



UNLOCKING SINGAPORE'S AI POTENTIAL 2025

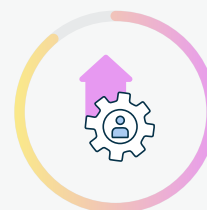
The AI revolution is taking hold in Singapore

AI adoption¹ is accelerating rapidly at an unprecedented pace across Singapore, reshaping industries and redefining how businesses operate. Today, nearly half (48%) of Singaporean businesses are using AI, up from 40% last year. In the past year alone, 27,000 businesses² began using AI — equivalent to over three every hour on average. This brings the total number of AI-adopting businesses from around 143,000 to 170,000, representing a **20%** growth in overall AI adoption. Singapore's strong AI adoption is importantly enabled by high uptake of cloud technology: **53%** of businesses are using the cloud — an important step in their digital transition.

The benefits of the AI revolution are being realised:



82% of AI-adopting businesses report increased revenue — at an average increase of 19%.

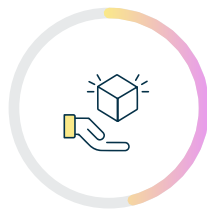


Meanwhile, 90% say they have already seen significant productivity improvements.

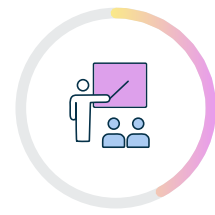
These gains are enabling businesses to redirect their focus toward:



Enhancing customer service and relationships (52%)



developing new products and services (46%)



and investing in employee training (42%)

In Singapore, AI-adopting firms are using AI primarily for enhancing customer service (34%), generating customer-facing content (30%), and generating internal content (30%). The financial services industry is leading the way: 71% of those in the financial services industry have adopted AI, followed by IT and technology, including software developers, data analytics firms, cloud service providers, and digital startups at 70%, and healthcare at 63%. Looking ahead, optimism remains strong. 85% of those who have adopted AI say the technology is likely to increase their growth in the next year, and 89% expect cost savings thanks to AI.

In 2023, to drive momentum behind AI and the digital transition, the government of Singapore launched its [second National AI strategy](#) in response to the emergence of generative AI technologies and the attendant concerns over data security. This built on [Singapore's 2019 strategy](#), which led to a more than \$500 million investment by the Singaporean government across its 2020 and 2025 Research, Innovation and Enterprise plans. In October 2024, the Singaporean Ministry of Digital and Development Information (MDDI) launched its [Digital Transformation Strategy](#). It set out Singapore's intention to position itself as the first-ranked nation for digital inclusion globally, aiming to capitalise on the digital economy's strong [contribution](#) of 17.7% to national GDP in 2023.

Recent years has also seen the introduction of various government-led initiatives and collaborations with industry to help businesses in Singapore be AI-ready. In 2022, Singapore's Infocomm Media Development Authority (IMDA) and Personal Data Protection Commission (PDPC) launched [AI Verify](#), a framework that helps companies assess the responsible implementation of their AI systems against international frameworks such as those from EU, G7, OECD. Under IMDA's [GenAI x Digital Leaders Programme](#), the government agency is also collaborating with AWS to help enterprises identify business use-cases, navigate technical complexities, and deploy their own customised GenAI digital solutions. The GenAI x Digital Leaders initiative is for larger and more digitally mature enterprises looking to develop and deploy their own GenAI digital solutions suited for their business needs with the support of tech vendors and technology giants. In May 2024, AWS launched the [AWS Responsible Generative AI Community in Singapore](#), to support businesses, including SMEs and startups, to harness the power of AI securely and responsibly, and in close alignment with AI Verify.

For Singapore, the true opportunity presented by AI does not solely lie in widespread adoption, but in empowering businesses and employees to move beyond basic applications towards AI integration. While Singapore's combination of rapid AI uptake and partnerships with technology providers such as AWS for strong infrastructure investment have established a vibrant startup ecosystem, and fostered both productivity and revenue growth across sectors, this paints only a partial picture.



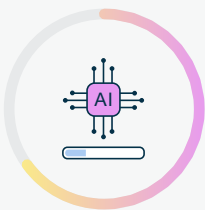
Key findings from this study:

- AI adoption among businesses in Singapore is growing rapidly – with a growth rate of **20%** from 2024.
- Today, over 170,000 businesses in Singapore have adopted AI.
- **91%** of Singaporean startups believe AI will transform their industry in the next five years.
- A lack of digital skills is the highest reported barrier, with nearly half of businesses (**43%**) saying this restricts their AI adoption and expansion.
- **82%** of Singaporean AI-adopting businesses say they have seen an increase in revenue thanks to AI adoption, reporting an average revenue growth of **19%**.
- **90%** of these AI-adopting businesses have already reported seeing significant productivity improvements.

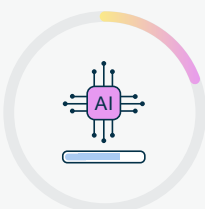


Widespread but basic AI adoption

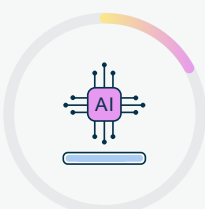
While **48%** of businesses have adopted AI in Singapore, celebrating adoption figures alone masks an underlying trend: when looking deeper into how businesses are implementing AI, most Singaporean organisations remain at basic levels of AI adoption.



65% of Singapore's businesses remain focused primarily on more basic uses of AI and on incremental gains (e.g., driving efficiencies and streamlining processes), rather than innovation (e.g., developing new products or disrupting industries). These businesses are using AI for performing routine tasks, such as using publicly available chatbots, scheduling assistants and purchasing ready-made AI solutions. At this stage, AI is primarily used for customer-oriented content, for example, supporting customer service (**53%**) and generating customer-facing content (**45%**). The retail industry is concentrated at this stage at **71%** among adopters, followed by the professional services industry at **70%**.



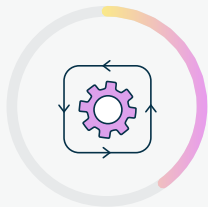
18% of businesses have advanced to the intermediate stage of AI adoption. These companies are moving beyond isolated applications and integrating AI across various business functions, resulting in efficiency improvements and more innovative approaches to customer experience. At this stage, AI is becoming an increasingly important part of businesses' growth strategies and is more likely to be used for conducting research (**32%** at this stage vs. **25%** of all AI adopters) and optimising business processes (**31%** vs. **24%**). The leading industries at this stage are IT and tech (**30%**), followed by professional services (**20%**).



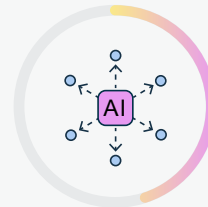
Only **17%** of Singaporean businesses have reached the most transformative stage of AI integration, where they are using AI for its most advanced purposes. These organisations are combining multiple AI tools or models for complex tasks, and creating custom AI systems, which is transforming their operations. At this stage, businesses are much more likely to be using AI to conduct research and development (**24%** at this stage vs. **11%** of all AI adopters). The tech industry is leading the way in terms of the most sophisticated AI uses, with **30%** at this stage, followed by financial services at **26%**, and healthcare at **21%**.

Singaporean startups are emerging as leaders for AI innovation

Startups³ aren't just using AI – they're beginning to build entirely new products and business models around it that would have been impossible just years ago. **82%** of startups say they are leveraging AI in some way throughout their business.



Only **40%** remain at the basic stage of AI use.



45% of startups have AI at the core of their business proposition and operations, and **39%** are leveraging AI for its most advanced uses (Singaporean startups are leading here compared, for example, to **26%** of startups across Europe).



Furthermore, **42%** of startups are developing new AI-driven products and services.

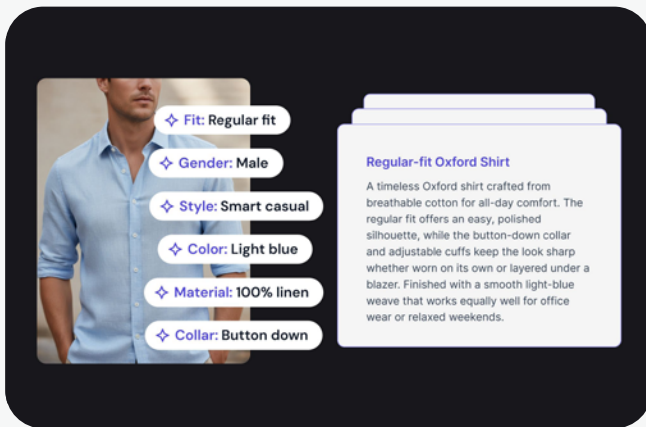


51% of startups employ AI-specific talent, indicating a strong commitment to building and nurturing in-house AI expertise, ensuring businesses can develop, deploy, and refine AI-driven strategies.

91% of startups believe AI will transform their industry in the next five years, making Singapore's fast-moving startups key to innovation and competitiveness on the continent.



Case Study: Hypotenuse AI



[Hypotenuse AI](#) is changing how retailers manage their product information and create product content, helping them accelerate time to market by using AI to generate SEO and GEO-optimised product descriptions, enrich product data, tag and categorise products, and edit product images in days instead of months.

The company's platform serves major e-commerce brands like Quiksilver and Billabong, who face the constant challenge of having accurate product data and creating compelling content for thousands of products while maintaining a consistent brand voice - a process that traditionally requires extensive resources.

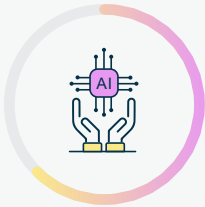
Hypotenuse AI serves customers across the US, Europe and Asia in over 30 languages by building their solution on AWS's cloud infrastructure, leveraging EC2 instances with automatic scaling to handle unpredictable demand spikes during busy retail seasons. What distinguishes their AI technology is how it combines computer vision and LLMs, analysing product images and information to create tailored product content that authentically captures each brand's unique style.

Rather than just generating generic descriptions, Hypotenuse AI enables personalized content targeting different customer preferences, emphasizing "flattering, feminine flair" to some shoppers while highlighting "vibrant tones" to others. The company continues expanding their AWS implementation, exploring Amazon Bedrock for stronger data and content outputs and developing agentic workflows that can manage the entire product content creation process with minimal human input.

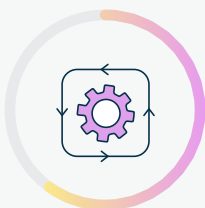


Large enterprises and SMEs represent great untapped potential

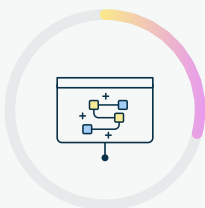
While adoption is now widespread, larger enterprises⁴ are not yet harnessing the most advanced uses of AI, presenting untapped potential for Singapore.



While **62%** of large enterprises have adopted AI technologies, significantly greater than the national average of **48%**, most are currently not using them as deeply as startups, resulting in an emerging 'two-tier' economy.



For **60%** of large enterprises, their AI adoption remains at basic levels, where they are focused on incremental gains, such as driving efficiencies and streamlining processes. While large enterprises are quick to enable localised productivity and efficiency gains, their younger, more agile startup counterparts are surging ahead with implementing AI's most sophisticated, and transformational uses.



Only **30%** of Singapore's large enterprises have a comprehensive AI strategy, a roadmap that outlines how their organisation will leverage AI. **16%** are delivering a new AI-driven product or service, significantly less than half of the proportion of startups (**42%**).

Additionally, SMEs are broadly in line with the national average when it comes to AI adoption (**47%**) and, among SMEs that have adopted AI, **17%** employ its most advanced uses. As with large enterprises, two-thirds (**66%**) of adopters remain at basic levels of AI adoption, while only **16%** are leveraging AI for its most advanced uses. As SMEs represent the majority of Singaporean businesses, the possibility of them harnessing AI's more advanced uses presents a potentially transformative opportunity for Singapore's economy.

These findings also point to an emerging trend of specialisation in Singapore's business landscape, where startups and niche technology providers develop advanced AI solutions that larger enterprises and SMEs can integrate, rather than each business building complex capabilities in-house. This specialisation model can help scale innovation efficiently, allowing businesses to focus on their key strengths while leveraging the expertise of proven AI solution providers.

By empowering businesses of all sizes to adopt and scale advanced AI solutions, Singapore can accelerate productivity growth and digital progress across its business landscape. Moving beyond basic adoption for businesses of all sizes is key to unlocking the full benefits of AI for Singapore's economy and society. Recent [research](#) by the Telecoms Advisory Service, on behalf of AWS, found that cloud and AI added over \$8.8 billion to Singapore's GDP in 2023. The research also found that the cloud as a whole is set to add \$2.8 trillion to the Asia-Pacific region's GDP by 2030, with nearly \$203 billion alone coming from cloud-enabled AI.



Case Study: National University Health System (NUHS)



[National University Health System \(NUHS\)](#), a leading healthcare institution in Singapore, partnered with AWS to develop innovative AI solutions that address healthcare's complex administrative and clinical challenges. Using Amazon Bedrock, NUHS built RUSSELL-GPT, a secure clinical language model platform customised for healthcare tasks. The solution has been deployed to over 8,000 NUHS staff who use it to draft referrals and memos, summarise patient data, and perform other documentation tasks—reducing the administrative time of clinicians by as much as 40 per cent. A key component, MediVoice, allows clinicians and nurses to efficiently document daily clinical activities and patient communications through voice-to-document functionality.

Building on this success, NUHS developed BERTRAND, an agentic AI system that leverages RUSSELL-GPT's capabilities but adds multi-agent and automation to healthcare workflows. While RUSSELL-GPT provides interactive tools that respond to user prompts, BERTRAND can be triggered to work automatically in the background, using hospital clinical protocols and curated evidence to analyse clinical data, and to generate structured notes without specific user instruction. The system employs multiple LLMs running in parallel on Amazon Bedrock to perform complex reasoning tasks across multiple medical conditions, providing suggestions to coordinate care across disease specialties. It can also undertake complex administrative processes, such as appointment deconflicting, to suit the needs of the patient. AWS cloud services provide the secure infrastructure essential for both systems, enabling NUHS to transform how healthcare information is processed while maintaining strict security and compliance standards.

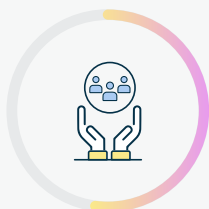
Case Study: Keppel



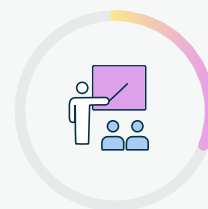
[Keppel](#) has pushed rapidly into enterprise AI with the creation of KAI, its enterprise AI platform, which is powering specialised agents starting with research, investment analysis, and real-time news monitoring. Together with AWS, Keppel designed KAI's architecture from the ground up, prioritising flexibility, scalability, and security from day one. By building on Amazon Bedrock, Keppel integrates the strengths of leading gen ai models like Anthropic Claude and Amazon Nova's family of models, giving its teams the freedom to choose the best model for each use case. With this architecture, Keppel is not only deploying powerful AI agents but also setting a new standard for enterprise-grade governance and trust.

The digital skills challenge

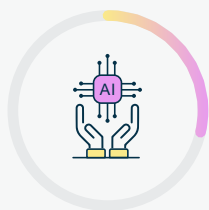
The Singaporean government acknowledges that gaps in AI and digital skills could limit how businesses adopt, scale and innovate with emerging technologies. At the same time, there is growing momentum and commitment across government and industry to strengthen AI skilling efforts, such as the recent announcement of the [‘Skills Pathway for Cloud’](#), aimed at building a direct tech talent pipeline for Singapore’s evolving technology landscape.



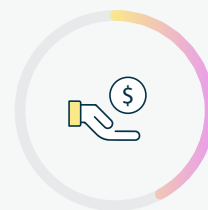
The launch of this initiative takes place at a critical moment, with over half (**52%**) of businesses reporting that they struggle to find local talent with the expertise needed to implement and manage AI solutions.



This makes the digital skills gap the most critical barrier to expanding AI adoption. As a result, companies are seeking to upskill their workforce – **30%** have already implemented AI-specific training programs and, on average, **40%** of employees have undergone digital training in the past year.



The impact of this investment is already being felt. **28%** of businesses say that broader AI training initiatives are helping to accelerate AI adoption.



To attract top talent, businesses are offering an average **42%** salary premium for candidates with strong digital skills.

Fostering a digitally-skilled workforce will serve as a crucial enabler for boosting AI adoption and AI-driven innovation which will in turn drive economic growth and competitiveness.

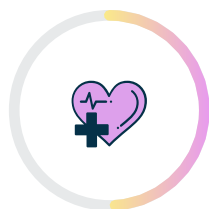
Key barriers are preventing Singaporean businesses from fully harnessing AI

Three key barriers are restricting AI adoption and innovation in Singapore:

Skills



A lack of digital skills was the highest reported barrier, with **43%** of businesses saying it prevents them from adopting or expanding their AI use. Businesses report that AI literacy is expected to be important for **48%** of jobs in the next three years and less than a third (**32%**) of businesses feel prepared with their current skillset.



The skills barrier is most prominently reported by the healthcare industry at **49%**. This industry is among the most active in advancing AI use, suggesting that as businesses move toward more sophisticated use cases, they increasingly struggle to find or develop the specialised expertise needed. Compounding this issue, many companies find it difficult to define the exact AI capabilities they require, making it harder to identify and recruit the right talent even when it exists.

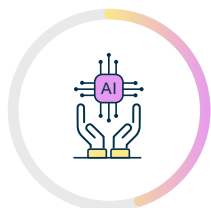
AWS has launched several collaborative initiatives with the Singaporean government to address this skills barrier. The most recent of these skills initiatives was launched in August 2025, when the IMDA announced its [partnership with AWS](#) and training provider Trainocate to equip up to 100 individuals with AI and cloud skills.

Regulatory uncertainty

Across the world, businesses are facing growing regulatory uncertainty as new rules are considered for emerging technologies like AI.



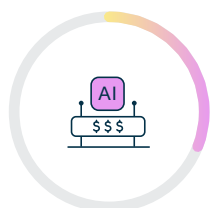
When considering the positive impact new regulation might have on their business, the number one reported hope was that new AI regulation would increase consumer confidence (**53%**), followed by providing a stable regulatory framework (**48%**). adopting or expanding their AI use. Businesses report that AI literacy is expected to be important for **48%** of jobs in the next three years and less than a third (**32%**) of businesses feel prepared with their current skillset.



Similarly, regarding concerns around the introduction of new regulations of AI, businesses express worries about slowing down AI innovation and adoption (**43%**) and increasing compliance costs (**40%**).

This demonstrates the critical importance of taking a pro-innovation approach and providing regulatory certainty to businesses as they consider these next technologies to ensure that they can manage costs.

Perceived costs



32% of Singaporean businesses cite perceived upfront costs as a key barrier to AI adoption.



Furthermore, **40%** of businesses say they need a clearer understanding of AI's return on investment.



Notably, among those businesses that have adopted AI, **82%** of have seen a significant increase in revenue from AI, with an average **19%** revenue growth attributed to AI, pointing to a perception gap.



AWS is committed to supporting businesses and local innovation in Singapore

- AWS Singapore [launched its flagship AI programme](#) in May 2024, entitled AWS AI Spring, to enable the adoption of AI across the local economy, aiming to train 5,000 individuals in AI skills yearly from 2024-2026.
- The [10th AWS ASEAN Summit](#) saw a pledge of \$12 billion into existing cloud infrastructure in Singapore from 2024 to 2028, on top of the pre-existing investment of \$11.5 billion by AWS in Singapore from 2023.
- The combined effect of these investments was projected by an [AWS Economic Impact Study \(EIS\)](#) in 2024, which estimated a S\$23.7 billion contribution to Singapore's GDP by 2028, while supporting an estimated average of 12,300 full-time equivalent jobs in local Singapore businesses each year.

In June 2025, AWS opened an [AWS Innovation Hub](#) in the APAC region, located at the AWS headquarters in Singapore, aimed at accelerating digital transformation and AI development.

Recently, in June 2025, AWS and Digital Industry Singapore (DISG) announced the launch of [AI Springboard](#), with the aim to empower 300 Singapore-based enterprises to scale AI across their operations over the next 12 months. The AI Springboard offers enterprises up to S\$600,000 in cloud credits and training support to fast-track their AI transformation journeys. The AI Springboard is a key program under the [Singapore Government's Enterprise Compute Initiative \(ECI\)](#) that was unveiled during Singapore's 2025 Budget statement. Under the ECI, up to S\$150 million will be set aside to help Singapore-based enterprises leverage AI more effectively in their transformation journey. The initiative will enable eligible companies to partner with major cloud service providers and appointed consultant partners to access cloud computing, advisory and technical implementation services, and specialised training programs

Unlocking the full potential of AI through four crucial actions

Singapore has the right tools and the ambition to lead in AI, not only in a more widespread and deeper adoption of technology, but also in innovation. AWS urges policymakers and industry leaders to take action to unlock AI's full potential across both startups and large enterprises:

- 1. Accelerate private sector digital adoption through boosted skills efforts:** Streamline access to government funding and build industry-specific digital skills programs. Looking ahead, businesses expect that a high level of digital skills will be necessary in jobs, but struggle to see this reflected in the workforce; this mismatch highlights the need for targeted upskilling initiatives, including partnerships between government, industry, and educational institutions. Closing this gap is key to unlocking Singapore's next wave of innovation, productivity, and growth.

Success in basic AI adoption brings a new challenge: supporting businesses as they move beyond foundational uses of AI. Current training programs, which often focus on AI awareness, will need to evolve toward cultivating deeper and more advanced implementation. For businesses, early AI success should be seen not as a sign that talent needs are met, but as a signal to prepare for the next phase, when capability gaps could widen as AI systems mature and become more integral to operations. In short, the better businesses get at using AI, the more acutely they may feel the talent crunch.

- 2. Maintain a pro-innovation and pro-growth regulatory environment:** Fostering confident investment in AI and boosting AI-driven innovation will be enabled through maintaining a clear and streamlined regulatory environment. Additionally, aligning on common international standards and legal definitions with international partners can help drive compliance costs down at a global level, not only in Singapore, and create a stable environment which supports AI adoption.

Businesses in Singapore are facing rising compliance costs on technologies, acting as a barrier to increased AI adoption.

- 3. Support businesses with continued access to cloud infrastructure:** Strengthen access to ready-to-use digital infrastructure by providing healthcare organisations and other industries leading in AI with pre-built AI components, such as diagnostic models, data management tools, and analytics frameworks, that they can easily assemble and customise. At the same time, continue to advocate for government partnerships with leading cloud providers to develop shared AI capabilities. These shared platforms can reduce costs, accelerate deployment, and ensure that even smaller organisations can access secure, scalable AI infrastructure to drive innovation and efficiency across sectors.
- 4. Increase public sector adoption of AI:** Prioritise digital transformation across industries such as healthcare and education (both citizen priorities), use public procurement to drive innovation, and create test-beds and cross-border exploratory projects using AI to deliver new services. **71%** of Singaporean businesses say they are more likely to adopt and expand their AI use when the public sector leads, and **75%** of startups say that public sector adoption is crucial to their ability to scale, attesting that the public sector adoption of new technologies is crucial to increasing trust in these technologies.

Conclusion

Singapore has the tools and ambition to harness AI's full potential, yet taking this next step demands targeted action. Streamlined and internationally aligned regulations are essential to removing barriers and encouraging investment. A critical skills gap persists, as demand for advanced AI talent outpaces supply, requiring accelerated upskilling through government–industry partnerships. Access to cloud-based AI components can democratise adoption, while public sector leadership, seen as crucial by **75%** of startups, can drive trust and scale. By closing these gaps in skills, regulation, infrastructure, and public sector use, Singapore can move beyond foundational AI adoption to seize its untapped potential as a world-class hub for advanced AI innovation and economic growth.

Singaporean businesses present immense untapped potential and, while many are taking the first crucial step towards AI adoption, they remain unaware of how AI technology can be harnessed for its most transformative purposes across the business process. With continued momentum and stronger support ecosystems, Singapore can expediate this process through targeted initiatives – including already existing programs in partnership with AWS.



Appendix

Methodology

The fieldwork for this study was undertaken by Strand Partners' research team for Amazon Web Services. This research has followed the guidance set forth by the UK Market Research Society and ESOMAR. For the purposes of this study, business leaders are defined as founders, CEOs, or members of the C-suite in organisations.

'Citizens' are nationally representative members of the public based on the latest available census.

For inquiries regarding our methodology, please direct your questions to: polling@strandpartners.com.

In Singapore:

- We surveyed 1,000 members of the public, ensuring representation based on region, age, and gender.
- Additionally, we surveyed 1,000 businesses, representative by region, business size, and sector.

Sampling:

Our sampling process used a mix of online panels that are recognised for their validity and reliability. These panels are carefully curated to ensure diverse representation across various demographics. For the business leaders, the panels are selected with a consideration for organisational size, sector, and position within the company. Our objective with the sampling strategy is to achieve an optimal mix that mirrors the actual distribution of our target populations in the respective markets.

Weighting Techniques:

Post-data collection, we applied iterative proportional weight to correct any discrepancies or over-representations in the sample.

Survey:

This study was designed with the objective of delving deep into the digital landscape:

- Usage Patterns: This survey gauges the evolving patterns of digital technology usage. We are particularly interested in examining the adoption and implementation levels of technologies, focusing on cloud computing and artificial intelligence.
- Perceptions and Attitudes: The survey seeks to unearth the prevailing perceptions and attitudes toward digital technologies, understanding the perceived benefits, challenges, and potential ramifications of both present and emerging tech solutions.
- Barriers and Opportunities: The survey scrutinises the predicted challenges and potential avenues that both businesses and individuals anticipate on their digital trajectory. This involves pinpointing challenges, from skill deficits to regulatory complications, and recognising opportunities for growth, innovation, and market development.
- 'Size of the Prize': The survey shed light on the economic repercussions and growth prospects linked with digital transformation. By elucidating the 'size of the prize', we aspire to stress the importance of digital transformation and foster further investments and technology adoption

References

1. "Adopted AI" or "consistently use AI": a business that consistently uses at least one AI tool. This would not include businesses that experimented with AI once or twice, or ran a temporary pilot programme, for instance.
2. Calculated based on recent estimations of the total number of active enterprises, which was, in 2023, 345,100 enterprises in Singapore's enterprise landscape. Source: https://www.singstat.gov.sg/~media/Files/visualising_data/infographics/industry/Singapores%20Enterprise%20Landscape
3. A startup is a business founded in the last 2 years which provides a new product/service or innovation and is aiming for rapid growth in terms of employees and turnover.
4. A large business is a business with 500 or more employees, founded 10 years ago or more.