

THE IMPACT OF ARTIFICIAL INTELLIGENCE ON ACCOUNTING AND FINANCE: A GLOBAL PERSPECTIVE

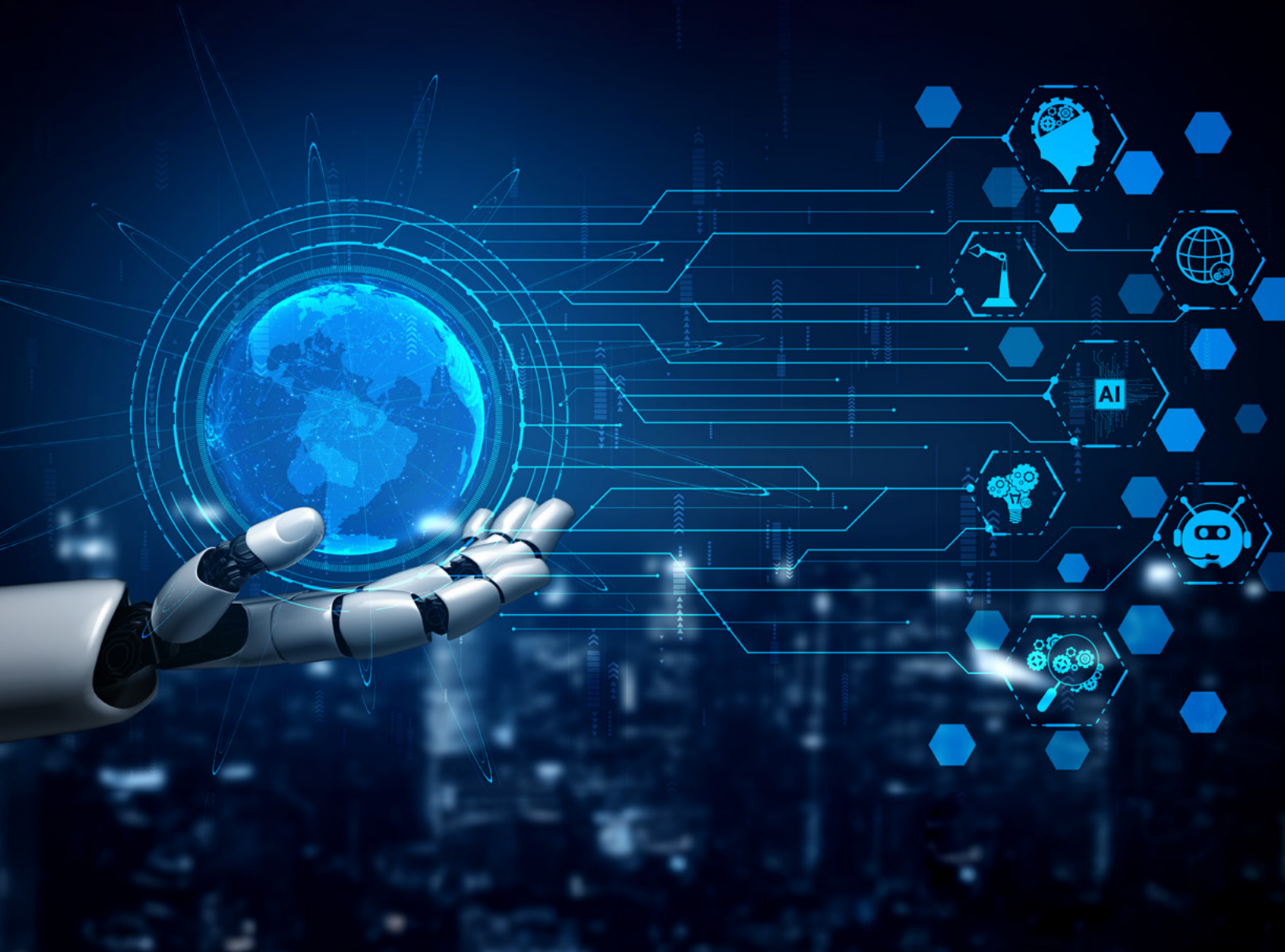


TABLE OF CONTENTS

Introduction	4
AI Trends in Accounting and Finance	5
What Is AI?	5
Implications for Accounting and Finance	6
Applications of AI	6
Preparing for a Future with AI	9
Will You Be Replaced by AI?	9
Embracing Changes in the Age of AI	10
Overcoming Challenges in Working with AI	13
Human Aspect	14
Operational Aspect	15
Technology and Data Aspect	16
Ethical and Governance Concerns	17
Prerequisites of Successful AI Implementation	19
Conclusion	22

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INTRODUCTION

Artificial intelligence (AI) is revolutionizing industries with its superpower to help unlock business value through stimulating creativity and innovation, optimizing efficiency, and driving the achievement of outcomes. It creates both opportunities and challenges that have significant implications for the future of work. In the field of accounting and finance, AI is emerging as a transformative force that is reshaping the profession, influencing everything from data analysis to decision-making processes. As automation and predictive analytics are expected to become the new norm, traditional roles are undergoing profound modifications, prompting the need for adaptability, upskilling, and strategic alignment.

This research by IMA® (Institute of Management Accountants) explored AI's impact on the accounting and finance profession, drawing insights from in-depth dialogues from interviews and roundtable discussions with approximately 40 accounting and finance leaders and experts in the AI field spanning the United States, Europe, the Asia-Pacific region, the Middle East, North Africa, India, and China. Our study uncovered the multifaceted applications of AI, the prevailing challenges faced by professionals when integrating AI, and the ethical and governance challenges of AI deployment. We also shed light on the significance of continuous skill enhancement in preparing for the future with AI.

Although AI cannot fully substitute human expertise, it will profoundly influence the professional trajectory of those in accounting and finance. As the role of accounting and finance professionals shifts in the AI era, teams must evolve accordingly. This transformation spans from the CFO to entry-level staff,

emphasizing technology proficiency, data analytics, critical thinking, and cross-functional collaboration. Seamless AI integration requires a broader perspective that transcends technology to encompass personnel, processes, and structures.

To navigate this evolving landscape, organizations must proactively embrace AI-induced changes. By fostering human-machine collaboration, organizational leaders can solidify their invaluable contributions to organizational growth. For individuals, focusing on upskilling and reskilling is essential. A culture of ongoing learning will help team members to understand AI's strengths and weaknesses, steering toward its responsible and fruitful implementation.

While AI offers numerous benefits and its adoption is poised to surge, accounting and finance professionals also face multifaceted challenges. To successfully integrate AI in the accounting and finance function, organizations need to overcome hurdles in human, technological, operational, and ethical dimensions. This includes aligning AI strategies with organizational goals and ensuring adequate executive support, addressing the skills gap of the existing workforce through training and development. This also includes fostering cross-functional collaboration, process reengineering, and scalability, particularly in smaller businesses. Technologically, particular focus should be placed on data quality and the digital preparedness of teams. As AI's capabilities burgeon, it becomes imperative for professionals to adeptly navigate the risks inherent in its deployment. Embracing ethical AI practices can lead to systems that are both efficient and trustworthy. •

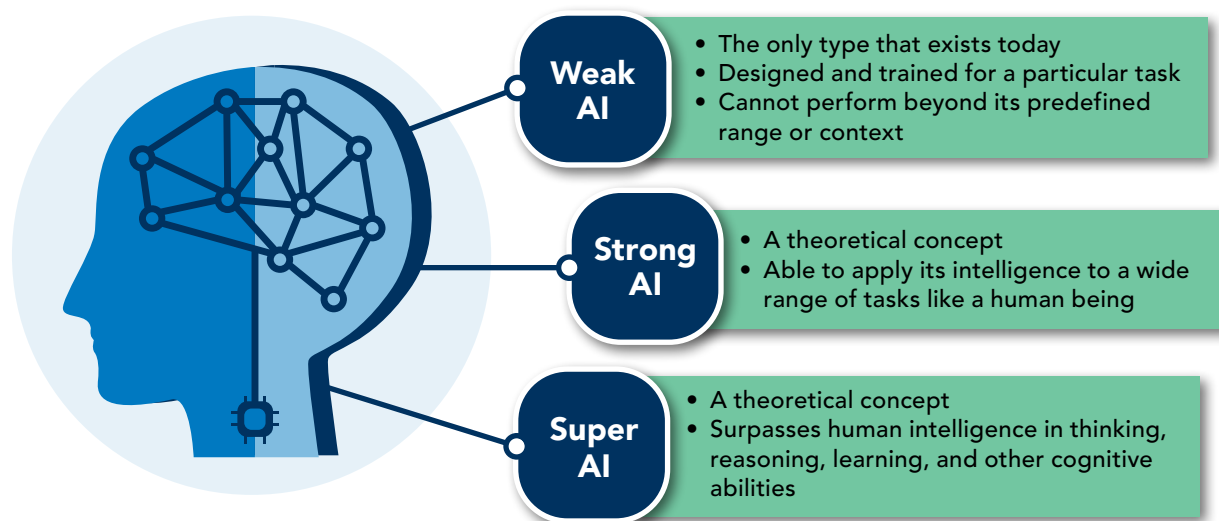
AI Trends in Accounting and Finance

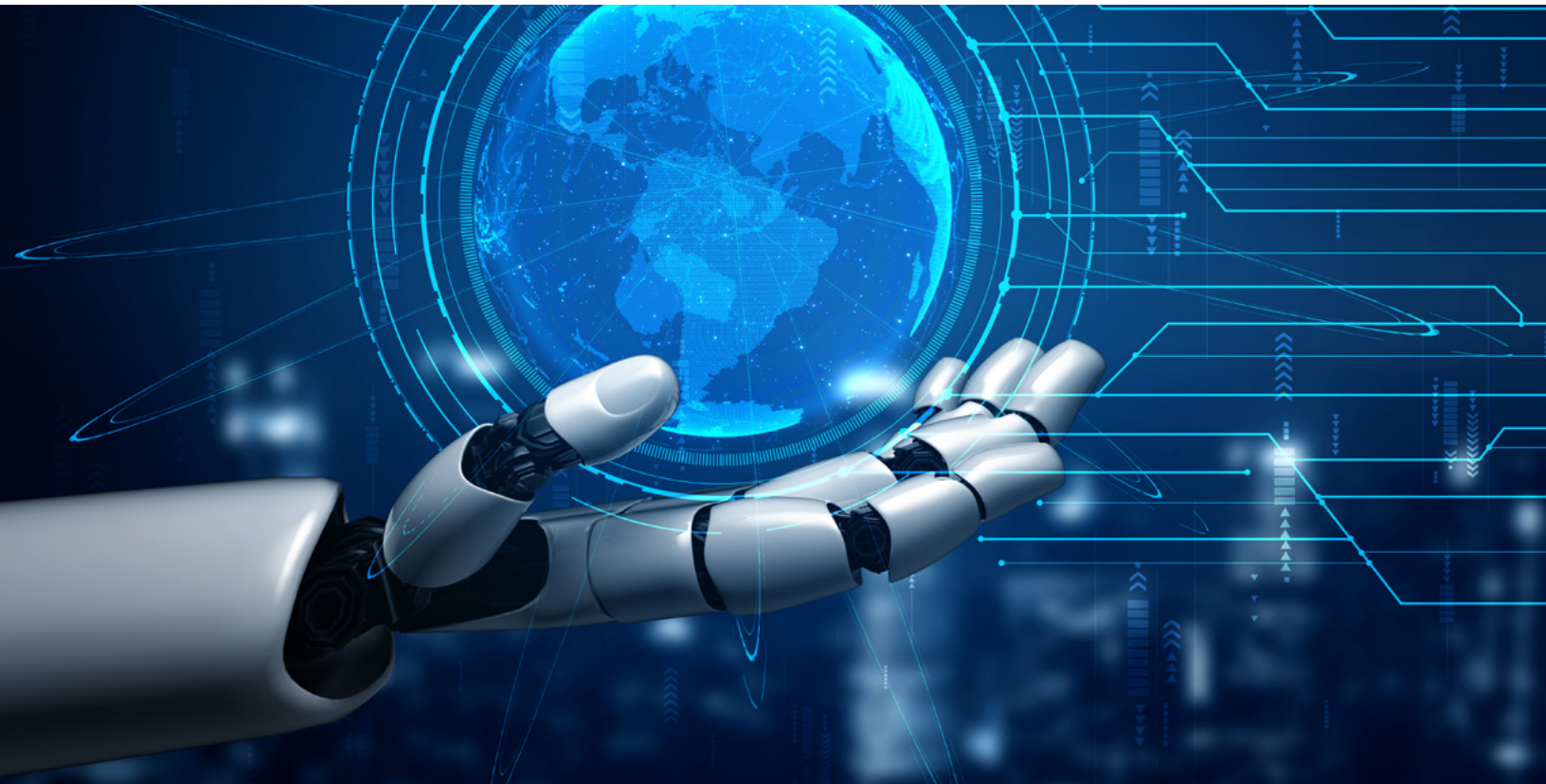
The exponential growth of AI technology is revolutionizing various industries and sectors, expanding its applications and capabilities at an unprecedented pace. Recognizing the potential of AI and embracing its transformative power in the field is essential for accounting and finance leaders to remain competitive in the digital area.

What Is AI?

AI is defined as “the capability of computer systems or algorithms to imitate intelligent human behavior.”¹ It is also defined as a scientific field focusing on developing intelligent machines that “combines computer science and robust datasets, to enable problem-solving.”² Based on its capabilities, AI can be categorized as weak AI, strong AI, and super AI (see Figure 1). The only type of AI that exists today is weak AI, also known as narrow AI, which is designed and trained to perform a particular task. While it can perform its defined task much faster and better than the human brain, it operates under a relatively limited range or context, unable to perform beyond its programmed capabilities. Strong AI, or artificial general intelligence (AGI), and super AI, or artificial superintelligence, remain theoretical concepts, with the former possessing the ability to learn and perform a wide range of tasks that human beings can and the latter surpassing human intelligence in thinking, reasoning, learning, and other cognitive abilities.

FIGURE 1: TYPES OF AI BASED ON CAPABILITIES





Implications for Accounting and Finance

The integration of AI technology in accounting and finance offers significant opportunities for innovation and productivity. It is anticipated that AI will automate numerous accounting processes, including accounts payable and receivable, monthly/quarterly closing, expense processing, procurement, and supplier management.³ AI-powered algorithms also allow accounting and finance professionals to obtain real-time insights through advanced data analytics to inform business decisions, such as identifying trends and optimizing strategies.⁴ As the role of the accounting and finance function is evolving toward a business partner within the organization that increasingly contributes to insight generation and value creation, the strategic integration of AI becomes crucial for driving these new roles and responsibilities, enabling professionals to focus on strategic analysis and decision support rather than routine tasks.⁵

To stay competitive, leaders in the accounting and finance field are also exploring the potential of integrating generative AI into their daily operations for productivity enhancement. A subset of machine learning models, generative AI refers to deep-learning systems that focus on creating new content in the form of text, images, and others.⁶ Companies such as Zoom and Ford have begun adopting AI to predict analysts' inquiries, research competitors, and address internal questions.⁷ While many accounting and finance leaders are in the experimentation phase, there are concerns regarding data security and the reliability of AI technologies.⁸

Applications of AI

We now delve into the realm of AI's application in accounting and finance. The insights and cases presented were derived from the contributions of our research study participants during interviews and roundtable discussions. These individuals have shed light on the transformative impact of AI within the domains of accounting and finance, revealing the innovative solutions and novel approaches that are shaping the future of the profession.

CASE 1 | AI-DRIVEN FINANCIAL TRANSFORMATION

A leading AI company, known for its expertise in intelligent speech, leverages its AI expertise to transform finance through streamlining processes, utilizing optical character recognition (OCR) and exploring cognitive intelligence, thus aiming to revolutionize financial operations.

The company's journey in intelligent finance unfolds in three phases. Given its diverse portfolio-encompassing hardware, government initiatives, business-to-business (B2B) projects, consumer software, and serving sectors such as education, healthcare, public safety, and legal affairs, the company's initial phase centers on standardizing internal processes and accounting methods. The second phase involves consolidating business data within its systems, while the third phase revolves around data mining to uncover AI application opportunities.

Two major applications stand out. The first centers on OCR implementation, employing large models to facilitate a small-sample training platform. This platform automates tasks such as recognizing warehouse receipts, contract details, and order information. The second application involves exploring cognitive intelligence and knowledge engineering to enable machines to autonomously grasp accounting standards, manage bookkeeping responsibilities, and generate management reports tailored to various managerial levels. Effective collaboration between business experts and model training specialists is imperative for the success of these applications.

CASE 2 | STREAMLINING FINANCE OPERATIONS WITH AI

A leading multibrand smart device company has harnessed AI's potential to streamline its financial operations, from billing and auditing to payment, reconciliation, tax management, and reporting.

For example, the company used AI to streamline overseas advertising expenses. Coordinating purchases and reconciliations between countries was cumbersome until intelligent systems automated the process, resulting in significant cost savings. In the realm of intelligent tax management, AI tackled the complexities of tax laws across multiple countries. An integrated AI tax engine identified irregularities, alerting tax and finance managers. With respect to intelligent reporting enabled by AI, it united disparate subsidiary systems, bridging front-end business activities and back-end financial records. This integration allows for daily global sales reporting.

These innovations showcase AI's remarkable potential in reshaping finance, highlighting its capacity to drive efficiency and accuracy. The company's journey serves as a testament to AI's transformative capabilities in shaping the future of the finance function.

CASE 3 | AI-EMPOWERED INVENTORY AND SUPPLY CHAIN MANAGEMENT

The CFO of a large egg producer in North America faced a significant supply chain-related problem at his production facility, which received an enormous volume of eggs daily. Counting and handling such a large quantity manually was challenging and prone to errors. The company was unsure about the exact number of eggs generated, leading to inefficiencies and financial losses.

The CFO believed that even saving a small percentage of eggs could result in substantial cost savings. To tackle this, the company utilized AI to analyze images of the eggs and developed a system that could accurately count them. Through training the AI system with thousands of images, it learned to distinguish eggs and even determine their sizes. As a result, the company identified areas in the production process where losses occurred and took corrective measures. The AI-based solution ultimately helped the company save approximately \$6 million, significantly improving its supply chain efficiency and financial performance.

CASE 4 | AI IN HEALTHCARE FINANCIAL MANAGEMENT

Hospitals face numerous challenges, from balancing public service obligations with financial viability to coping with unpredictable events like the COVID-19 pandemic. Traditional accounting struggles to adapt to these complex scenarios, making AI a critical tool.

As shared by the controller of a large hospital in Asia, hospitals are in dire need of AI-driven solutions for daily operations. Hospitals, much like large conglomerates, consist of numerous departments, each with unique operations. This makes centralized management challenging, with some departments running at a profit while others operate at a loss. In the realm of accounting and finance, two areas are ripe for AI intervention: (1) Comprehensive cost and budget management can greatly benefit from AI's predictive capabilities, and (2) performance management—intricately tied to metrics such as patient volume, surgical procedures, and outpatient services—remains largely manual, with many hospitals still relying on Excel spreadsheets. As the healthcare sector evolves, the integration of AI in financial and management accounting holds tremendous potential to streamline operations and enhance decision making in hospitals.

Preparing for a Future with AI

Preparing for a future with AI is crucial from both an individual and organizational perspective. It is critical for employees to adapt and enhance their skills in an era where AI-driven analytics and decision making are becoming increasingly prevalent. To stay competitive in a rapidly evolving digital landscape, organizations should develop talent strategies focused on upskilling and reskilling their workforce to effectively leverage AI capabilities and maintain a competitive edge in the market.

Will You Be Replaced by AI?

There is no shortage of arguments that AI will replace accountants or take accounting jobs in the near future, although ChatGPT claims that it is “not a threat to accountants.”⁹ While AI is not expected to completely replace human expertise, it will tremendously impact the future of work for professionals in accounting and finance.

According to World Economic Forum’s *Future of Jobs Report 2023*, which investigated the evolution of jobs and skills over the next five years, both the growth and the decline in certain job areas from 2023 to 2027 will be driven by technology adoption and digitalization.¹⁰ According to the report, there is a looming threat to low-skilled accounting and finance jobs by the adoption of advanced technology (e.g., AI) and digital transformation.¹¹ However, the potential creation of new opportunities for accountants and finance professionals by AI technologies should not be underestimated.

Based on insights from our study participants, we predict AI’s capabilities in refining and optimizing operations within the finance function could forge new career trajectories for professionals. Accountants and finance professionals could significantly benefit from AI’s advancements in advanced data analytics, potentially shifting their roles from traditional bookkeeping to those focusing more on the interpretation of complex data patterns and strategic advisement. AI-driven forecasting tools may become instrumental in granting these professionals a more pronounced influence in corporate strategy and business planning. With the growing complexity of regulatory requirements, AI tools can be developed to assist in compliance monitoring, potentially giving rise to new roles for accounting and finance professionals as compliance analysts, utilizing AI to ensure financial operations’ adherence to laws and regulations. Moreover, as AI technology advances in processing extensive data sets, it holds the potential of identifying and forecasting risk with greater accuracy, leading to new roles in risk assessment and management that merge financial expertise with AI proficiency.

To stay relevant and competitive in the AI era, it’s imperative for those in accounting and finance to upskill or reskill themselves in order to assume new roles. As highlighted in the World Economic Forum report, the top 10 skills considered to be of the greatest importance in the next five years are categorized as cognitive skills, self-efficacy, management skills, technology skills, and skills for working with others (see Figure 2).¹² These skills have been identified as crucial for formulating effective reskilling and upskilling strategies to maximize business performance. For those in accounting and finance, enhancing these skills is critical not just for working with AI but also for providing insights that AI alone cannot achieve. As AI automates routine tasks, the focus for professionals shifts toward higher-order thinking, decision making under uncertainty, and strategic planning. This paradigm shift will make continuous learning a fundamental aspect of career advancement for accountants and finance professionals.

FIGURE 2: TOP 10 SKILLS OF WORKERS



Source: World Economic Forum, [Future of Jobs Report 2023](#), May 2023.

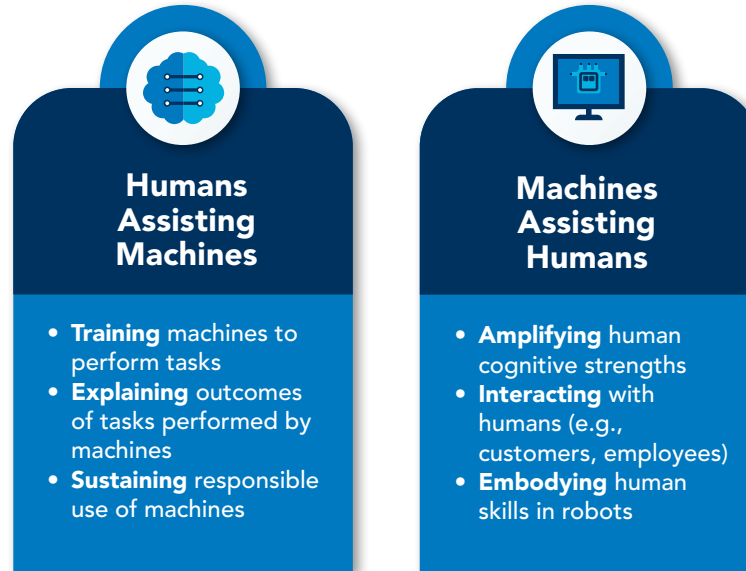
Embracing Changes in the Age of AI

As the significance of AI’s impact on the accounting and finance profession is expected to accelerate in the future, the likely best strategy for accounting and finance professionals is to adapt and embrace the changes with the rise of AI. This applies to the accounting and finance function as a whole, as well as to individuals working inside the accounting and finance function.

Research conducted by IMA and Deloitte indicated that the finance function in many organizations has transformed from a primary accounting and reporting focus to a business partnership role with an emphasis on insight generation, value creation, and decision support in response to business needs in an increasingly competitive environment.¹³ The value of the finance function as a business partner becomes paramount as the organization embarks on the journey of AI adoption. At the strategic level, the finance function should play a significant role in strategy formulation, validation, and execution of organizational AI initiatives. At the same time, the finance function is responsible for the measurement of all aspects of performance throughout the AI implementation process. The accounting and finance function as a value creator will also be manifested in its capability to generate forward-looking insights enabled by AI technologies as well as to focus on optimizing the growth of the entire organization after the adoption of AI.

The fulfillment of elevated business demand of the accounting and finance function in the age of AI cannot be achieved without the transformation taking place inside the accounting and finance team that involves team members at all levels, from the CFO to entry-level staff. Research has shown that, to achieve the most significant long-term productivity gains and performance improvement, humans and machines must work together through so-called “collaborative intelligence” (see Figure 3).¹⁴ To apply the human-machine collaboration framework to the transformation of accounting and finance teams in working with AI, the CFO and other members of the accounting and finance function are inevitably required to develop a range of new skills and knowledge pertaining to technology, data analytics, critical and creative thinking, and collaborating with others (see Figure 4).

FIGURE 3: COLLABORATIVE INTELLIGENCE BETWEEN HUMANS AND MACHINES



Source: James Wilson and Paul R. Daugherty, "Collaborative Intelligence: Humans and AI Are Joining Forces," *Harvard Business Review*, July-August 2018, pp. 114-123.

Adopting technology. To fully leverage the potential AI can bring to empower accounting and finance team members, accounting and finance professionals need to be creative in contemplating the application of AI technologies. This calls for accounting and finance professionals to acquire adequate knowledge of both the strengths and the limitations of the AI algorithms to be adopted. A reasonable understanding of the programming languages used in developing such algorithms can be even more helpful in adopting and implementing AI models. Furthermore, in-depth knowledge of the accounting and finance field as well as the industry and economic environment in which the organization operates is imperative in facilitating decision making around the organization-wide application of AI technologies.

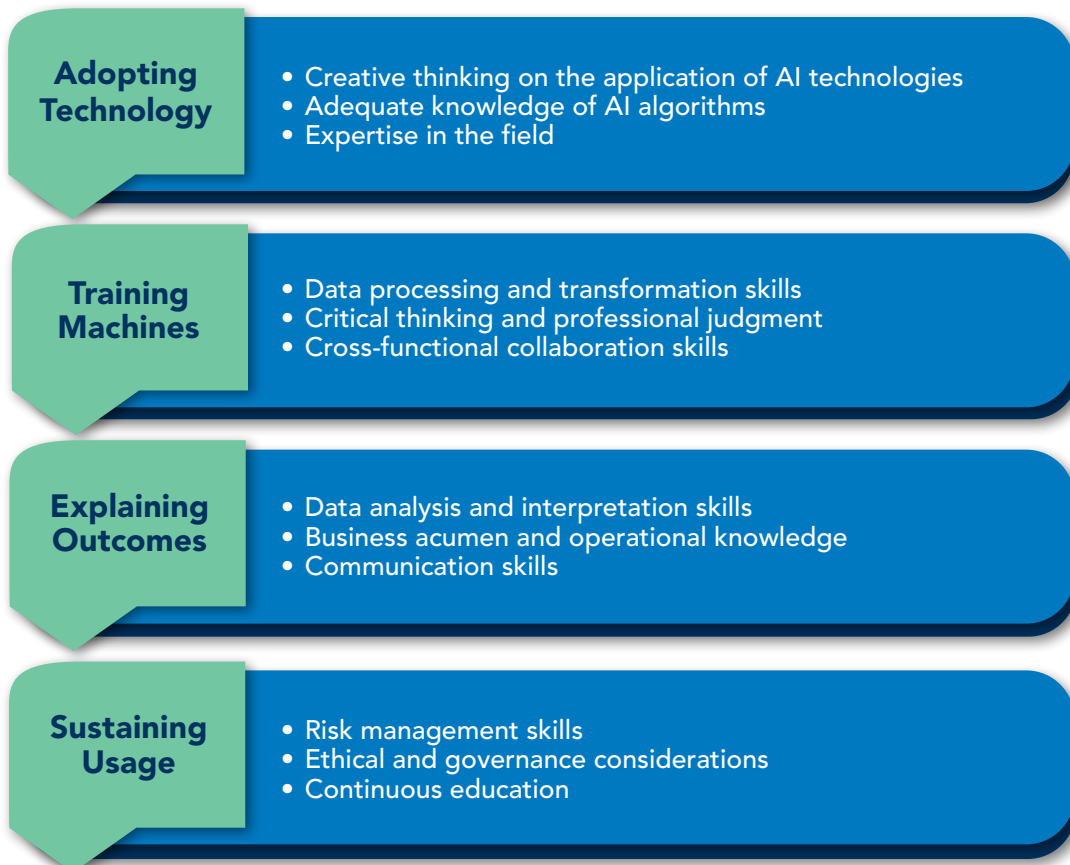
Training machines. AI algorithms must be trained not only to perform designated tasks in accounting and finance, but also on how to interact with accounting and finance professionals efficiently and effectively. Data-related skills, such as processing and transforming raw data, are becoming crucial as accounting and finance team members are trusted with the job of training AI to perform tasks previously handled by humans in the accounting and finance function. There is also no doubt that accountants and finance professionals, as AI trainers, are required to exercise their professional judgment and critically evaluate the training results generated from their AI models. As AI models grow complicated, IT experts and data scientists are likely to be involved in training the algorithms. Thus, the ability to effectively collaborate with cross-functional teams is essential for members of accounting and finance teams in the age of AI.

Explaining outcomes. Aside from a decent understanding of how AI models work, accountants and finance professionals should be proficient in analyzing and interpreting data to efficiently evaluate recommendations generated from AI algorithms. To ensure AI yields meaningful and pertinent

outcomes beneficial to diverse organizational stakeholders, members of accounting and finance teams must possess both business acumen—understanding strategies driving organizational success—and operational knowledge, enabling them to be invaluable partners to functions beyond just accounting and finance. Furthermore, accountants and finance professionals should be able to effectively and concisely communicate insights generated from AI models to organizational leaders and other stakeholders to successfully drive overall growth of the organization.

Sustaining usage. As organizations accelerate the adoption of AI in a wide range of business functions, controls and governance mechanisms ensuring secure and responsible operations of AI systems are becoming increasingly substantial. Accounting and finance team members will need to play crucial roles in identifying and managing AI risks associated with reliability, accuracy, and confidentiality as well as in maintaining strong controls over data security and governance. In addition, members of the accounting and finance function should also be fully aware of ethical concerns when working with AI, including issues pertaining to data bias and privacy violations. More importantly, as AI technologies are constantly evolving at an exponential rate, accounting and finance professionals are required to stay abreast of the most recent developments in AI technologies through continuous education to sustain responsible application and usage of AI in the accounting and finance function and in the entire organization.

FIGURE 4: SKILLS AND KNOWLEDGE REQUIRED FOR HUMAN-MACHINE COLLABORATION IN ACCOUNTING AND FINANCE



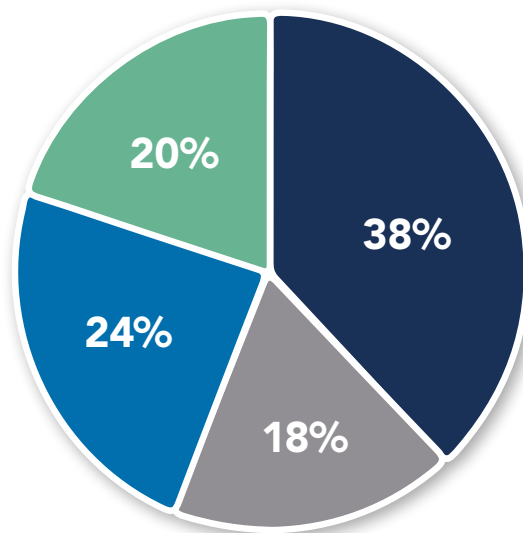
Overcoming Challenges in Working with AI

While the utilization of AI in accounting and finance is potentially beneficial in multiple ways and its growth is expected to continue in the foreseeable future, accountants and finance professionals also face significant challenges in working with AI. As shown in a Deloitte report, challenges reported in the adoption of AI are primarily associated with data management and governance, as well as recruiting the right talent to manage the data value chain.¹⁵ Other studies also document AI-related ethical challenges, risks associated with AI adoption, AI-prompted upskilling requirements, and other topics.¹⁶

Similar views and concerns with respect to the adoption of AI were shared by participants in this study, categorized as (1) the human aspect, (2) the technology and data aspect, (3) the operational aspect, and (4) ethical and governance concerns (see Figure 5). Thirty-eight percent of the participants emphasized challenges related to people—involving all levels of employees within an organization—as the biggest hurdle for the success of AI initiatives. Twenty-four percent highlighted operational and practical challenges such as the requirement for process reengineering and cross-functional collaboration. Challenges associated with data management and technology adoption were reported by 18% of the participants, while 20% expressed concerns about ethical and governance challenges.

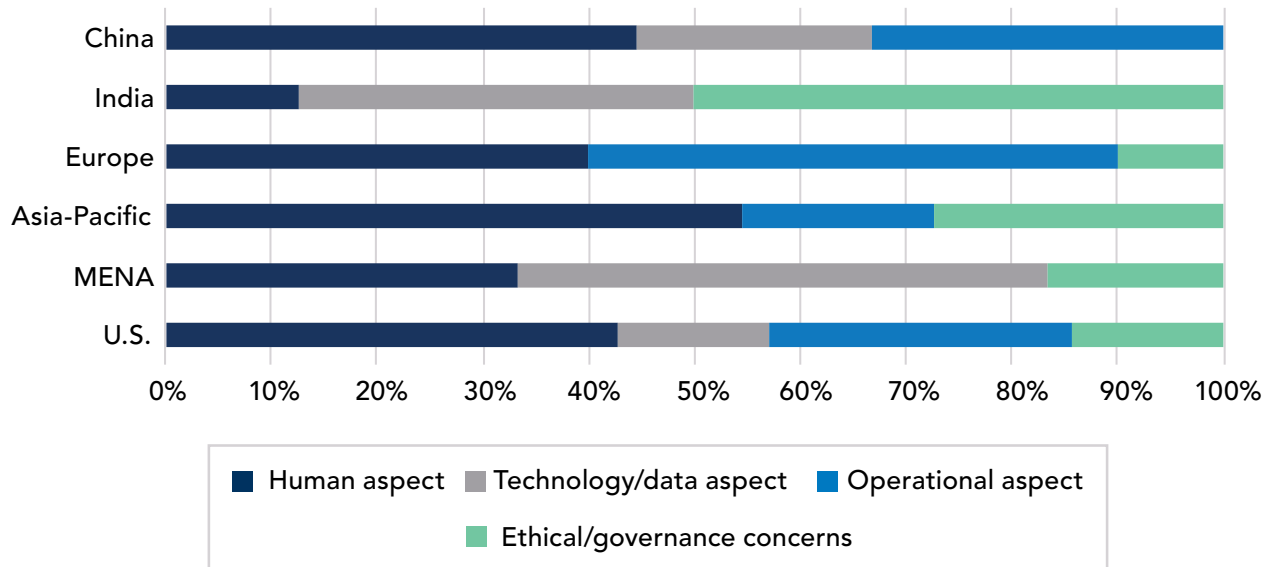
Moreover, our results demonstrate regional variations in the challenges faced by finance and accounting professionals when working with AI (see Figure 6). While the human aspect stands out as the dominating challenge faced by accountants and finance professionals in the United States, the Asia-Pacific region, and China, technology maturity, as well as data availability and quality, is the most significant challenge in the Middle East and North Africa (MENA) region. Similarly, operational challenges represent the largest barrier impeding successful AI implementation in European companies. Finally, study participants in India were most concerned with ethical and governance challenges in working with AI.

FIGURE 5: CHALLENGES IN WORKING WITH AI



- Human aspect
- Technology/data aspect
- Operational aspect
- Ethical/governance concerns

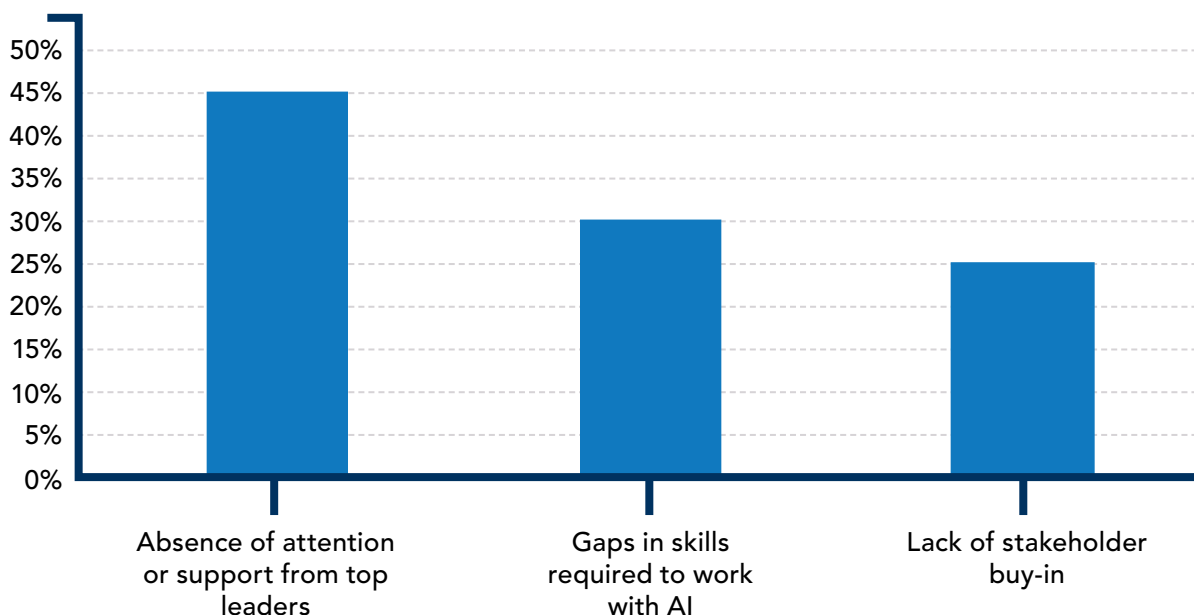
FIGURE 6: CHALLENGES IN WORKING WITH AI BY REGION



Human Aspect

According to our study participants, the barriers associated with the human aspect of AI adoption and implementation come chiefly from the top (see Figure 7). Those challenges include a lack of clear AI strategy that aligns with overall organizational objectives, insufficient attention and support from executive leaders along the AI journey, and failure to determine priorities and reallocate organizational resources to ensure a successful AI transformation. Thus, tone at the top undoubtedly plays a crucial role in the success of AI initiatives.

FIGURE 7: HUMAN-RELATED CHALLENGES IN WORKING WITH AI



One-third of participants who highlighted the human aspect of challenges in working with AI were also aware of the skills gap in the current workforce in the finance and accounting profession. A lack of analytical skills in dealing with data necessary for AI implementation and skills in interpreting results generated by AI for accounting and finance professionals was reported across regions. Lastly, the absence of stakeholder buy-in as a challenge to AI adoption was recognized by many study participants across regions, resulting in strong resistance to the adoption of AI from senior and mid-level management due to the fear of losing control to AI as well as from lower-level staff because of the anxiety of being replaced by AI.

“Change management [during AI implementation] is much harder than the technology adoption itself, i.e., making people use the technology and getting buy-in of using the technology.... The resistance for change can be at all levels of the organization.”

—CFO of a company in the fast-moving consumer goods (FMCG) industry in Egypt

“I think the barrier is mainly the people aspect [with respect to top leaders].... Do we truly want to have a data-driven company or not? Are we really willing to do the things it takes to get there? Are we willing to give up the biases we have and the control of telling the story we think is right to find out what’s really happening? I think these questions are scary to people, which explains why the [technology] transformations will take a lot longer than they need to.”

—CFO of a food manufacturer in the U.S.

“I think the most challenging thing I had to face was getting the buy-in from the different stakeholders of any new AI solutions that we would like to implement, specifically the ultimate users of those new solutions.”

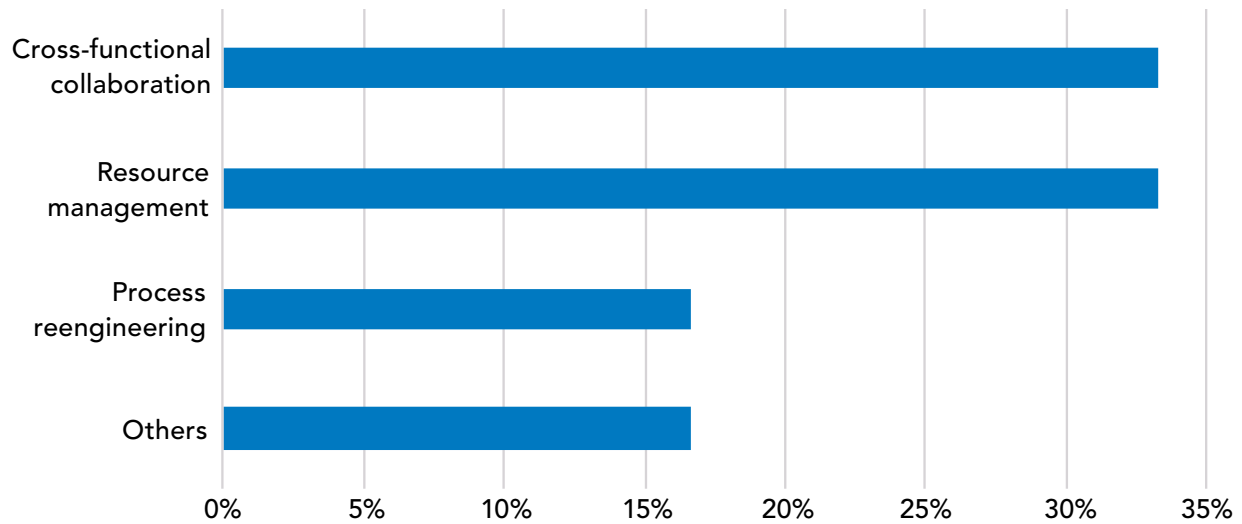
—portfolio management consultant in South Korea

Operational Aspect

Among the study participants who emphasized the operational challenges of working with AI, 33% reported that these challenges lie in cross-functional collaboration, which requires accountants and finance professionals to work with, for instance, data scientists, IT staff, operations, and other departments along the digitization journey (see Figure 8). For instance, while accounting and finance professionals could help ensure that the models are based on real-world data and provide realistic outcomes, in turn ensuring that data scientists implement actionable models, data scientists would augment professionals’ business knowledge with the technological expertise to build out new AI solutions. One-third of those participants also pointed out the significance of resource management, since a lack of resources needed for AI implementation and inadequate team management and project management skills impede the potential transformation AI technologies can bring.

Other participants reported challenges with respect to the requirement of process reengineering not only within the finance function but also across functions within the organization necessitated by AI adoption. Finally, participants shared other AI-related operational concerns such as difficulties in scaling up the benefits of AI adoption and the applicability, and subsequently the feasibility in adoption, of AI technologies to small and medium-size companies.

FIGURE 8: OPERATIONAL CHALLENGES IN IMPLEMENTING AI



“The newly implemented [AI] system is like a small child. You will have to train it. And that kind of training requires great business insights, which then requires an interdisciplinary team to implement it. The team will encompass accountants, data scientists, machine learning engineers, IT staff, and others.”
 —director of a consulting firm in Germany

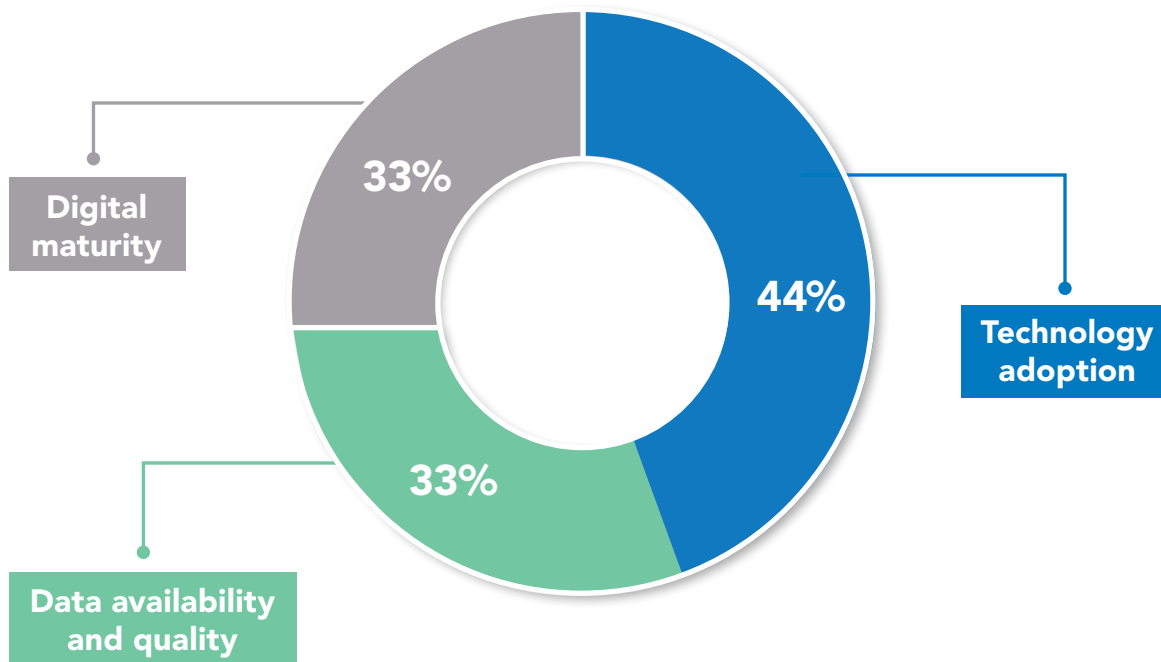
“[AI] is not for small, medium-size companies, probably in most cases because of the existing costs. And, on top of that, you will need to have the collaboration with IT to transform the existing system setup to support the [AI] adoption. You will also need to rescale finance and accounting people to be able to work with this new system. All these are very challenging for small and medium-size companies.”
 —director of a consulting firm in Denmark

Technology and Data Aspect

While 33% of those participants who identified challenges in the technology and data aspect called out data availability and quality as the barrier to AI adoption, 44% focused on the challenges associated with the technology itself (see Figure 9). Study participants in China shared concerns about the extent to which accountants and finance professionals can fully leverage the advantages of AI technologies and integrate AI in management accounting processes due to intrinsic limitations embedded in the current state of certain AI technologies. For instance, AI platforms adopted by some Chinese companies are inflexible in customizing internal reports according to user demand. Some customizations can take as long as a few months to fully adapt.

The rest of the participants citing technology challenges reported digital immaturity as the main obstacle to embarking on the AI journey. As one participant from the Middle East shared, since their company is at the early stage of digital transformation (e.g., data visualization), adoption of advanced technologies, such as AI, will not be realized in the near future.

FIGURE 9: TECHNOLOGY AND DATA CHALLENGES



“ In terms of our digital journey, we’ve just begun the automation phase as well as data visualization. So, RPA [robotic process automation] is just coming to us in our part of the world, and we’ve not yet embarked on the AI journey. We are excited about it, but there’s a lot to learn.”

—CFO and head of corporate planning and control of an electronics manufacturer in the United Arab Emirates

“ The quality of data has been a major hurdle.... How to bring the [unstructured] historical data from various sources into the AI system to do trend analysis, profitability analysis, or revenue analysis is challenging.”

—director of an IT consulting firm in India

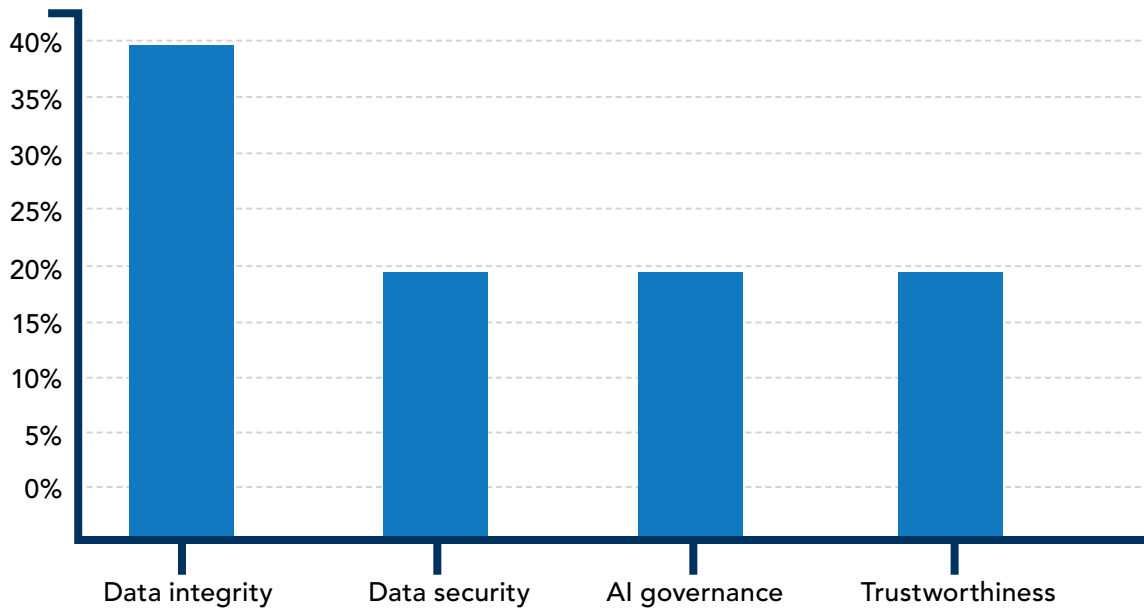
Ethical and Governance Concerns

Forty percent of participants who expressed ethical and governance concerns in working with AI stressed the importance of data integrity to mitigate risks induced by potential biases in data. One of the participants in the U.S. whose company adopted AI technologies to monitor the movement of products along the supply chain fed the AI system with training data that are representative of the entire population of products in order to avoid bias and increase accuracy in tracking products through AI.

Moreover, 20% of these participants highlighted the significance of data security, including safeguarding data and maintaining data confidentiality, especially the protection of personal information (see Figure 10). A participant from the Asia-Pacific region also shared that AI governance is

becoming increasingly vital, prompting governments in the region, such as the Japanese government, to start the discussion about how the public sector and the private sector should govern the usage of AI. Finally, about one-fifth of participants focusing on the ethical concerns of AI cited the problems associated with trust. The lack of trust in AI technologies is particularly prominent when there is insufficient education and knowledge about what AI can achieve in accounting and finance and how it will transform the work of accountants and finance professionals if adopted.

FIGURE 10: ETHICAL AND GOVERNANCE CONCERNS



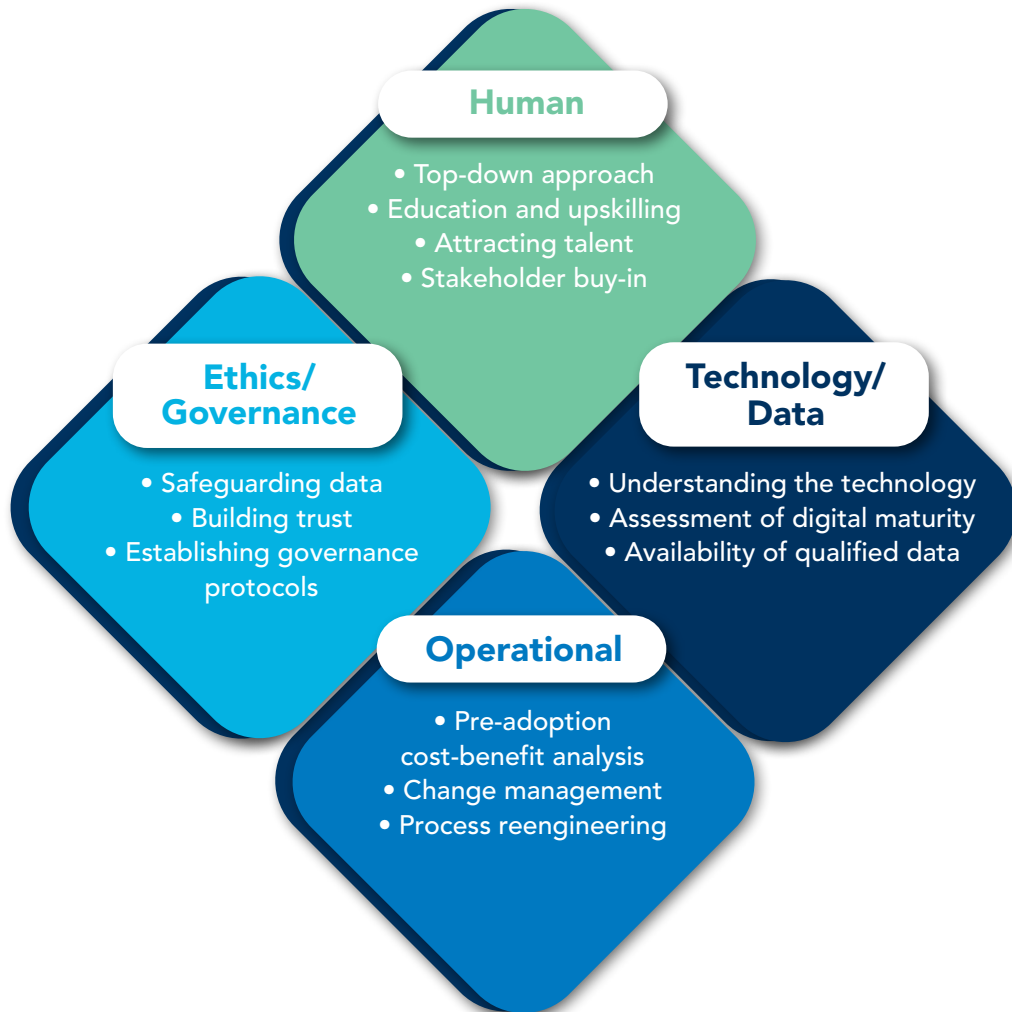
“The barrier is that, if people don’t know what the AI system has done and how the results are created, they don’t have trust in the system or the results.”
 —*professor of controlling, accounting, and finance management in Germany*

“Understanding how the AI implementation would impact the compliance and reputational side of the risk is very important as we try to integrate a lot of things into AI, including maintaining the confidentiality and integrity of the data we use in AI.”
 —*president of a financial services company in India*

Prerequisites of Successful AI Implementation

How does a company overcome the challenges identified by professionals in accounting and finance? What are the prerequisites for the successful adoption of AI in the finance and accounting function? Study participants from all regions shared their perspectives on these questions (see Figure 11 and the following quotes).

FIGURE 11: PREREQUISITES OF SUCCESSFUL AI IMPLEMENTATION



HUMAN ASPECT

“ One of the key things [for AI initiatives] is that it has to be top-driven. It cannot be bottom-up. The top leaders and the board must show that they are serious about it. Without that seriousness and push from the top, it will not move forward at all.”

—director of a consulting firm in Singapore

“ Before we embark on the journey of AI, every staff member needs to feel safe—being in a safe environment and feeling safe that their jobs are not going to be impacted. In fact, they will need to upskill so as to be able to reconcile to the objectives and vision of the company after the adoption. The upskilling can be achieved through a staff education program coupled with other tools.”

—president of a financial services company in India

“ The executives have to understand what they’re doing when they take on these [AI] initiatives. It has to go down to the smallest molecule, and everything has to be in line. All of the data points have to be defined, and the whole business model has to exist. Where there are assumptions, they have to be scrutinized or measured correctly.”

—director of a technology company in the U.S.

OPERATIONAL ASPECT

“ I think the No. 1 prerequisite for AI implementation is time savings. For example, if it costs \$200,000 to develop the platform, the answer is probably no unless it will save at least 2,000 hours in the future. So, it is a weighing between time savings and investment for such decisions.”

—director of a technology company in the U.S.

“ The guiding principle in terms of what gets developed and what doesn’t is focusing on the areas that are most problematic for you or the most painful or cumbersome in your day-to-day jobs. Those are the areas you really should tackle because they are painful for a reason, and there are definitely tools out there that can help you.”

—CFO of a manufacturer in the food industry in the U.S.

“ Accounting and finance professionals need to play an active role in project management [for AI adoption], covering the whole process of project initiation, R&D [research and development], testing, and the final launch.... Management accountants should get involved in tackling many issues encountered during the process of the project.”

—CFO of a technology company in China

TECHNOLOGY AND DATA ASPECT

“ Before the implementation [of AI], we need to understand clearly to what extent these technologies can be used in the accounting and finance function.... Accountants and finance professionals need to consider three elements for AI adoption: data, technology, and scenarios. What kind of data are needed? What type of technology can be adopted? Under what scenarios will such data and technology be useful?”

—associate professor of accounting in China

ETHICAL AND GOVERNANCE CONCERNS

“ One main driver of the successful implementation of AI is transparency about how suggestions are created in the AI system and what is the algorithm behind it. This is similar to how human beings build trust in a working relationship through frequent interactions and better understanding of each other.”

—professor of controlling, accounting, and finance management in Germany

“ Regarding data protection, defining the data uses and labeling enforcement as a process across the value chain would be important in defining how the data gets consumed.... There need to be methods in which system audits can be conducted and interventions when those methods are broken. Defining that as a standard operating procedure and enabling it as part of the [governance] process would be important.”

—director of an IT consulting firm in India

CONCLUSION

The impact of AI on accounting and finance is transforming the profession on a global scale. The adoption of AI technologies is revolutionizing financial reporting, enabling automation, efficiency, and improved decision-making processes. As the accounting and finance function evolves, moving from mere accounting to a strategic business partnership role, its significance in AI-driven strategy formulation and performance measurement becomes paramount. This shift brings new opportunities for accounting and finance professionals, requiring them to upskill and reskill in cognitive and technological abilities. To work with AI, professionals in the finance function need to understand AI's strengths, effectively train AI models, interpret AI-generated insights, and manage risks associated with AI applications.

Accounting and finance professionals can also be instrumental in formulating, validating, and advocating for various business use cases of AI implementation across different organizational departments. While many companies might adopt a reactive approach to these technologies, professionals in the accounting and finance function could assist by highlighting AI's value creation capabilities and fostering a sense of urgency to gain a competitive advantage. As AI continues to advance, it is crucial for finance and accounting professionals to navigate the ethical considerations and risks associated with its implementation. By embracing ethical AI practices, organizations can ensure fairness, nondiscrimination, privacy, accountability, and transparency in their AI systems. Ongoing research on AI and ethics will further contribute to shaping a future where AI technologies are harnessed responsibly and ethically in the accounting and finance domain, ultimately benefiting organizations and society as a whole. •

ENDNOTES

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