



Digital for 100: Business, technology and fulfilling lives



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ECONOMIST IMPACT

Digitisation has progressed far among businesses in Singapore—but it is proceeding at different speeds, and many organisations are lagging.



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Introduction

Many Singaporeans are confident in their ability to reach the grand age of 100.¹ And they see digital technology as a vital tool in reaching their goals for longevity.² In particular, mastering the use of personal finance and health technologies can improve people's chances of having a fulfilling old age. Some of the digital skills they use for these purposes are developed in the workplace.

We recently surveyed employers in Singapore, the vast majority of whom believe there is much that they can do to help their employees to live longer and more fulfilling lives. Most believe they are indeed helping their employees to do this, both indirectly and directly, through the digital training they provide and their encouragement of digital innovation.

About the research

This article is based on a survey of 100 Singapore-based executives conducted in June-July 2022. Of the respondents, 39% perform general management roles, 35% are human resources executives and the remainder hold strategy positions. Half of the respondents' organisations are small or medium in size, employing between 10 and 200 people, and the other half are large, with a workforce of over 200. Twenty sectors are represented in the survey, with financial services, professional services and technology providing the largest numbers of respondents. In previous reports exploring Singaporeans' readiness to live to 100,³ we focussed on their efforts to maintain a healthy lifestyle and build financial resilience. In this article, we assess the role of employers and of workplace technology in helping Singaporeans to achieve those goals.

1 In a parallel survey of 800 Singapore residents we conducted earlier in 2022, 54% say they feel ready to live to 100 from a financial perspective, and 42% say they feel ready to do so from a health perspective. See "Digital for 100: Harnessing technology for longer lifespans".

- 2 In our survey of residents, 54% say that mobile devices and apps are the most important tools they have to help them live well for longer and get the most out of life.
- 3 See Ready for 100 website https://impact.economist.com/projects/ready-for-100/.



Digital transformation: A work in progress

Digitisation has progressed far among businesses in Singapore—but it is proceeding at different speeds, and many organisations are lagging. Of the executives we surveyed, 58% consider their organisations to be "mostly" or "thoroughly" digitised. Another 24% are "partially" digitised, with the remaining 18% "not very" or "not" digitised.

The larger the organisation, the more digitised it is likely to be. Among respondents working in large enterprises—those with more than 200 employees—86% describe their organisations as "mostly" or "thoroughly" digitised. Just 30% of respondents in small and mediumsized enterprises (SMEs) say the same. Kurt Wee, president of the Association of Small and Medium Enterprises, acknowledges a gap in digitisation levels between SMEs and large businesses. But, he says, "that gap has narrowed considerably over the past five or six years." This is thanks in part, he adds, to strong government support, ensuring that SMEs also have access to resources and advice that help them to upgrade their digital capabilities.

The surveyed organisations have invested widely in advanced technologies. For example, 73% of respondents say their organisation has invested in recent years in 5G technology, 71% in artificial intelligence (AI), 58% in mobile apps, 57% in blockchain and 50% in data analytics.

A large gap between larger and smaller organisations is evident here, too. Many more large enterprises than SMEs have invested in almost every technology capability shown in Figure 3. For example, 82% of large firms have already invested in AI compared with 60% of SMEs. When it comes to mobile apps, the difference is 74% vs 42%; with blockchain: 76% vs 38%; with data analytics: 70% vs 30%; and with online payments: 70% vs 28%.

"SMEs realise they need to accelerate digitisation, but many bemoan a lack of financial resources and skilled digital talent," says Tay Ee Learn, chief sector skills officer of the National Trades Union Congress (NTUC) Learning Hub, a social enterprise set up by NTUC.

Figure 1: Digitisation is progressing at different speeds in Singapore

How respondents describe their organisations' current use of digital technology



Thoroughly digitised: digital technology underpins all our processes and operations

Mostly digitised: digital technology underpins most of our processes and operations, although there are some that have yet to be digitised

- Partially digitised: digital technology underpins roughly half of our processes and operations
- Not very digitised: some processes and operations are digitised, but most are performed without the help of digital technology
- Not digitised: very few processes and operations are performed with the help of digital technology

Figure 2: Organisations are spending to deploy advanced technologies

The technologies that respondents' organisations have already invested in or intend to invest in within the next two years



Haven't invested, but plan to invest within next two years

Source: Economist Impact (2022)

Figure 3: Larger organisations are investing more

The technologies that respondents' organisations have already invested in





Organisations having 201 or more employees

Organisations having between 10 and 200 employees

"Although the labour market is tight for everyone in Singapore, SMEs are finding it harder than large businesses, with reputations in the market and greater resources, to attract needed talent," he says.

Resource constraints do not fully explain SMEs' slower pace of digitisation, however. According to Mr Tay, many SMEs' digitisation efforts are also weakened by a failure to support investments in new technologies with proper training of employees in how to use them.

In the survey, lack of budget is the primary reason our SME respondents cite for not digitising to a greater degree thus far. However, they intend to make up some ground: higher percentages of SME respondents say their organisation plans to invest in and develop most of such capabilities in the next two years, with the top three being data analytics, blockchain and product/service personalisation. Those SMEs that remain short of budget and technology talent can avail themselves of a platform launched by the government's Infocomm Media Development Authority (IMDA) in 2021, dubbed "CTO-as-a-service".

Figure 4: Digital initiatives have brought widespread change to internal operations

The areas in which organisations have brought about the most extensive change through the use of digital technology



Organisations having between 10 and 200 employees

Overall

By making available digital consultants, project managers and other resources, the platform aims to help SMEs digitise their businesses.⁴

While businesses hope investments in the aforementioned and other technologies will lead to better relationships with their customers, thus far, their biggest impact has been on internal operations. The largest change brought about by digitisation, say 49% of respondents, has been the expansion of remote working. Internal collaboration and risk management are other impact areas frequently cited by the executives, as is an external-facing one—customer service.

Most organisations had little choice during the covid lockdowns but to support home-working. "But that has brought about a massive shift in how we work, and hybrid working is now the norm," says Melissa Kee, chief people officer of Temus, a digital transformation consultancy. "It's been of benefit to employers in keeping their operations running smoothly," she says, "and to employees in helping to improve worklife balance," although she cautions that some employees have found it difficult to switch off from work.

4 IMDA Chief Technology Officer-as-a-Service https://www.imda.gov.sg/How-We-Can-Help/smes-go-digital/CTOaaS

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Technology for engaged employees

An organisation's ability to strengthen employee engagement relies at least in part on how effectively it uses digital technology. Most of our survey respondents (79%) say that boosting engagement depends heavily on it.

According to Mr Wee, employers increasingly recognise that employees encouraged to be digitally astute are more engaged. "This helps improve employers' reputation in a tight labour market, enabling them to recruit and retain talent more effectively," he says.

Of the various ways that organisations use technology to boost engagement, the most

impactful, say the respondents, is encouraging and supporting digital innovation by employees. Career development in new technology-based roles—such as in data analysis, business analysis, customer experience and user experience—also does much to boost engagement.

Employers' primary interest in ensuring that their employees are well-trained in the use of digital technology is that they work more effectively for the benefit of the business. To bring this about, the surveyed organisations are developing different types of capabilities. These include means of increasing employees' productivity, such as remote working technologies as well as collaboration tools and other digital platforms to improve efficiency. Employers are also investing in HR-oriented digital tools that make it easy for employees to monitor their benefits or for new hires to get up to speed quickly. And many are spending to provide online professional development courses to employees.

Scaling up the training needed to develop a digital workforce is challenging for SMEs and large organisations alike. To help employers achieve this, NTUC, supported by the government, is helping businesses

Figure 5: Nurturing digital innovation increases engagement

The most important technology contributors to employee engagement in respondents' organisations



Organisations having 201 or more employees

Organisations having between 10 and 200 employees

Overall

to establish company training committees (CTCs) to spearhead digital training for employees and, more widely, companies' digitisation efforts. Mr Tay emphasises that a CTC's work within a business is a collaborative effort between its union leaders, its senior management and NTUC experts. The committee's remit, he says, extends beyond training to include job redesign, process redesign and advice on change management, all of which are vital ingredients of digital transformation. Employers have another vital interest in improving their employees' digital capabilities, according to Sopnendu Mohanty, chief fintech officer at the Monetary Authority of Singapore—safeguarding digital security. Large and small organisations alike, he says, are increasingly keen to improve their employees' security awareness and practices their "digital hygiene".

Efforts to improve digital hygiene benefits not just the organisation but also employees in their personal lives, says Mr Mohanty. "Financial institutions, for example, typically build multiple layers of security into their workplace apps, which helps employees, when acting as consumers, to understand the value of digital security," he says. "This enables employees to better protect themselves outside the workplace when using personal finance apps."

In this and other ways, Mr Mohanty believes that the workplace use of technology has a beneficial impact on individuals' behaviour as they interact with digital products and services outside of work.

Figure 6: Using digital to make employees' working lives easier and more productive

The capabilities respondents' organisations have invested in—or intend to invest in within the next two years—to help improve employee productivity



Already invested

Haven't invested, but plan to invest within next two years

An organisation's ability to strengthen employee engagement relies at least in part on how effectively it uses digital technology.

Win-win: Helping employees achieve their personal goals

"When people become comfortable using technology in the workplace, their comfort levels and confidence in using digital technologies in other aspects of their lives should grow," says Mr Tay. Most of the executives we surveyed agree that this is the case, and that the digital skills their employees obtain at work help them improve their personal lives in different ways.

For example, 88% of respondents believe that the digital capabilities their employees

have developed on the job have helped them to improve their work-life balance thanks to increased productivity and flexibility. Nearly three-quarters (73%) also believe their employees have used their workplace digital skills to advance their own professional development.

Large percentages of respondents also believe the digital acumen their employees have developed at work have helped them use technology to improve their personal health and wellness (64%) as well as the management of their personal finances (47%).

In our parallel survey of residents,⁵ workingage Singaporeans generally give good marks to their employers in providing training in technology use that will help them achieve their life goals, including financial and other lifestyle objectives, as they age. Of that survey sample, 46% say such training has helped to a good or great extent, and 38% say it has helped at least to a moderate extent.

Figure 7: Learning digital skills can help improve people's work-life balance

Respondents who agree that digital capabilities developed in the workplace have helped their employees to pursue personal life goals in different areas



The respondent organisations clearly see practical benefits to their business from helping their employees master such technologies. One benefit is retention: 71% say their employees are more likely than ever to pursue new roles within their company using the digital skills the company has provided them. "Employees want to be able to develop new skills in data analytics and AI, for example, and influence how their organisations apply these technologies," says Ms Kee. When employees can master such skills and realise their aspirations, she finds, "performance improves and their commitment grows."

Figure 8: Which uses of workplace technology help employees better manage their personal lives

The types of company training or work activities that are most useful for employees when it comes to using technology in their personal lives



It also shows that some employers are seeing gains from helping employees use digital technology in their personal lives—in stronger talent retention and brand reputation, for example.



What employers can do digitally to help improve employees' lives

To some senior managers, says Mr Wee, the connection between how employees use digital technology in the workplace and how this benefits employees in their personal lives can seem tenuous. And it is unclear to some employers, he says, why they should actively help their employees use technology more effectively to achieve their personal objectives.

This research suggests that many employers in Singapore—though far from all—understand these connections. It also shows that some employers are seeing gains from helping employees use digital technology in their personal lives—in stronger talent retention and brand reputation, for example. "There is a growing awareness among employers that caring for employees' personal wellbeing can have a beneficial impact on the latter's and the organisation's performance," says Ms Kee.

There are proactive ways that organisations can encourage employees to use digital technology effectively in their personal lives. For example, as part of health benefit programmes, employers could offer rewards to employees for the use of fitness apps. Workplace cyber security training could include sessions devoted to the safe use of personal apps and devices.

However, the most impactful contribution employers can make to the digital betterment of employees' lives is simply to continue digitising the business. Three facets of digitisation initiatives are more likely than others to have such an impact:

Training. Organisations know that the deployment of new technologies must be accompanied by systematic training so that employees learn to use them effectively. The increased familiarity employees thereby gain with such technologies can also help build confidence in their use of personal apps and devices.

Career development. The survey shows that many organisations encourage employees to learn new roles that emerge with the adoption of new technologies. Not only can the capabilities developed in such roles help employees gain competence in using personal as well as workplace technologies, like training, but it can also boost their career and earning prospects.

Encouraging innovation. Employees' experimentation with workplace technologies—for example in redesigning processes or developing new products—can also breed confidence in their use of personal technologies. Senior management of organisations should encourage and reward such experimentation, to the benefit of both their business and their employees.





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