auditing" (2017).

# Methodology

**This report is based on a survey of 250 executives in the U.S. in May and June 2021.**

Respondent titles include: chief financial officers (14%), chief accounting officers (11%), chief audit executives (9%), controllers (10%) and heads of financial reporting (10%). The remaining respondents include directors and VPs of audit and finance. Responses came from a range of sectors, including financial services, consumer products and retail, healthcare and life sciences, technology, media and entertainment, industrial manufacturing, energy and government. All came from organizations with \$1 billion or more in global revenue for the most recent fiscal year.

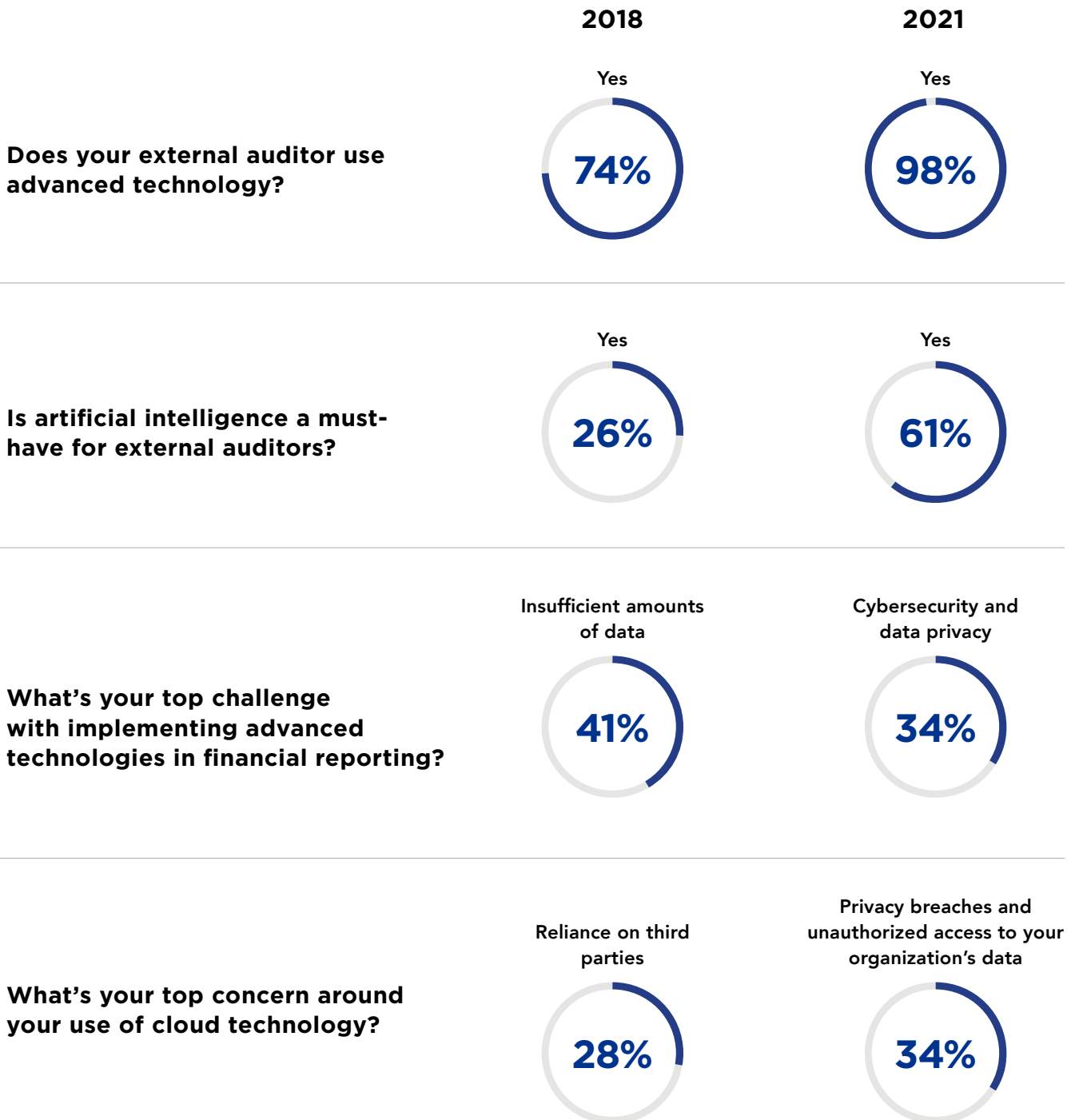


# Key Findings

- Most executives agree that **smart analytics** (62%), **artificial intelligence** (56%) and **cloud computing and storage** (74%) are current must-have technologies for their internal finance function.
- What's next? **Business process automation** (BPA) (43%), **robotic process automation** (RPA) (48%) and **process mining technology** (42%) are expected to become must-haves within two years.
- **Cybersecurity and privacy concerns** are top-of-mind challenges among most finance executives (80%) and, although most of these executives are using cloud computing, the ongoing costs to maintain cloud functions have not gone unnoticed.
- Looking ahead, half of the executives (51%) believe **blockchain** will play a vital role in their finance function in three to five years, and more than a third (36%) expect **edge computing** to gain importance in this same timeframe.
- **Robotic process automation** is used internally by fewer than one-third of executives (30%); more (41%) expect RPA to be a must-have for their external auditors.
- Though not widely cited as an internal tool, **smart glasses** and other virtual observation technologies are vital to some external auditors, who use them for inventory observation and other key functions; many executives (43%) believe this technology will become a must-have for external auditors within five years.
- Most executives are confident in their own finance function's current and planned technology, but most (58%) also readily admit that their **external auditors are adopting technology more rapidly**. Fewer than one in 10 (8%) believe their own finance tech is more advanced.
- Nearly all executives (98%) report that their external audit firm uses advanced technology. This, most agree, **enhances the quality of their audit** (98%) by delivering deeper insights into areas of heightened risk, providing better benchmarking and increasing data coverage. The vast majority of executives also believe this **technology enhances the client experience** itself (94%).
- Cost savings and reducing the burden technology places on corporate resources registered as the least important objectives for our executives. The top-ranked benefits they're expecting their external auditor's technology to deliver are **deeper insights into areas of heightened risk and control weaknesses** (90%) and **benchmarking of KPIs across processes, business units and industry peers** (86%).
- On the **subject of environmental, social and governance** (ESG), most executives expect technology to help them identify and evaluate potential solutions (68%) and enable real-time tracking of their organization's progress (54%). Many also believe technology can accelerate the rate of progress toward ESG targets (50%).
- Looking forward, change is expected—but not immediately. Most executives (66%) expect a **"dramatically" changed external audit process** within four to five years. Very few (8%) see this change coming within three years, and a tiny cohort of outliers (3%) expect no major change for at least 10 years.
- In terms of which specific technologies will "dramatically transform" the external audit, most have their eyes on **artificial intelligence** (61%) and **smart analytics** (50%). **Robotic process automation** is expected to play an important role by many (48%), as is **edge computing** (44%).
- Looking ahead once more, executives expect a lot from future finance professionals. Next-gen auditors will need to be **skilled in advanced technologies** and they must come with **strong data science backgrounds** (75%) as well as **critical-thinking and problem-solving skills** (72%).

# Looking Back At Looking Forward

How has the finance executive's outlook changed in the past three years? We compare this year's findings with survey results we compiled in 2018.





# Must-Have Finance Technology

As the global economy becomes increasingly digital, finance functions must do more than just keep pace—they must excel.

But in an age of seemingly nonstop digital innovation, there's only so much time and money available to try every new tool that hits the market.

Which technologies, then, are must-haves in today's finance function?

According to nearly three-quarters of executives (74%), cloud storage and computing is the most important internal finance technology at this time. (More on the cloud and concerns over its usage below.)

Smart analytics, including data extraction and transformation and data visualization, were cited by nearly two-thirds (62%) of executives; more than half (56%) pointed to artificial intelligence, which includes machine learning and natural language processing.

To Heather Paquette, this was hardly a surprise, and not terribly earth-shattering. "Smart analytics? Cloud? Those are table stakes," she says. "Executives have to utilize them [but] they aren't 'cutting-edge' right now."

In other words, understanding and employing today's technology is *de rigueur*, not something that lends a competitive edge. Finance executives must look further ahead to technology with the potential to disrupt their businesses, Paquette says. They must prepare to preempt—and even capitalize on—this disruption.

"That doesn't mean that they have to take action today," she notes. "But [finance executives] should be thinking

strategically about when they might need to pivot to utilize more 'cutting-edge technology' as part of that strategy."

What tech is on this horizon? According to our executives, business process automation (43%), process mining technology (42%) and robotic process automation (RPA) (48%) will be must-have finance capabilities within two years. Blockchain (51%) and edge computing (36%) are expected to reach widespread adoption within three to five years.

Greater use of automation matches with Paquette's outlook for the industry, but one technology in particular, she says, is worthy of executive attention now.

"Robotic process automation is undervalued at this time," she explains. "With most companies looking for the best places to spend on technology, there's low-hanging fruit [in] being able to automate manual functions and squeeze more efficiency out of their finance function holistically... It should be higher on executives' radars."

Still, Paquette appreciates the executive's quandary. "Automation initiatives are not small in scale," she admits. "They must be implemented carefully and correctly if their full benefits are to be realized."

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## Key Points:

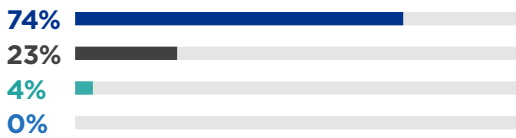
Most executives already have the finance technology in place to analyze and interpret their own big data, and they've already moved many of their operations to the cloud. On deck for tech innovation? More automation.



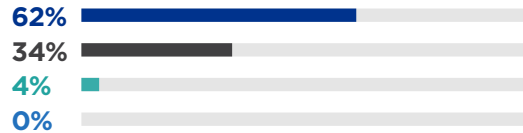
## When will the following technologies become must-have capabilities in your organization's finance function?

■ ALREADY A MUST-HAVE    
 ■ 1-2 YEARS    
 ■ 3-5 YEARS    
 ■ 6+ YEARS

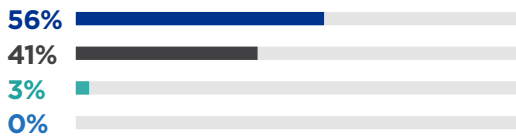
### Cloud



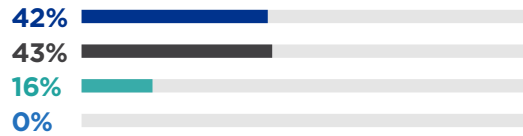
### Smart analytics—including data extraction and transformation and data visualization



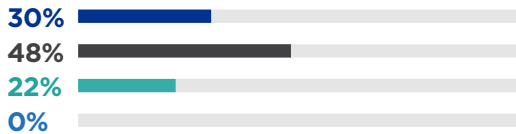
### Artificial intelligence (AI)—including machine learning and natural language processing



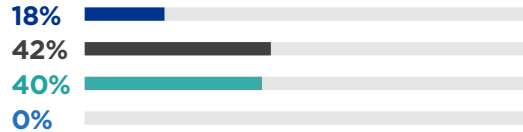
### Business process automation



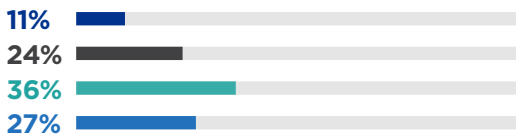
### Robotic process automation (RPA)



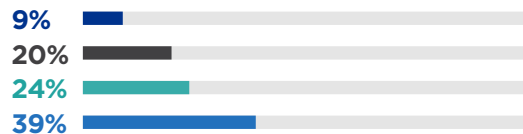
### Process mining technology



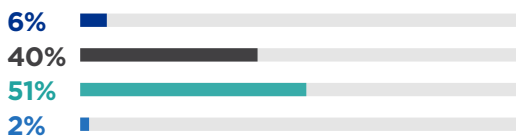
### Edge computing



### Virtual observation technologies—drones, smart glasses, augmented reality



### Blockchain



# How Finance Tech Meets Many Demands

In finance, “digital transformation” can mean many things; it can also bring different benefits. With significant investments already committed in most organizations, and more expected to come, it’s helpful to understand what specific benefits finance tech can deliver.

With this in mind, we asked executives why they’ve chosen their current technologies with respect to financial reporting processes.

Many (30%) value the increased data accuracy, reliability and predictability that their technology provides. Many others also cited an increased ability to identify data outliers and anomalies (22%) and real-time insights into areas of heightened risk or control weakness (19%).

“We spend a lot of time talking about technology,” says Christian Peo, National Managing Partner, Audit Quality and Professional Practice at KPMG, “but it isn’t technology for technology’s sake.”

When considering any new technology for their finance functions, Peo says, executives should be asking two questions. First: Will this give me insights that are going to help me improve my company’s financial reporting? Second: Will this reduce the workload on my people so they can take on more challenging tasks?

What’s not important? Saving money and speeding up processes. Specifically, faster quarterly and year-end reporting; less burden on corporate resources; and cost savings were the least-cited benefits by a wide margin.

For Scott Flynn, this comes as welcome news, especially when one considers the relatively large expense of advanced finance tech.

“I was encouraged that increased data accuracy, the reliability, the predictability and the increased ability to identify data outliers were more important than the cost,” he says. “It validates a lot of the conversations that I’ve been having [with executives] looking at this for value and insights.”

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## Key Points:

Every investment in a new finance technology must justify itself. But it’s not financial rewards that most executives expect; they want deeper, data-driven insights into operations on a holistic level. In fact, actual cost savings is a consideration for a small minority of executives.

## With respect to the impact of the technology on your organization's financial reporting processes, which benefits are most important to you?

Percentage of respondents who ranked as #1 (the most important)



# Cybersecurity Is Still A Top Challenge

**Digital transformation brings many benefits, not the least being more insights and less manual work. But our always-on, fully connected world has its downsides, too.**

Finance executives are keenly aware of this. When asked to name their organizations' top five challenges with respect to implementing technology in support of their financial reporting processes, most cited cybersecurity and data privacy concerns (80%). In fact, security and privacy outranked by a significant margin the two next-most-common concerns: "lack of data quality and availability" and "lack of robust data management" (see chart).

This is hardly surprising. With hacks and cyber-attacks grabbing global headlines, the threat of malicious actors waging war in cyberspace is hardly abstract.

"Security and privacy of information is on everybody's radar," says Heather Paquette. "There's not a day that goes by without an article about the potential loss of data."

Though near-universal, fears over the security of digital financial reporting begin to show variation when considered across industries.

Media and entertainment executives, for example, were 26% more likely than their peers to cite data security and privacy as their top challenge (43% vs. 34% overall), while consumer and retail executives were 21% more likely (41% vs. 34% overall). The most concerned? Executives in governmental positions (50% vs. 34% overall), by a 47% margin.

The past year's events certainly didn't help. When much of the world's workforce abruptly transitioned to remote environments, hackers saw opportunities to exploit

neglected security protocols. In response, finance executives raced to shore up their cyber defenses. Stricter password standards, upgraded VPNs and encrypted communications were among the defensive levers that security professionals pulled.

But even the most expensive security systems can still fail. "You can implement all the controls in the world, but there's still human error," Paquette notes. More than just playing defense, she recommends building proactive protocols that dictate how data itself is stored and transmitted.

"We build detective and preventative controls to process certain information," she explains. "For instance, if it's personally identifiable information, you can't send it unencrypted out of our network."

This is just one example of how finance executives must think about the digital future and the risks it may unfortunately bring.

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## Key Points:

For good reason, finance executives are worried about cybersecurity and data privacy. Though no one is immune, concerns are heightened in certain industries—retail, entertainment, government. Detective and preventative measures to prevent human error must be part of every cybersecurity plan.

## Top challenges with respect to implementing technology in support of the financial reporting processes

Percentage of respondents who ranked as a top 5 challenge



# Cloud Usage Points To Importance Of Partnerships

**Cloud computing is one of the most important technological developments of the past two decades. The global economy simply could not function without it.**

Indeed, with nearly three-quarters of finance executives flagging the cloud as already a must-have for their own finance function, the more interesting inquiry might be: Why aren't you using the cloud?

It's a fair question. There are, after all, legitimate concerns over cloud technology's place in the finance function—not least being those outlined in the previous section.

Specifically, the top concerns for executives who currently use or plan to use cloud technology are privacy breaches or unauthorized access to their organization's data (34%); cloud migration cost and effort (18%); and reliance on third parties to host their financial reporting data (16%).

Migrating one's finance operations to the cloud is not a foregone conclusion. It's a strategic decision that's revisited as requirements—and threats—evolve over time.

"Businesses must constantly make the decision as to whether they're developing their technology in-house or if they're outsourcing," Paquette says. "Security, privacy, confidentiality and control are really important when an organization decides to use a cloud solution."

That most executives are worried about privacy breaches dovetails with earlier findings. As Paquette explains, "In a cloud-hosted environment, [the vendor] is responsible for the security and the privacy of the information. They're responsible for using the tools that are available in those hosted environments to ensure that that's secure."

Finance execs expect third parties to consider client data as sacrosanct as their own data—if not more so. Indeed, all partners, not just cloud vendors, must express—and successfully fulfill—a zero-tolerance policy when it comes to security and privacy errors.

For Scott Flynn, these non-negotiable expectations point to a growing need in the finance sector. "As a profession, auditors should work with companies that are adopting new technology even before they implement it, to better understand both the audit risk and the opportunities that the new technologies may present to more effectively audit the company," he says.

*"Auditors should work with companies that are adopting new technology even before they implement it, to better understand both the audit risk and the opportunities."*

**SCOTT FLYNN**  
Vice Chair, Audit, KPMG

Consider an organization that's implementing a new enterprise resource planning system. Traditionally, finance's partners are expected to review the implementation when the job is done. Has the right data been transferred? Are security systems in place? Is there proper governance?

Flynn believes finance's partners should instead be involved from day one. This way, he says, "we can react a lot quicker and have a more effective understanding of how and when and where to use [the new] technology."

This applies to any new tech, whether it's hosted in the cloud or on-premises in a server closet: Cybersecurity is enhanced through cooperation, communication and participation as early as possible.

### Key Points:

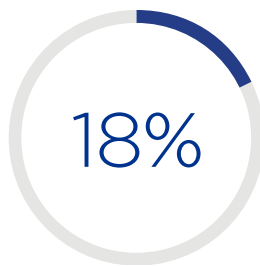
The cloud has arrived, but executive concerns over security and privacy remain. To mitigate these fears, finance executives should actively work more closely with their partners—cloud vendors and otherwise—from the inception of any new project.

## If you are currently using or plan to use the cloud in your financial reporting processes, what are your top concerns?

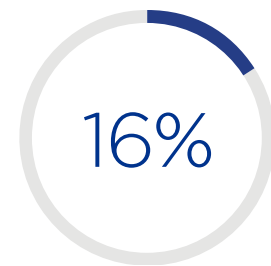
Percentage of respondents who ranked as #1 (top concern)



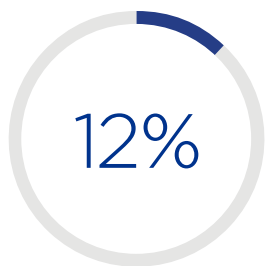
Privacy breach or unauthorized access to your organization's data



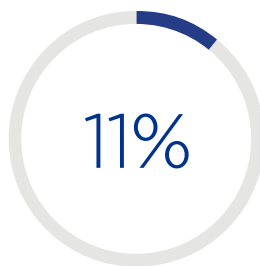
Cloud migration cost and effort



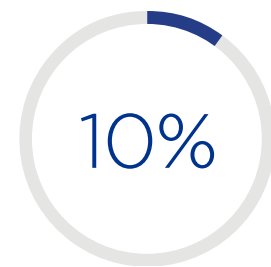
Reliance on third parties to host your financial reporting data



Limited control over the function and execution of the hosting infrastructure



Cloud vendor or internet outage leaves data out of reach



Anticipated cost savings may not be attainable

# Finance Technology And The Modern Audit

**Having offered their insights into the state of the modern finance function in global organizations, our executives were asked to turn their attention to their external auditors' use of new technology.**

Finance tech is, after all, also fundamental to the auditor's toolkit. But just as finance executives don't adopt new technologies for their novelty factor, external auditors have greater objectives, too.

"Data and analytics help you understand transactions you're supposed to be auditing," says Christian Peo. "By looking at those transactions in multiple ways, you have a better sense of what you're testing, where risk lies and how much risk is present."

Good thing, then, that nearly all executives (98%) report that their external audit firm uses advanced technology extensively. This, most agree, enhances the quality of their audit (98%) by delivering deeper insights into areas of heightened risk; providing better benchmarking against KPIs; and increasing data coverage. The vast majority of executives also believe technology enhances the client experience itself (94%).

What other expectations do finance executives have of their external auditors, and how will this change in coming years?





# With Tech, External Auditors Lead The Way

**Most finance executives have confidence in their own finance function's current and planned technology—this much has been made clear.**

But more than half (58%) also readily admit that their external auditors are adopting technology more rapidly. Very few (8%) believe their own organization's tech is outpacing their auditing firm's.

Yet according to Peo, that minority of early adopters deserves attention.

"To keep up with those 8% who are changing and innovating so rapidly, we need to invest and spend time and be on par with how they're changing," Peo says. "We need to keep up with them, and we need to spend—that's an opportunity to enhance audit quality."

Scott Flynn agrees. "We've got to anticipate where our clients are going and get ahead of them," he says. "If our clients are using complex technology in developing their financial reporting and the things that we're going to attest to, [then] we've got to be ahead of them."

Curiously, when executives were asked for their most important priority in considering an external auditor, "use of technology" ranked tenth in a field of 15 (see chart). Audit quality, use of analytics and taking an innovative approach were the most important.

At a glance, this may suggest that an external auditor's use of advanced technology isn't important to finance executives after all. Paquette offers another analysis.

"It's an expectation that their audit firm is being innovative in technology," she says. Another instance of table stakes, in other words.

Paquette's conclusion is supported by the data. In a follow-up question, executives were asked to identify which technologies are currently used by their external audit firm. A clear majority cited smart analytics (92%), the cloud (90%), artificial intelligence (84%), business process automation (72%) and robotic process automation (70%).

*"We've got to anticipate where our clients are going and get ahead of them."*

**SCOTT FLYNN**

Vice Chair, Audit, KPMG

There is one potential challenge for the most technologically advanced external auditors: the inability to extract the data they need to perform higher-level analysis, specifically regarding client-side quality controls that don't match with their own.

Christian Peo explains: "Our ability as auditors to use technology can be significantly constrained when there is not an effective system of quality management at the company [being audited]... Having that effective system, particularly around financial reporting, is very important not only to get the insights, but also to make them useful."

To help mitigate this issue, Peo recommends greater coordination: "As more companies implement technology, it will behoove both the auditor and the company to work closely."

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### Key Points:

Finance executives are confident in their own technical capabilities, but most report that their external auditors outpace them technologically. The data also reveals that an auditor's use of advanced technology is essentially a given at this time. In fact, sophisticated auditors may find themselves waiting for their clients to "catch up."





## Most important considerations when considering an external auditor

Percentage of respondents who ranked each as #1 (the most important characteristic)

Audit quality	23%
Use of analytics	16%
Innovative approach	16%
Knowledge of my business	8%
Business relationships	6%
Audit methodology	5%
Responsiveness and flexibility	5%
Industry knowledge	5%
Account management process	4%
Use of technology	4%
Global reach	4%
Brand and reputation	2%
Communication	2%
Cultural fit	0%
Speed of delivery	0%

## IT + ESG

Meeting environmental, social and governance (ESG) objectives is no longer a luxury for executives; it's an imperative. Even more critical is the need for finance tech to produce ESG data in order to meet the demands of investors and stakeholders for timely and assured ESG information.

"Assurance is driving comfort and confidence around the data," says Scott Flynn, "allowing business leaders to prove they are moving toward achieving their ESG goals."

Today, auditors are focused on extracting and analyzing data to provide more automated, consistent responses from enterprise resource planning systems across an organization. Doing that will be more of a challenge when it comes to ESG data, which likely has not received the same level of investment as data driving financial reporting. Further, ESG demands and expectations will fluctuate more than financial reporting, placing a greater emphasis on a responsive data environment.

Flynn believes the situation as regards auditing of ESG data is changing, and most finance executives agree. When asked about technology's role in helping them achieve their ESG objectives, they expect help in:

- identifying and evaluating potential solutions (68%)
- enabling real-time tracking of progress against targets (54%)
- accelerating the rate at which targets are met (50%)

The industry is ready to help. Flynn explains: "The rigor we're going to see, and the expectations around audit firms, is going to be significantly higher than what it is today. There's an evolution going on."

# Must-Haves For External Auditors

**Just as we asked which technologies are must-haves for internal finance functions, we sought similar insights vis-a-vis external auditors.**

According to our executives the cloud (80%), smart analytics (70%) and artificial intelligence (61%) are the top-cited must-haves for today's external auditors.

Broadly speaking, there's little surprise here: cloud, analytics and AI are the Finance Tech Dream Team. For more useful insights, we must compare this data with earlier findings. When asked to identify must-haves for their own finance functions, executives cited cloud, analytics and AI 9% less often, on average (see chart).

Explaining why smart analytics—and specifically data visualization—may be more important to external auditors than internal finance, Heather Paquette points out: "Visualization helps auditors better understand the flow of transactions and the potential risk points. It allows us to better refine our audit procedures to ensure that we audit the key process risk points. [But] our clients also like to see the visualization of our interpretation of what they're telling us."

Using smart analytics to create more effective data visualizations may factor more in the auditor's remit than it does in internal finance's.

Returning to executives' understanding of must-have tech, Paquette again notes the seeming unimportance that they ascribe to automation: Business process automation was cited as already an external auditor's must-have by just more than half of executives (52%); robotic process automation by even fewer (41%).

In our analysis, this suggests a blindspot among finance executives.

"Today's audit is all about automation and technology, whether it's workflow automation, transaction flow analysis or data analysis to support all aspects of the audit," Paquette says. "We're seeing more [use of] robotic process automation to perform our direct procedures, and we're using RPA bots to be more efficient in the delivery of our procedures."

Finally, looking ahead, most executives believe their auditors will employ blockchain technology before they themselves do: within two years versus five years (see page 21). They also expect edge computing to become vital to external auditors more quickly than it does within their own finance functions (3-5 years, 48% vs 36%).

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## Key Points:

Finance executives expect tech's big three—cloud, smart analytics, AI—to already be employed by external auditors, and at a higher rate than within their own organizations. Audit automation tech is underappreciated by executives, which may indicate a blindspot for some.



## Smart Glasses Still Unseen By Most Execs

External auditors have been using smart glasses and other virtual observation technology to increase accuracy and reduce costs. The pandemic provided a good pretext for the use of this tech.

“Using smart glasses to observe inventories when you’re not physically located on-site is one technology we’ve been able to use this past year,” Heather Paquette explains. “We’re able to use it for critical procedures done in a remote manner [and] I think it will continue to be important.”

This may be news for many finance executives. Not only did very few flag virtual observation tech as a current must-have for their own functions (9%), just 16% believe their external auditors are currently using it.

The fact is, although few executives expect smart glasses to become a must-have anytime soon, this technology is already solving problems and saving money for their external auditors.



# Still No Consensus Around Blockchain

In a survey conducted by Forbes Insights and KPMG in 2018<sup>2</sup>, 41% of executives said their companies were using blockchain in some fashion and another 50% said they planned to use it within the next three years. Widespread adoption seemed right around the corner.

Here we are, three years later—and very few executives describe blockchain as a “must-have,” either for their own finance function (6%) or for their external auditor (7%).

The issue, says Heather Paquette, is one of uneven adoption. “Blockchain will end up in the auditor’s toolkit when it shows up in the business processes [and] companies use it for financials,” she says.

In other words, blockchain—like many other technologies—can’t deliver mutual benefits when one party doesn’t participate.

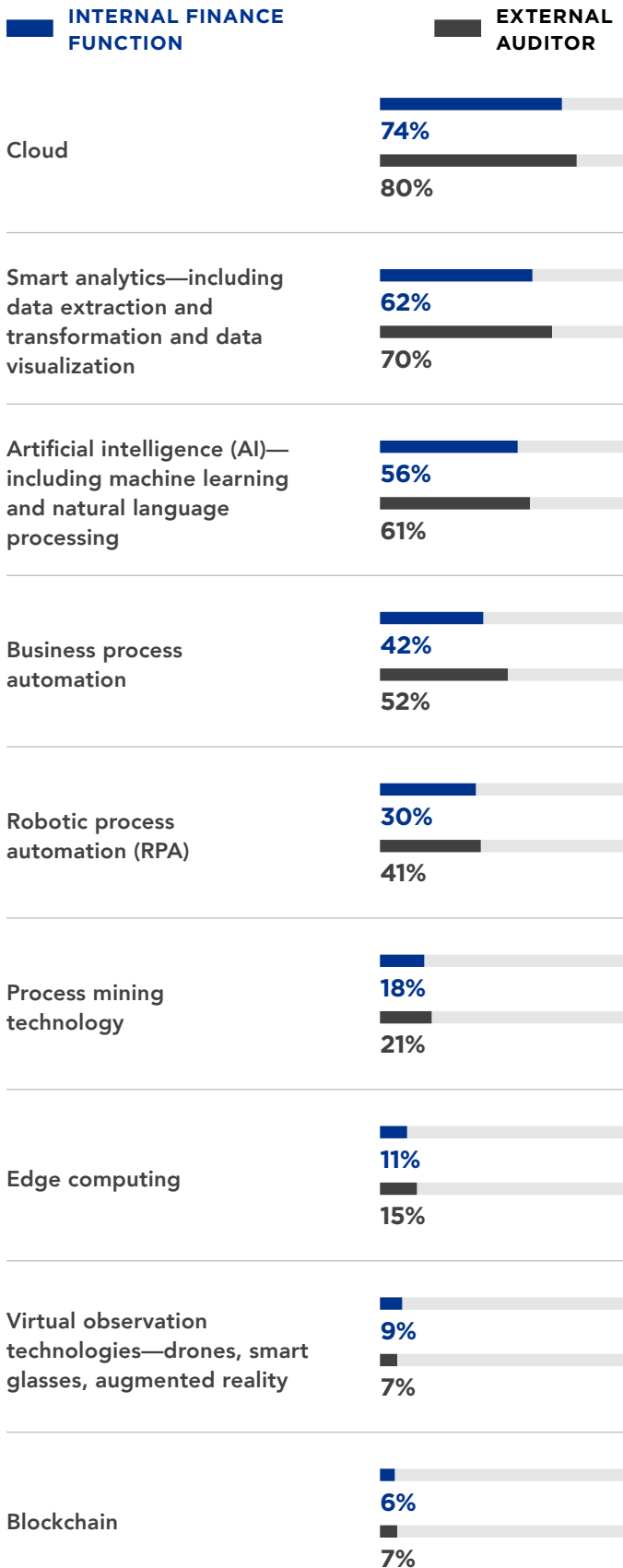
According to 40% of today’s executives, this conjunction will arrive for their internal finance function in the next two years. Most of their colleagues (51%) give it three to five.

Paquette remains optimistic: “Blockchain technologies hold great promise for finance organizations, both from a quantitative and qualitative perspective.”

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<sup>2</sup> KPMG International and Forbes Insights, “Next Generation Audit: How advanced technologies are transforming the audit” (2018).

## Finance technologies that are already must-have





# The Challenge Of Setting Timelines

**There's no question that dramatic change is coming to finance reporting and the audit. But there's little consensus around a timeline.**

Asked when they expect their external audit to be performed in a “dramatically different way,” most executives answered between four and five years (66%); just 8% indicated within the next three years. More than one-quarter (26%) believe this change is at least six years away, with a tiny portion of this cohort (3%) expecting business-as-usual for at least a decade.

In terms of which specific technologies will drive this dramatic change, most executives once again pointed to artificial intelligence (61%) and smart analytics (50%) (see chart).

Our question: With each of these catalyzing technologies already widely used in finance—and during the audit, specifically—why don't more executives see dramatic change arriving in the very near future?

Perhaps because external auditors can't, as a practical matter, race ahead too quickly.

“We're trying to anticipate where we need to be,” Scott Flynn explains. “But it's informed by where companies are directionally heading with their [own] technology usage. We're trying to stay just ahead of them [and also] make sure our technology solutions provide trust and assurance.”

In fact, during this period of dramatic change—whether it's two years or ten—external auditors may find themselves unavoidably frustrated by client-side finance functions that are slower to evolve.

“We have a point of view of how organizations [can] be more efficient in their business,” Heather Paquette says. “But because of the nature of the auditor's work, we are in many

ways technologically agnostic. We can't always recommend, for example, this tool or that tool as the Holy Grail for their business.”

Again, Christian Peo recommends a more coordinated approach. “Without impairing independence,” he clarifies, “but to give the auditor an in-depth understanding of what the company is doing. This way, they know how to develop and use their own tools in the right way.”

Lastly, though new technologies bring powerful new capabilities, excitement around them should not be a matter of the products themselves. Executives should embrace these changes for what they will mean for their people.










Scott Flynn predicts, “These changes are going to create an opportunity for audit professionals to utilize a different set of skills [by] eliminating tasks that haven't required a lot of critical thinking. Audit professionals will do their jobs differently. It's going to give them a chance to upskill. It's going to give them a chance to view their jobs differently—and hopefully more positively.”

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## Key Points:

Executives agree that change is coming for external auditors, though they can't agree on the timeframe. In the meantime, external auditors may find themselves frustrated by the broader industry's slower rate of change. However long it takes, the widespread use of new technology has the potential to improve both the lives of finance professionals as well as their external auditor.

## Which technologies have the potential to dramatically transform the external audit?

	Artificial intelligence (AI)	61%
	Smart analytics—including data extraction and transformation and data visualization	50%
	Robotic process automation (RPA)	48%
	Edge computing	44%
	Business process automation	39%
	Blockchain	36%
	Cloud	34%
	Process mining technology	26%
	Virtual observation technologies—drones, smart glasses, augmented reality	16%

*“Audit professionals will do their jobs differently. It’s going to give them a chance to upskill. It’s going to give them a chance to view their jobs differently—and hopefully more positively.”*

**SCOTT FLYNN**  
Vice Chair, Audit, KPMG

# How To Get Ahead In Finance

## Finally, how will the widespread use of advanced technology affect the next generation of finance professionals, and how will expectations differ between internal finance functions and external auditors?

Putting aside fundamental accounting and finance skills, most executives believe financial reporting staff must bring critical thinking, reasoning and problem-solving skills (80%); investigative financial skills (66%); and the ability to develop relevant data analytics to achieve specific objectives (66%). An instinct for business strategy and strategic insights will also be valued (57%).

“Those people who are intellectually curious and are able to draw insights from disparate data pools, those people are going to be truly exceptional,” says Scott Flynn.

Next-gen auditors will be expected to have more technical expertise. Specifically, executives prioritized an understanding and command of technology, including artificial intelligence, robotic process automation and blockchain (76%), and a background in data science (75%). Many also believe tomorrow’s auditors should be exceptional thinkers (72%), but it’s cited as being less important than it is for finance staff.

“As we think about what’s coming, we’ve got to look differently at the types of people on our teams,” says Flynn. “If you don’t have a certain amount of technology capability, it’s going to be very hard to execute on audits in the future.”

Interestingly, for both financial reporting staff and auditors, storytelling was considered least important by surveyed executives (see chart).

Here, Christian Peo takes issue. “We still need people who understand accounting and auditing [and] also IT,” he explains. “But they also need the traditional skills: being able to speak with management [and] the audit committee in a way that’s understandable, take very detailed findings that are uncovered through the use of technology and put it in a way that’s understandable in non-audit speak.”

There’s a risk, Peo warns, of placing too much emphasis on technology: “If we’re not careful and deliberate about training our next generation auditors, we’ll find ourselves in a different kind of ditch.”

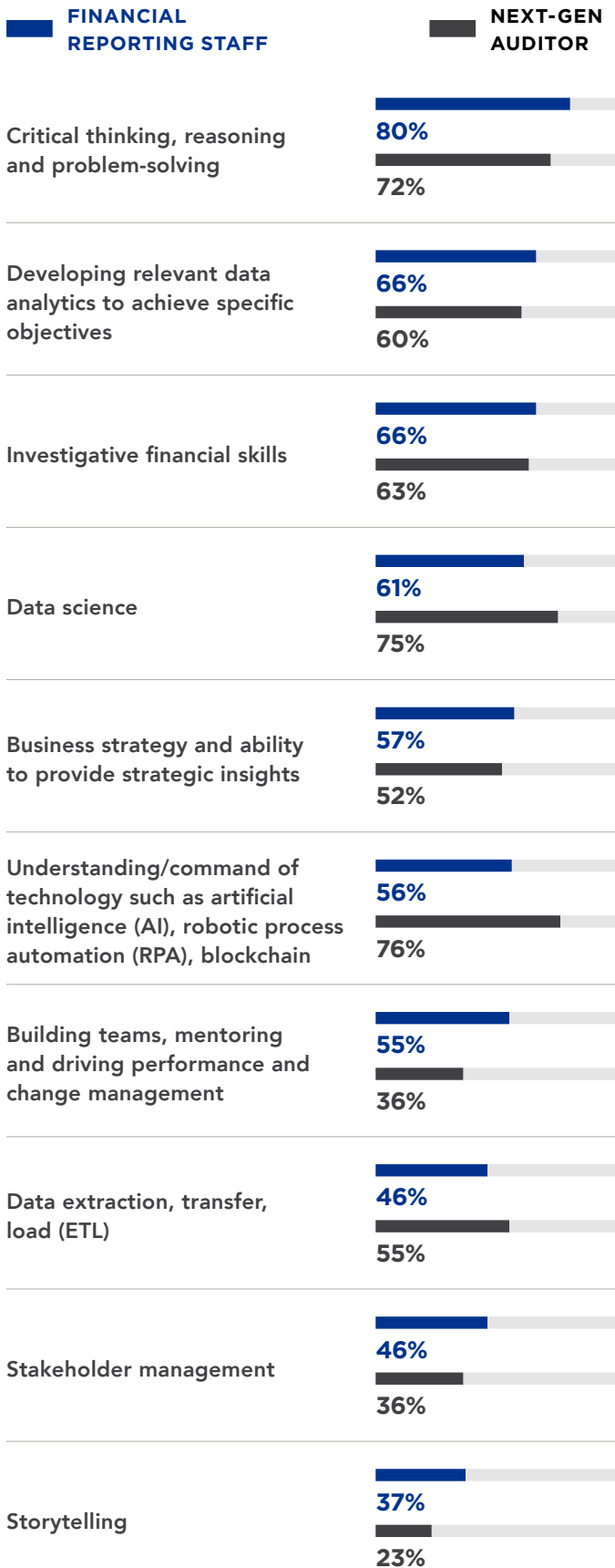
One solution, he says, and what KPMG has done, is to invest in today’s financial talent, not just wait for the next generation to arrive: “With relation to IT, everyone’s skill-sets need to increase to the next level. Or two.”

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### Key Points:

For the next generation of accounting and auditing talent, tech skills will be highly prized. But the data reveals a near-equal importance placed on critical thinking, problem-solving and other “cerebral” skills. It’s also advisable to invest in current talent and prepare them for the IT-centric future of finance.

## The most important new skills for the next generation of finance and audit professionals



# An Exciting Future

**For all its devastating effects, Covid-19 serves as an agent of change for many organizations—and even entire industries.**

Many long-planned but oft-delayed digital transformation initiatives found themselves suddenly moved from the back to the front burners

This is especially true in finance. For the early adopters of advanced technology, the upheaval presented an opportunity to create or widen their competitive advantage by accelerating digital efforts. For everyone else, the crisis was a wake-up call to prepare for the future now.

This should be seen as an exciting prospect, says Scott Flynn.

“If you look back five years, blockchain, artificial intelligence and business process automation—we were just starting to talk about them,” he says. “Today, companies see real value in these technologies. Looking ahead, we’re moving toward a time where there’s less human capital spent on mechanical tasks. Our people will spend more time making difficult judgments—the critical thinking, the problem-solving, the higher-level analytics.”

It’s this last part—the chance to help the industry’s people function at a higher level—that’s most exciting about the future Flynn is expecting.



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