Shaping a smarter workplace

Potential for digital solutions to transform the enterprise workplace in the Asia-Pacific region

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Need for workplace technology

Asia-Pacific (APAC) has emerged strongly on the world stage despite rising uncertainties in global markets. Driven by domestic demand, policy reforms and public investments, APAC has positioned itself as the world's growth engine in recent years. In fact, developing APAC economies already account for almost a third of global GDP, only slightly lower than the share of developed parts of North America and Europe.¹

However, the region does not remain immune to global trends. While APAC has demonstrated resilience to sluggish global conditions, annual GDP growth in the region has tapered from 7% in 2010 to around 5% in 2016. Many export-dependent economies have been impacted by a slowdown in global trade, and sustaining growth could become more challenging amidst stagnating productivity and rising protectionism worldwide. Besides this, the region is also witnessing major shifts in consumption patterns and business conditions, creating both opportunities and challenges for industry players. Workforce expectations are changing as well, with the millennials demanding a more flexible and collaborative work environment.²

Together, these factors are increasing focus on building a more effective future workplace in APAC – stressing on productivity, localised innovation and employee experience – and pushing the adoption of digital solutions to realise swift and sizeable impact.





Bridging productivity gaps

Productivity improvement marks an important lever for nations to deliver faster economic growth, with policy-makers aiming to boost labour productivity (or output per worker) through interventions such as investments in human capital, infrastructure development, institutional improvements or technology adoption.³ By pushing efficiency and innovation, digital technologies in particular are estimated to have a significant impact on productivity. As per one industry estimate, a single point improvement in a nation's digital connectivity score could lead to more than 2% increase in productivity and national competitiveness.⁴

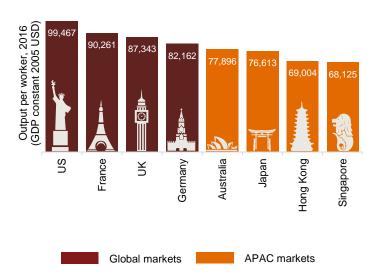
Despite the importance attached to productivity improvement, industry figures indicate a major gap between APAC and global markets. Though developed markets in APAC have stronger productivity levels than their emerging counterparts, leading markets in the region continue to lag behind global economies, as shown in figure 1.1. Driven by a growing sectoral shift towards the services sector (with less productivity growth potential than manufacturing) and an ageing population, recent declines in productivity growth in select APAC markets is an area of concern. Termed as 'post-dividend' countries, these developed markets, including

Japan, Hong Kong and Singapore, are projected to touch among the highest old-age dependency ratios worldwide by 2050 and thus have a need to counter labour shortages through digital solutions. Unlike emerging economies, the importance of technology also increases manifold for developed markets, considering limited scope to improve on other productivity drivers such as health and education, physical infrastructure and institutional performance.⁵

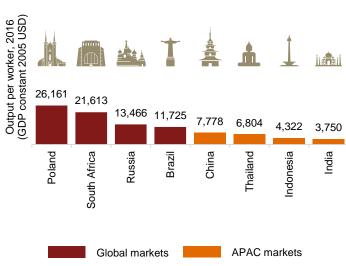
However, emerging economies in APAC have their own set of challenges as well, with productivity levels in major markets such as China, India, Indonesia and Thailand being far below their global counterparts. The potential for productivity catch-up in emerging APAC markets can be expected to drive the adoption of digital solutions going forward. Limited presence of legacy infrastructure will act as an advantage for emerging markets, favouring the adoption of next-generation technologies. In addition, rising labour wages are fast diluting the low-cost advantage boasted by many of these economies, increasing the need for companies to digitalise to improve productivity and counter growing labour costs.⁶

Figure 1.1: Productivity gaps between APAC and global markets

Developed markets: APAC vs Global



Emerging markets: APAC vs Global



Source: International Labour Organization, 2016.

Localising innovation

Market dynamics in APAC are currently in a state of flux, with consumer needs and business conditions experiencing major shifts driving digitalisation. An unprecedented growth in the middle class and in per capita income is leading to changes in consumer preferences. This emerging middle class has a higher willingness to pay for quality, convenience and choice — driving demand for more aspirational products. Online commerce is challenging traditional retail, and consumers are demanding personalised products with a connected omnichannel experience. Business dynamics are also changing with the shifts in consumption patterns, and market entrants are looking to challenge established players by targeting new niches, anticipating needs with greater agility. On the other hand, established companies are focusing on new ecosystem partnerships to gain differentiated capabilities.

Compliance costs are also rising to meet stricter environmental and safety standards, putting additional pressure on company bottom-lines.⁸

Together, these trends are increasing the need for companies to move beyond business-as-usual and innovate continuously as per changing tastes and business conditions. These changing dynamics are in turn driving the adoption of digital tools among APAC firms, to push innovation by gaining proximity to local markets. New digital solutions are enabling greater collaboration between business functions, facilitating exchange of ideas and best practices between local business units and the regional or global headquarters, and are also improving access to real-time information from multiple value-chain participants and customer touch-points – collectively translating into new localised products and business practices.⁹

Case example:

Aimed at utilising digital solutions to transform existing practices, a leading consumer goods multinational recently announced plans to invest USD 100 mn to establish a new digital innovation centre as part of its APAC headquarters in Singapore. The centre will leverage digital solutions such as predictive analytics to combine business data and consumer insights in order to optimise product distribution and marketing strategies. To enable effective implementation of these plans, the company has also launched digital training programs for its employees, in partnership with local institutes of higher learning. It further plans to co-develop digital solutions with other ecosystem partners such as small and medium-sized businesses and startups, in order to improve adoption across the entire regional supply chain.¹⁰

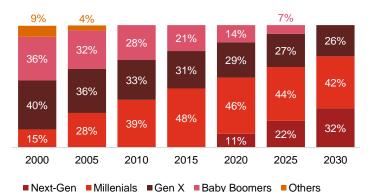


Elevating workforce experience

Apart from growing economic pressures and changing market dynamics, shifts in the workplace represent another major factor driving digital adoption in APAC. These shifts are led by the emergence of new workforce generations showing greater affinity for technology and collaboration, and higher expectations of work-life balance than their older counterparts. As shown in figure 1.2, millennials will continue to dominate the workplace over the next decade or so and a new 'Next-Gen' group will enter the workforce by 2020. Together these two segments will represent almost three quarters of the workforce in Asia by 2030, leading

to significant changes in the work environment, with employees demanding more flexibility and greater focus on personal development.¹¹ This is expected to push the adoption of new digital solutions to help employees in working more efficiently from remote locations or to improve the effectiveness of HR initiatives. Organisations will increasingly move to cloud and mobility solutions, and adopt more seamless and integrated communication tools to enable greater location flexibility.¹²

Figure 1.2: Workforce distribution in Asia by generational categories



Generations	Year of birth
Next Gen	From 2001
Millennials	1981–2000
Gen X	1965–1980
Baby Boomers	1946–1964

Source: United Nations Population Division, World Population Prospects, 2017

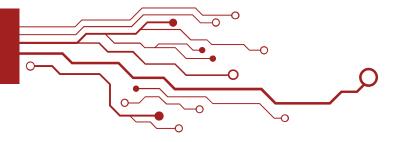
Another major trend shaping the workplace is the rising prevalence of co-working spaces, with Hong Kong, Sydney (Australia), Beijing (China) and Singapore representing the largest markets at present, followed by locations in India and the Philippines. Rapid proliferation of start-ups in APAC has been a major driver, with new ventures showing little consideration for the time and cost involved in acquiring traditional premises. Co-working spaces offer shorter leases and more competitive costs (10-30% lower than traditional workspaces) to businesses demanding flexibility and scalability, allowing companies to distribute their workforce closer to clients, suppliers and other partners.¹³

Case example:

Multinationals are increasingly joining the co-working bandwagon as well. A leading global bank rented around 300 desks at a co-working space in Hong Kong in 2016, to locate its digital transformation staff around like-minded teams such as Fintech players and other start-ups. Similarly, PwC has rented 100 desks at a co-working space in Singapore for its 'Venture Hub' to work in close proximity with other participants of the start-up ecosystem. 14

Going by these trends, the market for co-working spaces in APAC is projected to grow significantly in the coming years. For example, the share of co-working spaces is projected to touch 10-15% of overall office stock in Southeast Asia by 2030, up from 1-5% at present. This will push demand for digital solutions as well, with companies deploying new collaboration tools to connect project teams or business functions distributed across multiple locations. ¹⁵

Towards a smarter workplace



Considering the evidence supporting its impact on sector productivity and economic growth, digitalisation is expected to be central to the strategic plans of both businesses and governments. As a result, the technology market in APAC is expected to achieve steady growth, with spending on Information and Communications Technology (ICT) solutions projected to touch USD 780 bn by 2018, rising by 5% per year over 2016-18. ¹⁶

Pushed by government support, digital expenditure as a percentage of company revenues is also expected to grow significantly, with APAC businesses anticipating substantial revenue and cost impact going forward. This surge in technology spending will increasingly be directed towards cloud-based infrastructure and next-generation solutions to build a smarter workplace in the coming years.





Rising workplace digitalisation in APAC

As per a recent survey, corporates in APAC already allocate a higher percentage of revenues towards digitalisation (15%) as compared to their global counterparts (11%). Going forward, this allocation is expected to rise further, by up to 10 percentage points in APAC by 2020, against an improvement of only 5 points globally. The impact of these investments on corporate profitability is also projected to be significant. Survey responses foresee 'digitally-driven' revenues to form a large component of total earnings for APAC firms, with the share rising from 12% in 2015 to 21% by 2018. Coupled with an anticipated 9% reduction in costs by 2018, digital solutions are expected to drive significant growth in corporate profits into the future. 17 However, lack of structured and

comprehensive adoption strategies, spanning across the entire organisation, continues to mitigate the impact of digital technologies in the region. A majority 62% of companies in APAC claimed not having an organisation-wide strategy to adopt digital solutions – although most of them plan to have one by 2020. This will be essential to fully realise the advantages of digital adoption. APAC companies will need to adopt comprehensive digital transformation plans that coordinate efforts across different business units and functions – extending beyond the adoption of new tools to making changes in employee roles, workplace culture and infrastructure deployment models.¹⁸

Case example:

Digital strategy adopted by the APAC business of a leading financial services group, exemplifies a holistic approach to transformation. Starting from a customer centric viewpoint, the company recognised the importance of mobile and online channels to interact with customers. Rather than creating only a new customer application, it also developed a comprehensive digital strategy that transcended across business functions – from customer experience and sales to back office processing and staff mobility. New digital sales channels increased the opportunity for data analytics and pushed automation of back office processes. Digital platforms were developed with innovation in mind, allowing new features to be continuously developed and deployed both at the global and local market levels, thus improving customer engagement through localised innovation (such as WeChat-enabled banking accounts in China). The focus on customer engagement was also extended to staff mobility, with a new staff tablet initiative being rolled out. This allowed employees to conduct operations on a customised tablet-based platform, reducing average account opening time from 75 minutes to 15 minutes.

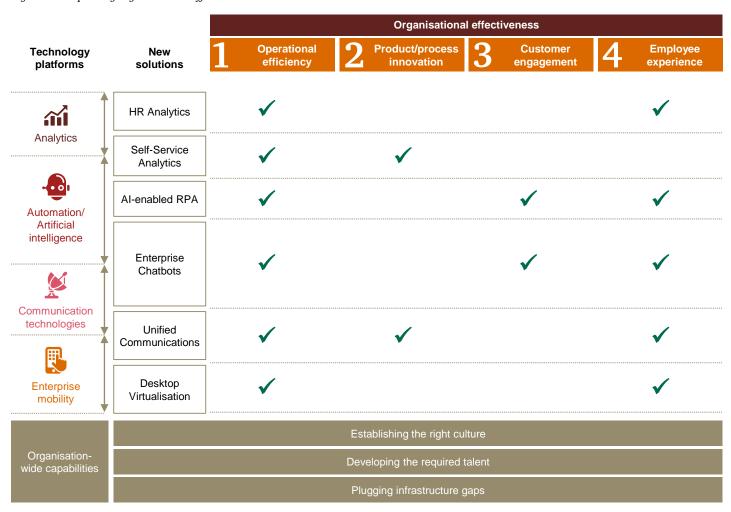
Governments in the region are also looking to support digital adoption in the private sector, especially among the SMEs, a segment that typically lags in productivity to its larger counterparts. Singapore, for example, is addressing this through the 'Go Digital' initiative, that provides financial support to small businesses to adopt pre-approved digital solutions such as enterprise software, mobile workforce management and data analytics solutions.²⁰ Similarly, with a rapidly shrinking labour force, the Japanese government is looking at new Artificial Intelligence (AI) based solutions to cover 5.7 million jobs by 2030.²¹



Emergence of smarter workplace solutions

As industry players in APAC grapple with the shifts highlighted in section 1, they will increasingly look at new workplace solutions to improve their overall effectiveness. As shown in figure 2.1, a next generation of digital solutions are now emerging based on technology platforms such as analytics, artificial intelligence, communication technologies and enterprise mobility management. These 'smarter' solutions impact different sets of business attributes – including operational efficiency, innovation, customer engagement and employee experience – that collectively enable organisational effectiveness. However, adopting these new tools alone will not be enough and companies would also need to focus on a set of organisation-wide capabilities to improve implementation success. These horizontal platforms, including cultural, skill and infrastructure readiness will be critical to build a smarter workplace in APAC, as detailed in section 3.

Figure 2.1. Improving organisational effectiveness in APAC



Source: PwC analysis

The following pages detail new digital solutions expected to gain significant traction in APAC markets:

HR Analytics²²

Workplace challenge:

- Though people represent one of their largest investment areas, most firms have focused on analysing sales and production metrics to improve profitability while paying limited attention to employee data.
- Growing competitive pressures and changing workforce expectations have increased the burden on APAC businesses to deploy more effective and efficient HR practices.

Smart solution:

- HR analytics leverages workforce data including metrics, surveys and predictive analytics to improve performance in people-related areas such
 as hiring, training, retention, workforce planning and performance management.
- By incorporating traditional data (such as tenure, compensation and education) and new types of data sources (such as sentiment analysis of emails, browsing behaviour, calendar tracking), data models can identify drivers of employee behaviour and better predict issues such as voluntary attrition.



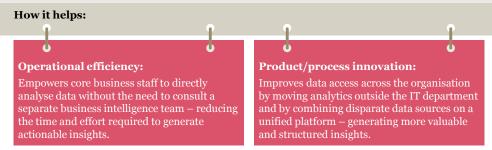
Self-Service Analytics²³

Workplace challenge:

 Rising importance of data analytics combined with an acute shortage of trained data science professionals, is making traditional methods of managing business intelligence less effective.

Smart solution:

- Combining analytics with artificial intelligence, self-service solutions integrate directly with existing enterprise software (such as CRM or HR
 management tools) to allow non-technical staff to construct data models and dashboards, and generate insights in real-time.
- These solutions automate the data preparation process and use pre-constructed models for analysis. More advanced solutions also accept unstructured data such as emails or text reports as inputs, and allow users to query data using natural language.



AI-enabled Robotic Process Automation (RPA)²⁴

Workplace challenge:

- · Productivity improvement continues to be a central business concern in APAC.
- Growing regulatory pressures in sectors such as financial services (to counter terror financing and money laundering) are making it difficult for the workforce to manage rising volumes and complexity of compliance checks with traditional automation tools.

Smart solution:

- Improvements in AI and cognitive computing have added new functionalities to traditional automation, such as understanding natural language, handling unstructured data and machine learning.
- These improvements can manage more complex tasks such as handling compliance-heavy processes, visual understanding of documents and making 'next-best-action' suggestions.



Enterprise Chatbots²⁵

Workplace challenge:

 Traditional communication tools take a significant amount of an individual's time and effort to complete tasks such as scheduling meetings, assigning project tasks or following-up with colleagues.

Smart solution:

- Chatbots are AI-enabled platforms that interact with users through existing communication technologies (messaging or emails) to complete specific
 office tasks or answer queries.
- New enterprise platforms are integrating these bots to facilitate smart scheduling of meetings, automate follow ups, project management and other business functions through enterprise Instant Messaging (IM) platforms.



Unified Communications (UC)²⁶

Workplace challenge:

- Increasing number of communication platforms and devices have caused fragmentation of communication technology within the enterprise, making
 it difficult to collaborate.
- · Changing work dynamics are increasing expectations around workplace flexibility and mobility.

Smart solution:

- UC platforms integrate multiple channels (voice, video, data and mobile applications) prevalent within an enterprise into a cohesive system that enables seamless switching between them, and allows end user access across different computing devices.
- Examples of enhancements enabled by UC include PC to phone calling, single number reachability and integration of traditional conferencing facilities and mobile devices.



Desktop Virtualisation²⁷

Workplace challenge:

• Demand for flexibility and mobility in the workplace is on the rise. To cope with this trend, enterprise applications need to be easily accessible and usable from different devices and locations.

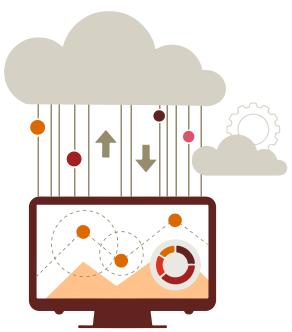
Smart solution:

- Desktop virtualisation involves separating the desktop interface of a personal computer from the physical hardware, and hosting it on a remote and central data server.
- · This allows a user to access his or her desktop across a variety of devices (mobile, tablet, PCs) without significant variations in the user experience.



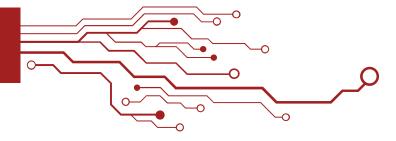
Another notable trend governing digitalisation in APAC is the shift from traditional on-premise solutions to Software-as-a-Service (SaaS) and hybrid cloud options. Driven by falling costs from increasing competition and improvement of data-centre infrastructure, cloud solutions will increasingly become key to digital transformation strategies in APAC going forward.²⁸ As per a recent survey, about 70% of APAC companies already view cloud services as 'very important' to their digital strategies – with the 'potential for cost savings' and 'lower complexity in managing solutions' being cited as primary motivators for the shift towards the cloud.²⁹

However, security concerns and varying compliance requirements could slow down the rate of adoption as national governments (such as Singapore, Australia and Indonesia) seek to establish new data storage, transmission and privacy regulations in the coming years. ³⁰ In view of these challenges, hybrid deployments, where infrastructure consists of a combination of onpremise and SaaS solutions, are expected to provide an optimal stepping stone for businesses, allowing them to retain sensitive data in-house while leveraging the advantages of the cloud for less sensitive tasks. This hybrid approach will also allow a steady transition, as companies look to replace obsolete technology with new cloud-based offerings. ³¹



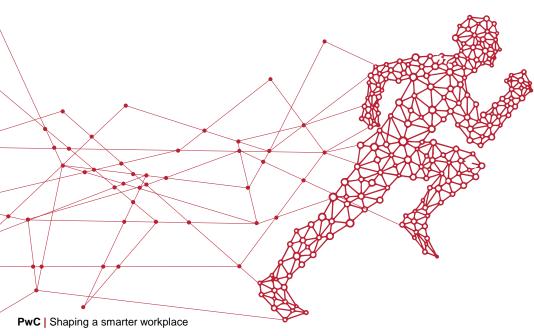


Capabilities for success



APAC businesses will need to develop new capabilities and address existing organisational challenges to benefit from the emerging digital workplace. With the ever advancing pace of workplace technology, only 52% of global CEOs (and 56% in Asia) now rate their organisation's 'Digital IQ' as strong – a measure of an organisation's ability to harness and profit from technology. This has declined from 66% worldwide in 2015, indicating rising complexities associated with a changing technology landscape. As workplace technology becomes more central to how businesses function, leaders must address issues of organisation culture, skill development and infrastructure gaps to maximize the impact of a smarter workplace.³²





Establishing the right culture

Organisation culture needs to complement technology for companies to transform by instilling new thinking and behaviours into their operations. With upcoming digital tools changing the rules of doing business and competition gaining market advantage, cultural resistance within an organisation could become a major impediment to growth. Cultural elements are therefore key to the success of any workplace adoption strategy, with almost three-fourths of global organisations surveyed recently, recognising cultural changes as an important driver of digital transformation. However, achieving an effective cultural transformation can be a complex process. PwC has identified 3 formal levers (governing the processes and management structures) and 3 informal levers (determining how these structures translate into day-to-day action) to achieve a successful cultural change towards digital transformation.³³

Figure 3.1: Levers to build a digital culture



Leadership policies: Establish codified practices (such as modified governance processes) that ensure the leadership drives digital adoption rather than only supporting it.



Role definitions: Clearly define roles within the digital workplace, ensuring employees understand new responsibilities and can also visualise their new career paths.



People processes: HR practices including hiring, training, appraisals, career planning and incentives need to create a stronger case for people to adopt new behaviours.

Formal Levers



Key behaviours: Take incremental steps to encourage employee behaviours that help adapt to a new culture such as by introducing new criteria for performance reviews.



Role models: Identify digital leaders within the organisation to demonstrate successful usage of new digital solutions. Use their insights to constantly influence co-workers.



Networks: Leverage the multiplier impact of formal and informal networks (online communities, interest groups etc.) to spread adoption of new digital solutions.

Informal Levers



Breaking old habits remains a particular challenge to implementing new digital strategies, which will require focus on the informal levers listed in figure 3.1 to gain employee buy-in on transformation plans. Implementation teams also need to ensure that all employees impacted by new processes have a positive experience through the change management phase. This can be achieved by inviting employees to suggest improvements and experiment with the new tools, incorporating their feedback into an iterative development process. By establishing a sense of co-creation, much higher levels of technology adoption can be achieved at a faster pace with the organisation. Besides establishing such a two-way channel, communication messaging must also focus on making employees understand the rationale behind the implementation of new solutions, in order to make them more valued particpants in the company's transformation journey. It will also be essential to conduct regular pulse checks on pockets of support and resistance within the

organisation, making timely adjustments to maintain progress. This will require developing suitable mechanisms (such as interviews, surveys) and metrics to periodically monitor changing awareness, understanding and adoption levels among all user groups of the new technology.³⁴

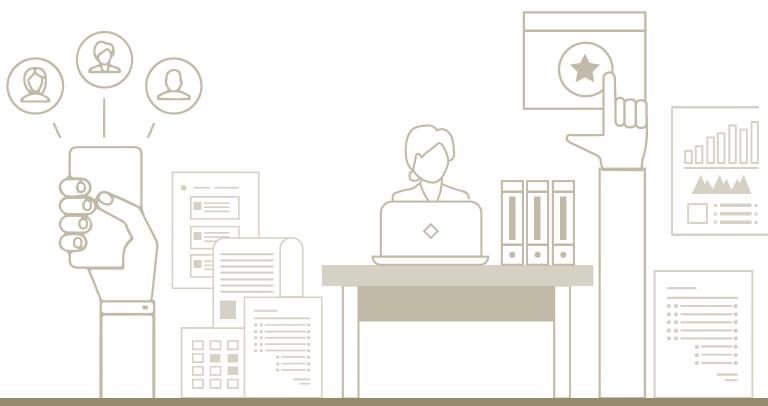
Lastly, as companies continue moving more data to the cloud and incorporate more flexible external resources into their technology ecosystems, cybersecurity must be given central priority within an organisation's digital culture. Cybersecurity must be made the concern of all staff through the development of a culture that prioritises and supports safe digital practises. Incentive programs must be designed to reward lookouts for breaches by all employees, and not only by cybersecurity teams. Alongside employee training, other areas such as governance processes and compliance norms must also be upgraded with information security in mind.³⁵



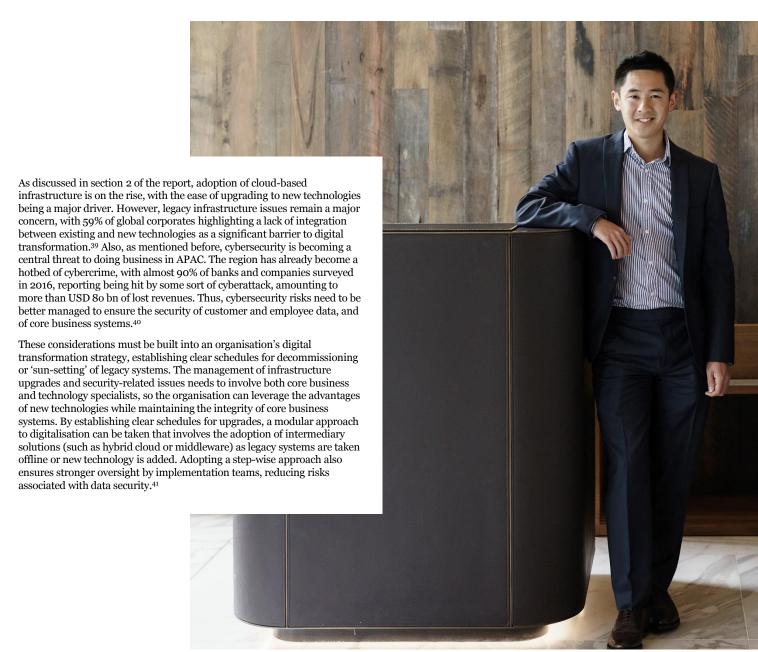
Developing the required talent

As new workplace solutions such as Self-service analytics or AI-enabled RPA change how people work and collaborate, businesses must ensure their organisations possess the requisite talent that supports and nurtures digital adoption. People need to be at the centre of any digital transformation strategy, and combining their skills and expertise with the effectiveness of new digital tools will be necessary to achieve faster and more profitable growth for businesses. Top performers in PwC's Global Digital IQ survey (revenue and margin growth above 5% for the past 3 years and expected growth of at least 5% for the next 3 years) indicate the benefits of maintaining a stronger focus on the 'human experience' surrounding digital technology. These leading businesses have been able to consistently deliver high-quality experience to customers by building teams with cross-functional skills (including business, technology and user experience specialists), upskilling employees in new areas such as user experience and human-centred design, and creating dedicated innovation teams to explore emerging digital technologies.³⁶

Besides focusing on skills specific to job roles, companies must also initiate programmes to build basic skills that will help instil a greater sense of digital confidence in the staff – especially among the older generations that may not be as receptive to new technology. Developing these basic skills such as harnessing data for decision-making, operating smart devices or using new communication tools, will be essential to enable a cultural shift in the company by reducing employee inertia towards change.³⁷ Lastly, companies must look to hire and develop talent that understands evolving cybercrime risks – focusing on areas such as intrusion detection, security architecture and analysis, and incident response and recovery among others. Besides upskilling existing staff, the private sector will also need to collaborate with government agencies to strengthen existing infrastructure to train the next generation of cyber experts in the APAC region.³⁸



Plugging infrastructure gaps



Conclusion

Uptake of digital workplace solutions is on an upward trajectory in APAC, with companies in the region expected to spend much higher proportion of revenues on digital technologies, anticipating greater revenue and cost impact than their global peers. National governments are increasingly pushing digital adoption among businesses to counter factors stalling economic growth, while companies are looking at new digital options to remain competitive in a fast changing market and work environment. Going forward, improving organisational effectiveness will become a key priority for APAC companies aiming at performance improvement along four attributes, including operational efficiency, innovation, customer engagement and employee experience. New 'smarter' solutions are expected to gain momentum, impacting multiple facets of an organisation's performance. They could help improve the effectiveness and efficiency of human resource management, while shifting analytical expertise into the hands of the non-technical workforce closer to customers. Other solutions will assist the staff by providing more 'intelligent' recommendations, automating tedious tasks, improving connectivity and enhancing collaboration across the value-chain.

However, effective implementation of these solutions will require focus on a few other critical aspects. As companies look to rely on next-generation solutions to achieve swift and sizeable impact, they will also need to build stronger implementation capabilities – by building a supportive culture, upskilling employees and covering infrastructure gaps to maximize the impact of digital transformation on their businesses. Considering the dominance of people-related challenges and shifts in APAC, a successful digital transformation strategy will also need to focus on the 'human experience'. This will involve keeping the employee at the centre of all digital initiatives – deploying solutions and practices that enhance not only the employee's work environment, but also improve the quality of workforce interactions with external partners and customers. Technology adoption will need to be a more collaborative effort for the organisation, with solutions being designed and implemented not through a top-down approach but in partnership with a workforce that could make it personal.



Shaping a smarter workplace

Jia works as a sales manager for a manufacturer of powertrain components, supplying to automotive and industrial equipment players in the APAC region. Figure below illustrates how Jia's workstyle and her interactions, both within and outside the workplace, will change with digital adoption.

Situation

- Jia is planning visits to regional markets starting next week, and wants to identify existing clients to upsell the company's new high precision gears.
- She needs to travel by next week to seek inputs for the regional strategy meeting scheduled at the end of the month.
- While Jia is on the road, the central marketing team in Singapore requires to contact her urgently.
- Her inputs will be critical to respond to an RFP to supply transmission systems to a leading automobile manufacturer.
- After an initial meeting with a client, Jia follows-up to push for conversion of the sale.
- The client asks Jia to provide a detailed quote for the product, in order to take discussions further.



- Jia is back from extensive travel across the region, and has many expense reports to submit.
- She also needs to schedule follow-up meetings internally to track her team's progress on pending assignments.
- During these meetings, Jia notices that few assignments have fallen behind schedule, leading to poor client feedback.
- Few of her team members have not been delivering on time and have become less proactive in reaching out to customers.





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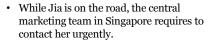
Workplace today

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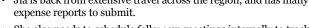


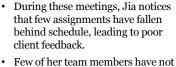






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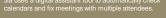
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(reduced travel, trainings, career push etc.) fo each staff member







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