BUSINESS TECHNOLOGY REPORT 2021

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

CPA AUSTRALIA

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OVERVIEW

As organisations around the world adapt to changing work environments and consumer behaviour brought about by the COVID-19 pandemic, one consequence has been the acceleration of technology adoption by businesses.

This report analyses data from CPA Australia's survey of technology usage by businesses. The survey was conducted from 28 May to 1 July 2021. A total of 725 responses were received from accounting and finance professionals in Australia (120), Mainland China (173), Hong Kong and Macau (157), Malaysia (155) and Singapore (120).

Respondents came from a variety of different industries, with the accounting (18.3 per cent), banking, finance or insurance (14.8 per cent) and consulting (9.8 per cent) industries providing the largest share. The size of the business that respondents worked for was most likely to be 1000 or more employees (39.1 per cent) or fewer than 50 employees (25.9 per cent). Respondents were most likely to be a manager / supervisor, professional or hold a C-suite position.

The survey collected data on the different technologies used by businesses, expected investment in or use of technologies in the next 12 months, the technology-based projects businesses undertook, the drivers of technology adoption and the challenges to adoption.

The survey found that video conferencing and group collaboration tools, new payment technologies and cloud technology were the technologies that businesses were most likely to have used in the past 12 months.

Improving operational efficiency and cost savings were the key reasons for using technology. Most respondents expect their business to invest in additional technology in the next 12 months.

The survey findings demonstrate the strategic importance of organisations investing in and effectively using technology, and enhancing their digital capability. Businesses that have been digitally transformed are better placed to deliver additional value to customers and handle future disruptions.

ABOUT CPA AUSTRALIA

CPA Australia is one of the largest professional accounting bodies in the world, with more than 168,000 members in over 100 countries and regions. 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

Video conferencing and group collaboration tools (98.1 per cent), new payment technologies (92.3 per cent) and cloud technology (91.9 per cent) were the top three technologies that respondents reported that their employer used in the past 12 months. Conversely, robotic process automation (RPA) (52.6 per cent) and artificial intelligence (AI) (61.4 per cent) were the technologies least likely to be used.

Respondents from high-growth businesses in 2020 were more likely to indicate higher technology usage in the past 12 months than respondents who stated that their businesses remained largely unchanged or shrank in 2020.

High-growth businesses were much more likely to use the following technologies than businesses that were unchanged or shrank:

- data analytics and visualisation software
- business intelligence software
- Enterprise Resource Planning (ERP) software
- Customer Relationship Management (CRM) software
- AI
- RPA

Technology-related projects undertaken by businesses in the past 12 months

"Upskilled the technology capabilities of staff" (43.3 per cent), "reviewed the business' technology for improvement" (40.7 per cent) and "developed a long-term technology / digital strategy" (40.3 per cent) were the top three technology-related projects that respondents said their business had undertaken in the past 12 months.

Respondents from high-growth businesses in 2020 were significantly more likely to report that their employer focused on developing a long-term technology / digital strategy (45.7 per cent), worked with technology companies to improve the business (34.1 per cent) and increased recruitment of staff with technological skills (24.6 per cent) than respondents from businesses that remained largely unchanged or shrank last year.

Drivers of technology adoption

Businesses that have embraced technology tools and software are reaping the benefits with improved efficiency, higher cost savings and enhanced customer experience.

Enhancing operational processes is the major driver for businesses to adopt technology, with "improve operational efficiency" (81.0 per cent) being the most likely driver of technology adoption. "Cost savings" (39.9 per cent), "improve the customer experience" (39.9 per cent) and "improve collaboration between employees" (26.6 per cent) were other key drivers of business technology adoption identified by respondents.

Challenges to technology adoption

Technology adoption is not without its challenges. Respondents nominated "financial constraints" (41.4 per cent) as the most likely challenge to technology adoption. "Shortage of technology talent" (33.0 per cent), "complex legacy systems" (31.2 per cent), concerns with cybersecurity (30.5 per cent) and data privacy (27.9 per cent) were also identified as major challenges.

Expected investment in or use of technology in the next 12 months

The strong uptake of technology tools and solutions looks set to continue. Cloud technology (44.3 per cent), data analytics and visualisation software (42.5 per cent) and video conferencing and group collaboration tools (36.1 per cent) were the top three technologies that respondents expect their business to increase its investment in or use of in the next 12 months.

36.4 per cent of respondents from Mainland China think that their organisation will increase investment in or use of AI in the next 12 months, which is the highest of the markets surveyed.

Forty-two per cent of respondents from Singapore expect their business to increase investment in or use of RPA, the highest result among the markets surveyed. This is 11.1 percentage points higher than second-placed Mainland China.

Respondents that expect their business to grow strongly in 2021-22 are significantly more likely to expect to increase their investment in or use of data analytics and visualisation software (44.5 per cent), business intelligence software (42.9 per cent), CRM software (36.0 per cent) and AI (31.1 per cent) in the next 12 months compared with respondents that do not expect their business to grow over the same period.

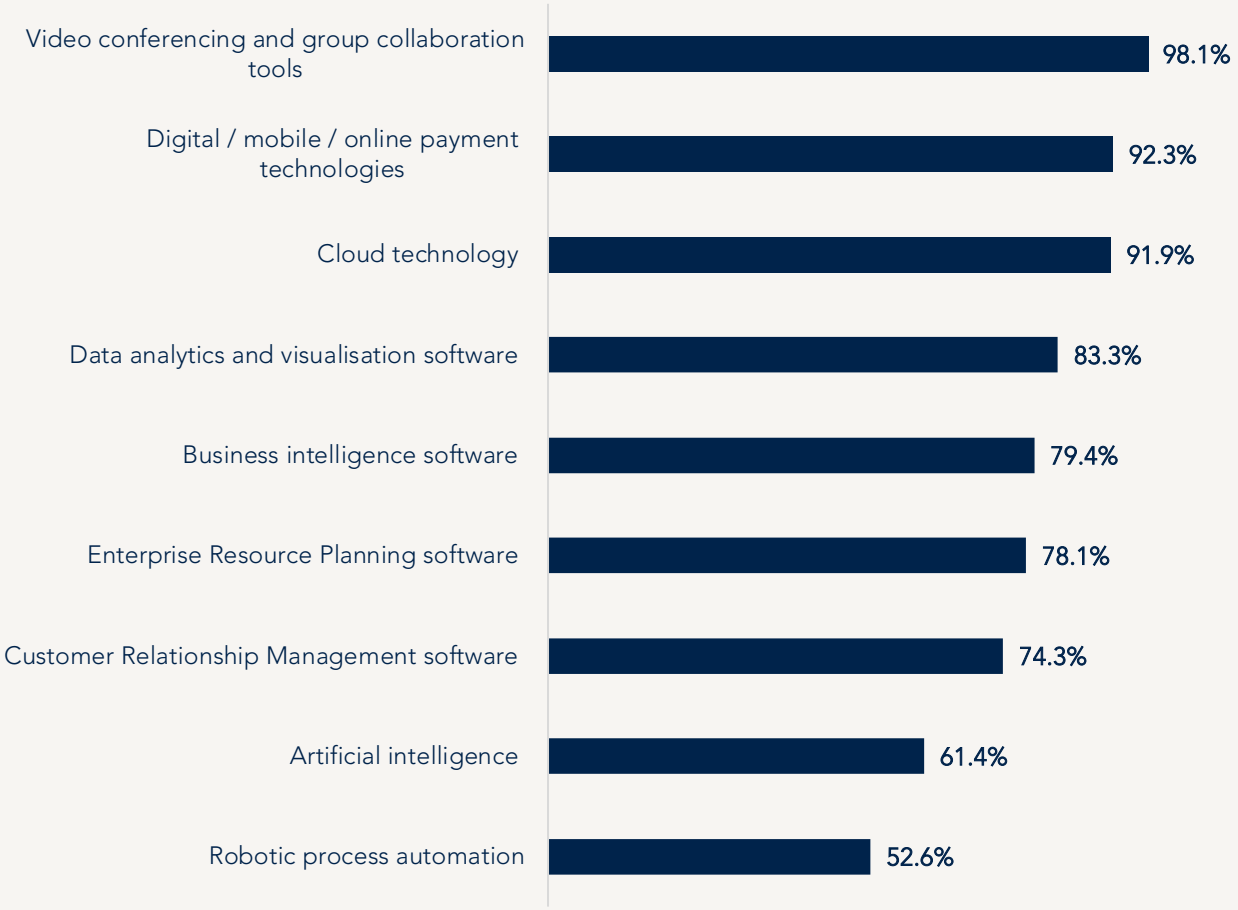
Key lessons for businesses

The key lessons for businesses from our survey are:

- Consider implementing a digital transformation strategy that aligns technology with your organisation's culture, employees, risks and business objectives.
- Consider using technology tools that increase productivity and reduce capital spending, such as cloud technology.
- Consider using technology tools that improve your understanding of clients' current and future needs, such as data analytics and visualisations software and business intelligence software.
- Enhance your in-house technology capability through training programs and securing top technology talent.
- Ensure that the technology and software you use has strong cybersecurity and data protection features.

TECHNOLOGY USE IN THE PAST 12 MONTHS

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



Question: Please rate how frequently your business or employer used each of the following technologies in the past 12 months

Respondents were most likely to report that their employer used video conferencing and group collaboration tools in the past 12 months. 98.1 per cent reported that their business used it and 82.8 per cent said their business used this technology "frequently" or "very frequently".

This is indicative of how COVID-19 has changed the way we work, where we work and how we collaborate. With many businesses requiring employees to work remotely in response to movement restrictions, work-from-home arrangements have intensified the need to enhance remote interaction with clients, stakeholders and employees. Frequent use of web and videoconferencing tools provides a reliable and cost-efficient way of virtual collaboration and communication and will likely continue in the future.

New payment technologies were the second most frequently used technology in the past 12 months. 73.2 per cent of respondents indicated that their business had used new payment technologies "frequently" or "very frequently". This reflects an acceleration of the shift to online sales and the growing demand for contactless payment.

New payment technologies have the potential to decrease the costs associated with handling money and provide more real-time data and insights to business.

Nearly two-thirds (66.1 per cent) of respondents said their business utilised cloud technology "frequently" or "very frequently" in the past 12 months. The high usage of cloud technology reflects demand for technology solutions to enable remote working brought on by COVID-19.

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

The list of technologies that were most likely to never have been used were RPA and AI. These emerging technologies present significant opportunities to improve business efficiency and performance, however, many smaller companies currently lack the data, resources and expertise to apply them into their business operations.

This is supported by the survey results. 24.4 per cent of respondents from companies with fewer than 50 employees stated that their business had used RPA and 41.0 per cent said their business had used AI. In comparison, 80.3 per cent of respondents from companies with 1000 or more employees said their business had used RPA and 75.9 per cent said their business had used AI.

Emerging technologies such as AI are increasingly being built into other technologies such as CRM and accounting software. As such, we are likely to see more businesses, including smaller businesses, adopt these technologies soon.

It remains important for business of all sizes to understand how AI produces the outcomes it does so that its results can be explained to senior management and other stakeholders. For example, according to CPA Australia's **Technology and the Future of the Profession** report, accounting and financial professionals should be aware that the ability of AI and data analytical tools to discover interesting patterns in data is not matched by their ability to explain how such patterns were identified or to justify a particular prediction or recommended course of action.

Other results

Respondents from companies with 1000 or more employees were significantly more likely to report that their business had used the following technologies in the past 12 months compared to those from companies with fewer than 50:

- RPA
- ERP software
- AI
- business intelligence software
- data analytics and visualisation software
- CRM software

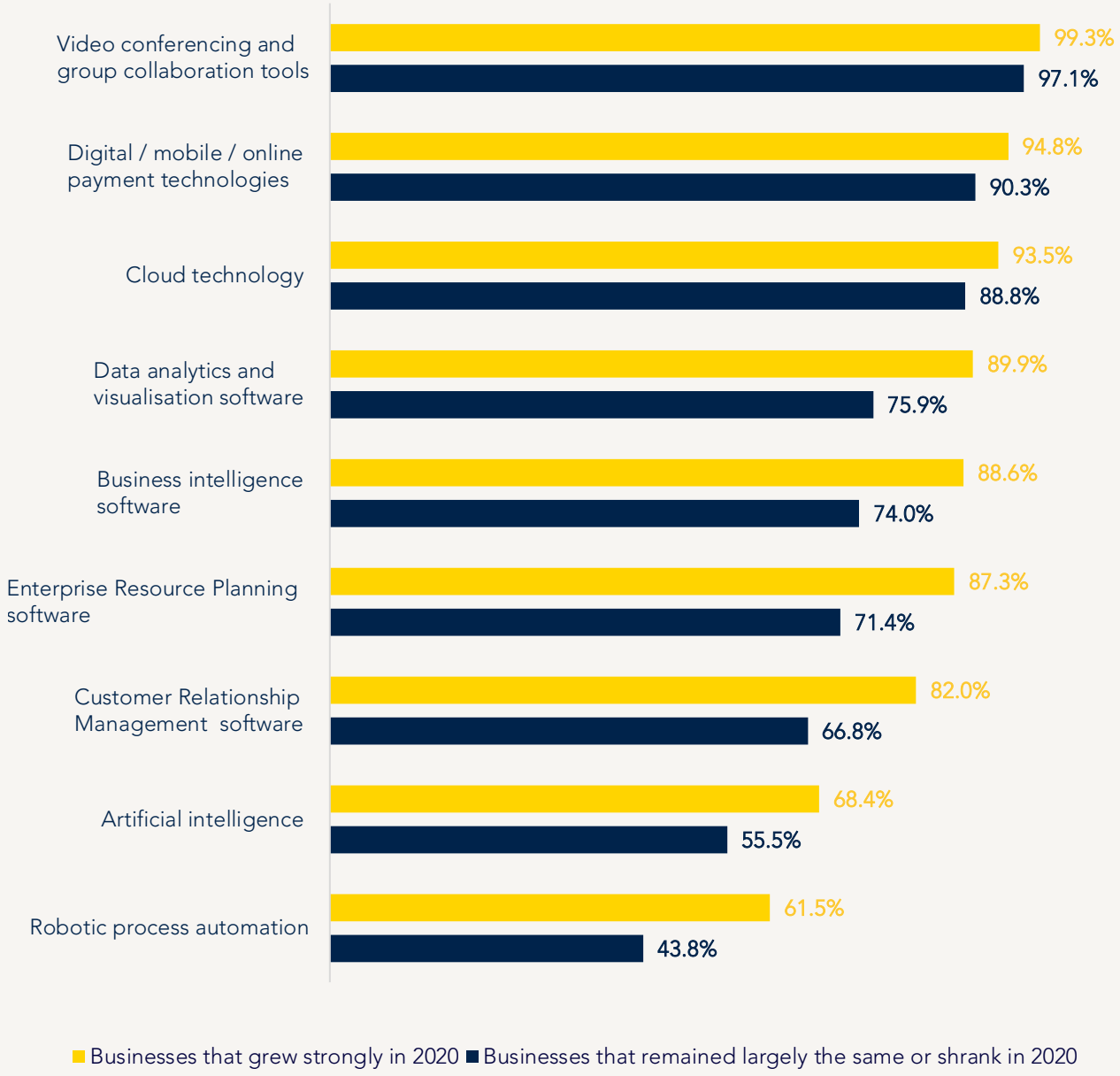
Respondents from Australia were most likely to state that their business had used cloud technology (96.6 per cent) in the past 12 months.

Respondents from Mainland China were the most likely to report that their business had used data analytics and visualisation software (90.6 per cent), ERP software (88.5 per cent) business intelligence software (87.3 per cent), CRM software (83.2 per cent) and AI (79.4 per cent), in the past 12 months.

Respondents from Malaysia were most likely to report that their business used new payment technologies (95.9 per cent) in the past 12 months.

Respondents from Singapore were most likely to report that their business used RPA (65.4 per cent) in the past 12 months.

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



Question: Please rate how frequently your business or employer used each of the following technologies in the past 12 months.

Question: To the best of your knowledge, which of the following statements best describes the financial performance of your business or employer in 2020 compared to 2019?

The survey shows there is a link between technology use and business performance. Respondents who reported working at high-growth businesses in 2020 used technologies more often in the past 12 months compared to respondents who stated that their businesses remained largely unchanged or shrank in 2020.

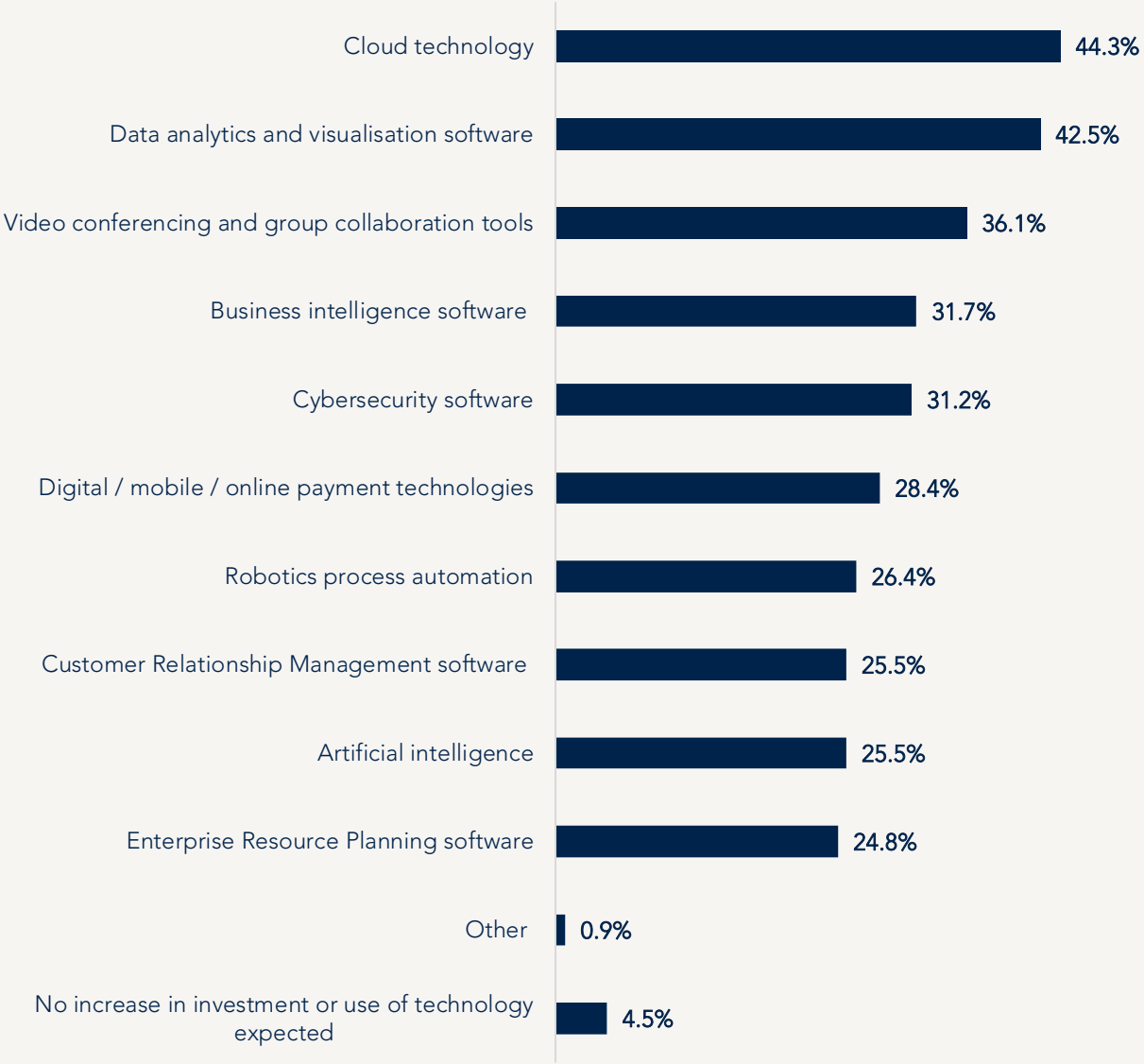
For example, 61.5 per cent of respondents from high-growth businesses in 2020 reported using RPA, which is 17.7 percentage points higher than respondents who said their business remained largely unchanged or shrank in 2020. Other technologies that high-growth businesses were noticeably more likely to use than respondents from businesses that remained largely unchanged or shrank included ERP software, CRM software, business intelligence software, data analytics and visualisation software, and AI.

This aligns with CPA Australia's **Asia-Pacific Small Business Survey 2020-21**, which showed that high growth small businesses were more likely to have invested heavily in technology such as CRM software, and business intelligence and analytical software in 2020, than small businesses that remained largely the same or shrank.

It is reasonable to conclude that technology use has a positive impact on business growth. In an increasingly digitalised environment, technology adoption and digital transformation will continue to be new engines of business growth, and it would be prudent for businesses to build their knowledge of this area and how best to leverage technology into their operations.

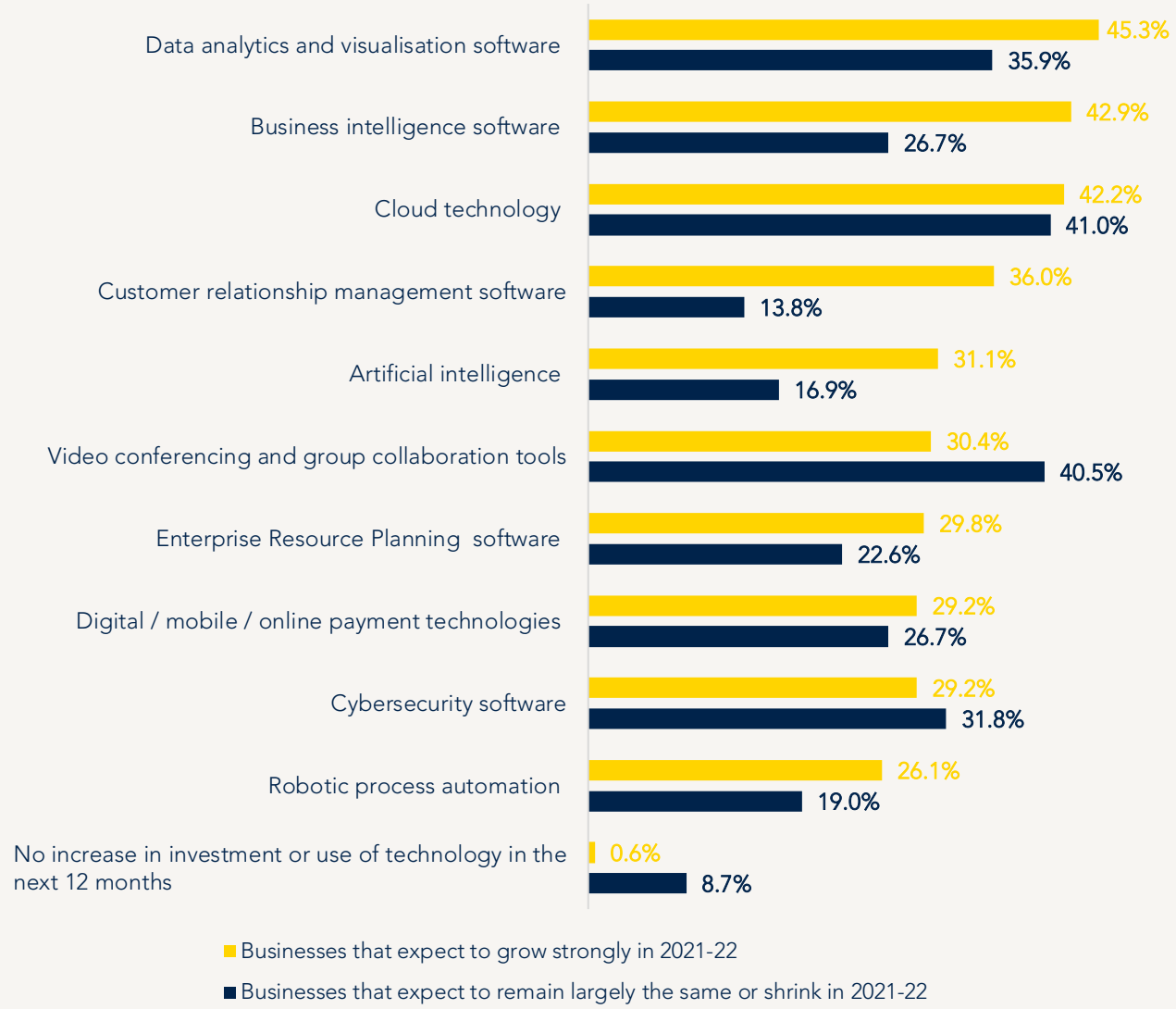
EXPECTED INCREASE IN INVESTMENT OR USE OF TECHNOLOGY

Figure 3. Technologies businesses are likely to increase investment in or use of in the next 12 months



Question: Over the next 12 months, which technologies do you expect your business or employer to increase their use of or investment in?

Figure 4. Technologies businesses expect to increase investment in or use of in the next 12 months – by expected business performance in 2021-22



Question: Over the next 12 months, which technologies do you expect your business or employer to increase their use of or investment in?

Question: Looking ahead to the 2021-22 financial year, which of the following statements best describes the expected financial performance of your business or employer compared to the current 2020-21 financial year?

Figure 3 above shows that the technology respondents believed their business are most likely to increase investment in or use of in the next 12 months is cloud technology. With workplaces becoming more remote, resulting in an increased reliance on digital tools, cloud technology is likely to be an essential element of businesses undertaking digital transformation.

Given more software is being distributed as Software-as-a-Service, where data can be sent and accessed remotely, businesses can look for cost savings decisions that may come from shifting from their own servers to cloud-based solutions. With the pandemic leading to an increase in demand for online sales, cloud technology also better enables businesses to scale up and down for peaks and troughs in sales.

The expected increase in investment or use of data analytics and visualisation software to deliver business insights is another area of focus for businesses. Such technologies can help their company gain valuable insights, provide more value-adding client services and assist in uncovering new growth opportunities.

Video conferencing and group collaboration tools are the third most likely technology that businesses will increase investment in or use of in the next 12 months tools. This suggests that as remote working becomes the 'new normal', demand for tools that are effective for both internal and external collaboration is driving businesses to increase their use of this technology.

The survey results also show that respondents that expect their business to grow strongly in 2021-22 are significantly more likely to expect their business to increase their use of or investment in the following technologies in the next 12 months than respondents that do not expect their business to grow over the same period (See Figure 4):

- CRM software (36.0 per cent)
- business intelligence software (42.9 per cent)
- AI (31.1 per cent)
- data analytics and visualisation software (45.3 per cent)

Only a very small percentage of respondents stated that their business will not increase investment in or use of technology in the next 12 months (4.5 per cent), although the percentage was higher among respondents that do not expect their business to grow in 2021-22 (8.7 per cent).

Other findings

Respondents from businesses with 1000 or more employees were most likely to choose data analytics and visualisation software (50.6 per cent), cloud technology (44.2 per cent), RPA (42.3 per cent) and AI (41.1 per cent) as the technologies their business will increase investment in or use of in the next 12 months.

Respondents from businesses with fewer than 50 employees were most likely to choose cloud technology (46.9 per cent), video conferencing and group collaboration tools (43.5 per cent) and data analytics and visualisation software (29.9 per cent) as the technologies their business will increase investment in or use of in the next 12 months.

Respondents from Australia were the most likely to expect their employer to increase their investment in or use of cybersecurity software (40.4 per cent), business intelligence software (39.5 per cent), CRM software (29.8 per cent) and ERP software (28.9 per cent) in the next 12 months.

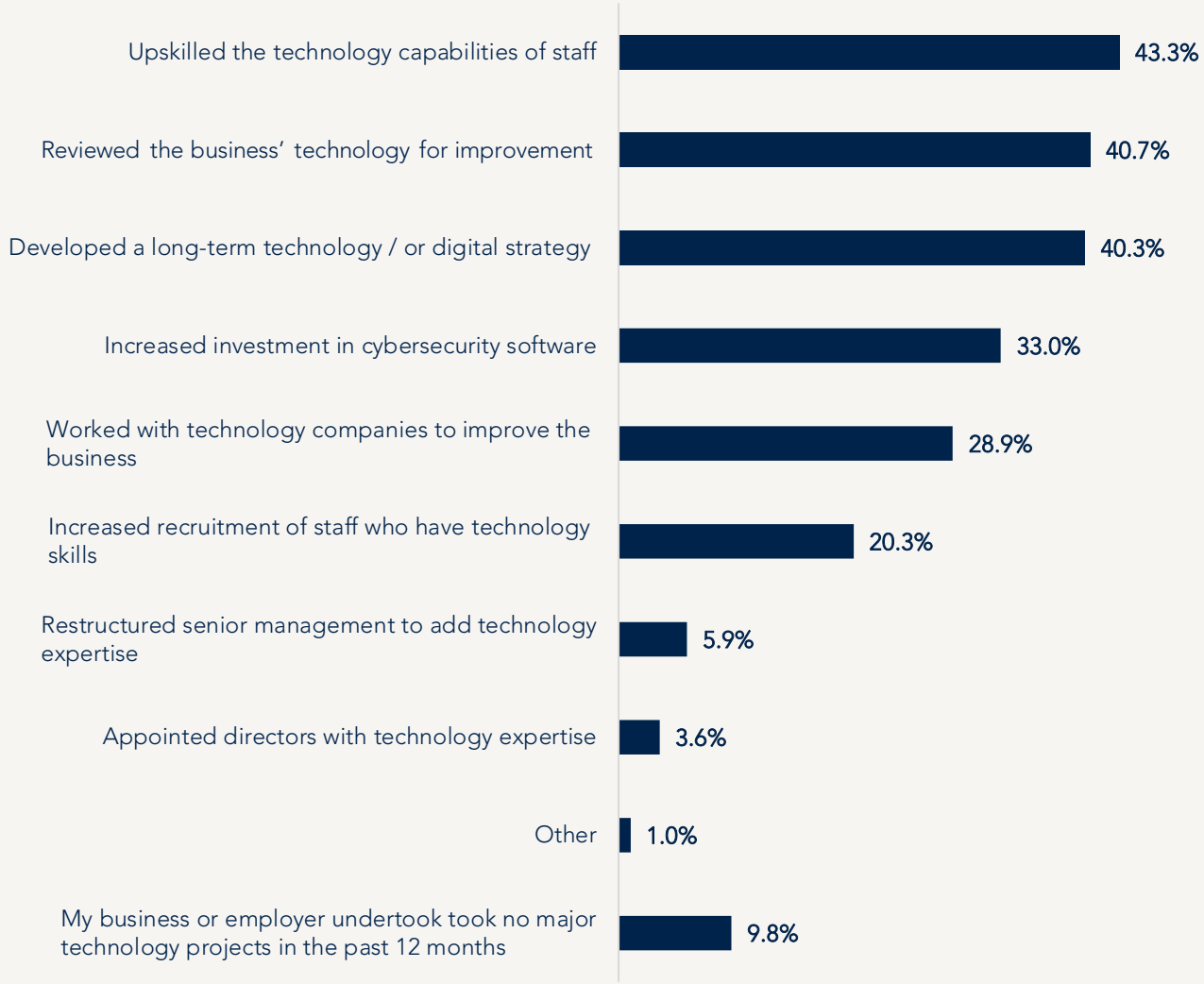
Respondents from Mainland China were the most likely to expect their employer to increase their investment in or use of data analytics and visualisation software (50.0 per cent) and AI (36.4 per cent) in the next 12 months.

Respondents from Malaysia were the most likely to expect their employer to increase their investment in or use of cloud technology (50.3 per cent) and video conferencing and group collaboration tools (49.7 per cent) in the next 12 months.

Respondents from Singapore were the most likely to expect their employer to increase their investment in or use of RPA (42.0 per cent) and new payment technologies (34.8 per cent) in the next 12 months.

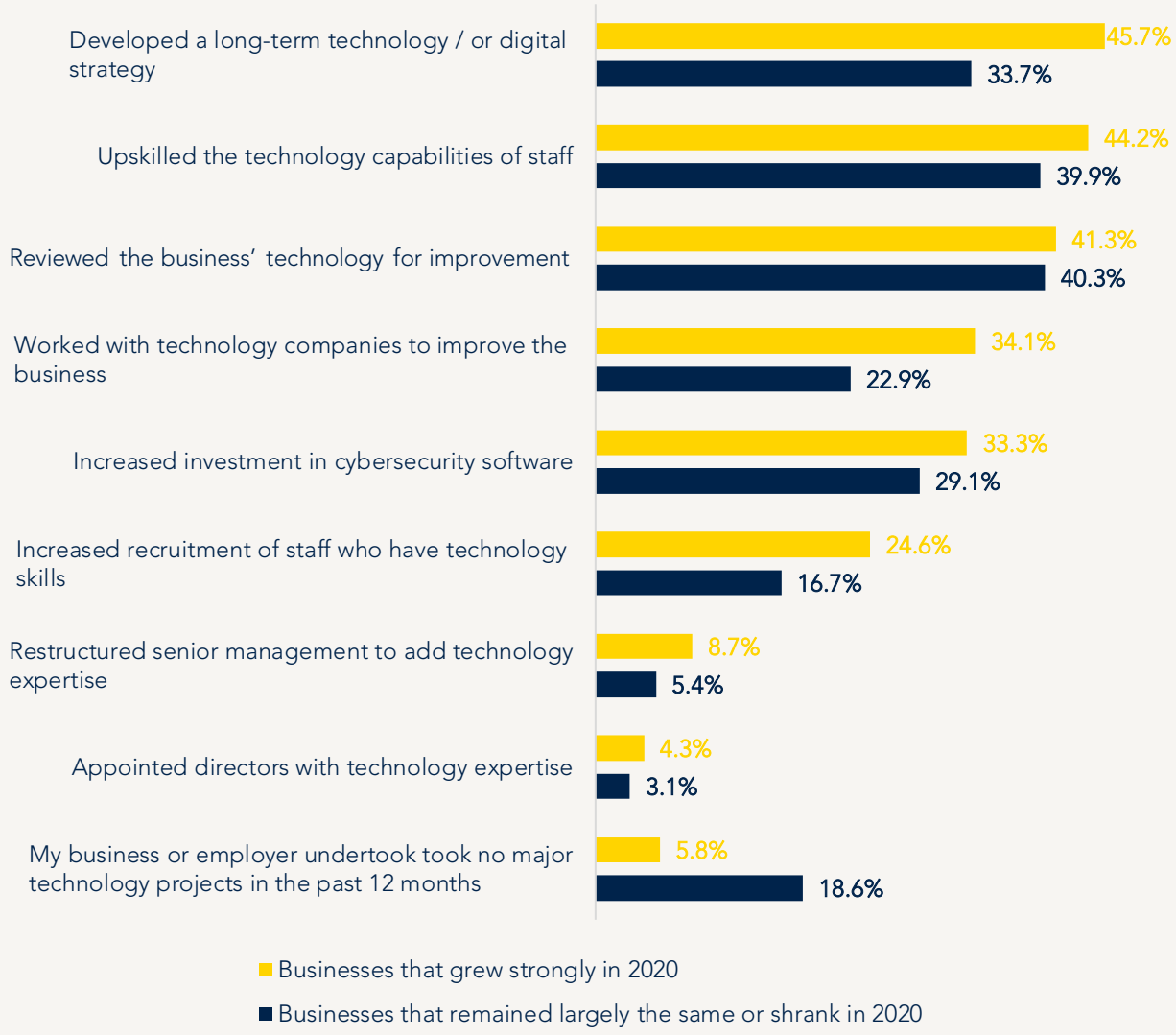
TECHNOLOGY-RELATED PROJECTS BY BUSINESSES

Figure 5. Key technology-related projects businesses undertook in the past 12 months



Question: Which were the main technology-related projects that your business or employer started in the past 12 months?

Figure 6. Key technology-related projects business undertook in the past 12 months - by business performance



Question: Which were the main technology-related projects that your business or employer started in the past 12 months?

Question: To the best of your knowledge, which of the following statements best describes the financial performance of your business or employer in 2020 compared to 2019?

Respondents were most likely to nominate "upskilled the technology capabilities of staff" (43.3 per cent) as their top technology-related project their business undertook in the past 12 months. This result is positive for both the short-term and long-term prospects and indicates an understanding that as organisations digitise, they must also develop the digital and technical skills of employees.

Improving the technology skills of their workforce should produce benefits not only in the use of existing technologies but may spill over into encouraging investment in new technologies that are beneficial to the business.

The need to enhance technology skills is observed in CPA Australia's **The Impact of Technology on the Desired Skills of Early Stage Accountants** report, which noted that recent technological advancements mean employers will need to have appropriately skilled staff in data analytics and interpretation, problem solving, and coding and programming.

"Reviewed the business' technology for improvement" was the second most popular project businesses undertook (40.7 per cent). Given the technology challenges brought on by the pandemic, 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 employees working from home.

The short-term challenges posed by COVID-19 didn't mean that long-term strategies were neglected. The third most popular technology-related project among respondents was "developed a long-term technology or digital strategy" (40.3 per cent). When implementing a technology or digital strategy, it is important for organisations to:

- identify and prioritise digital technology components that will improve the business by addressing current and future needs
- consider internal and external factors
- engage with employees.

Businesses that develop such strategies should be well-placed to respond to shifts in the post-pandemic environment.

According to Figure 6, the results show that there is a positive relationship between high-growth businesses and technology-based projects.

Respondents from high-growth businesses in 2020 were significantly more likely than respondents from businesses that remained unchanged or shrank last year to report that their employer:

- focused on developing a long-term technology or digital strategy (45.7 per cent)
- worked with technology companies (34.1 per cent)
- increased recruitment of staff with technological skills (24.6 per cent).

On the other hand, respondents from businesses that remained unchanged or shrank in 2020 were much more likely to report that their employer have undertaken no major technology projects in the past 12 months (18.6 per cent) than respondents from high-growth businesses (5.8 per cent).

Other findings

Respondents from businesses with fewer than 50 employees were significantly more likely to report that they had not undertaken any major technology projects in the past 12 months (22.4 per cent) than respondents from businesses with 1000 or more employees (2.2 per cent).

Respondents who classify themselves as C-suite / executive level or hold other senior roles were most likely to nominate "reviewed the business' technology for improvement" as the technology-related project their business undertook in the past 12 months.

Respondents from Mainland China were the most likely to report that their business had focused on upskilling the technology capabilities of employees (55.9 per cent), increased investment in cybersecurity (47.2 per cent) and increased recruitment of staff who have technology skills (28.6 per cent). Unlike the other markets surveyed, Mainland Chinese businesses were far less likely to have reviewed their business technology for improvement (20.5 per cent). This could be because many of these businesses went into the pandemic with levels of digital sophistication sufficient to manage through the crisis.

Respondents from Australia (52.2 per cent) and Singapore (49.1 per cent) were the most likely to focus on reviewing their business technology for improvement.

DRIVERS AND CHALLENGES TO TECHNOLOGY ADOPTION

Figure 7. Key drivers of business technology adoption

Question: In your opinion, what are the main drivers of technology take-up in your business?

Eighty-one per cent of respondents nominated "improve operational efficiency" as the main driver of technology take-up for their business. This was followed by "cost savings" and "improve the customer experience" as the joint-second most popular drivers.

Improving operational efficiency, lowering costs and enhancing the customer experience are essential elements for businesses success in a challenging environment. Emerging technology tools such as AI and RPA offer the potential for further opportunities to improve operational efficiency, fuel growth and add value to an organisation's relationship with customers. We expect the adoption of such technologies to be rapid once they become more accessible to smaller businesses.

More than a quarter of respondents (26.6 per cent) chose "improve collaboration between employees" as a driver of technology adoption. Enhancing internal collaboration could potentially help overcome the segmented and siloed units of the traditional business structure. As a result, a more dynamic and collaborative internal environment can optimise business processes and create new business opportunities.

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 and strengthen collaboration between staff.

Other results

Respondents from high-growth businesses in 2020 were more likely to nominate "organisational culture of innovation" (31.0 per cent) as one of their employer's main driver of technology uptake than respondents from businesses that remained largely the same or shrank (18.2 per cent).

Respondents from businesses that remained largely the same or shrank in 2020 were more likely to state that "cost savings" was one of their employer's main drivers of technology take up (45.3 per cent) than respondents from high-growth businesses (34.5 per cent).

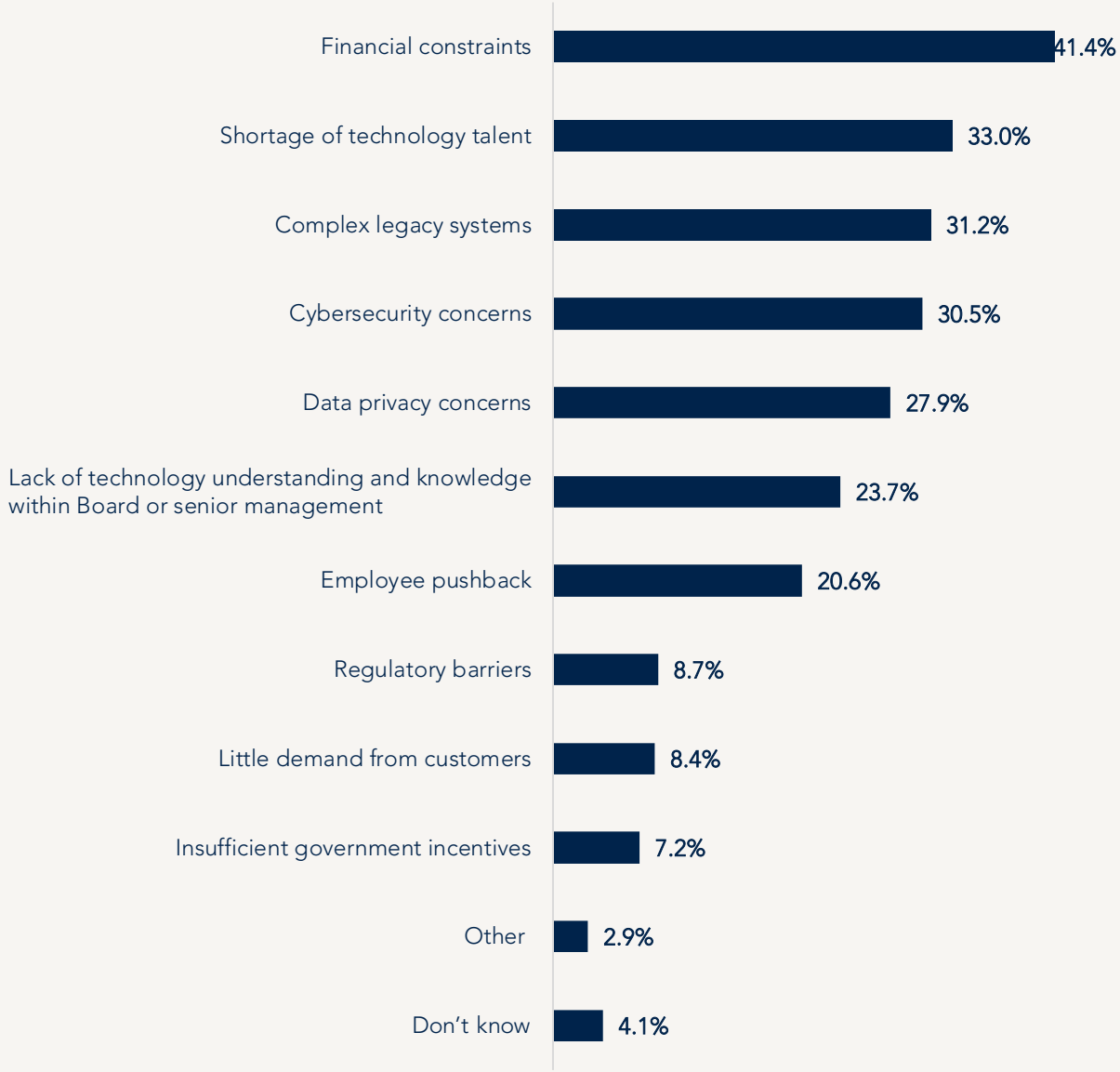
Respondents from businesses with 1000 or more employees were more likely to choose "organisational culture of innovation" (30.6 per cent) as one of their employer's main drivers of technology uptake than respondents from businesses with fewer than 50 employees (12.2 per cent).

Respondents who classify themselves as C-suite / executive level or have other senior roles were most likely to nominate "improve operational efficiency" (86.2 per cent) as one of their employer's main drivers of technology take up.

Respondents from Hong Kong and Macau were the most likely to nominate "cost savings" (49.0 per cent). Meanwhile, respondents from Malaysia were the most likely to nominate "improve operational efficiency" (84.5 per cent).

Respondents from Singapore were the most likely to nominate "improve the customer experience" (47.5 per cent) and "improve collaboration between staff" (32.5 per cent).

Figure 8. Key challenges to business technology adoption



Question: In your opinion, what are the main challenges for technology take up for your business or employer?

"Financial constraints" (41.4 per cent) was the most reported barrier to technology adoption. This challenge may result in such businesses falling further behind their competitors, exacerbating their financial concerns.

Reflecting the strong demand for technology and the consequence of growing business usage of technology, "shortage of technology talent" (33.0 per cent) is the second most common challenge respondents believe is inhibiting technology uptake of their employer. To meet the shortfall in technology talent, businesses should consider developing new talent from within, as well as recruiting talent.

31.2 per cent of respondents consider "complex legacy systems" as a major limiter to technology take up in their business. For organisations looking to keep up with competitors and changing customer preferences, they should consider modernising legacy systems. In addition, costs could be reduced in the long run by replacing legacy 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. 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.

In summary, the results show that for those making the business case to invest in technology, they should also focus on:

- the value for money of the technology investment
- how the employer will access the skills required to implement the technology
- how the solution will interact with or replace legacy systems
- the cybersecurity and data privacy features of the technology.

Other results

Respondents from high-growth businesses in 2020 were more likely to state that "cybersecurity concerns" was their main barrier to technology adoption (35.9 per cent) than respondents from businesses that remained largely the same or shrank (30.3 per cent).

Respondents from businesses that remained largely the same or shrank in 2020 were significantly more likely to nominate "financial constraints" as their main barrier to technology adoption (51.5 per cent) than respondents from high-growth businesses (35.2 per cent).

Respondents from businesses with 1000 or more employees were most likely to state that "complex legacy systems" (45.1 per cent) and "shortage of technology talent" (33.8 per cent) are the main barriers to technology take up.

Respondents from businesses with fewer than 50 employees were most likely to choose "financial constraints" (52.1 per cent) and "data privacy concerns" (33.0 per cent) as the main challenges to technology take up.

Respondents who classify themselves as C-suite / executive level or have other senior roles were most likely to nominate "financial constraints" (47.9 per cent) as their employer's main challenge to technology take up.

Respondents from Australia were the most likely to nominate "complex legacy systems" (40.0 per cent).

Respondents from Mainland China were the most likely to nominate "cybersecurity concerns" (41.0 per cent).

Respondents from Malaysia were the most likely to nominate "financial constraints" (54.8 per cent), "shortage of technology talent" (36.8 per cent), "data privacy concerns" (33.5 per cent) and "lack of technology understanding and knowledge within the Board or senior management" (29.7 per cent).

Respondents from Singapore were the most likely to nominate "employee pushback" (26.7 per cent).

RECOMMENDATIONS

Based on the survey results, CPA Australia recommends that businesses consider the following:

Strategic

- Implement a digital transformation strategy that aligns technology with your organisation's culture, employees, risks and business objectives.
- Identify and implement appropriate technology tools that increase productivity and reduce capital spending, such as cloud technology.
- Identify and implement appropriate technology tools that improve understanding of clients' current and future needs, such as data analytics software and business intelligence software.
- Replace legacy systems that restrict the business's ability to keep pace with changes in consumers' preferences and needs.

Operational

- Encourage a corporate-wide innovative culture through developing a technology talent pool, such as by providing technology training programs to all employees and adopting innovative approaches to secure top technology talent.
- Look for technology companies that actively engage with customers and seek feedback on their products or services for collaboration to improve your business.

Risk management

- Commit appropriate levels of expenditure to maintaining and upgrading your IT systems to protect your business from malicious cyber-attacks.
- Identify and locate your business's sensitive data and ensure that appropriate tools and solutions are in place to help protect that data.

KEY LESSONS FOR NEW TECHNOLOGY COMPANIES

New technology companies or start-ups can draw the following lessons from these results. The technology they develop for potential clients must:

- improve their operational efficiency
- lead to cost savings
- improve their customer experience
- lead to enhanced internal collaboration.

They should also focus on:

- how the technology will assist business modernise or integrate with their legacy systems
- the cybersecurity features of their products or services, and how they will assist the business to protect its cybersecurity into the future
- how customer and business data will be protected.

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