

The Digital Workforce:
Powering Business Transformation

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Introduction

In a world where technology is rapidly changing, organizations in many countries have adopted "Digital workforce" or software-based agents that can perform tasks automatically to improve efficiency and reduce operational costs. Although digital workforce cannot completely replace humans, it can serve as an "assistant" that enhances the work capabilities of employees within organizations, particularly by taking over repetitive, routine tasks that do not require a high level of skill. This then frees up time for staff to engage in more creative and higher-value work, such as carrying out in-depth analysis or engaging in strategic planning.

Although this technology has high potential, the digital workforce has not yet been fully implemented in Thailand. Therefore, implementing this technology effectively and developing the workforce to support it poses a significant challenge for all organizations.



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Getting to know the digital workforce

What is digital workforce?

"Digital Workforce" refers to a software-based workforce that possesses diverse skills and can act as an assistant to humans or as a "virtual workforce" that performs tasks within an organization under human supervision. When considered from a business or technical standpoint, the digital workforce[1/] is characterized by its ability to: (i) automatically complete assigned tasks from start to finish (i.e., the provision of 'end-to-end automation'); (ii) communicate with human staff using natural language; (iii) operate across different systems and programs (i.e., its interoperability), which reduces problems connected to the siloing of the workforce; and (iv) collate and utilize data gathered from across the enterprise.

The key technologies behind digital the digital workforce

1) **Artificial Intelligence (AI):** AI systems are having a revolutionary impact on business and daily life, and these provide the means by which digital workforce is able to learn from their experiences, develop more efficient working practices, and communicate effectively with their human colleagues. In particular, deep learning,[2/] computer vision, natural language processing (NLP), and generative AI all have a role to play in supporting the operations of the digital workforce. The close connection between the digital workforce and AI means that the development of the former is closely linked to the evolution of the latter. Currently, the use of auto-GPT or agentic AI is increasing, which is important since this offers the possibility of allowing digital workforce to undertake comprehensive work tasks in place of human staff. This can extend from planning through determining the optimum means for achieving a task to managing the resources necessary for this. This therefore obviates the need for human input and instructions at each stage of the task that is to be completed.

2) **Automation:** Automation significantly enhance work efficiency, especially with Robotic Process Automation (RPA), which involves developing robotic software to automatically perform repetitive tasks on computer systems.[3/] Moreover, when these are linked to creative, expert AI systems, this allows for the creation of 'intelligent automation' that provides close-to-human levels of ability, and in the future, this will likely revolutionize work and employment.

1/ For example, see What is a digital worker? | IBM, Here's how digital workers benefit businesses and employees | World Economic Forum (weforum.org), https://research.aimultiple.com/digital-workers-use-cases/

2/ Deep learning is a technique within the broader field of AI that mimics how neural networks function in the human brain. This allows computers or computerized systems to learn, evaluate and make decisions based on their training data.

3/ For details on RPA and its application within the finance and banking industry, see Tech Trends in the Banking Sector in 2023 (krungsri.com)

What can the digital workforce do?

Digital workforces will have an increasing role to play as society ages and new entrants to the workforce express different preferences about where they work, which will then add to problems with labor shortages in some industries. Digital workforces will in particular find a place in completing tasks that are not complicated but that are time-consuming, and this will then allow human staff to devote themselves to work that requires greater creativity and that has greater strategic impact on the business. Areas where this might be seen and so where digital workforce might begin to displace humans will include managing sales data, from collating and analyzing the data to responding to queries and helping staff to explore the data in greater detail, and recruitment, where digital workforces will be able to draft job descriptions, search online recruitment platforms for suitable applicants, contact these via email, and present applicants' personal data in an easily accessible form (e.g., in a spreadsheet.)

Figure 1

Key Features of the Digital Workforce



Robust:
Always available



Fast:
Perform tasks faster than people



Accurate:
Perform tasks with fewer errors and fewer reworks



Smart:
Capable of learning and handling complex situations



Scalable:
Deployed whenever and wherever needed



Adaptable:
Support a wide range of scenarios and use cases

Source: SS&C Blue Prism, Krungsri Research

Box 1 Work-assisting technologies

Bots, chatbots, and digital workforces have all contributed to the digital transformation of the workplace. However, each of these has its own particular characteristics, and each is deployed in its own way. Details of these are given in Table 1 below

Table 1

Work-assisting technology

	Bot	Chatbot	Digital workforce
Definition	Bots refer to software or an application designed to perform specific tasks, such as predefined tasks or repetitive tasks. RPAs are one type of bot that is very widely used.	Chatbots use AI (in particular natural language processing) to allow programs to communicate with human users through e.g., a website, email, or a messaging app.	Digital workforce is virtual staff that is able to complete some tasks much as a human worker would. This involves marrying AI and automation technologies, and the result is that digital workforce can understand human instructions and then complete complex tasks.
Areas of expertise/primary uses	The use of bots helps to reduce human error, resulting in faster and more accurate work processes.	Chatbots are able to use natural language with human interlocuters, and then to adapt the type of language that they use according to the particular context.	Digital workforce can complete work tasks from start to finish, much as human workers can.
Example use-cases	Data entry or completing other similar, straightforward tasks.	Responding to queries or interacting with customers 24/7.	Recruitment and invoicing.

Source: IBM, Krungsri Research

The comparison of work technologies given above shows that **digital workforce can function as virtual members of staff that can complete assigned work under human supervision.** In addition, these can also cover all the areas where bots and chatbots operate, in addition to being able to complete a much wider range of tasks. Digital workforce can thus be considered more advanced than bots and chatbots, and indeed, in some areas, these capabilities approach those of humans.

The digital workforce has a number of qualities that enterprises will be keen to take advantage of, including the ability to work constantly without tiring, to carry out repetitive tasks without burning out, and to adhere strictly to enterprise policies. Given this, having access to a digital workforce will become an increasingly valuable asset in the modern business environment.

The development of the digital workforce

Currently, technology companies are increasingly interested in developing digital labor services to meet customer demands. At this initial stage, this is focused in particular on enterprise customers, and so the world-leading tech player IBM has released its "Watsonx Orchestrate" solution. This uses GenAI[4/] and automation technologies to allow enterprise clients to customize their digital workforce according to their particular needs, for example by developing applications suitable for work in human resources, sales, or procurement.[5/]

Beyond the big tech companies, tech startups are also beginning to explore the opportunities that are opening up within this market. For example, the US-based Artisan AI[6/] has developed the digital workforce 'AVA', which can work alongside human staff in sales and marketing roles to complete tasks such as organizing meetings, analyzing data, developing marketing campaigns, composing hyper-personalized emails and sending these to customers,[7/] and participating in meetings or providing additional details by phone. This then frees up staff to work on tasks that require more creativity or more in-depth knowledge.[8/]

Figure 2

Typical Sales Tasks Completed by the Digital Workforce AVA



Source: Artisan

4/ https://www.krungsri.com/th/research/research-intelligence/generative-ai-2023

5/ For more details, please see IBM watsonx Orchestrate

6/ Artisans is a startup established in 2023. The founders had previously worked in major tech companies including Meta and IBM. For more details, please see: Artisan | About

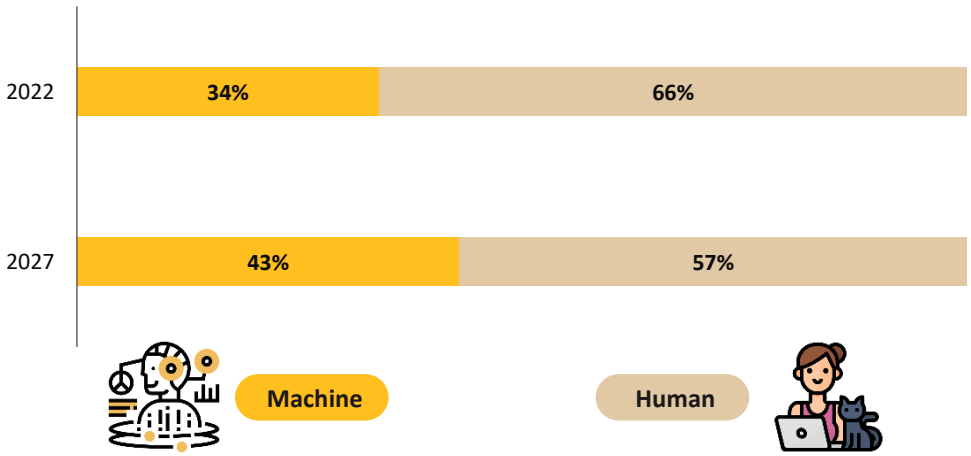
7/ Take Your Outbound to the Next Level With Our Sales AI Platform (artisan.co)

8/ https://www.bbc.com/worklife/article/20231128-ai-powered-digital-colleagues-are-here-some-safe-jobs-could-be-vulnerable

Although there are currently no direct studies on the economic impact of digital labor, if we consider the economic value of AI and automation, which are the key technologies behind digital labor, it is found that AI and automation cloud generate USD 15.7 trillion[9/] and USD 15 trillion[10/] in value, respectively, by 2030. Trends towards replacing human workers with automated systems are also gathering pace, and the World Economic Forum estimates that by 2022, 34% of all work tasks could be fully completed by automated machines, with this rising to 43% by 2027.

Figure 3

Share of Work Tasks that can be Completed by Machines, 2022 and 2027



Source: World Economic, Krungsri Research

9/ PwC's Global Artificial Intelligence Study | PwC

10/ Responsible Automation: How CEOs Successfully Implement It (gartner.com)

Impacts of the digital workforce on enterprises

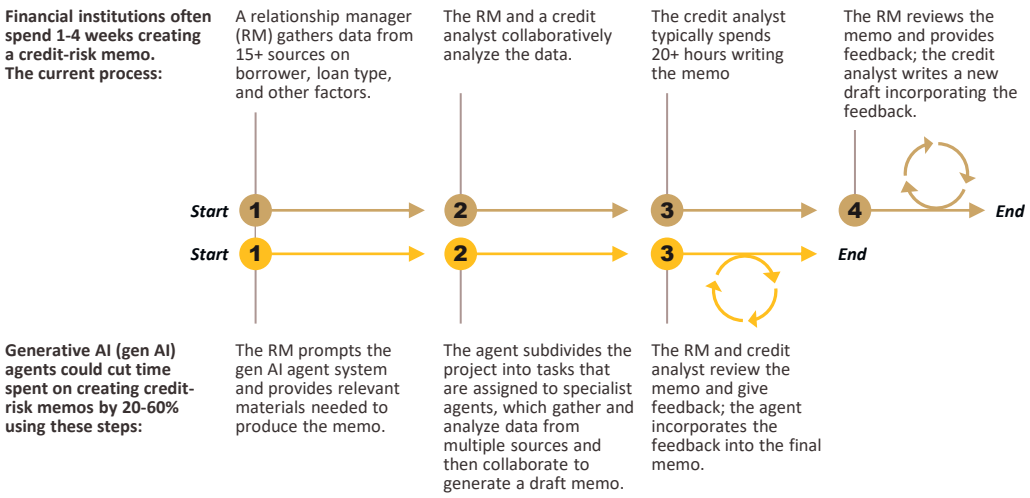
Benefits

1. Productivity gains

Because digital workforce can work very rapidly without tiring, tasks may be completed much quicker and this then raises productivity. McKinsey thus estimates that if financial institutions use agent AI to instruct other AI systems, each specializing in specific areas, to collaborate, it will enhance the accuracy of credit analysis and reduce the time required to prepare credit risk memos by 20-60%.[11/]

Figure 4

Regular vs Agent AI-enabled Credit Analysis



Source: McKinsey

2. Reduced overheads

Digital workforces help reduce costs through more efficient processes and fewer errors, and so work by Deloitte shows that intelligent automation can slash business process costs by an average of 25-40%.[12/] Digital workforces are also able to cut the error rate by some 25% in anti-money laundering operations relative to human workers,[13/] help institute savings related to spending on recruitment and hiring, and reduce the hidden costs associated with new staff acquiring the experience required to complete their tasks effectively.

11/ Why agents are the next frontier of generative AI | McKinsey

12/ https://www2.deloitte.com/content/dam/Deloitte/us/Documents/technology-media-telecommunications/blue-prism-white-paper-final.pdf

13/ Examples of how digital workers are being used in the banking industry can be seen in the case studies described in Digital Workers Are Toiling Away At A Bank Near You (forbes.com)

3. Improved customer experience

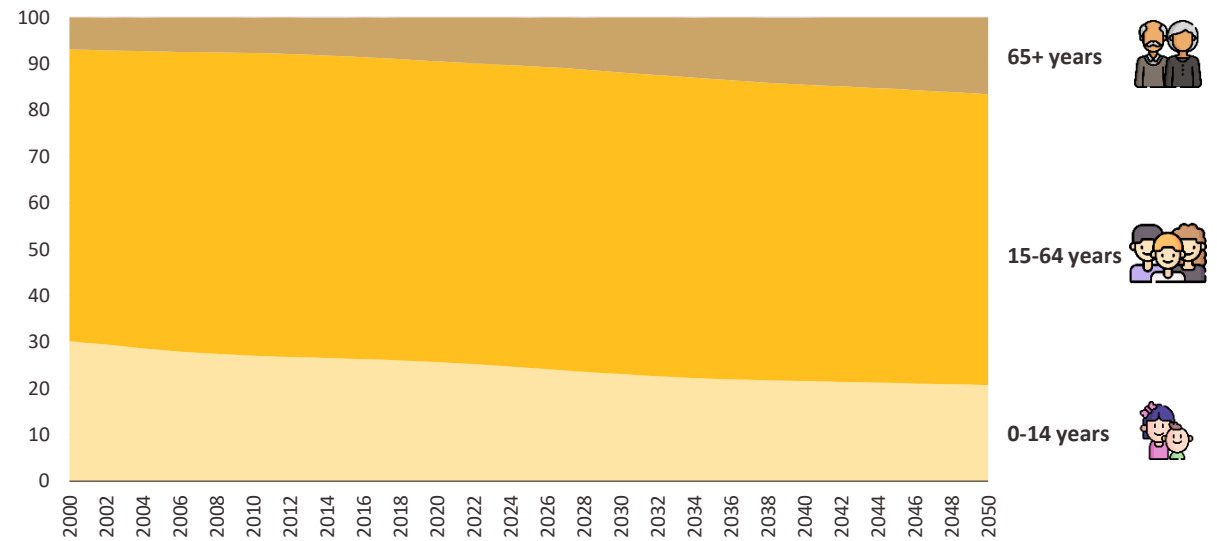
Companies can use digital workforces to undertake repetitive work and then assign the human staff who had been doing this to tasks in areas where humans have a distinct advantage over machines, for example when coordinating activities or working in customer service, where a human touch is needed and emotional intelligence is at a premium. This will then improve the customer experience, deepen customer satisfaction, and reduce the number of complaints, with the result that the company will enjoy a better public image and staff welfare will be improved.

4. Reduce problems related to labor shortages

The proportion of the working-age population (aged 15-64) worldwide has been steadily declining (Figure 6), and a 2023 survey by ManpowerGroup found that over 75% of employers faced talent shortages despite having vacant positions available.[14/] This problem is only expected to worsen in the future, but clearly, the use of digital workforces has the potential to go a long way towards resolving some of these issues, and by taking on some of the duties handled by human staff, digital workforces will be able to bring greater balance to working environments and reduce staff turnover resulting from work-related stress or excessive workloads. The use of digital workforce also has the potential to attract new entrants to the workforce since these are more likely to be interested in using these kinds of technology.[15/]

Figure 5

Global Demographics (% age)



Source: World Economic, Krungsri Research

14/ From a survey of more than 40,000 employers in 41 countries. For more details, please see: : Talent Shortage (manpowergroup.com)

15/ 94% of Gen Z individuals believe that it is important to learn about an employer's technological grounding during the onboarding process. For more details, please see: https://www.marketingoops.com/digital-life/it-company-gen-z-insight/

Challenges

Although the development of the digital workforce will help to drive business growth, companies that attempt to take advantage of these possibilities will nevertheless have to overcome a number of challenges.

- **Building collaboration between departments**

Developing and deploying digital workforces requires the collaboration and coordination of many parts of the enterprise, including departments working in areas related to IT, business process management, human resources, and the actual area where the digital workforces will be employed. All relevant departments will need to help with identifying the work tasks that are suitable for automation, supplying and utilizing the requisite training data, and developing the skills of the human staff who will work alongside their digital colleagues. Moreover, if there are any problems with communication or cooperation within the enterprise, there is a risk that deploying the digital workforce will not be a success.

- **Communicating clearly with employees about how digital workforces will be used**

Although digital workforces can perform tasks similar to humans, it may not fully understand human needs. Therefore, human employees still play a crucial role in organizations. Unfortunately, if a company is unclear in what its intentions are and how it plans to use digital workforce, this can lead to misunderstanding and amplify worries among staff that they will be displaced by their digital colleagues, which may in turn add to unnecessary staff wastage.

- **High upfront costs**

Deploying digital workforce requires considerable up-front investment in both the technological infrastructure and the skilled staff (e.g., data scientists and software analysts) needed to support their development. Additional spending will also be required to train staff in how to work with digital assistants, and the combined impacts of these on budgets will be a major headwind that companies will need to overcome. Indeed, Gartner estimates that 30% of current corporate AI projects will be terminated by the end of 2025 and that budget constraints will be an important factor motivating these decisions[16/]

16/ Gartner Predicts 30% of Generative AI Projects Will Be Abandoned After Proof of Concept By End of 2025



Impacts of the digital workforce on employees

Changing roles and the emergence of new professions due to the digital workforce

Employee attitudes toward the digital workforce may vary depending on their job characteristics and roles within the organization. Staff currently engaged in repetitive, routine and unskilled work (e.g., data entry, document management, and responding to customer queries) will face a high risk of being replaced by digital workforce,[17/] with the WEF seeing bank tellers, postal service staff, cashiers and ticket staff, and data entry staff most exposed to the risk of redundancy.[18/] By contrast, the accelerating use of digital workforce will support greater demand for staff with skills in digital and technology, such as AI and machine learning experts, business intelligence analysts, data security experts, and fintech engineers, demand for which should see rapid growth by 2027.[19/]

Employee adaptation to working alongside the digital workforce

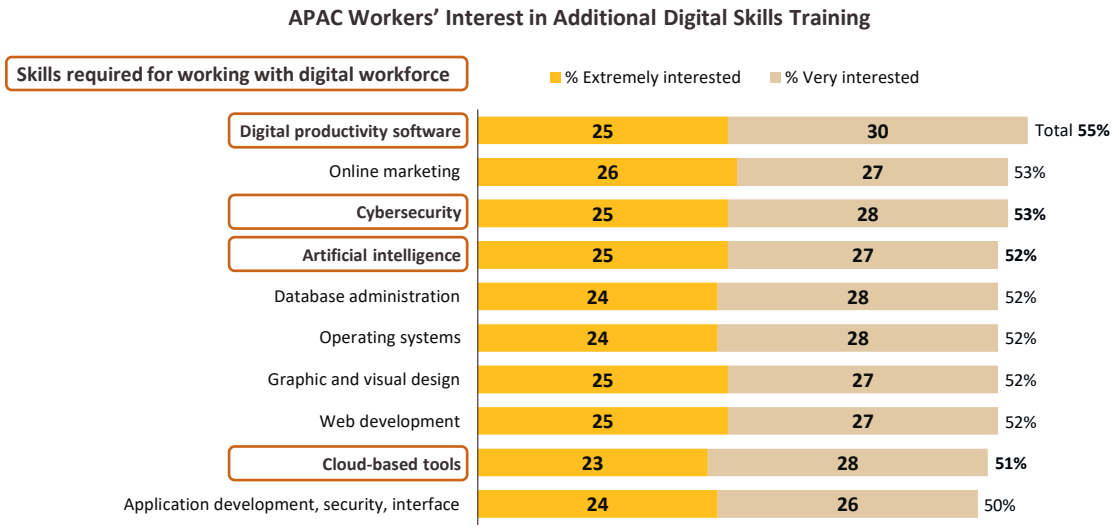
Employees need to develop digital skills to drive the organization forward alongside the digital workforce. A 2023 survey by Gallup and AWS shows that in the Asia-Pacific region, employees are most in need of training in the use of digital productivity software[20/] such as Tableau and Power BI, which can be used to analyze data collected by digital workforce and then to present this in an easily understood form. In addition, skills related to the effective use of AI, for example prompt engineering, will also need to be developed as the deployment of the digital workforce accelerates. Within the enterprise, the human resources department will be able to use the list of ten most sought-after skills (Figure 6) to develop employee training programs, while staff working in departments heavily impacted by the development of the digital workforce, most notably business process management and innovation, will need to adapt to these changes by working hard to develop skills related to RPA and AI. For example, to prepare for the entry of digital workforce into their businesses, Softbank[21/] is training its staff in RPA and AI, while over 2024 to 2028, AWS[22/] will be training its Singaporean employees in the use of AI and cloud technology. **It can be seen that to work with digital workforce, employees will need to develop their skills in areas such as digital productivity software, AI, cloud technology, and cyber security, which in the latter case will help to prevent data leaks and protect against cyberattacks.**

17/ The Impact of Digital Transformation on Jobs and the Workforce (goingdigital.in)
18/ WEF_Future_of_Jobs_2023.pdf (weforum.org)
19/ Ibid
20/ The Amazon Web Services-Gallup Asia Pacific Digital Skills Study
21/ case-study-softbank_en.pdf (automationanywhere.com)
22/ AWS to invest additional $9B in Singapore cloud infrastructure by 2028 - TNGlobal (technode.global)

Given these changes in demand within the labor market, individuals with the relevant digital skills will benefit from a wage premium of up to 65% (Figure 7), adding to the incentives pushing staff to upskill and expand their capabilities.

Figure 6

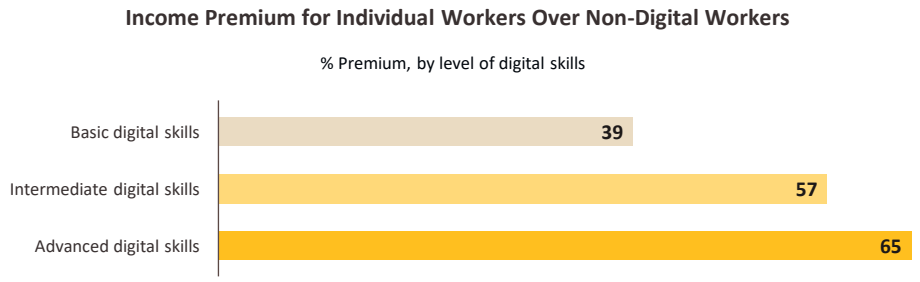
10 Skills Most Desired by Employees in the Asia-Pacific Region



Source: Gallup and Amazon Web Services (2023)

Figure 7

Wage Premium for Staff with Digital Skills



Source: Gallup and Amazon Web Services (2023)

In addition to digital skills, it will also be necessary to develop the human skills that digital workforce is unable to replicate. This will include abilities in areas such as creativity, communication, human relations, decision making, and the emotional intelligence required for effective teamwork. Developing these skills will enhance employees' strengths and increase their value to employers looking for staff who are able to undertake the high-quality work required in the digital age.

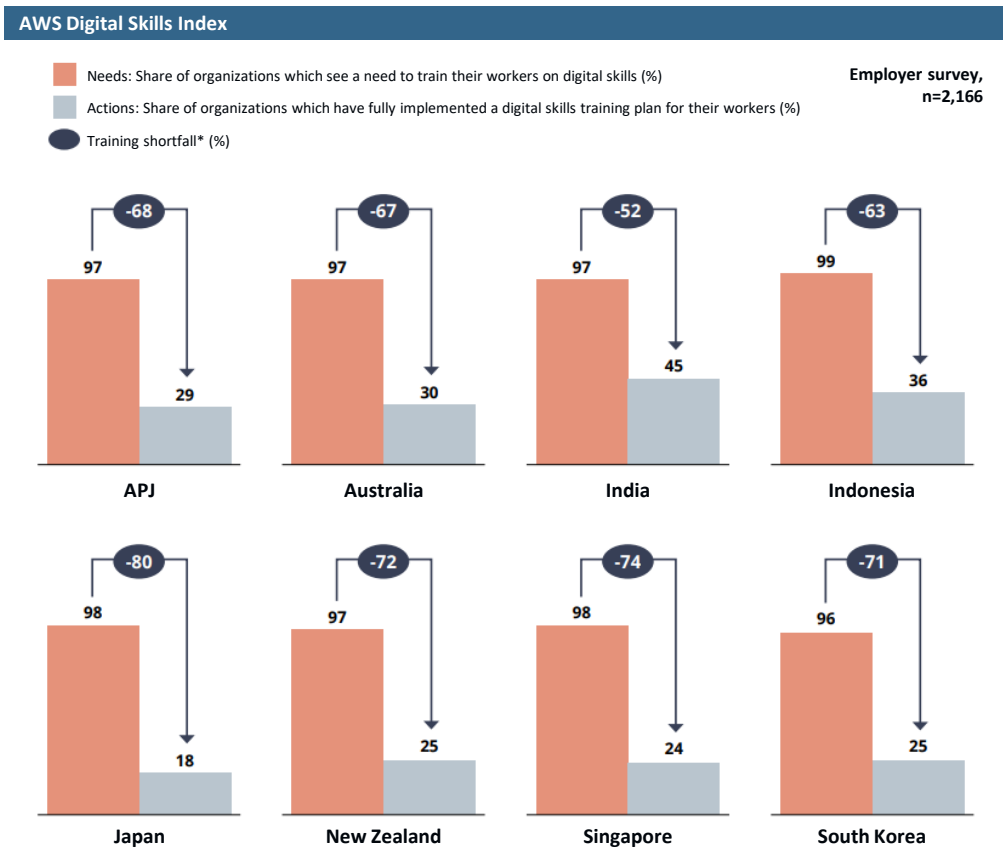
Challenges faced by employees attempting to develop their digital skills

Because acquiring new skills can be such a time-consuming process, if individuals and companies are to prepare for future technological innovations, efforts in this direction should begin as soon as possible. Unfortunately, this kind of advanced planning is not always put in place, and so a survey carried out by the consultancy AlphaBeta[23/] shows that although 97% of organizations in the Asia-Pacific region understood the importance of equipping their staff with a full complement of digital skills, only 29% actually moved forward with their training schedule as planned. Moreover, some two-thirds of employees are unsure that they will be able to acquire the digital skills that will be needed for their work in the future, though there is a clear age stratification within the data. Thus, 85% of the over-55s share this concern, with the proportion falling to 75% in the 40-55-year-old group, and to 60% among the under-40s. Staff also report encountering a range of problems when trying to acquire these skills, including limited awareness of training options, a lack of time, and limited awareness of digital skills needed are most relevant to their work now and in the future.

Figure 8

Provision of Training is Insufficient to Meet Demand

A training shortfall exists in APJ today – there is a gap between Digital Training Actions and Training Needs



Note: ∗ Difference between the share of surveyed employers who identified the need to train their workers on digital skills, and the share that implement digital skills training.
Source: AlphaBeta survey of 2,166 employers in 7 countries (Australia, India, Indonesia, Japan, New Zealand, Singapore, South Korea) in August 2021; AlphaBeta analysis

23/ Building Digital Skills For The Changing Workforce In Asia Pacific And Japan (APJ)



Case studies from companies or organizations utilizing a digital workforce

Since they have access to the resources and budget required to support the development of these kinds of new technologies,[24/] large corporations are beginning to integrate automated systems and digital workforce into their business processes. In addition, because major enterprises have to manage so many transactions and such large volumes of data, they have an additional incentive to invest in digital workforce. By contrast, the ability of smaller companies and SMEs to move into this area is more restricted and the incentives to do so are much weaker, and as such, corporations are more likely to make use of the digital workforce to raise productivity and lower costs. Several case studies illustrating how these technologies have been implemented are described below.

Table 2

Case Studies of Companies Applying a Digital Workforce

Company	Digital workforce adoption	Quantifiable benefits	Other benefits
Softbank (A major Japanese telecoms company)[25/]	Softbank began to automate business processes in 2016, switching to the use of RPA and AI to improve and automate cross functional work processes, and to reduce the time employees spent on work tasks.	• Using AI to predict incoming call volume to service centers has saved 700 hours of work. • Reduced time spent on recruitment by 85% • Cut the mobile service registration process by 50%	Customer service delivery has been accelerated. Softbank has also invested in staff training in digital skills to help these respond more rapidly and more effectively to customer needs.
Cargill (An American company with interests in food, agriculture and finance that operates in 70 countries)[26/]	Automation began in 2018, and RPA and OCR[27/] technologies have been used to streamline and integrate otherwise inconsistent work processes in different regions. Automation has also helped to reduce dependency on manual labor.	Generated cost savings of USD 19 million over the 5 years from 2018 to 2023	The invoicing system has also been automated.
Ricoh (A Japanese developer of technology that employs over 80,000 staff and is active in more than 200 countries)[28/]	Automation began in 2019, with the company using Oracle technology to facilitate intelligent automation. This has improved staff productivity and increased the speed of business operations (e.g., for processing invoices, responding to emailed service requests, and dealing with customer orders).	• achieved EUR 1.09 million in savings • Saved 5,730 employee workdays between 2019 and 2023	Allows staff to spend more time on higher value activities.

Source: Automation Anywhere, Digital Workforce, Krungsri Research

24/ Large corporations are using AI and automation to improve their operations and to raise their competitiveness, whereas SMEs' ability to exploit these technologies is limited by their much more restricted access to resources and the greater difficulty that they face recruiting staff with the relevant expertise. For more details, please see: KP1 (diva-portal.org)

25/ SoftBank's Transformation with Automation Anywhere: A Customer Success Story.

26/ Cargill | Automation Anywhere

27/ OCR (optical character recognition) allows computers to recognize and digitize typed text or text in photographs. For more details, please see: What is OCR? - Optical Character Recognition Explained - AWS (amazon.com)

28/ Ricoh Customer Success Story | Automation Anywhere

Table 2

Case Studies of Companies Applying a Digital Workforce (cont.)

Company	Digital workforce adoption	Quantifiable benefits	Other benefits
The City of Oulu (City of Oulu government agency, Finland)[29/]	In 2022, the City of Oulu rolled out a project using intelligent automation and a conversational AI to develop the 'OuluBot'. This can respond to queries and provides services to both tourists and residents of the city.	• Operates 24/7 • Maintains an 80% accuracy rate when answering questions • OuluBot has developed over 3,000 intents, making it easier for users to navigate the system and to find the answers that they are looking for.	OuluBot can respond directly to a wide range of users, for example, dealing with queries about lost travel cards or recommending interesting activities based on a user's location.
Petrobras (A Brazilian oil company)[30/]	In 2024, the company began to use GenAI and automation technologies to manage tax-related tasks.	• Generated cost savings of USD 120 million • Cut the time spent on preparing tax documents from 3 months to 3 weeks	Staff will no longer have to work over the weekend when the company is preparing to file its taxes.

Source: Automation Anywhere, Digital Workforce, Krungsri Research

The case studies identified in Table 2 show clearly that deploying digital workforce can help companies make significant savings in terms of both time and money. Additional benefits that come from the use of digital workforce include a reduction in the space within which human error may occur, an increase in the efficiency of business processes, an improved focus by staff on value-adding activities, a better customer experience, and a more equitable work-life balance. Nevertheless, taking full advantage of the possibilities provided by digital workforce will also require ensuring that company personnel have the necessary abilities to transition to these new work processes. Investing in the company's human resources by equipping staff with the full range of digital skills will therefore play an important role in helping players adapt to a rapidly changing technological environment.

29/ OuluBot - City of Oulu's Successful Innovation Project (digitalworkforce.com)
30/ Petrobras | Automation Anywhere



Case studies from the banking industry

The deployment of digital workforce in areas connected to 'know your customer' and 'anti-money laundering' has the potential to sharply improve the effectiveness of banking operations. In particular, digital workforce is able to simplify the collating and management of data stored across a wide range of documents and then to carry out more accurate analysis and verification of this, which will then lead to work processes becoming more efficient. Table 3 details some case studies showing how this has been implemented in practice.

Table 3

Digital Workforce Case Studies from the Banking Industry

Bank	Digital workforce adoption	Quantifiable benefits	Other benefits
Deutsche Bank (A leading German bank with offices in 58 countries and total assets of around USD 1.45 trillion)[31/]	In 2021, the bank began to use intelligent automation within its KYC operations.	Cut processing times by 25-50%, allowing the bank to serve an additional 25,000 customers per quarter.	Staffs are able to focus on tasks that are more closely aligned with their core areas of expertise.
Scotiabank (A leading Canadian bank with total assets of more than USD 1.4 trillion)[32/]	In 2019, the bank introduced intelligent automation into its anti-money laundering operations, in particular to improve its adverse media searches (part of due diligence procedures).	• Generated savings of USD 4.2 million over 6 months • Reduced false positive by up to 95%	• Improved the accuracy of analyzing articles related to customers' businesses • Adverse media searches are more transparent, with records of these kept automatically.
Cater Bank & Trust (A US community bank headquartered in Virginia that has total assets of USD 4.4 billion)[33/]	In 2020, the bank began to use AI, RPA, OCR and BPM[34/] to automate work processes connected to account opening reviews, identity verification, adverse media monitoring, and fraud due diligence.	Generated savings of up to USD 3 million annually	Shortened customer onboarding cycle

Source: WorkFusion, Krungsri Research

31/ Deutsche Bank Customer Story | WorkFusion

32/ Scotiabank Customer Story | WorkFusion

33/ Carter Bank & Trust Customer Story | WorkFusion

34/ BPM (business process management) covers activities related to modeling, analyzing, measuring, improving and optimizing business processes and strategies. For more details, please see: Definition of Business Process Management (BPM) - Gartner Information Technology Glossary

Box 2 Banking processes within which digital workforce may be deployed

Know your customer (KYC)

Customer Identification Program: CIP
- Collating basic customer information, e.g., given name, surname, date of birth, address, and ID number.

Customer Due Diligence: CDD
- Assessing risk based on past history of money laundering/terrorism, adverse media searches, political status, and suspicious financial transactions.

Enhanced Due Diligence: EDD
- Screening customers judged as being at high risk of engaging in criminal activity, including money laundering and the financing of terrorism.

Tasks suitable for digital workforce

Anti-money laundering (AML)

Know your customer (KYC)
- Digital workforce may help with CIP and CDD, for example assessing any history of money laundering/terrorism and adverse media searches.

AML Transaction Monitoring
- Checking financial records for evidence of suspicious activity.

Suspicious Activity Reporting: SAR
- Reporting suspicious activity to the authorities (i.e., the Anti-Money Laundering Office)

Currency Transaction Reporting: CTR
- Reporting transactions that exceed the specified threshold, which typically made using large amounts of cash

Tasks suitable for digital workforce

Source: Investodepia, Anaptyss, WorkFusion, Krungsri Research



Krungsri Research view

It is clear that corporations need to understand how the growth in the digital workforce will impact business conditions, plan for how best to take advantage of these developments, and then provide their staff with the skills needed to adjust successfully to these changes. **In the future, it is likely that to generate optimum outcomes, employers will become increasingly reliant on a hybrid workforce that exploits the particular advantages offered by human and digital workforces.** As such, when planning for the deployment of digital workforces, organizations will need to consider the following.

- **Study the approaches to applying and adapting digital workforces**: Organizations should plan for human oversight and monitoring (Human in the loop) of digital workforces at both the development stage and during the operational process, as digital workforce can make mistakes like other technologies. This is necessary to ensure that the work is appropriate and meets the desired objectives.
- **Develop a staff training plan to help employees work more effectively with digital workforces:** Employees should also encourage staff to be more creative and to experiment with new approaches to their work.
- **Develop the requisite infrastructure and ensure that this is safe and secure**: IT systems and data management flows need to be developed to allow digital workforces to complete their tasks efficiently and safely.
- **Develop measurable performance indicators for digital workforce**: This could include assessing reductions in total workhours, the decline in the error rate, and satisfaction levels among human staff. These indicators could then be used to assess the performance of digital workforce and then to improve operational efficiency.

In addition to what has been mentioned, organizations should promote continuous learning among employees to adapt to new technologies. This can be achieved by creating an environment that encourages open exchanges of ideas and experimentation with new concepts to stimulate innovation. Furthermore, top executives must lead by example and clearly communicate the vision of becoming an innovative organization so that all employees recognize the importance of collaboration in driving the organization toward future success.

Another important point is that **organizations should be aware of employees' concerns that digital workforce may threaten their jobs**. Therefore, it is crucial to avoid creating an impression that human workers are being compared to or forced to compete with machines. Instead, organizations should help employees feel that **digital workforces are part of the organization, aimed at improving the work environment for all**. Additionally, organizations should foster psychological safety[35/] in the workplace, allowing employees to feel confident in asking questions, sharing information, seeking help, or thinking outside the box, which could serve as a "catalyst" for generating new innovations within the organization.

35/ For more details, please see https://www.psy.chula.ac.th/th/feature-articles/psychological-safety/

Krungsri Research believes that for banks, the use of digital workforces will help to accelerate business processes, increase customer satisfaction, and project a modern corporate image. However, banks will also need to ensure that the development and deployment of digital workforces is fully compliant with all the relevant regulations, from training through to their roll-out and assessment. In addition, banks will need to communicate clearly to their employees exactly what the corporate policy is with regard to the use of digital workforces, how these will be incorporated into the workforce, and what the organization hopes to gain from this. Communications with bank customers over the use of digital workers will also need to emphasize that their use is transparent and safe

By improving productivity, reducing operating errors, projecting a more dynamic corporate image, and addressing worsening problems with labor shortages, digital workforces will have an important role to play in underpinning sustainable growth within the banking and finance industry, and so at both the corporate and employee levels, it will be important to track these developments and to plan for how best to adjust to advances in this field. Nevertheless, if enterprises are able to fully take advantage of the potential offered by digital workforces, they will be much better placed to respond to rapidly changing consumer demand.

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