# BUSINESS TECHNOLOGY REPORT 2022

A CPA AUSTRALIA SURVEY OF TECHNOLOGY USAGE BY BUSINESSES IN AUSTRALIA, MAINLAND CHINA, HONG KONG, MALAYSIA, NEW ZEALAND, SINGAPORE AND VIETNAM



#### ISBN: 978-1-922690-31-9

#### LEGAL NOTICE

The reproduction, adaptation, communication or sale of these materials ('the Materials') is strictly prohibited unless expressly permitted under Division 3 of the Copyright Act 1968 (Cth). For permission to reproduce any part of these materials, please contact the CPA Australia Legal Business Unit - legal@cpaaustralia.com.au.

#### COPYRIGHT NOTICE

© CPA Australia Ltd (ABN 64 008 392 452) ("CPA Australia"), 2022. All rights reserved.

#### DISCLAIMER

CPA Australia had used reasonable care and skill in compiling the content of these materials. However, CPA Australia makes no warranty that the materials are accurate and up to date. These materials do not constitute the provision of professional advice whether legal or otherwise. Users should seek their own independent advice prior to relying on or entering into any commitment based on the materials. The materials are purely published for reference purposes alone. CPA Australia, their employees, agents and consultants exclude completely all liability to any person for loss or damage of any kind including but not limited to legal costs, indirect, special or consequential loss or damage (however caused, including by negligence) arising from or relating in any way to the materials and/or any use of the materials. Where any law prohibits the exclusion of such liability, then to the maximum extent permitted by law, CPA Australia's liability for breach of the warranty will, at CPA Australia's option, be limited to the supply of the materials again, or the payment of the cost of having them supplied again.



# CONTENTS

OVERVIEW	4
ABOUT CPA AUSTRALIA	5
KEY FINDINGS	5
TECHNOLOGY USE IN THE PAST 12 MONTHS	7
EXPECTED INCREASE IN USE OF TECHNOLOGY	11
TECHNOLOGY INITIATIVES BY BUSINESSES	14
DRIVERS AND CHALLENGES TO TECHNOLOGY ADOPTION	24
RECOMMENDATIONS	27



# OVERVIEW

As organisations around the world grapple with growing uncertainties over complex global issues, technology is rapidly becoming instrumental for business operations and success.

This report is CPA Australia's second survey of technology usage by businesses. The survey was conducted from 28 May 2022 to 12 July 2022. A total of 820 responses were received from accounting and finance professionals working in Australia, Mainland China, Hong Kong, Malaysia, New Zealand, Singapore and Vietnam.

Respondents came from a variety of different industries, with the banking, finance and insurance (14 per cent), consulting (14 per cent), accounting (13 per cent) and manufacturing (eight per cent) industries comprising the largest share.

The data included a significant proportion of respondents from larger companies of 500 or more employees (46 per cent) and smaller companies of fewer than 100 employees (34 per cent).

Thirty-three per cent of respondents held a Csuite or other senior level position.

The survey collected data on the different technologies used by businesses, the expected increase in use of technologies in the next 12 months, the technology initiatives businesses undertook or expect to undertake, the drivers of technology adoption and the challenges to adoption.

The survey found respondents from highgrowth businesses were much more likely to indicate their business has a digital transformation strategy and had used robotic process automation (RPA), customer relationship management (CRM) software, business intelligence (BI) software and artificial intelligence (AI) in the past 12 months than respondents from businesses that shrank.

Improving operational efficiency, cost savings and COVID-19 were the key reasons for technology uptake. Most respondents expect their business to increase technology use and take action to improve technology adoption in the next 12 months.

The survey findings demonstrate the strategic importance of organisations effectively using technology and enhancing their digital capability. Organisations that commit to harnessing technology are better placed to deliver additional value and handle future challenges.



# ABOUT CPA AUSTRALIA

CPA Australia is one of the largest professional accounting bodies in the world, with more than 170,000 members in over 100 countries and region. Our core services include education, training, technical support and advocacy.

CPA Australia provides thought leadership on local, national and international issues affecting the accounting profession and public interest. We engage with governments, regulators and industries to advocate policies that stimulate sustainable economic growth and have positive business and public outcomes. Find out more at **cpaaustralia.com.au**.



# **KEY FINDINGS**

# Technology use in businesses in the past 12 months

The most common technologies respondents reported that their employer used in the past 12 months were: video conferencing and group collaboration tools, cloud computing, data analytics and visualisation software, and ERP software. Conversely, blockchain or Distributed Ledger Technology (DLT), AI and RPA were the technologies least likely to be used.

Respondents from high-growth or larger businesses reported a notably higher percentage of technology usage in the past 12 months than respondents from smaller businesses or who stated that their businesses shrank.

# Technology initiatives undertaken by businesses in the past 12 months

"Increased investment or upgraded technology", "worked with technology companies or vendors to improve the business" and "reviewed the business' technology for improvement" were the top three technology initiatives that respondents' businesses had undertaken in the past 12 months.

A significantly greater proportion of respondents from high-growth businesses than those who shrank reported their employer focused on increasing the number of employees with data analytical and technology skills, increasing investment in cybersecurity measures, working with technology companies or vendors and upskilling the technology capabilities of staff.

# Digital transformation strategy in businesses

Seventy-seven per cent of those surveyed said their business has a digital transformation strategy, with 45 per cent stating that digital transformation is a very important part of their overall organisational strategy.

The proportion of respondents from highgrowth or larger businesses reporting that their organisation has a digital transformation strategy was overwhelmingly higher than respondents from smaller businesses or those who stated that their business shrank.

# Expected increase in use of technology in the next 12 months

The strong uptake of technology tools and solutions looks set to continue. Data analytics and visualisation software, cloud computing and BI software were the top three technologies that respondents expect their business to use more in the next 12 months.

Respondents that expect their business to grow strongly in 2022-23 are significantly more likely to expect to increase their use of blockchain or DLT, RPA, CRM software, AI and BI software in the next 12 months.

# Actions businesses will undertake to improve technology adoption

The most common expected actions respondents believe their business or employer will undertake to improve technology adoption in the next 12 months were to "increase investment or upgrade technology", "implement a digital or technology strategy" and "increase technology training for employees".

### Drivers of technology adoption

Enhancing operational processes is the major driver for businesses to adopt technology, with "improve operational efficiency" being the most popular driver of technology adoption. "Cost savings", "COVID-19" and "improve the customer experience" were other key drivers of business technology adoption chosen by respondents.

### Challenges to technology adoption

Technology adoption is not without its challenges. "Financial costs and low return on investment" was the most frequently nominated inhibitor to technology adoption. "Shortage of technology talent", "complex legacy systems" and concerns with cybersecurity and data privacy were also identified as key challenges. Among those that picked a shortage of technology talent as a challenge, "upskilled and/or reskilled existing employees" and "outsourced to a thirdparty provider" were the two most distinct actions they said their business took to address this hurdle to technology adoption.

### Key lessons for businesses

The key lessons for businesses from our survey are:

- Consider implementing a digital transformation or technology strategy that aligns technology with the organisation's culture, employees' needs, risks and business objectives.
- Consider establishing a data governance framework that ensures data quality, accessibility, security, privacy and compliance obligations.
- Consider using technology tools that turn data into valuable and actionable insights, such as BI software and data analytics and visualisation software.
- Enhance in-house data and technology capabilities through training programs, external support and securing top talent.
- Ensure the technology and software you use have strong cybersecurity and data protection features.



# TECHNOLOGY USE IN THE PAST 12 MONTHS

### Figure 1. Use of selected technologies in the past 12 months



All the time Sometimes Never

Note: Responses may not add up to 100 per cent due to rounding.

### Figure 2. Use of selected technologies in the past 12 months – by business performance









Figure 1 shows that video conferencing and group collaboration tools were the technology respondents used the most in the past 12 months. Ninety-seven per cent stated that their business used these tools and 78 per cent said their business used them "all the time".

With the COVID-19 pandemic spurring the adoption of this technology and flexible working arrangements becoming the "new normal", frequent use of web and videoconferencing tools provides a reliable and cost-efficient way to virtually collaborate and communicate.

The vast majority (84 per cent) of respondents said their business used cloud computing in the past 12 months. This high use of cloud-based technology reflects strong demand for technology solutions to enable remote working brought on by the pandemic.

With cloud computing providing nimbleness and scalability to help businesses respond to challenges and increase accessibility and productivity, the adoption of cloud technology will continue to grow.

Data analytics and visualisation software were the third most frequently used technology tools in the past 12 months.

Such technology can help organisations turn raw data into valuable intelligence or insights, provide more value-adding client services and help uncover new growth opportunities.

Frequent use of ERP software was also recorded. The advantages of using this technology include allowing near real-time



information flow for business processes and operations, such as supply chain management and accounting.

The technologies used the least were identified as blockchain or DLT, RPA and AI. These innovative technologies present opportunities to improve operational efficiency and performance.

However, many smaller companies may currently lack the financial or material resources, data and expertise to apply them into their business operations.

This is supported by the survey results. According to Figure 3, 19 per cent of respondents from smaller companies<sup>1</sup> stated that their business had used blockchain or DLT, while 25 per cent had used RPA and 42 per cent had used AI. By comparison, 34 per cent of respondents from larger companies<sup>2</sup> reported their business had used blockchain or DLT, and 68 per cent and 70 per cent said their business had used RPA and AI respectively.

For policymakers seeking to support business recovery and growth, improving the digital and technology capabilities of businesses – especially those that are small or medium-sized – is essential.

The benefit for organisations to harness technology is supported by the survey result,

which reveals a positive association between technology use and business success.

Figure 2 demonstrates that respondents who reported working at high-growth businesses<sup>3</sup> in 2021 used technologies more often than respondents who stated that their businesses shrank<sup>4</sup> in 2021.

While using technologies such as video conferencing and group collaboration tools and cloud technology has become a mainstay in the workplace, the greatest opportunity for better business performance is with the adoption of value-adding technologies and operational efficiency software.

For example, 59 per cent of respondents from high-growth businesses reported using RPA, which is 24 percentage points higher than respondents who said their business shrank. High-growth businesses also registered a noticeably higher degree of use of the following technologies:

- CRM software
- BI software
- Al
- blockchain or DLT
- data analytics and visualisation software.

It is reasonable to assert that technology-driven organisations are more successful and technology use is associated with better business performance. In an increasingly



<sup>&</sup>lt;sup>1</sup> Defined as companies with fewer than 100 employees.

<sup>&</sup>lt;sup>2</sup> Defined as companies with 500 or more employees.

 <sup>&</sup>lt;sup>3</sup> Defined as companies that financially grew by 30 per cent or more in 2021 compared to 2020.
<sup>4</sup> Defined as companies that financially shrank by two per cent or more in 2021 compared to 2020.

digitalised environment, technology adoption and digital transformation will continue to be new engines of business growth. It would be prudent for organisations to stay abreast of changes in this area and determine how best to leverage technology opportunities in both business strategies and operations.

#### Other results

Respondents from Australia were the most likely to state that their business had used cloud computing (95 per cent).

Mainland China had the highest percentage of respondents reporting that their business had used ERP software (82 per cent).

Singapore had the highest percentage of respondents reporting that their business had used RPA (57 per cent).

New Zealand respondents reported the highest usage of BI software (82 per cent), CRM software (87 per cent) and video conferencing and group collaboration tools (100 per cent).

Vietnam was ranked first in terms of the percentage of respondents that said their business had used AI (61 per cent), blockchain or DLT (34 per cent) and data analytics and visualisation software (85 per cent).



# EXPECTED INCREASE IN USE OF TECHNOLOGY

### Figure 4. Technologies businesses expect to use more in the next 12 months



### Figure 5. Technologies businesses expect to use more in the next 12 months – by expected business performance in 2022-23







### Figure 6. Technologies businesses expect to use more in the next 12 months – by business size

Figure 4 above shows that data analytics and visualisation software and BI software are popular technologies respondents expect their business to use more of in the next 12 months.

The strong focus on these technologies demonstrates that organisations are focusing on improving their decision-making and business outcomes by using tools and software to transform raw data into clear and actionable insights. With that development comes opportunities to increase organisational transparency and identify new sources of growth and value.

Expanding the use of these software tools also means that businesses will need to maintain the quality, consistency and availability of data, and ensure that their staff possess the data literacy to effectively identify, analyse, interpret and communicate with data. Those willing to invest the time and effort to improve their data governance framework and the data skills of their staff will benefit the most.

The expected increase in use of cloud computing is another area of focus for businesses. Given more software is being distributed as Software-as-a-Service, where data can be sent, stored and accessed remotely, businesses can look for cost savings decisions that may come from shifting from their own servers to cloud-based solutions.

Further, the survey results show that a substantially higher percentage of respondents that expect their business to grow strongly rather than shrink in 2022-23 believe their



business will increase their use of the following technologies in the next 12 months (see Figure 5):

- blockchain or DLT
- RPA
- CRM software
- Al
- BI software.

In addition, no respondents expecting their business to grow strongly in 2022-23 stated that their business will not increase the use of technology in the next 12 months. In comparison, seven per cent of respondents from businesses not expecting to grow believed they will not increase the use of any technologies.

Variations in technology preference were observed by organisations of different size (see Figure 6). Smaller businesses are more focused on expanding the use of tools that will enhance productivity, such as cloud technology and video conferencing and group collaboration tools. Larger companies with more data assets are more likely to increase the use of data-driven technologies such as AI, RPA, BI software and data analytics and visualisation software.

Eight per cent of respondents from smaller businesses reported that they do not expect to increase the use of technology in the next 12 months, compared to only two per cent of respondents from larger businesses.

### **Other findings**

Respondents from Hong Kong were most likely to expect their employer to increase their use of AI (30 per cent), blockchain or DLT (18 per cent) and video conferencing and group collaboration tools (36 per cent).

New Zealand was the market with the highest percentage of respondents expecting their employer to increase their use of BI software (45 per cent), cloud computing (52 per cent), and CRM software (42 per cent).

Singapore had the most respondents expecting their employer to increase the use of cybersecurity software (36 per cent), data analytics and visualisation software (53 per cent), ERP software (34 per cent) and RPA (42 per cent).



# TECHNOLOGY INITIATIVES BY BUSINESSES

### Figure 7. Technology initiatives businesses undertook in the past 12 months

Increased investment/upgraded technology Worked with technology companies/vendors to improve the business Reviewed the business' technology for improvement Upskilled the technology capabilities of staff Increased investment in cybersecurity measures Sought professional advice from IT consultants/technicians

Increased the number of employees with technology skills

Increased the number of employees with data analytical skills

Added technology expertise to senior management and/or the board



### Figure 8. Technology initiatives businesses undertook in the past 12 months – by business performance





### Figure 9. Technology initiatives businesses undertook in the past 12 months – by business size

Increased investment/upgraded technology Worked with technology companies/vendors to improve the business Upskilled the technology capabilities of staff Increased investment in cybersecurity measures Reviewed the business' technology for improvement Increased the number of employees with technology skills Sought professional advice from IT consultants/technicians Increased the number of employees with data analytical skills Added technology expertise to senior management and/or the board

Businesses with 500 or more employees

The most popular technology initiative companies undertook in the past 12 months was to upgrade or increase their investment in technology (56 per cent). This result is positive as investments in upgrading technology infrastructure could position organisations for future growth by improving their ability to respond to the changing needs of customers and improving business systems and processes.

Many respondents worked with technology companies or vendors (50 per cent). The advantages of engaging with third-party providers for technology support may include help with reducing risks such as cybersecurity threats, providing flexible onsite or offsite



Businesses with fewer than 100 employees

support, and assistance with identifying and implementing technology solutions relevant to the business.

"Reviewed the business' technology for improvement" (49 per cent) was the third most popular action businesses undertook. This more short-term response reflects the need for companies to support business continuity and maintain work productivity and functionality by rapidly deploying technology solutions to reach and transact with customers and support remote working.

"Upskilled the technology capabilities of staff" (48 per cent) was also a popular action. This result is positive for both the short-term and long-term prospects. It indicates an



understanding that as organisations digitally transform, they must also develop the digital and technical skills of employees.

Differences in technology initiatives undertaken set high-growth and businesses that shrank apart (see Figure 8). Compared to businesses that shrank, more respondents from highgrowth enterprises indicated their business or employer undertook the following actions:

- increased the number of employees with data analytical skills
- increased the number of employees with technology skills
- increased investment in cybersecurity measures
- worked with technology companies or vendors to improve the business
- upskilled the technology capabilities of staff.

The above findings suggest that successful businesses were more focused on talent attraction and development than unsuccessful ones. As global competition for technology talent soars, it would be sensible for companies to allocate adequate time and resources to upskill or reskill employees and use innovative ways to attract and retain talent.

Smaller businesses were also less inclined than larger businesses to have undertaken technology initiatives in the past 12 months. As Figure 9 illustrates, respondents from larger businesses reported a noticeably higher likelihood than respondents from smaller businesses to state their company:

- increased the number of employees with technology or data analytical skills
- increased investment in cybersecurity measures
- increased investment or upgraded technology
- upskilled the technology capabilities of staff.

For policymakers, support programs to upskill or reskill the workforce should be explored to encourage more businesses – especially smaller ones – to enhance the technology and data capabilities of their employees.

### Other findings

"Reviewed the business' technology for improvement" (63 per cent) was the action ranked most highly in Australia.

Mainland China had the highest percentage of respondents indicating that their business had increased the number of employees with data analytical skills (46 per cent).

Singapore was ranked first in the percentage of respondents that said their business had "worked with technology companies or vendors to improve the business" (64 per cent).

The market with the most respondents reporting that their business increased the number of staff with technology skills was Vietnam (45 per cent). Vietnam was also ranked first in upskilling the technology capabilities of staff (60 per cent).



### Figure 10. Percentage of businesses with a digital transformation strategy

- Yes, it's a very important part of our organisational strategy
- Yes, it's a somewhat important part of our organisational strategy
- No



### Figure 11. Percentage of businesses with a digital transformation strategy – by business performance



Businesses that shrank in 2021



25%

34%

### Figure 12. Percentage of businesses with a digital transformation strategy - by business size



Note: Responses on this page may not add up to 100 per cent due to rounding.



Overall, more than three-quarters (77 per cent) of those surveyed said their business has a digital transformation strategy, with 45 per cent stating that digital transformation is a very important part of their organisational strategy.

### According to CPA Australia's **Embracing Digital Transformation in Accounting &**

**Finance** report, organisations that can leverage technology to digitally transform themselves are likely to put themselves at a significant competitive advantage relative to their competitors.

The current findings corroborate this: 84 per cent of respondents from high-growth businesses said their employer has a digital transformation strategy compared to around two-thirds of respondents from businesses that shrank. Among those with a digital transformation strategy, 75 per cent from highgrowth businesses said it plays a very important role in their organisational strategy compared to 42 per cent from those that shrank.

The findings also show that a significantly higher percentage of larger businesses have a digital transformation strategy (93 per cent) than those that are smaller (59 per cent).

Similar to the observed technology use gap, there are considerable asymmetries in resources, data assets and access to technical expertise between smaller and larger businesses. This may explain why smaller enterprises are less likely to have a digital transformation strategy than their larger-sized counterparts.

To ensure that smaller businesses reap the economic and social benefits of the shift to a digital economy, governments should focus on providing incentives for businesses to undergo digital transformation. Governments should also consider collaborating with professional advisers to assist smaller businesses build their digital and technological capabilities in order to help achieve their strategic goals.

When developing and implementing a digital transformation strategy, it is important for organisations to:

- identify and prioritise technologies that will improve current and future business needs
- consider internal and external factors
- run pilot programs and tests
- actively engage with employees and achieve their buy-in
- conduct an evaluation process to measure the success of the strategy.

#### **Other results**

Vietnam (93 per cent), Singapore (83 per cent) and Mainland China (79 per cent) were the markets with the highest percentage of respondents reporting their employer has a digital transformation strategy. Australia (70 per cent), Hong Kong (73 per cent) and Malaysia (74 per cent) had the lowest.



### Figure 13. Key actions businesses will undertake to improve technology adoption in the next 12 months



### Figure 14. Key actions businesses will undertake to improve technology adoption in the next 12 months – by expected business performance in 2022-23



Businesses that expect to grow strongly in 2022-23

Businesses that expect to shrink in 2022-23



### Figure 15. Key actions businesses will undertake to improve technology adoption in the next 12 months – by business size

Implement a digital transformation/technology strategy Increase investment/upgrade technology Increase technology training for employees Improve data management and protection Improve cybersecurity protections Work with technology companies/vendors Increase recruitment of employees with technology skills Seek professional advice from IT technicians/consultants Add technology expertise to the board/senior management My business or employer will not undertake actions to improve technology adoption in the next 12 months

When asked to nominate what key actions they expect their business or employer to undertake to improve technology adoption in the next 12 months, the most common expected actions were to "increase investment or upgrade technology", "implement a digital or technology strategy" and "increase technology training for employees".

There were differences in the anticipated actions depending on the expected business performance in 2022-23. As shown in Figure 14, respondents from businesses expecting to grow strongly picked "increase investment or upgrade technology", "implement a digital or technology strategy" and "increase technology



Businesses with fewer than 100 employees

training for employees" substantially more often than respondents expecting their business to shrink.

Results by business size followed a similar pattern to earlier findings. Respondents from larger companies were considerably more likely to expect their business to take various actions in the next 12 months than respondents from smaller companies. Of note, 61 per cent of respondents from larger businesses believed their company will implement a digital transformation or technology strategy, which is 45 percentage points higher than respondents from smaller companies.



On the other hand, respondents from smaller companies were more likely to say that their business or employer will not undertake actions to improve technology adoption in the near future (10 per cent) than respondents from larger companies (two per cent).

It would be advantageous for companies, particularly smaller organisations, to reach out for external advice to support technology adoption.

### **Other results**

Australia had the highest percentage of respondents indicating that they expect their employer to increase investment or upgrade technology (47 per cent), improve cybersecurity protections (34 per cent), seek professional advice from IT technicians or consultants (33 per cent) and work with technology companies or vendors (31 per cent).

Mainland China had the most respondents expecting their organisation to add technology expertise to the board or senior management (11 per cent).

New Zealand was ranked first in the percentage of respondents that expect their business to improve data management and protection (39 per cent) and increase recruitment of employees with technology skills (23 per cent).

Vietnamese respondents were the most likely to expect their business to implement a digital transformation or technology strategy (46 per cent) and increase technology training for staff (41 per cent).



# DRIVERS AND CHALLENGES TO TECHNOLOGY ADOPTION

### Figure 16. Key drivers of business technology adoption



### Figure 17. Key challenges to technology adoption





### Figure 18. Key actions businesses undertook to address a shortage of technology talent in the past 12 months



### Drivers of technology uptake

When asked what the main drivers of technology uptake are, one option was distinctly preferred. Enhancing operational processes was the major motivator with 63 per cent of respondents nominating "improve operational efficiency" (see Figure 16).

Other popular choices include "cost savings" (31 per cent), and "improve the customer experience" (27 per cent).

Improving operational efficiency, lowering costs and enhancing the customer experience are essential elements for businesses' success in a challenging environment.

"COVID-19" was the third most popular driver, indicating that the pandemic has also provided a strong impetus for organisations to accelerate their digitalisation through increased technology adoption due to the disruption COVID-19 has had on business operations.

For those making the business case to invest in technology, this data shows that their focus should be on showing how the technology improves business efficiency, reduces costs in the long run and, where relevant, how the technology can improve the customer experience.

#### Other results

There were clear variations of drivers between geographical markets. The pandemic was most frequently nominated by Malaysian respondents (40 per cent) compared to Australian and Vietnamese respondents (both 20 per cent).



Improving the customer experience was most notable in Australia (40 per cent) and Vietnam (38 per cent) and least in Mainland China (18 per cent).

"Pressure from competitors" was most apparent in Mainland China (18 per cent) and least in Australia (three per cent).

Respondents from high-growth businesses were more likely to nominate "improve the customer experience" (38 per cent) as one of their employer's main drivers of technology uptake than respondents from businesses that shrank (24 per cent).

Respondents from businesses that shrank were more likely to state that "COVID-19" was one of their employer's main drivers of technology uptake (32 per cent) than respondents from high-growth businesses (16 per cent).

A comparatively greater proportion of respondents from larger businesses chose "organisational culture of innovation" (25 per cent) and "support from senior management" (18 per cent) as a factor to adopt new technology than respondents from smaller businesses.

### Challenges to technology uptake

As shown in Figure 17, many respondents reported that technology uptake in their business was hamstrung by "financial costs and low return on investment" (35 per cent). This challenge may result in such businesses falling further behind their competitors, exacerbating their financial concerns.

Reflecting the strong global demand for technology and the consequences of growing business usage of technology, the second most frequently chosen barrier was a "shortage of technology talent" (32 per cent).

Of those that identified talent shortage as an inhibitor to business technology adoption, nearly half (49 per cent) said their organisation responded by upskilling and/or reskilling their existing employees (see Figure 18). Outsourcing to a third-party provider and asking technology vendors to do more were the second and third most common solutions.

The above actions businesses undertook to address technology talent shortages correspond to the findings from CPA Australia's

Strategies for Managing Barriers to Technology Adoption report, which found that formally training staff prior to adopting technology and building their necessary skills were considered beneficial to overcome prohibitive factors to technology adoption.

According to the report, delivery modes of training could include: staff meetings with touchpoints on new technology, webinars and bite-size online training, instructional modules and videos. Bringing in external experts, such as software vendors, to support initial training was also emphasised.

The third major limitation to technology take up by businesses was "complex legacy systems". For organisations looking to keep up with



competitors and changing customer preferences, they should consider modernising these systems. External support from technology vendors and other experts could be considered to help resolve compatibility and legacy issues. In addition, costs could be reduced in the long run by replacing older systems.

Many respondents were also concerned about cybersecurity and data privacy. These challenges reinforce the importance of cybersecurity and data protection when investing in technology.

Mitigation measures to prevent threats and negligence include conducting employee awareness workshops regarding proper security procedures, regularly backing up data and using data loss prevention software that detects and prevents data breaches.

It is also important to note that for cybersecurity and data protection measures to be effective, such concerns should be elevated to senior management or the boardroom, with clear responsibility given for cybersecurity, especially in the event of a cyberattack.

### **Other results**

There were noticeable variations between markets in the challenges businesses face to adopt technology. Vietnam had the highest percentage of respondents choosing "financial costs and low return on investment" (42 per cent), while Hong Kong had the lowest (28 per cent).

Vietnam was also the market with the highest percentage picking "data privacy concerns" (35 per cent) and "cybersecurity concerns" (32 per cent). On the other hand, respondents from Singapore were the least worried about data privacy (10 per cent). Malaysian respondents were the least worried about cybersecurity (20 per cent).

"Shortage of technology talent" was a bigger challenge in Malaysia (38 per cent) than in Mainland China (27 per cent).

Issues with complex legacy systems were most apparent in Australia (41 per cent) and least in Hong Kong (22 per cent) and Vietnam (23 per cent).

A substantially higher proportion of respondents from larger businesses chose "complex legacy systems" (39 per cent) as a challenge to technology adoption than respondents from smaller businesses (19 per cent). Conversely, respondents from smaller business were more inclined to choose "financial costs and low return on investment" (40 per cent) than respondents from larger companies (29 per cent).



# RECOMMENDATIONS

Based on the survey findings, CPA Australia recommends that organisations consider the following:

### All businesses

- Implement a digital transformation or technology strategy that aligns technology with your organisation's culture, employees' needs, risks and business objectives.
- Establish a data governance framework by implementing relevant policies, procedures and standards that address issues with data quality, accessibility, security, privacy and compliance obligations.
- Identify and implement cost-efficient and secure technologies that allow data to be stored and accessed remotely, such as cloud computing.
- Identify and implement appropriate technology tools that turn data into valuable and actionable insights, such as BI software and data analytics and visualisation software.

- Enhance your in-house data and technology capabilities by delivering training programs, seeking external expert support or securing top technology talent.
- Regularly update the organisation's software, operating systems and hardware, enable multi-factor authentication, and conduct regular cybersecurity awareness training for all staff to protect your business against cybersecurity threats.

### Large businesses

- Establish a board-level technology or digital transformation committee to actively stay informed of trends, risks and opportunities.
- Work with external technology vendors or experts to replace legacy systems that restrict the business' ability to keep pace with changes in consumers' preferences and needs.

### Small and medium businesses

- Seek professional advice to help identify and stay abreast of technology solutions relevant to the business.
- Undertake a detailed cost-benefit analysis before introducing new technology.

