

AI in Southeast Asia: An era of opportunity

Southeast Asia is entering a pivotal era for AI—from scaling up adoption to capturing value to shape the region's digital future.

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February 2026

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AI adoption in Southeast Asia is at an inflection point—moving rapidly from exploration to deployment. With strong digital foundations, tech-savvy enterprises, and a young, connected population, the region's major economies are accelerating toward global competitiveness.

1 Southeast Asia is the world's AI arena

Southeast Asia is the new arena for cloud and AI innovation. With billions invested by Chinese and US tech giants, the region is becoming a hub for hyperscale infrastructure, AI centers of excellence (CoEs), and next-gen commerce.

From Singapore's 60+ AI CoEs to multibillion-dollar cloud expansions in Malaysia and Thailand, East meets West to power growth, flexibility, and resilience for enterprises.

Over

US \$50 billion

has been invested by hyperscalers such as Amazon Web Services (AWS), Google, and Microsoft in AI-ready data center and cloud infrastructure across the region

Singapore alone hosts more than

60

AI CoEs, including those of Alibaba Cloud (China), IBM, NVIDIA, and Oracle (US)

AWS has committed an additional

US \$9 billion

investment in Singapore by 2028 and US \$6 billion in Malaysia until 2038

Google announced a

US \$2 billion

data center and Google Cloud region in Malaysia in 2024

Alibaba Cloud opened its third data center in Malaysia in

July 2025

Tencent Cloud (China) has operated a data center in Jakarta since

2021

Microsoft is investing

US \$2.2 billion

in cloud and AI services in Malaysia

Companies compete

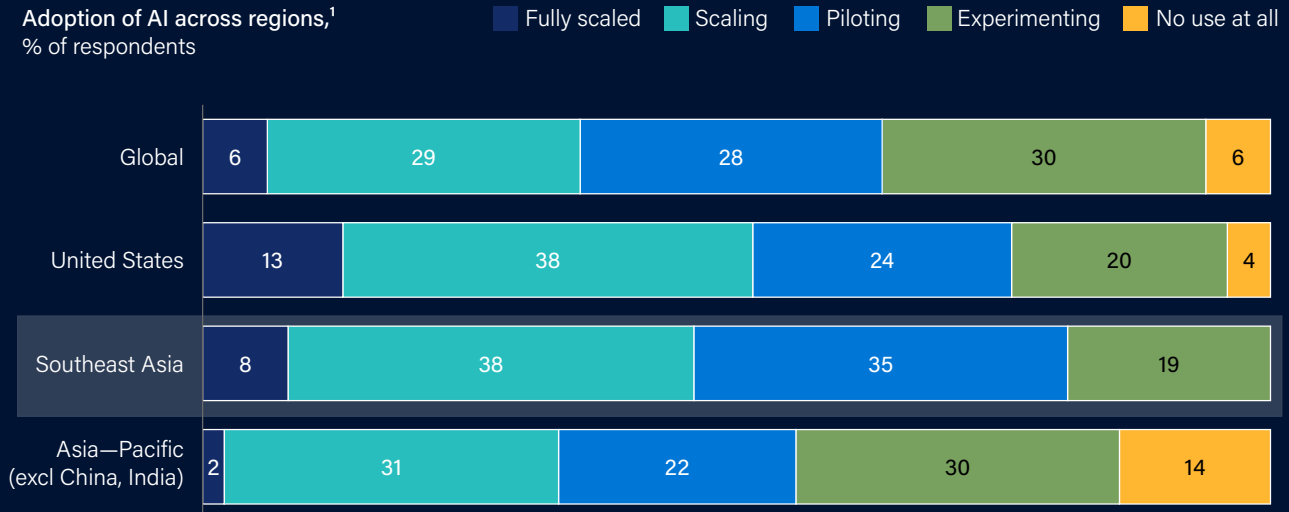
across the region. In e-commerce, YouTube and Singapore's Shopee collaborate on YouTube Shopping in Indonesia, while Temu expands from Malaysia and the Philippines into Thailand

2

AI adoption in Southeast Asia shows stronger momentum than the global average

Nearly half of Southeast Asian companies have moved beyond AI pilots, placing the region just ahead of the global average. A young, mobile-first population and competitive talent costs are fueling widespread enterprise AI use.

Adoption of AI across regions,¹
% of respondents



Note: Figures may not sum to 100%, because of rounding.

¹Number of respondents globally = 2,084; United States = 701; Southeast Asia = 330; Asia-Pacific (excl China, India) = 187. Southeast Asia figures are based on composite-weighted adoption rates, where within-country results are first weighted by enterprise size and economic contribution, then aggregated across countries using GDP shares. The sample covers 6 economies—Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Vietnam—representing the more digitally advanced end of the region's enterprise landscape. Fully scaled means the technology has been fully deployed and integrated across the organization; scaling means growing the deployment or use of the technology across the organization; piloting means implementing the technology for a first use case in the business; experimenting means any use or early testing of the technology; and no use at all means the technology has not been used at all.

3

AI ambitions grow, while barriers to value capture remain

Despite strong executive intent and rising investment, many Southeast Asian companies continue to face structural barriers that prevent AI initiatives from scaling and delivering measurable impact. Talent shortages, unclear ROI, and integration complexity are the biggest challenges.

Biggest barriers of organizations' use of AI in Southeast Asia, % of respondents (n = 330)

■ Top barriers



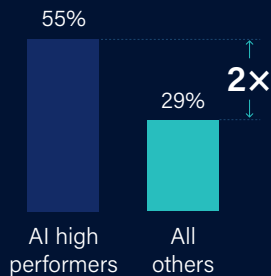
4 How high-performing trailblazers unlock lasting value from AI

Experimenting isn't enough—lasting AI value comes from building strong foundations. The leaders in AI adoption treat AI as core to business reinvention rather than a collection of pilots, redesign workflow to embed AI, formalize governance, and invest at a high magnitude and pace.

Three traits set high-performing organizations apart:

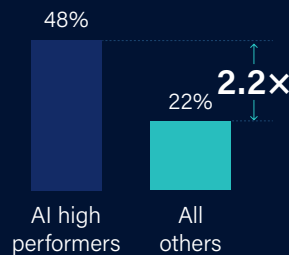
They redesign workflows

High performers are twice as likely to integrate AI fundamentally instead of just layering it onto existing processes



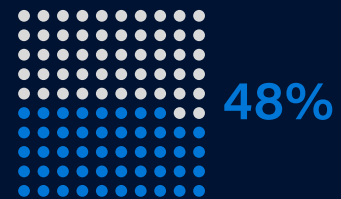
They invest boldly in AI

High performers are more likely to expect their organizations to use AI for enterprise-wide transformative change



They embed strong AI governance

Nearly half of high performers' senior leaders demonstrate true ownership and commitment to AI initiatives



5 Agentic AI on the rise: Nine in ten organizations are ready to experiment

Agentic AI is gaining momentum in Southeast Asia—fast in tech, cautious in customer-facing roles. Nearly 90% of companies plan to experiment with AI agents in 2026, but scaling beyond technical functions hinges on custom development and MLOps (machine learning operations) expertise.

Agentic AI adoption across business functions,¹ % of respondents (n = 330)

	Scaling or fully scaled	Piloting, experimenting, or planning to use	No use at all
IT	37	53	11
Software engineering	35	54	11
Knowledge management	32	59	9
Human resources	32	60	8
Service operations	30	50	11
Supply chain/ inventory management	28	52	20
Manufacturing	26	71	3
Strategy and corporate finance	25	55	20
Sales and marketing	23	71	6
Product and/or service development	23	63	13
Risk	18	66	16

Note: Figures may not sum to 100%, because of rounding.

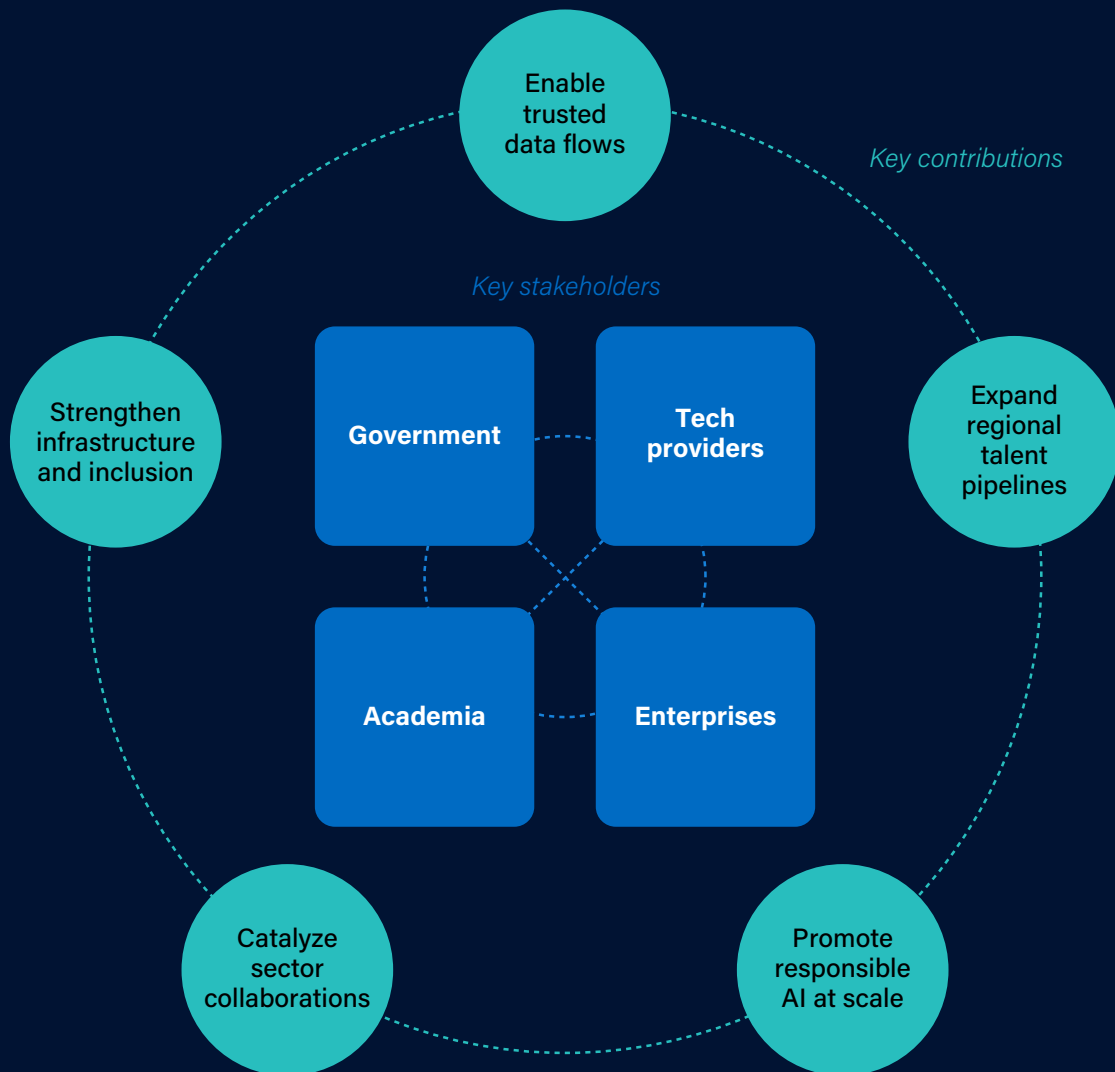
¹Southeast Asia figures are based on composite-weighted adoption rates, where within-country results are first weighted by enterprise size and economic contribution, then aggregated across countries using GDP shares. The sample covers 6 economies—Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Vietnam—representing the more digitally advanced end of the region's enterprise landscape. Fully scaled means the technology has been fully deployed and integrated across the organization; scaling means growing the deployment or use of the technology across the organization; piloting means implementing the technology for a first use case in the business; experimenting means any use or early testing of the technology; and no use at all means the technology has not been used at all.

6

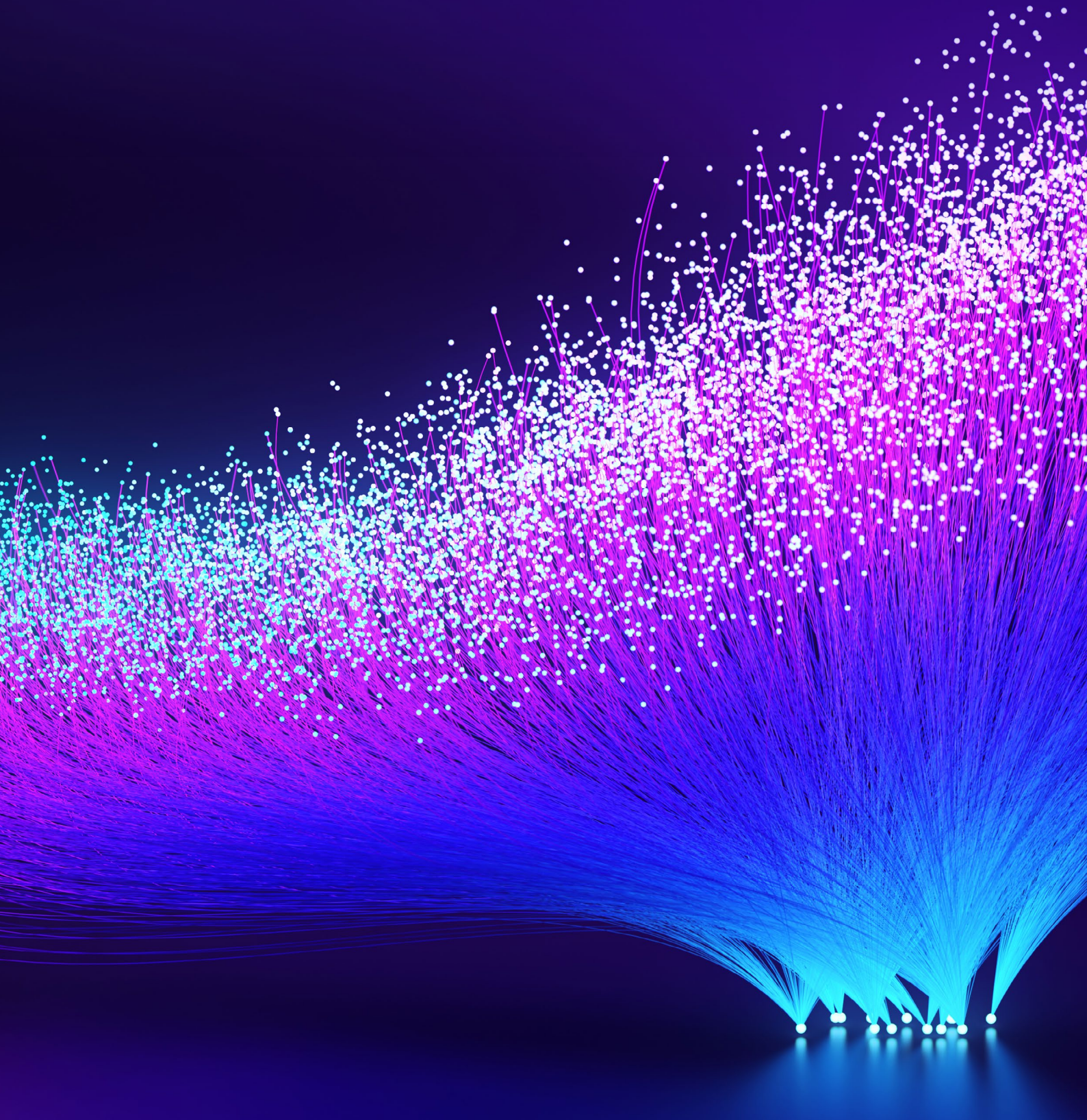
Collaboration across sectors can unlock Southeast Asia's AI potential

Southeast Asia is at an AI crossroads—widespread adoption, rising investment, but untapped potential. To turn momentum into impact, the region must scale responsibly through collaboration and discipline. Governments, tech providers, enterprises, and training institutions can build trusted data flows, expand talent pipelines, and promote responsible AI.

Together, these actions can unlock inclusive growth and position Southeast Asia as a global leader.



Introduction



Artificial intelligence (AI) is transforming all aspects of life, offering the people of Southeast Asia everything from better health outcomes to smarter cities. Both countries and companies in the region recognize that Southeast Asia is on the cusp of a technological evolution that will ultimately change how business gets done and value is created.

As organizations enter the AI race in the region, governments need to balance the imperative of creating a fertile environment for investment and innovation with a growing need for policy frameworks that support the safe and ethical use of AI. The Association of Southeast Asian Nations (ASEAN) and individual countries have already made significant progress on both fronts by developing dedicated AI road maps and policy frameworks.

To understand the current state of AI in Southeast Asia, McKinsey collaborated with the Singapore Economic Development Board (EDB) and Tech in Asia to survey over 300 respondents (from companies reporting AI use) across countries, industries, and different company sizes (see sidebar “Research methodology”). We also interviewed business leaders to probe more deeply into how AI is being utilized, where it is adding value, and what challenges companies face in making the most of this transformational technology. These interviews reflect that the region’s AI ecosystem is poised to enable organizations to adopt AI to achieve measurable business impact and sustained growth.

Research methodology

We surveyed 330 respondents from companies reporting AI use, which were distributed across countries, industries, and company sizes:

- **Six countries:** Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Vietnam
- **Ten industries:** advanced industries; business; consumer goods and retail; energy and materials; financial services; health care; legal and professional services; media and telecommunications; pharmaceuticals and medical products; travel, logistics, and infrastructure (TLI); and technology
- **Three company sizes,** according to annual revenue: small companies with an annual revenue of under US \$100 million, medium-size companies with annual revenue of US \$100 million to US \$250 million, and large companies with an annual revenue of over US \$250 million

Our research found that AI use varies by country and company size. Southeast Asia's use of AI and innovation largely aligns with global leaders (East Asia, the European Union, and the United States). When looking at global figures for AI usage, 88 percent of companies reported regular AI use in at least one business function in 2025, compared with 78 percent in 2024. But at the enterprise level, the majority are still in the experimenting or piloting stages, with approximately one-third reporting that their companies have begun to scale their AI programs.¹

The way AI is utilized is different across industries and business functions, and agentic AI use is largely nascent. Most companies use AI for efficiency and productivity, which opens opportunities for AI-driven innovation and value creation. With widespread enterprise enthusiasm for AI; a tech-savvy regional population ready to embrace new products, services, and solutions; and affordable, abundant land and energy to power data centers, Southeast Asia stands to reap the benefits offered by AI.

Likewise, from companies' perspectives, Southeast Asia is shaping up to be a diverse marketplace with multiple opportunities for both AI companies and companies looking to scale AI solutions and beyond. The region is in the unique position of attracting investments from both the East and West, with Chinese and US cloud

providers bringing computing resources to the area, enabling greater flexibility and resilience, as well as creating healthy competition.

Yet, for Southeast Asia to reach its potential, a number of barriers to the accelerated use of AI needs to be addressed: talent shortages, inconsistencies in digital infrastructure development, and fragmented data, among others. Countries need to ensure that small and medium-size businesses, which are the backbone of the region's economies, do not get left behind in the wake of big tech dominance. In addition, to reap the benefits of AI, companies must close the value gap between high investment and activity but limited measurable financial returns.

In this report, we lay out how Southeast Asian countries and companies are entering the age of AI, look at the lessons that can be learned from high performers, and offer suggestions for a way forward—actions that could sustain regional AI growth, address challenges hindering scale, and accelerate AI-driven value. With the report's data on Southeast Asia's AI maturity across six major regional economies, organizations can appreciate the broader market opportunity of 680 million consumers. We hope that the insights can assist Southeast Asian companies to shift from their current state of AI adoption to innovative and responsible use that benefits business, society, and the region at large.



Chapter 1: Southeast Asia's AI moment: A region on the rise for AI opportunities



Southeast Asia is a thriving region with a young and digitally savvy population, high mobile penetration, and robust growth in its countries' economies, driven by micro, small, and medium-size enterprises (MSMEs).

The number of companies in the region that are using AI is accelerating, albeit unevenly across markets and companies of different sizes. Many of the world's hyperscalers and big tech companies are growing their investments in Southeast Asia, positioning it as a hub for data centers and AI centers of excellence (CoEs—specialized hubs or teams established by companies to concentrate expertise, best practices, and innovation in a particular area).

In terms of infrastructure, the Southeast Asia–Japan Cable 2 (SJC2), which went live mid-2025, is an important accelerant for tech growth and innovation in the region. The high-speed, 10,500-kilometer subsea cable will boost the region's connectivity, enhance network redundancy, and support the low-latency needs of AI and cloud computing.²

With a GDP of US \$4.12 trillion in 2024 and forecast growth of approximately 4.1 percent annually, Southeast Asia remains one of the world's most dynamic economies. Even amid global economic headwinds, the outlook is positive.³

Digital use is accelerating

Southeast Asia's digital space is generally healthy, with the rate of AI use among companies accelerating. Tech hyperscalers are investing in the region, building data centers and CoEs. Despite this, not a lot of global capital is being injected into the AI start-up ecosystem in Southeast Asia, an issue that regional governments are starting to address.⁴ AI presents significant opportunities, but potentially uneven investment could bring challenges.

With distinct cultures and requirements for localized context across Southeast Asia, there is a large, local ecosystem driven by MSMEs, which play a big role in the rise of AI in the region: Their contribution to the overall economy is between 97.2 to 99.9 percent; they contribute

44.8 percent to GDP and represent 85.0 percent of the workforce.⁵ MSMEs are already driving rapid digital transformation in the region through platform enablers such as Grab and Sea. Digital platforms and targeted initiatives are empowering MSMEs to grow their businesses, access new markets, and increase their revenue. For example, Sea, which is based in Singapore, has worked with the Malaysian government on the Shop Malaysia Online program, which promotes over 280,000 local brands and sellers, providing them with a platform to reach a larger audience and boost their revenues.⁶

Group head of data and analytics at Grab, Nikhil Dwarakanath, shared: "We have several implementations that are running at scale, such as our merchant AI assistant, now rolled out to over 1.2 million merchants, and our driver AI copilot available in multiple countries. . . . AI is helping to improve top-line growth. For example, merchants using the merchant assistant have seen their business grow by about 10 percent." (See sidebar "Key takeaways from an interview with Nikhil Dwarakanath, group head of data and analytics, Grab").

Southeast Asia's young citizens embrace technology. The region has a population of 380 million under the age of 35, a figure that surpasses the entire population of the United States.⁷ Mobile penetration is high, with around 930 million mobile connections (about one-and-a-half times the population), reflecting mass use of smartphones.⁸ And Southeast Asians are comfortable with technology advances: Most people view AI products and services as overwhelmingly positive—70 percent of the population regard AI as a societal benefit, compared with 44 percent in Japan and 42 percent in the United States.⁹

Referencing the growth of AI in the region, Vikram Rao, director of growth markets and strategic accounts, ASEAN, Amazon Web Services (AWS), said, "AI is the biggest opportunity since cloud computing and possibly even since the internet. . . . Our customer base has grown by five times over 2024 to 2025 alone, and with use cases across every industry." (See sidebar "Key takeaways from an interview with Vikram Rao, director of growth markets and strategic accounts, ASEAN, Amazon Web Services")

Key takeaways

Key takeaways from an interview with Nikhil Dwarakanath, group head of data and analytics, Grab

Grab is one of Southeast Asia's leading technology companies, based in Singapore. Nikhil Dwarakanath discussed with us the company's strategic direction of AI adoption and implementation.

Dwarakanath said that Grab was utilizing AI before the advent of large language models (LLMs). "Even in the pre-LLM era, we had over 1,000 models in production." The company's strategic direction deepened with the introduction of transformers, leading to the development of a robust AI platform and the widespread availability of AI tools to its teams.

Dwarakanath told us that Grab offers a large array of AI models to its employees. "Everybody has access to models from the OpenAI family to DeepSeek to the Anthropic family to Gemini," he stated, noting that this strategy aims to empower teams across functions to utilize AI in their tasks.

Grab has deployed AI-driven applications across its ecosystem of partners, such as its merchant AI assistant and its driver AI copilot, both of which have promisingly enhanced efficiency and support. "Our merchant AI assistant is now rolled out to over 1.2 million merchants. . . . AI is helping to improve top line growth," Dwarakanath said, highlighting the scale and impact of these implementations.

He explained that the adoption of AI has led to a shift in the way the workforce operates at Grab. For instance, product managers are now expected not only to write product requirement documents (PRDs) but also come with prototypes. Similarly, designers are generating mock-ups and boilerplate code to make it easier for engineers.

Dwarakanath acknowledged challenges in the customer support function, where AI reduces the need for human agents but still requires careful management. "We're operating at a high level of automation, but it is heuristic based," he commented. "We have to be intentional about upskilling but also meeting people where they are to provide support."

Grab still faces several challenges in its AI journey, particularly in data quality and evaluation. "Our data has to be top notch in terms of quality because we can build pervasive AI systems, but they could spit out something that's suboptimal for the user," Dwarakanath emphasized.

Additionally, Grab is mindful of the rapid pace of technological advancement and the necessity of staying ahead of the curve. "The Cambrian explosion of AI token usage is growing very quickly, but we need to ensure that small, independent entrepreneurs in Southeast Asia aren't left behind," he said.

Nikhil Dwarakanath is the group head of data and analytics at Grab.

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Key takeaways

Key takeaways from an interview with Vikram Rao, director of growth markets and strategic accounts, ASEAN, Amazon Web Services

In this interview, Vikram Rao discussed the current and future landscape of AI adoption, particularly within Southeast Asia.

Rao regards AI as “the biggest opportunity since cloud computing and possibly even since the internet,” pointing to Amazon Web Services’ (AWS) fivefold customer growth from 2024 to 2025 across every industry. He told us that AWS aspires to democratize AI, making this technology accessible to organizations of all sizes, ensuring that it can be deployed responsibly and securely.

Rao noted how he has recently seen companies move from experimentation to production in AI usage, saying, “In the past six months versus the past 24 months, we’ve seen enterprises shift from proof of concept to large-scale experimentation to scaling production.” This transition is driving “tens of thousands of new customers deploying AI across almost every industry use case.” Rao mentioned industry-specific applications as a key factor in driving business value and sustainable AI adoption.

AWS has made substantial investments in Southeast Asia, including an additional US \$9 billion investment in Singapore by 2028 and a US \$6 billion investment in Malaysia until 2038. Rao explained that these investments are designed to bring infrastructure closer to customers, improve data sovereignty, and reduce latency.

AWS also focuses on cloud and AI skills development in Southeast Asia. Rao said, “We’ve trained over 1.8 million people in the region since 2017. We have initiatives such as AWS Skill Builder, which offers 600 free digital courses available in local languages to accelerate adoption and understanding of cloud and AI throughout the region.”

He emphasized that young professionals entering the workforce should focus on fundamentals, systems thinking, and curiosity, adding, “Humans with AI are going to replace humans without AI, rather than AI replacing humans.” He also stressed the importance of technical and nontechnical training to ensure that all employees are prepared for the AI-driven future.

Rao acknowledged that the pace of innovation introduces new risks: “AI innovation opens up possibilities, but how do you allow a broader use and faster pace of experimentation without increasing risk?” AWS focuses on building strong security foundations and integrating guardrails into its AI tools, as well as data sovereignty, security, and compliance in its AI infrastructure.

Vikram Rao is the director of growth markets and strategic accounts, ASEAN, Amazon Web Services.

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McKinsey commentary

Vivek Lath

Partner

“Leading the AI charge in Southeast Asia requires bold, transformative ambition. It’s about moving beyond isolated use cases to fundamentally reinventing business models with AI at their core. This is how we will translate ambition into enduring, bottom-line impact. The narrative in Southeast Asia is rapidly moving from experimentation to enterprise-wide scaling. The focus is now on embedding AI into core business processes to drive tangible value, turning widespread adoption into sustained performance and a true competitive advantage on the global stage.”

The tech ecosystem is thriving and has become a competitive arena for global cloud players

Southeast Asia is attracting significant technology investments. Chinese and US cloud providers are increasing their investments throughout Southeast Asia by establishing new regions and data centers, and making long-term commitments. These efforts are bringing computing resources closer to users in the region, helping to speed up the use of AI.

Giants such as Alibaba Cloud (based in Singapore), AWS (located in the United States), Google Cloud (headquartered in the United States), and Tencent in China, for example, are creating an environment for innovation.¹⁰ The coexistence of Chinese and US cloud providers

in Southeast Asia offers enterprises greater flexibility and resilience, assisting them to maintain momentum in a rapidly evolving digital landscape.

Examples of Chinese and US hyperscalers scaling in Southeast Asian markets abound. AWS opened its Thailand infrastructure region in January 2025 and has committed over US \$5 billion over 15 years.¹¹ The company plans an additional US \$12 billion investment by 2028 to expand local cloud capacity.¹² Google announced a US \$2 billion data center and Google Cloud region in Malaysia in 2024.¹³ Alibaba Cloud opened its third data center in Malaysia in July 2025.¹⁴ Tencent Cloud has operated a data center in Jakarta since 2021,¹⁵ and Huawei Cloud (based in China) is working with Thai authorities on national cloud-first and AI hub programs.¹⁶ Singapore remains a regional nerve center for both Chinese and US ecosystems.

Southeast Asia shows a practical mix of East and West stacks, often within the same corporate groups, as leaders choose the best

platform for each workload to keep growth moving. For instance, in Indonesia, Tokopedia (an e-commerce marketplace) uses Google Cloud to power live video and data analytics at scale,¹⁷ while GoTo Financial, the digital finance arm behind GoPay, completed the migration of Tokopedia's core infrastructure to Alibaba Cloud data centers in Jakarta. This pairing shows how leading Southeast Asian platforms are selecting the right cloud for the right job, which signals healthy competition and strong momentum.

In Southeast Asia's consumer commerce sector, companies from both China and the United States are actively competing in the same markets. For example, TikTok, which is based in China, reentered Indonesia in 2024 through a partnership with Tokopedia,¹⁸ while YouTube (headquartered in the United States) and Shopee in Singapore introduced YouTube Shopping in Indonesia, with plans to expand across the region.¹⁹ Meanwhile, Chinese value e-commerce platform, Temu, launched in Thailand after first entering Malaysia and the Philippines.²⁰

Singapore alone hosts over 60 AI CoEs, including those of IBM, NVIDIA, and Oracle (all US companies).²¹ Other tech giants are starting to enter the region: Microsoft (also US-based) has a US \$2.2 billion AI CoE in Malaysia, and Backbase, which is located in the Netherlands, has announced its first global AI CoE to be established in Ho Chi Minh City in Vietnam.²² President of Microsoft ASEAN, Mayank Wadhwa, said, "Southeast Asia is not just a consumer of AI—it's become a massive cocreator. The region's strength lies in its diversity, vibrant developer ecosystems, and multilingual data sets."

Singapore's minister for digital development and information, Josephine Teo, remarked, "In the past 12 to 18 months, we've actively encouraged companies to establish AI centers of excellence, and the progress has been nothing short of inspiring. I've visited many of these centers, and it's energizing to see how creatively AI is

being applied—sometimes at the periphery to boost workplace productivity, and sometimes at the core of the business model. The latter is especially heartening, as it reflects deep engagement from CEOs and their teams in rethinking how they solve problems with AI."²³

She added, "Our own center of excellence is based in Singapore, and I believe that for AI to truly be transformative, leadership must drive the change. The CEO, C-suite, and board members all play a critical role. We also encourage board members to stay curious and visit other successful centers to foster cross-learning and collaboration."

Tao Zhang, founder of Singapore-based company Manus AI (a developer of a general AI agent), told us, "We chose Singapore because it is an international country. Large, international companies have Asia or Asia-Pacific headquarters in Singapore, which means there are financial, legal, [and] marketing talents here. This international diversity and the presence of various industries in Singapore made it an ideal location for the company to grow and serve a global market." He added, "Singapore is also very neutral; I think Singapore might be the center of AI innovation." (See sidebar "Key takeaways from an interview with Tao Zhang, cofounder and chief product officer, Manus AI")

PatSnap is a B2B innovation intelligence company, also based in Singapore. Cofounder Guan Dian said, "We are in a somewhat new category called innovation intelligence. What we mean by that is, if you look at the customer's innovation life cycle from the upstream of deciding where to innovate, where to bet their R&D dollars, all the way to having fixated on the direction, they need to come up with new products, ideas, and potential solutions to bring to the market. Along this innovation life cycle, customers need to make many decisions supported by data and intelligence. That's where PatSnap comes in to lend support." (See sidebar "Key takeaways from an interview with Guan Dian, cofounder of PatSnap")

Key takeaways

Key takeaways from an interview with Tao Zhang, cofounder and chief product officer, Manus AI

Manus AI, based in Singapore, is an autonomous AI agent designed to execute complex tasks with minimal human input. In this interview, Tao Zhang spoke about the company's strategic direction, development, and market positioning.

Zhang told us that Manus AI wants to democratize AI. He said, "Our strategy is to focus on the consumer; we want to deliver a product to the massive user market." This approach is designed to make AI accessible to a broader audience, beyond professionals in vertical industries.

He explained that Manus AI sees itself as a general agent, describing how the company identifies the most beneficial applications of AI across various domains, which allows it to adapt and refine its focus based on user feedback and behavior.

However, Zhang cautioned: "For now, the AI system is not perfect. There will still be hallucinations and false information, so human oversight is crucial before delivering to customers."

Describing Manus AI's internal AI strategies, he said that the company implements sharing sessions to keep employees updated on the latest AI developments: "The company encourages all employees, not just engineers, to use AI in their daily tasks to foster innovation and efficiency."

When discussing the decision to relocate the company to Singapore in July 2025, Zhang said that the move was motivated by the accessibility to diverse talent and global markets. He said, "We chose Singapore because it is an international country. Large, international companies have Asia or Asia-Pacific headquarters in Singapore, which means there is financial, legal, [and] marketing talent here."

He said that the international diversity and the presence of various industries in Singapore made it an ideal location for Manus AI to grow and serve a global market. Zhang added, "Singapore is also very neutral; I think it might be the center of AI innovation."

Zhang recommended that companies get into the AI space as soon as possible. "I think the most important thing right now is to take action, not just evaluate," he said, suggesting that traditional companies looking to transform with AI should start small and focus on benefits, with a dedicated AI leader. This approach ensures that the company can see tangible results and build confidence in AI's capabilities before scaling its adoption.

Tao Zhang is the cofounder and chief product officer at Manus AI.

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Key takeaways

Key takeaways from an interview with Guan Dian, cofounder of PatSnap

PatSnap is a global leader in AI-powered intellectual property (IP) analytics, located in Singapore. Dian told us how she believes that AI adoption is transforming the IP and R&D sectors, leading to significant cost reductions and efficiency improvements.

Dian explained, “We [PatSnap] are in a somewhat new category called innovation intelligence. What we mean by that is, if you look at the customer’s innovation life cycle from the upstream of deciding where to innovate, where to bet their R&D dollars, all the way to fixating on the direction, they need to come up with new products, ideas, and potential solutions to bring to the market. Along this innovation life cycle, customers need to make many decisions supported by data and intelligence. That’s where PatSnap comes in to lend support.”

PatSnap uses AI to help customers make critical decisions in the innovation life cycle. It has also developed a vertical AI model that offers more precise and context-aware solutions compared to general AI models.

The AI transition has been characterized by a bottom-up approach, where employees, especially the software engineering and data processing team, have quickly adopted new AI tools. She said, “We repurposed about half the team to focus on large language models, so there has not been a human cost increase.”

Dian added, “In data processing, we save at least 70 to 80 percent on human talent compared to incumbent companies, but we still have over 100 data processing engineers in-house. They procure data [and] source for the best quality data. They also do some expert labeling of data in our different verticals of life sciences, material sciences, electronics, and chemicals.”

The adoption of AI solutions varies significantly across the global markets in which PatSnap operates. “China and the United States are the fastest,” Dian told us. In contrast, she has noticed that Japan has been slower to adopt AI, but there are positive signs that this is changing. Across the world, she believes that “AI is not just a tool for efficiency; it’s a way to stay relevant in a rapidly changing world.”

Dian said that PatSnap’s AI strategy is not only to enhance customer efficiency but also to drive significant business growth. The company’s second growth curve, which is heavily AI-driven, is projected to contribute 20 percent of the total revenue by the end of 2025.

Guan Dian is the cofounder, chief marketing officer, and Asia–Pacific general manager of PatSnap. She is also the company’s senior vice president, Asia–Pacific.

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However, with international tech companies pushing AI in Southeast Asia, a potential imbalance could be created. Southeast Asia has a massive, diverse population with over 1,200 languages. Local tech developers are aware of the need for a regional focus, and are starting to build local LLMs and culturally aware AI systems.²⁴ Additionally, governments across the region, such as Malaysia's and Singapore's, are investing in sovereign AI infrastructure through national AI centers to retain strategic control of the technology and tailor AI to local contexts.²⁵

Scalable start-ups are growing, but need more investment

The region benefits from a large, digital savvy population and a fast-growing internet economy, yet talent depth and venture funding remain uneven across markets. Partnerships and practical capability building help companies move from pilots to scale. Of the approximate US \$20.0 billion venture investment in the entire Asia-Pacific region in 2024, Southeast Asia's young AI firms received as little as US \$1.7 billion. In the same year, only 122 AI funding deals took place in Southeast Asia versus the APAC total of 1,845.²⁶ However, the sharp jump to a venture investment of US \$172 million in the second quarter of 2025, the highest in three years, could have marked the start of more serious investment in scalable AI in the region.²⁷

Incubators and accelerators have played a crucial role in boosting the ecosystem, providing

funding, knowledge, and support to the growing number of AI start-ups in Southeast Asia, which include over 2,000 AI start-ups.²⁸ In Singapore, SGInnovate develops deep tech talent, assists start-ups, and has invested in over 100 B2B AI companies in industries ranging from marketing to health care.²⁹ The Malaysian Global Innovation and Creativity Centre (MaGIC) focuses on helping local entrepreneurs and start-ups build the necessary capabilities and networks to push their projects to the next stage—achieved through its numerous programs and resources, such as MaGIC's Global Accelerator Program (GAP) and the MaGIC Accelerator Program (MAP).³⁰

Joel Neoh, founding partner of First Move, an early-stage venture capital firm in Singapore, observed that the role of venture capital is expanding to become more hands-on and focused on creating value, rather than simply providing funding. He remarked that Southeast Asia is well positioned for rapid AI adoption, given its youthful population and openness to new technologies (see sidebar “Key takeaways from an interview with Joel Neoh, founding partner, First Move”).

“While there are certainly headwinds facing the region, I am beginning to see some tailwinds,” he said. “The adoption of AI could be quite swift because, generally, we have a young population, and both consumers and businesses are more willing to experiment and try new things. . . . One of the positive trends I notice is that some founders in China who wish to build international AI products . . . move to Singapore or Malaysia, not just to build for Southeast Asia, but for global ambitions.”

Key takeaways

Key takeaways from an interview with Joel Neoh, founding partner, First Move

First Move is a venture capital firm in Singapore that supports early-stage start-ups. In this interview, Joel Neoh discussed how he started the firm in 2023 to support AI-driven innovation in Southeast Asia.

Neoh explained how he wants Southeast Asia not only to adopt AI but to contribute to innovation in the field. This aspiration stems from his experience over the past 15 years as a founder and operator in the tech start-up space, where he has seen firsthand the transformative impact of technology. He believes the role of venture capital is evolving to be more hands-on and focused on value creation, rather than just providing funding.

He talked to us about the rapid pace of AI development and how the launch of GPT-4 in 2023 significantly accelerated AI adoption and experimentation among consumers and businesses. “I’ve realized that this space is [moving] very quickly,” he said, and he emphasized that agility is crucial for Southeast Asia to navigate and find its foothold in the global AI market.

However, Neoh noted that the impact on revenue growth is more nuanced. “The more difficult opportunity will be thinking about revenue growth, because if you’re going to expand into new markets, you have to think whether you are going to launch new products. That’s a much more creative issue to solve,” he commented.

Speaking about the implications of low labor costs in Southeast Asia, he explained, “Because the cost base in, say, Malaysia, Indonesia, or Thailand, is not that high per employee, I think cost savings in this region should be about growth. It’s a game changer to help a country with low-cost employees to grow globally.”

About talent in AI innovation, he said, “I feel it’s going to be driven by strong STEM talent in their 20s in partnership with experienced operators—we will need to be open-minded and collaborative.” But he cautioned, “A lot of talent just wants to code and build because that’s what’s exciting for them. They’re not thinking about commercial business.”

Joel Neoh is the founding partner of First Move.

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Data centers are fast growing—and come with challenges

Investments of over US \$50 billion in AI-ready data center and cloud infrastructure have already been made in Southeast Asia by hyperscalers AWS, Google, and Microsoft, boosting compute capacity and AI readiness across the region.³¹ By 2025, US \$250 billion is projected to be spent on regional cloud technology in APAC.³²

China is also investing in fast-growing infrastructure in the region, including a US \$2.2 billion hyperscale AI campus in Thailand by Beijing Haoyang Cloud and Data Technology, and Alibaba Cloud's third data center in Malaysia, mentioned earlier.³³ In addition to SJC2, the Apricot cable, a subsea cable driven by Google and Meta that connects Hong Kong, Japan, and Singapore (with branches to Thailand, Vietnam, and other markets)³⁴ will connect Indonesia, the Philippines, and Singapore with Guam, Japan, and Taiwan when completed.³⁵ These investments create overlapping paths that support cloud and AI traffic.

Malaysia is attracting both East and West camps with significant new spending. Google and Microsoft announced multibillion US dollar investments in 2024. ByteDance plans to invest about US \$2.13 billion in an AI hub and put additional investment into expanding its data center footprint in Johor. This Malaysian state is emerging as a key AI infrastructure hub, having attracted US \$3.8 billion in investments—in addition to ByteDance's—from Microsoft and Oracle, driven by low-cost energy and land.³⁶ A McKinsey survey conducted in 2025 on hyperscalers in the APAC region indicates that the top three factors for investment in Malaysia are customer demand (26 percent), low-cost energy (19 percent), and availability of land (15 percent).

Despite the opportunities for data centers within Southeast Asia, there are underlying risks. Volatile ROI due to uncertain AI demand, tech shifts from potential slower-than-expected use of AI, and limited enterprise scaling could all constrain near-term demand. Falling graphic processing unit (GPU) prices and rapid hardware innovation risk could erode returns and make current infrastructure obsolete.

Further, according to McKinsey analysis, existing Southeast Asian data centers are exposed to growing pressure from local telecommunication companies and global hyperscalers, which could further intensify competition in a crowded market, raising barriers to differentiation and long-term profitability.

Data centers also face utility constraints. AI processing demands massive energy and grid capacity and significant amounts of water for cooling. At the same time, they generate tons of carbon emissions and require rare earth metals for hardware. Global data energy consumption is forecast to double in five years.³⁷ The energy demand varies per country—in Malaysia, for example, data centers are expected to create about around 30 percent of power demand by 2030.³⁸

Some companies have set net-zero targets. Google and Microsoft, for example, have clear sustainability goals. Google is actively pursuing ways to “power its operations with carbon-free energy, every hour of every day.”³⁹ Microsoft has pledged to be carbon negative by 2030 and has announced a long-term vision of 100/100/0—that by 2030, the company will have “100 percent of its electricity consumption, 100 percent of the time, matched by zero-carbon energy purchases.”⁴⁰

Our experience in the industry—with survey results aligning—provides strategic insights into how operators, investors, and organizations in the supply chain can benefit from the opportunities emerging from AI infrastructure demand.

Regional coordination positions countries in Southeast Asia as responsible AI leaders

With rapid AI growth comes the need for guidance on responsible and ethical AI usage. Globally, different geographies are at varying levels of legislative rigor and regulatory

approaches in their development of AI and gen AI regulation. Some regions, such as China and the European Union, are pursuing gen AI-specific legislation that includes enforceable penalties and outlines user and provider obligations. Other countries, such as the United States, are opting to update and enforce existing regulations by adding new clauses to address gen AI-related concerns in areas such as privacy and copyright. A third group, including ASEAN, Canada, and Japan, is focusing on principles, guidelines, and voluntary commitments for responsible gen AI usage, incorporating governance guidelines, tools, and resources (Exhibit 1).

Exhibit 1

The Association of Southeast Asian Nations has regionwide, nonbinding guidelines on responsible AI use.

	● Enforceable regulation ● Indication of upcoming enforceable regulation ● Guidelines				
Dimensions	European Union	China	United States	Association of Southeast Asian Nations	Singapore
Transparency	●	●	●	●	●
Human agency and oversight	●	●	●	●	●
Accountability	●	●	●	●	●
Technical robustness and safety	●	●	●	●	●
Diversity, nondiscrimination, and fairness	●	●	●	●	●
Data privacy, governance, and intellectual property protection	●	●	●	●	●
Social and environmental well-being	●	●	●	●	●

Source: AI regulatory measures in benchmarked geographies

ASEAN has recognized that regional coordination is necessary for scaling AI. In 2024, it promulgated the Guide on AI Governance and Ethics, which acts as a practical resource to promote consistent standards across borders and alignment among countries, and to ensure the responsible use of AI.⁴¹

Bodies such as the ASEAN Working Group on AI and national centers (for example, Malaysia's National AI Office and the Philippine's ACCeSs@AIM) enable cross-border dialogue, policy harmonization, and capacity building to accelerate the use of AI at scale (see sidebar "Key takeaways from an interview with Sam Majid, head of Malaysia's National Artificial Intelligence Office").⁴²

In addition, all Southeast Asian nations have implemented their own national AI strategies or formal initiatives, signaling broad commitment to driving the use of AI across the region.⁴³ These policies and industry road maps will likely play

a role in accelerating the use of AI by attracting investment and laying out plans for talent development.

Singapore's Minister Teo mentioned the country's efforts to collaborate with other countries and set international standards. "Recognizing the importance of cross-border data flows, we got the ASEAN community to agree on a data management framework," she said. This framework, along with others, such as the ethical AI adoption principles, is designed to facilitate safe and ethical AI practices across different jurisdictions.

She added, "As in all areas of technology where the use becomes much more widespread in time to come, there need to be standards that we all agree are needed to protect human beings," underscoring the ongoing dialogue and collaboration required to navigate the challenges of AI.

Key takeaways

Key takeaways from an interview with Sam Majid, head of Malaysia's National Artificial Intelligence Office

In this interview, Shamsul Izhan Abdul (Sam) Majid talked about Malaysia's vision, governance, and execution plans for AI, with an emphasis on national readiness, skills, and responsible scaling across the public and private sectors.

Malaysia's AI journey is driven by strong leadership. "The tone starts from the top. The prime minister observed other countries that are racing, competing for relevance in the digital economy and now the AI space," Majid explained. This commitment led to the creation of the Digital Ministry and the National Artificial Intelligence Office (NAIO), which is finalizing the National AI Action Plan 2030.

The prime minister's vision for an "AI Nation" is built on three pillars. "AI Nation means three main things," Majid said. "Number one, how do we raise the ceiling for everybody—getting more capability, getting more capacity, having more skills, and AI does all that. Second, how do we raise the floor, meaning that it's not just those who have capability; we don't want anybody to be left behind. And third is good governance, using the new tool responsibly."

A major focus for the NAIO is integrating AI into the public sector. "There are three main parts. Number one is a government powered or augmented by AI. We started doing that in January 2025, when we introduced AI tools within the public sector," he shared. Over 45,000 public sector employees have begun using gen AI tools to save time and improve efficiency.

Malaysia's vision extends beyond government. "The second element is to make sure that everybody gets that recipe to earn more, to have better capability and capacity," Majid continued. The National Action Plan also positions Malaysia as a springboard for (ASEAN), with the country proposing the creation of an ASEAN AI safety network to foster regional cooperation.

Accelerating AI adoption is not without hurdles. Industry leaders worry about reliance on foreign technologies and the need for a robust local ecosystem. "Our local leaders are wondering, how do we embrace this? Is there a local ecosystem that can support this or are we overly reliant on outside technology?" Majid noted. The National Action Plan addresses these concerns with a "Made by Malaysia" approach, emphasizing domestic development and data sovereignty.

Trust and responsible use are central. Majid used a vivid analogy: "In your car, you have two pedals—one to go faster and the other to slow down. The braking is the governance part, the responsible part, which makes you realize the creation of the car brake allows the car to go faster. For enterprises, when they know that AI can, and should, be used and has guidance, guardrails, [and] a responsible ecosystem, they know they can go faster and further."

Talent is the linchpin of Malaysia's AI ambitions. "There are two lenses to the talent question. The first one is today's talent, or maybe in the situation of today's workforce. The second lens is future talent," he explained. With 660,000 jobs identified as being affected by AI, the National Action Plan aims to create 700,000 new AI-related jobs over five years.

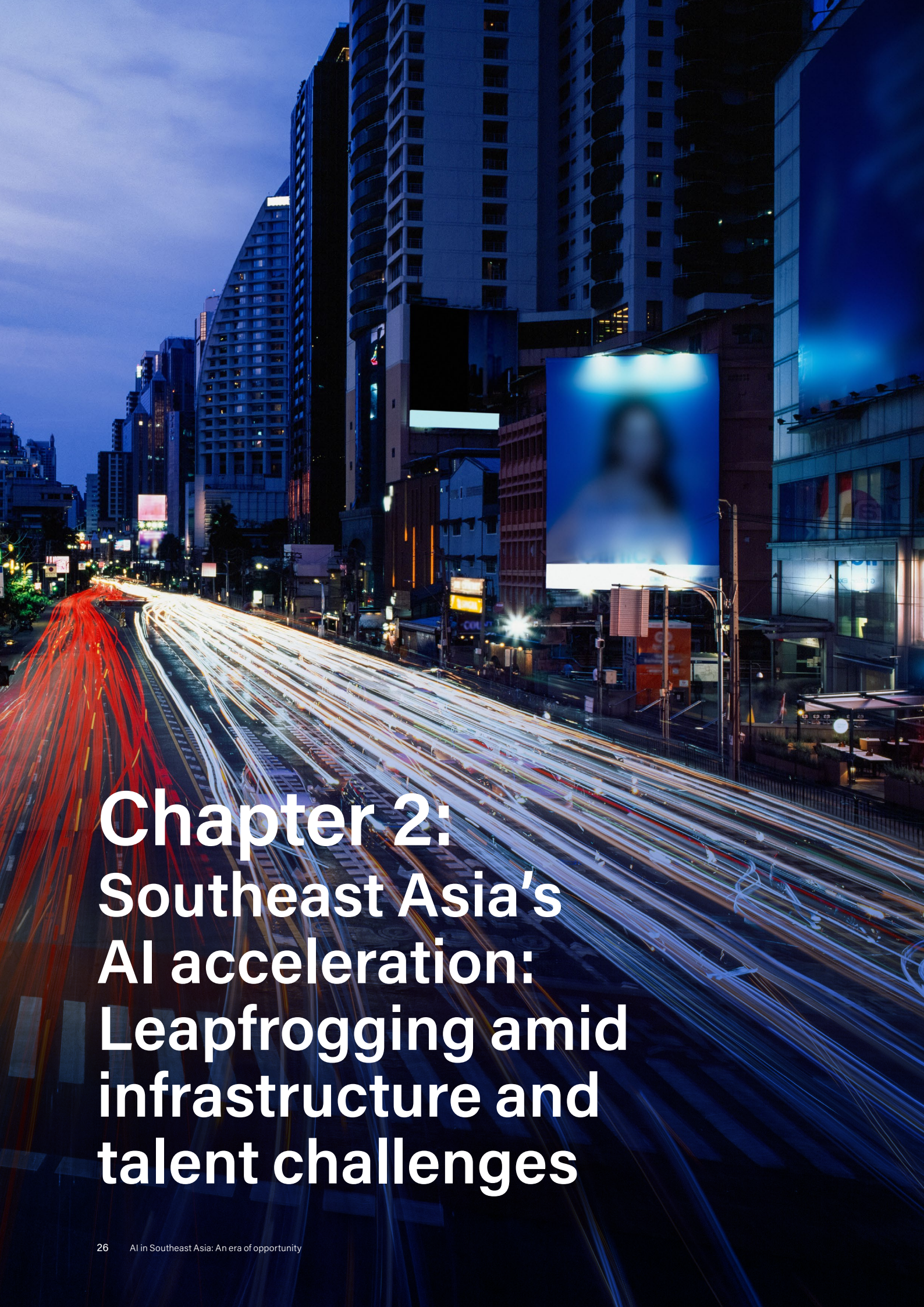
Education is a priority from kindergarten to higher education. "We are going to embed many initiatives that will empower teachers to teach with AI and students to learn alongside AI," Majid said.

The National Action Plan sets ambitious targets. Majid asserted that, "Malaysia today is number 26 on the Stanford Index, and we should push ourselves into the top ten of the world by 2030." The goal is also to rank among the top ten for AI-powered public services and to grow the digital economy from 25 percent to 30 percent of GDP, with AI contributing an additional 20 billion ringgit, by 2030.

Malaysia's AI journey is marked by bold leadership, inclusive policies, and a commitment to responsible innovation. As Majid summarized, "It is a full ecosystem that requires both funding and infrastructure, but also talent on the other side."

Sam Majid is the head of Malaysia's National Artificial Intelligence Office.

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Chapter 2: Southeast Asia's AI acceleration: Leapfrogging amid infrastructure and talent challenges

AI use across Southeast Asia is accelerating. Organizations are moving from exploration to deployment, reflecting both strong digital foundations and a growing base of tech-savvy enterprises. The region's major economies—Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Vietnam—are advancing in parallel with global peers, supported by a young, connected population and increasing private sector investment.

Yet, at the same time, the region's AI journey remains uneven. Larger companies and tech-intensive sectors are scaling fastest, while smaller firms and traditional industries continue to build foundational capabilities. Much of the current activity focuses on improving efficiency and piloting AI across business functions, with early leaders beginning to apply AI for growth and innovation.

Across the region, executives see AI as an essential lever of competitiveness. Investments are rising: More organizations now allocate a meaningful share of their technology budgets to AI. Yet many are still working to translate this momentum into measurable business value. While some companies—such as DBS Bank and Grab—are beginning to demonstrate what scaled AI impact can look like, most remain in the early stages of turning adoption into performance.

This chapter explores how Southeast Asian companies are progressing along the AI maturity curve, examining the pace and breadth of use

across various markets, company sizes, and industries. It also considers the emergence of new frontiers such as agentic AI and discusses the ongoing challenge of capturing value at scale. Together, these insights highlight both the progress made and the opportunity that lies in store for Southeast Asia to move from fast adoption to sustained impact.

As AWS's Rao noted, companies are moving from experimentation to production in AI use. "In the past six months versus the past 24 months, we've seen enterprises shift from proof of concept to large-scale experimentation to scaling production," he said. This transition is driving "tens of thousands of new customers deploying AI across almost every industry use case."

Scaling up: Nearly half of companies are moving beyond pilots

Across the six largest Southeast Asian economies, executives report steady progress in AI use. Nearly half of companies say they have moved beyond the piloting phase, placing the region slightly ahead of the global average, but still several points behind leading markets such as the United States (Exhibit 2). Indonesia and Singapore stand out as regional leaders, with a higher proportion of enterprises reporting progress toward scaled adoption (56 percent in Singapore and 51 percent Indonesia).⁴⁴

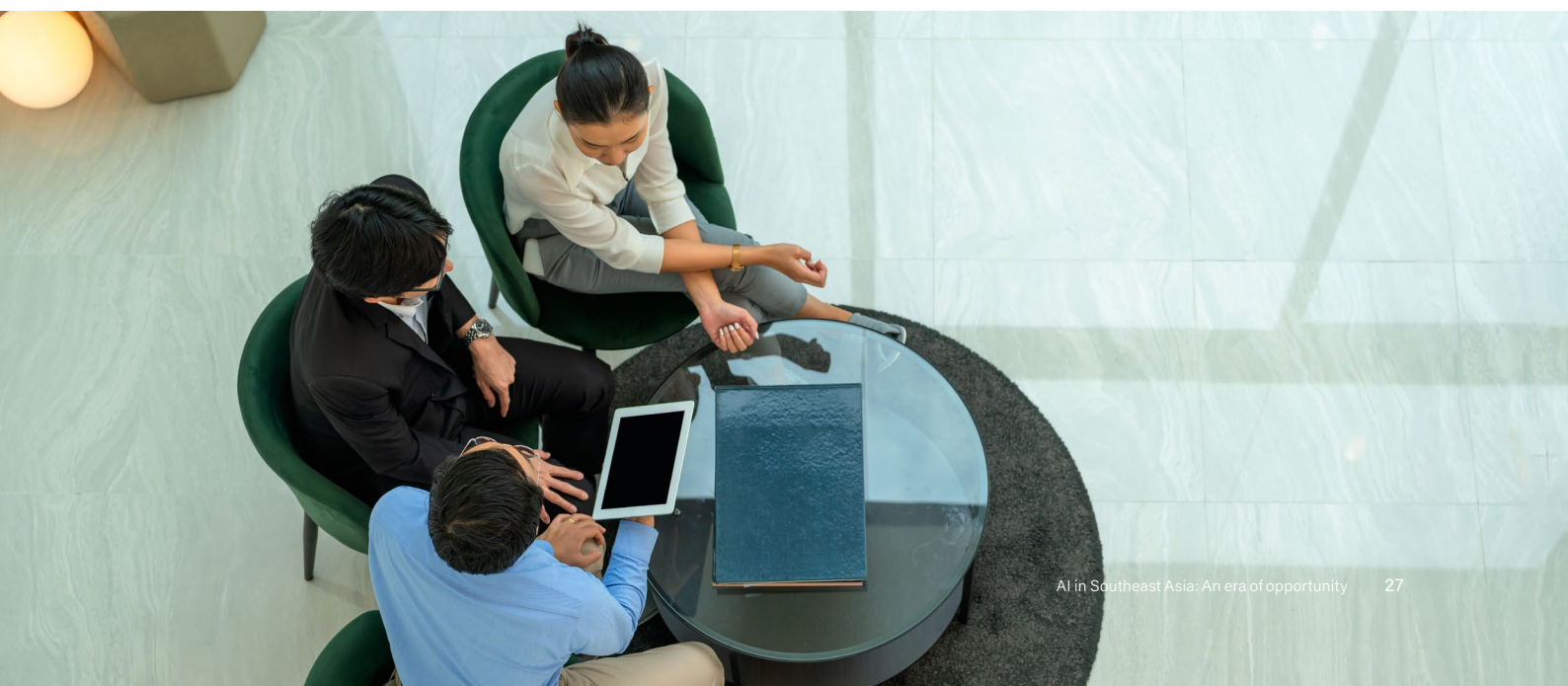
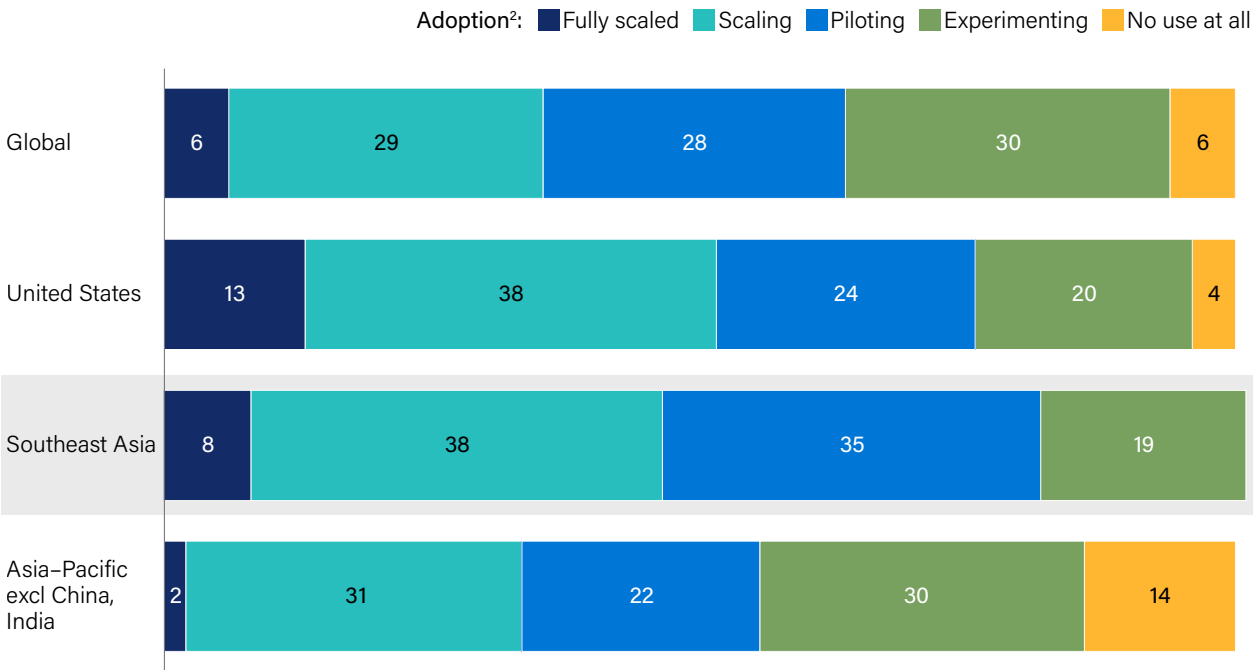


Exhibit 2

Southeast Asia shows stronger momentum in AI usage than the global average, but the region still trails the most advanced markets.

Adoption of AI across regions, % of respondents¹



Note: Figures may not sum to 100%, because of rounding.
¹Number of respondents globally = 2,084; United States = 701; Southeast Asia = 330; Asia-Pacific (excl China, India) = 187. Southeast Asia figures are based on composite-weighted adoption rates, where within-country results are first weighted by enterprise size and economic contribution, then aggregated across countries using GDP shares. The sample covers 6 economies—Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Vietnam—representing the more digitally advanced end of the region’s enterprise landscape.
²Fully scaled means the technology has been fully deployed and integrated across the organization; scaling means growing the deployment or use of the technology across the organization; piloting means implementing the technology for a first use case in the business; experimenting means any use or early testing of the technology; and no use at all means the technology has not been used at all.

The region’s momentum is underpinned by several structural advantages. More than half of Southeast Asian executives cite the large, mobile-first consumer base, competitive costs for skilled AI talent, and the availability of regional AI solution providers as key drivers of adoption. In contrast, only about one in five respondents point to government incentives or fewer legacy system constraints as primary enablers—suggesting that Southeast Asia’s AI momentum could be driven more by market opportunity and enterprise initiative than by policy intervention. Collectively, these factors have created a fertile environment for early AI scaling.

About half of Southeast Asian respondents believe their AI use is on par with—or ahead of—their global headquarters, signaling growing confidence and capability among regional teams. This reflects both the rise of digital-first enterprises and the effect of government-backed AI strategies across these markets. However, executives acknowledge that these perceptions may overstate actual maturity on the ground. As AI use scales, companies will need to calibrate expectations and focus on translating deployment into tangible business value.



McKinsey commentary

Paul Beaumont

Partner

“Southeast Asia’s AI moment is not about catching up; it’s about redefining how AI scales responsibly in a diverse, fast-growing digital economy. Across the region, enterprises are exploring this space, yet the real differentiator will not be how fast Southeast Asia adopts AI, but how thoughtfully it scales it. As this report highlights, the most successful companies we see in this region (and who are seeing impact!) anchor their AI agendas in three principles: outcomes over experimentation, leveraging ecosystems that can take ‘best of breed’ from China and the United States, and investing as deeply on human capital and data as much as they do the technology.”

While Southeast Asian countries also have to contend with technical debt—which can be defined as the effort or costs required to “repair” or modernize existing systems, with high levels of debt signifying high costs to manage outdated code or legacy architectural decisions that accumulate over time—studies show that countries in the region, for example, Malaysia, face significantly lower debt levels than developed economies such as the United States. This indicates that Southeast Asian countries benefit from having a lighter legacy

burden, which reduces the complexity and costs to upgrade core systems or migrate to modern digital platforms.

This creates a structural advantage for the region: With fewer entrenched legacy constraints, Southeast Asian organizations can modernize quicker, deploy new technologies with greater agility, and accelerate digital transformation initiatives that are harder to execute in heavily “tech-indebted” developed countries.

Size and pricing matter: Enterprise leaders advance in AI, while MSMEs face pricing pressures

AI use in Southeast Asia spans companies of all sizes, although larger enterprises are reportedly ahead in maturity. Among companies with annual revenues above US \$250 million, more than half (56 percent) report being at the scaling or fully scaled stage—indicating that enterprise-scale organizations are leading in embedding AI across business functions. Medium-size

companies follow closely, with just under half (47 percent) scaling or fully scaled, while smaller companies remain earlier in their AI journeys, with about two in five (42 percent) scaling or fully scaled, and most still piloting or experimenting (Exhibit 3).

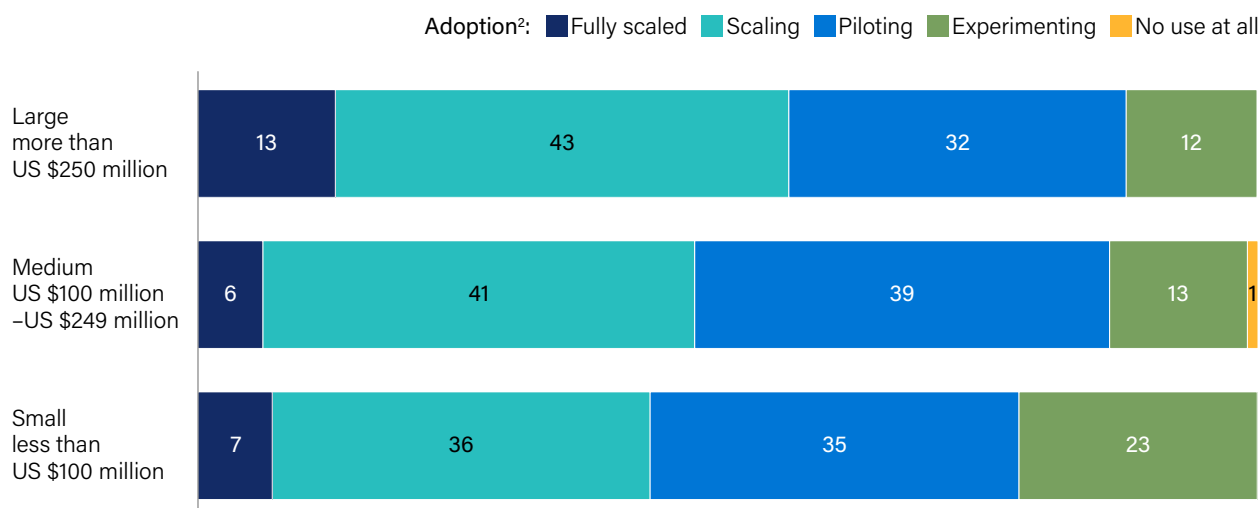
This maturity gap by company size reflects the structural advantages of larger firms, including greater data availability, more established digital infrastructure, and the ability to invest strategically in scaling AI initiatives.

Less than 1 percent of companies across all revenue sizes report having no use at all of AI—underscoring enterprises' near-universal AI engagement across the region.

Exhibit 3

Larger Southeast Asian companies report more mature AI usage; smaller firms continue to pilot and experiment with use cases.

Adoption of AI across companies in Southeast Asia, by revenues, % of respondents,¹ n = 330



Note: Figures may not sum to 100%, because of rounding.

¹Small companies are valued at <US \$100 million in annual revenue, medium-size companies are valued between US \$100 million–US \$249 million in annual revenue, large companies are valued at more than US \$250 million in annual revenue. Southeast Asia figures are based on composite-weighted adoption rates, where within-country results are first weighted by enterprise size and economic contribution, then aggregated across countries using GDP shares. The sample covers 6 economies—Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Vietnam—representing the more digitally advanced end of the region's enterprise landscape.

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With 70 million MSMEs in Southeast Asia—representing the majority of businesses, about 97 percent of the workforce, and a significant share of GDP⁴⁵—pricing and simplicity are critical factors in determining whether digital and AI solutions are adopted for everyday use.

To support AI adoption for MSMEs, providers could offer low-cost entry options, local currency pricing, usage-based tokens, and storage plans that make monthly expenses predictable. Bundled packages that combine collaboration tools, data, model access, and guided onboarding could further ease adoption. Governments and ecosystem partners could also play a key role by providing targeted support and skills development programs, helping MSMEs to use new technologies safely and effectively.

ASEAN economic research highlights that cost and skills remain among the top barriers to digital and AI adoption for small and medium-size enterprises (SMEs),

underscoring the need for affordable pricing models and simpler onboarding processes.⁴⁶

Industry leaders: Technology, media, and telecommunications and advanced industries are ahead

Across Southeast Asia, usage levels vary by industry. Technology, media, and telecommunications and advanced industries are at the forefront of scaling AI, with around six in ten companies reporting that they are scaling or have fully scaled their deployments. Other digitally intensive sectors, such as energy and materials, also show strong progress, with about half of companies reporting scaling (Exhibit 4).

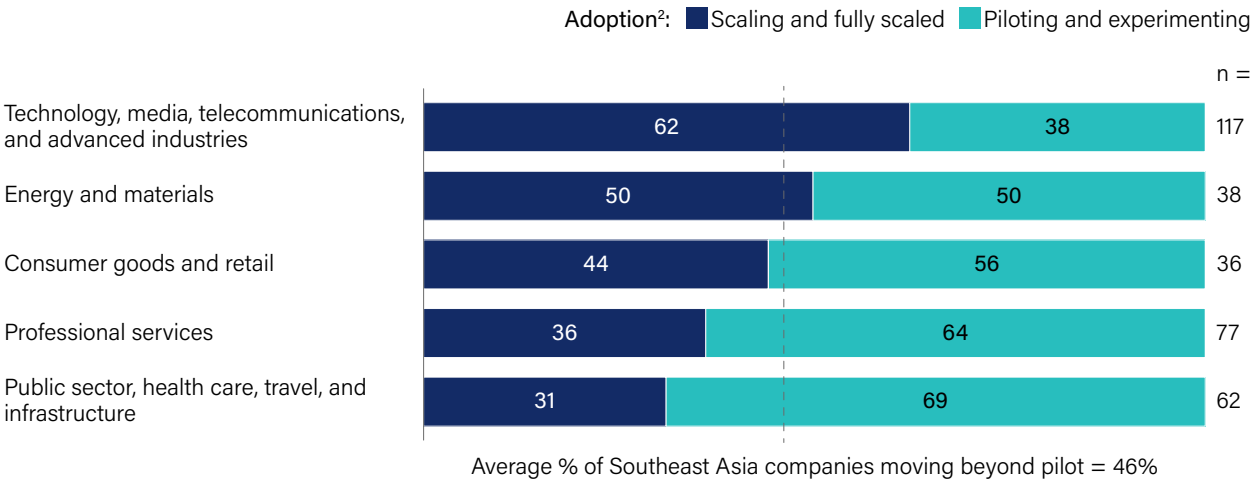
In contrast, public sector, health care, and service-oriented industries remain in the early stages of usage, with over six in ten companies still piloting or experimenting. The slower pace in these sectors often reflects complex data environments, regulatory constraints, and limited access to AI-ready talent or infrastructure.



Exhibit 4

Technology, media, telecommunications, and advanced industries are leading AI usage in Southeast Asia.

Adoption of AI across industries, % of respondents,¹ n = 330



¹Southeast Asia figures are based on composite-weighted adoption rates, where within-country results are first weighted by enterprise size and economic contribution, then aggregated across countries using GDP shares. The sample covers 6 economies—Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Vietnam—representing the more digitally advanced end of the region's enterprise landscape.

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The road to scaling AI in an organization can be a long one. Singapore Airlines started its digital transformation in around 2015. The airline's senior vice president of information technology, George Wang, shared: "That helped us lay the foundation to get the data pipeline ready, to get the data ready, and to get the technical infrastructure ready for the rapid use and scaling of AI. . . . The foundation that has been built over the last ten years has focused on four key areas: the innovation culture—how do we bring

the whole company to be more digitally ready and more innovative; capabilities—the process, the governance, and the people capabilities; data pipelines and cloud capabilities; and partnerships, which involves working with nontraditional partners such start-ups, and traditional partners such as government research institutes and universities." (See sidebar "Key takeaways from an interview with George Wang, senior vice president of information technology, Singapore Airlines").

Key takeaways

Key takeaways from an interview with George Wang, senior vice president of information technology, Singapore Airlines

In this interview, George Wang talked about the organization's AI strategy and implementation journey.

Wang explained that "Singapore Airlines' ambition is to be the global leader in applying AI in the [airline] business. . . . We want to seamlessly integrate responsible AI into our operations to transform our business and gain a competitive advantage."

He mentioned three key areas, the first of which is customer experience. "We want to leverage AI to significantly improve the customer experience," Wang said. This includes providing better customer service and more relevant services through actionable insights derived from past interactions.

The second area is operational efficiency, where Singapore Airlines aims to create smarter, more resilient, and efficient operations. The third is capability enhancement, which involves upskilling, reskilling, and empowering employees for an AI-driven future.

Wang said that Singapore Airlines is seeing positive employee and customer engagement. "AI also enables us to process customer feedback from multiple channels in our customer insight portal, which allows us to gain nearly instant insights and take timely action to improve service across customer touchpoints." He identified an early win for customers: "They can now just put in their criteria in normal English to search for flights on our websites or on our mobile app."

Singapore Airline's digital transformation started a decade ago, Wang explained. "That helped us lay the foundation to get the data pipeline ready, to get the data ready, and to get the technical infrastructure ready for the rapid use and scaling of AI. . . . The foundation that has been built over the last ten years has focused on four key areas: the innovation culture—how do we bring the whole company to be more digitally ready and innovative; capabilities—the process, the governance, and the people capabilities; data pipelines and cloud capabilities; and partnerships, which involves working with nontraditional partners such start-ups, and traditional partners such as government research institutes and universities." He said this was instrumental in preparing the company for the rapid adoption and scaling of AI, and to be more innovative.

Wang believes that responsible AI usage and governance are critical components of Singapore Airline's AI strategy. "I think that you will run longer, faster, and better if you put governance and responsible AI at the center," he commented. "We have three levels of governance: company level, application level, and use case level. . . . For each, we have a different set of evaluations. . . . We use the feedback to continue to improve our products."

George Wang is the senior vice president of information technology at Singapore Airlines.

Comments and opinions expressed by interviewees are their own and do not represent or reflect the opinions, policies, or positions of McKinsey & Company or have its endorsement.



Another key differentiator for successful AI scaling is when a company's leadership—be it the CEO or the board—is clear on the value that AI brings to the table, and is “all in” on AI. This is especially key in Southeast Asia where there is larger share of family-owned or -run enterprises, with higher reliance on top-down messaging from the CEO or board members. They have more of an “owner's mindset” and a longer-term view, in which AI will be likely identified as a key enabler for long-term financial and operational success.

The next frontier: Agentic AI is emerging across the enterprise but usage will take time

Globally, the use of AI is broadening across organizations. Executives increasingly report deployment in multiple business functions. More than two-thirds say their organizations now use AI in at least one function, and about half report usage in three or more. This expansion reflects a shift from isolated pilots toward more integrated, enterprise-level applications, where companies prioritize functions that balance high-value potential with implementation feasibility.

Against this backdrop, agentic AI (AI systems capable of understanding context, making decisions, and taking actions) is beginning to take hold across Southeast Asia. Use remains concentrated in technical and knowledge-driven functions, particularly in IT and software engineering, where slightly more than

one-third of companies are scaling or fully scaled. Knowledge management follows closely, with similar progress as more organizations roll out workflow and content-automation tools (Exhibit 5).

In contrast, externally facing functions—such as sales and marketing, product or service development, and risk management—remain in the early stages. Because these areas interact directly with customers and carry greater reputational or commercial risk, companies have been more cautious in deploying fully autonomous agents. Roughly one in five companies in these functions are scaling agentic AI, with most still piloting or planning to use such tools. The slower uptake reflects the continued need for human oversight and the added complexity of integrating autonomous agents into customer-facing and risk-sensitive workflows.

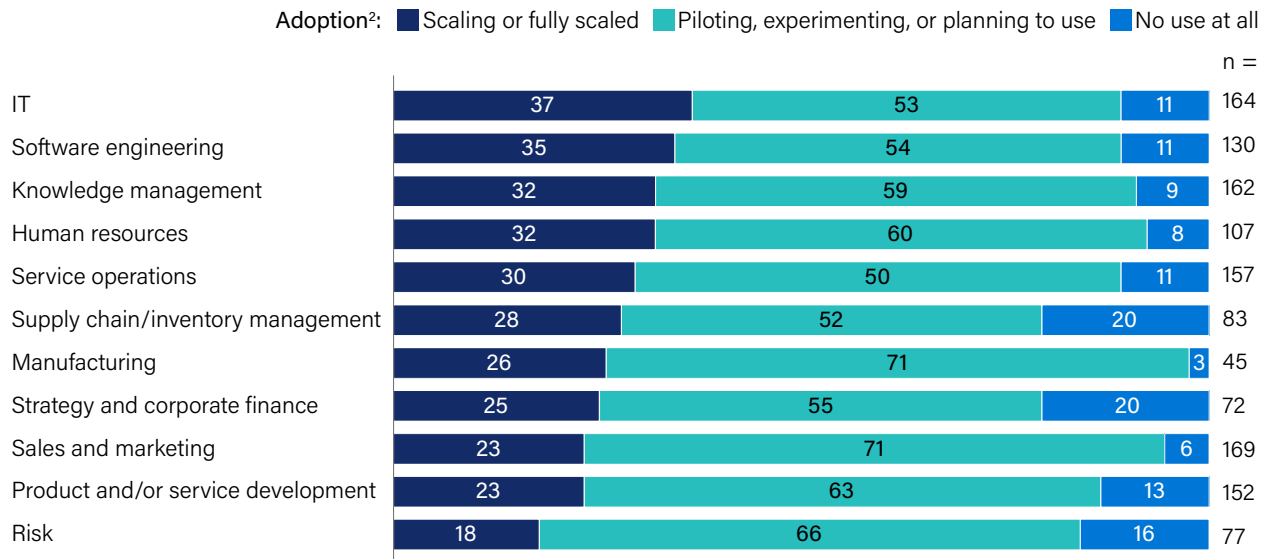
In addition, agentic AI use cases directly affecting business-specific workflows often require custom development to be effective. While companies have significantly invested in data scientists and data engineers, they can lack the software development and MLOps (machine learning operations) skill sets critical to industrialize, deploy, and maintain those solutions (that have been built with fast-evolving technology) in production environments.

The enthusiasm is there—nearly nine in ten companies across Southeast Asia say they are at least planning to experiment with AI agents in the coming year. Yet, it waits to be seen if agentic AI expands so quickly beyond its current technical core into broader enterprise functions.

Exhibit 5

Agentic AI usage in Southeast Asia is emerging, centered in technical and knowledge functions.

Agentic AI adoption across business functions, % of respondents,¹ n = 330



Note: Figures may not sum to 100%, because of rounding.

¹Southeast Asia figures are based on composite-weighted adoption rates, where within-country results are first weighted by enterprise size and economic contribution, then aggregated across countries using GDP shares. The sample covers 6 economies—Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Vietnam—representing the more digitally advanced end of the region's enterprise landscape.

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Manus AI's Zhang reported that financial services, in particular hedge funds and family offices, consulting firms, MSMEs, and freelancers, are the top users of AI agents—primarily turning to AI agents for research or to optimize their resources.

President of Google Cloud, Asia-Pacific, Karan Bajwa, observed: "Customers are pursuing agentic frameworks at three different levels, depending on the industry, sector, or country. There are deeply technical customers who want

to build highly customized, heavily integrated agents at the core of their business processes. Some customers are looking for agents that business users can build with no-code or low-code tools. Others fall somewhere in between, primarily seeking to integrate agents from third-party providers like Salesforce, ServiceNow, Oracle, or Microsoft, among others (see sidebar "Key takeaways from an interview with Karan Bajwa, president, Google Cloud, Asia-Pacific")."

Key takeaways

Key takeaways from an interview with Karan Bajwa, president, Google Cloud, Asia-Pacific

Karan Bajwa shared his perspective on the rapid evolution of AI agents in Southeast Asia, highlighting the region's unique strengths and the challenges ahead.

Bajwa positioned Southeast Asia as being at “a very good crossroads between what we are seeing across different ecosystems in APAC and the United States.” He emphasized Singapore's role, saying, “MNCs [multinational corporations] want to establish operations in Singapore primarily because of its strong regulatory environment, innovation economy, and its ability to attract top-tier talent.” He noted the shift in AI adoption, saying, “Companies have moved from proof of concept to active implementation.”

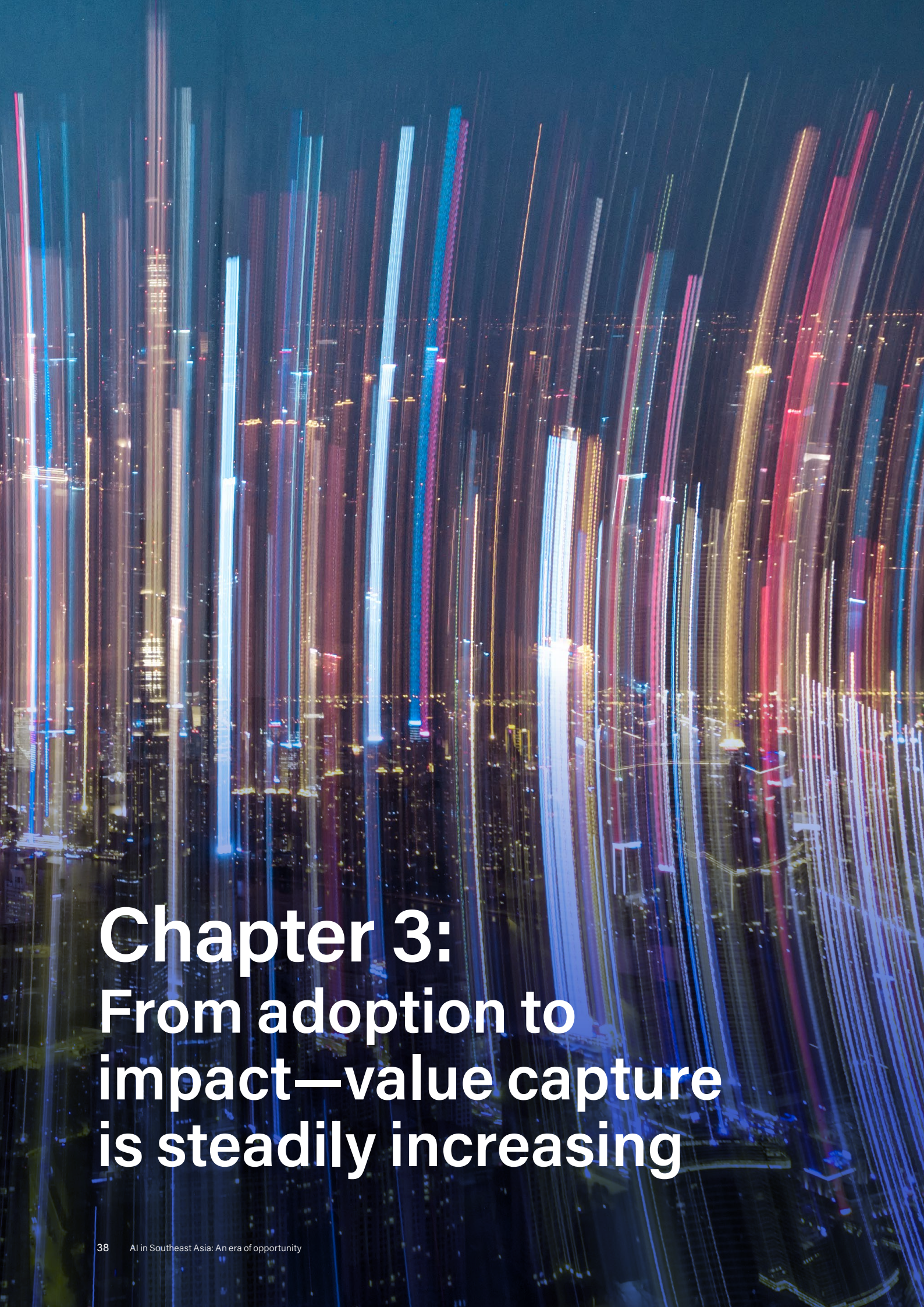
However, he cautioned that in their rush to deploy, many organizations have adopted AI with a narrow, use case-centric approach that often neglects to assess AI's true, meaningful business value. His resulting advice for organizations is clear: “To succeed, businesses must focus on two things: Build the essential talent pools for AI within your business, and work with a partner that offers true end-to-end capability—from the foundational hyperscale platform and first-party model, right through to the critical security and governance layer.”

On agentic AI, Bajwa explained, “Customers are considering agentic frameworks at three different levels, depending on the industry, sector, or country. There are deeply technical customers who want to build highly customized, heavily integrated agents at the core of their business processes. Some customers are looking for agents that business users can build with no-code or low-code tools. Others fall somewhere in between, primarily seeking to integrate agents from third-party providers like Salesforce, ServiceNow, Oracle, or Microsoft, among others.” He stressed Google Cloud's commitment to choice and openness: “All agents, regardless of where they are built, should be interoperable.”

Looking to the future, Bajwa is optimistic but realistic: “AI will democratize technology. Hence, it's extremely important that we build an open ecosystem where innovation is accessible to every customer. Our strategy is to ensure that agentic frameworks, from the most technical integrations to the simplest no-code applications, are all connected. Interoperability isn't just a technical standard; it's the bedrock of democratized AI, ensuring that customers, regardless of their complexity or scale, can harness the full power of the AI revolution.”

Karan Bajwa is president of Google Cloud, Asia-Pacific.

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Chapter 3:

From adoption to impact—value capture is steadily increasing

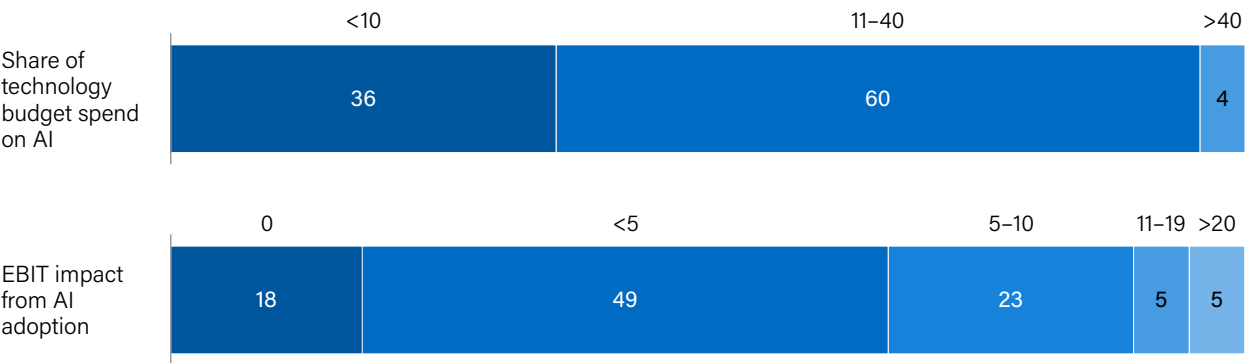
Southeast Asian organizations are using AI at pace, yet many are still working to translate this momentum into measurable financial results. The data point to a value gap: Investment and activity are high, but enterprise-wide impact remains limited.

Across industries in Southeast Asia, more than six in ten organizations allocate between 11 percent and 40 percent of their technology budgets to AI initiatives, signaling a strong commitment to digital transformation (Exhibit 6).

Exhibit 6

Most Southeast Asian organizations are allocating 11 to 40 percent of their technology budgets to AI; few are seeing bottom-line impact.

Amount invested and EBIT¹ impact from AI adoption, by industry, % of respondents, n = 330



¹Earnings before interest and taxes.

Executives report that AI is already delivering meaningful business value. A large majority cites improvements in innovation, customer satisfaction, and competitive differentiation, with many executives also noting gains in efficiency and employee engagement. These benefits demonstrate progress in embedding AI across operations and customer touchpoints.

However, measurable financial returns remain elusive. Roughly six in ten respondents say their organizations have achieved less than a 5 percent earnings before interest and taxes (EBIT) impact from AI use, and nearly one in five report no discernible effect. This pattern mirrors global trends: Many companies are seeing some efficiency gains from individual AI use cases but are still struggling to scale that impact and translate it into bottom-line value.

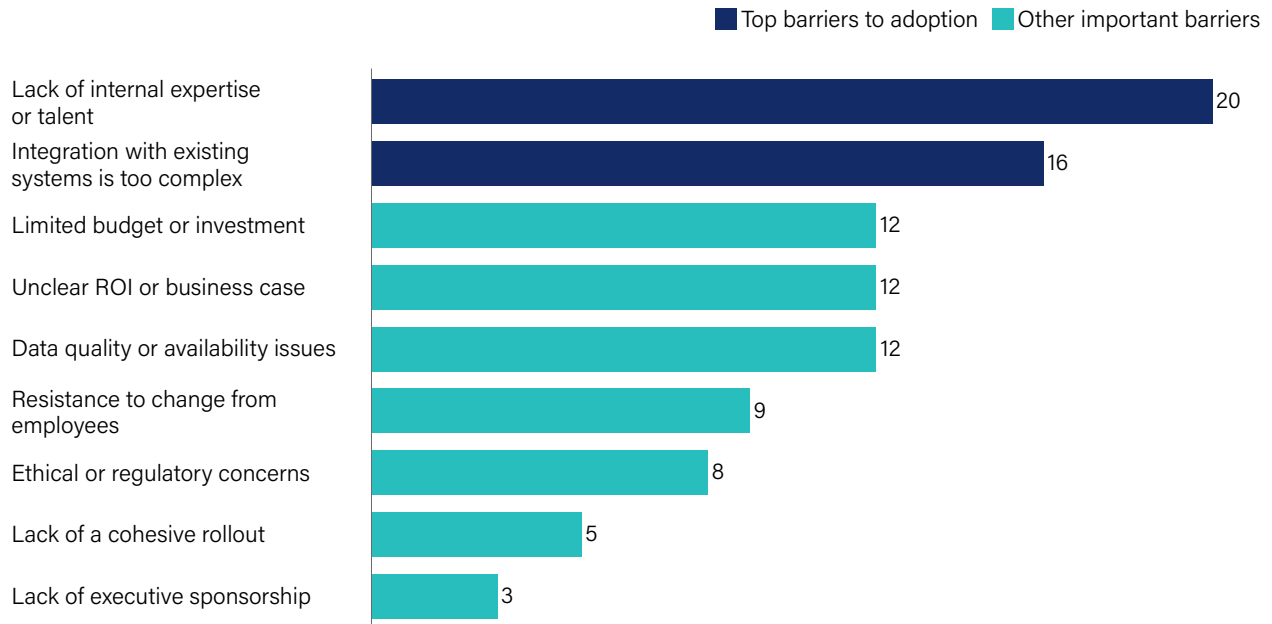
Southeast Asia’s priority barriers to value capture

Despite strong executive intent and rising investment, many Southeast Asian companies continue to face structural barriers that prevent AI initiatives from scaling and delivering measurable impact. Survey respondents point to talent shortages, unclear ROI, and integration complexity as the biggest challenges—highlighting that the region’s next phase of progress will depend on addressing gaps systematically across strategy, talent, technology, and governance (Exhibit 7) (see sidebar, “Key takeaways from an interview with Alexander Seminiano, senior vice president and chief technology officer, Bank of the Philippine Islands”).

Exhibit 7

Lack of talent, integration challenges, and translation of strategy to execution are the biggest barriers to AI use.

Biggest barriers of organization's use of AI in Southeast Asia, % of respondents, n = 330



Key takeaways

Key takeaways from an interview with Alexander Seminiano, senior vice president and chief technology officer, Bank of the Philippine Islands

In this interview, Alexander Seminiano talked about the current and future strategies for implementing and integrating AI within the Bank of the Philippine Islands (BPI).

Seminiano commented that BPI recognizes it is crucial to approach AI with a clear and pragmatic strategy, viewing it as a complex, evolving process, not a simple, quick fix solution. He emphasized the need for the bank to revisit and enhance its data platform to make it AI-ready, saying, "... AI is only as good as the amount and quality of data that you have."

Seminiano believes that AI should be viewed as a business transformation tool rather than just a technology project, explaining, "AI presents a change in landscape. Business should respond accordingly by taking the lead to reimagine things and tech organizations should know how to build the technology properly to enable the business to leverage it well."

However, he cautioned: "There is no silver bullet. What you get out of the box is an algorithm. To invest in integration, you need to create the demand, and that can be a chicken-and-egg situation."

Seminiano shared BPI's approach toward the use of AI. "AI is at the core of digital use; it's not just another layer of digital use. This view and philosophy is embedded in our AI transformation," he said.

He added, "The bigger challenge is a holistic understanding of talent. We need people who understand the business and the context of the data being generated." This approach must include developing leaders who can make informed decisions and employees who can use AI tools effectively.

Seminiano also addressed the unique challenges posed by the Gen Z workforce, saying, "It's a different workforce altogether. How do you continue to motivate them? Retention is already a problem."

To this end, he explained that BPI aims to create an environment that motivates and retains talent, particularly in the face of AI's complexity and the risk of technology fatigue. This involves training end users to engage with AI and having tech professionals build systems powered by AI, while maintaining a focus on the broader business goals and strategies.

Seminiano highlighted the importance of addressing safety, security, and regulatory compliance in AI usage. He explained that BPI's approach to AI is cautious, given the high stakes involved in the financial sector and the stringent regulatory environment.

Alexander Seminiano is the senior vice president and chief technology officer of the Bank of the Philippine Islands.

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Strong executive intent, but translating ambition into action remains a challenge

Executives across Southeast Asia widely recognize AI's strategic importance, but many still struggle to translate that conviction into measurable business results. The region's survey data illustrate this gap: While executive sponsorship is cited as a barrier by fewer than 3 percent of respondents, the next three most common hurdles—limited budgets, unclear ROI, and integration complexity—sit at the very top of the list. This suggests that leadership intent is not the issue, rather, that companies are grappling with how to operationalize that intent and turn it into scalable, value-creating programs.

Skills scarcity is a bottleneck to scaling AI across enterprises

Talent shortages remain the most cited barrier to AI adoption in Southeast Asia, cutting across company size and industry. Survey data show that one in five executives identify talent as the single biggest challenge, making it the region's top barrier to value capture.

Companies are responding by expanding their hiring and upskilling efforts at pace. Over the past 12 months, six in ten organizations have hired data scientists, and a similar share have added data engineering and technology architecture talent. Despite lower reported demand for product owners and AI translators, many firms are likely developing these roles internally, recognizing their critical function in linking AI solutions to business needs and enabling cross-functional collaboration.

Singapore has taken steps to address the AI skills gap through a concerted national effort, primarily under its National AI Strategy 2.0 (NAIS 2.0). A cornerstone of this strategy is the development of a pipeline of local AI talent across creators, practitioners, and users. The government has also committed substantial investments into AI compute, talent, and industry development. The TechSkills Accelerator (TeSA) initiative is actively upskilling the broader workforce—including nontech professionals—in AI and gen AI to boost general AI literacy and empower companies to adopt AI solutions, with the goal of growing the pool of AI practitioners.



Technology and data foundations need to be integrated and strengthened

A strong technology and data foundation is the backbone of enterprise AI value creation. Yet for some organizations in Southeast Asia, legacy infrastructure and fragmented data sets continue to slow progress. Roughly one in ten executives cite data quality and availability as a key barrier to adoption, and integration challenges rank among the top hurdles overall. Many companies operate hybrid environments where modern cloud platforms coexist with older core systems, making it difficult to scale AI models reliably or move from pilots to production. As Alexander Seminiano of BPI noted, “AI should be at the core of digital use—it’s not just another layer of digital use.”

AI risk guardrails should be embedded to scale trust and responsible use

Fewer than one in ten executives in Southeast Asia cite AI-related risks as a primary barrier to AI usage—yet this finding reflects growing awareness and active risk management, rather than complacency. Most organizations recognize that as AI use expands, trust, accountability, and responsible governance will become critical enablers of scale.

Regional survey data show that 41 percent of companies have experienced negative consequences from AI inaccuracy and 21 percent report cybersecurity incidents. However, a majority is already taking steps to address these issues: More than six in ten companies are actively mitigating AI inaccuracy, and over half are strengthening cybersecurity controls (Exhibit 8).



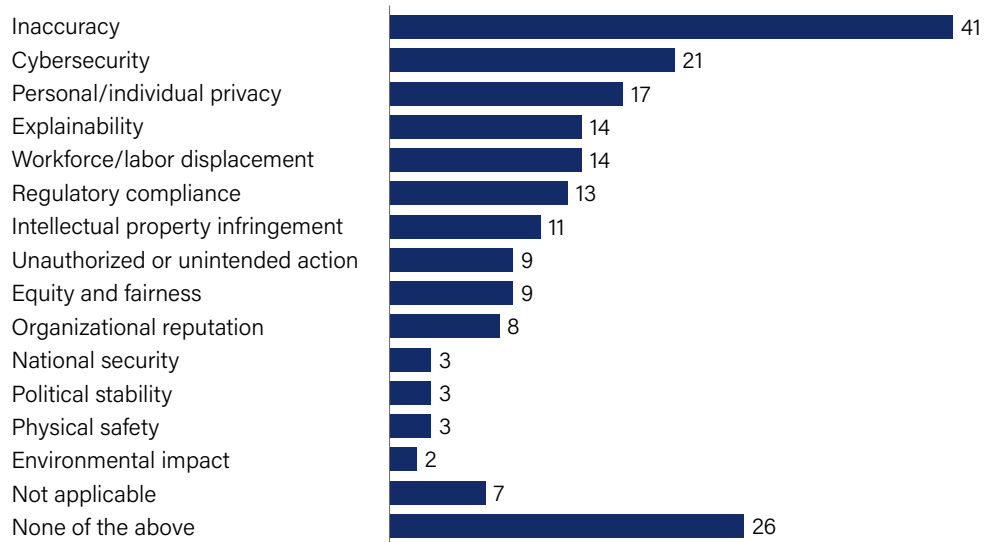
McKinsey commentary

Robert Robert
Principal data scientist

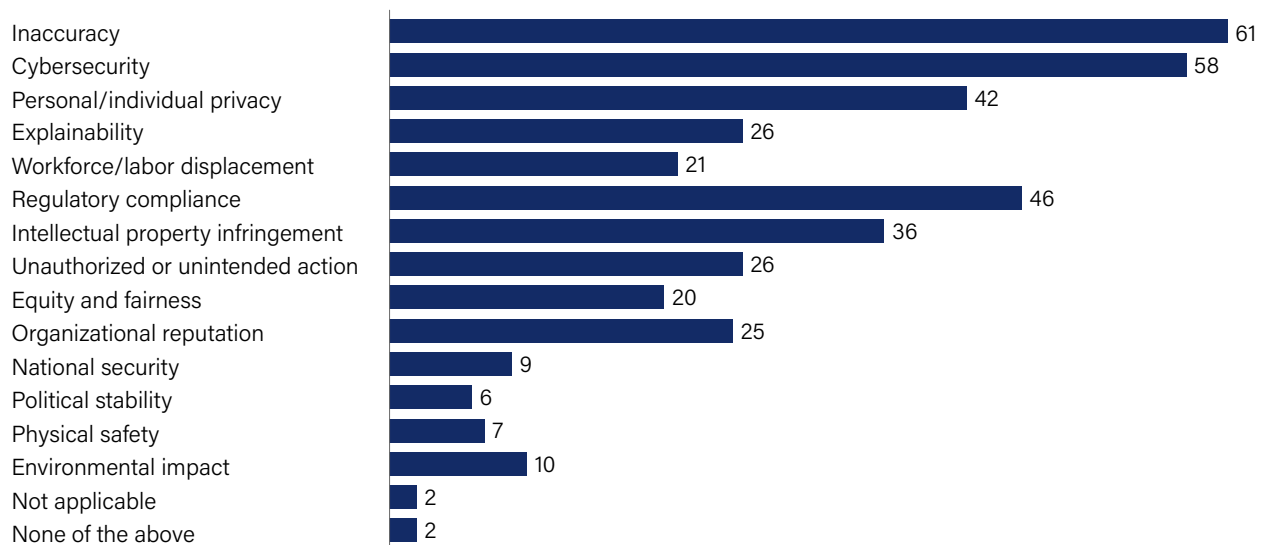
“Despite substantial investment and ambition in AI, many organizations in Southeast Asia still face the challenge of closing structural AI talent gaps—from sourcing qualified leaders to upskilling practitioners at scale to retaining critical expertise. The organizations that sustain meaningful impact from AI are those that systematically build and scale AI capabilities across their workforce.”

Most companies report taking proactive steps to address AI inaccuracy, cybersecurity, and regulatory compliance.

AI risks that have caused negative consequences by organizations, % respondents



AI risks that are being actively managed and/or mitigated by organizations, % respondents



Higher performers are pursuing AI boldly

While collaboration sets the conditions for growth, company level discipline determines who captures value. Global benchmarking shows that only a small group of high performers—around 6 percent of organizations worldwide—is realizing significant EBIT impact from AI, which is defined as deriving 11 percent or more of their 2024 EBIT directly from AI use (Exhibit 9).

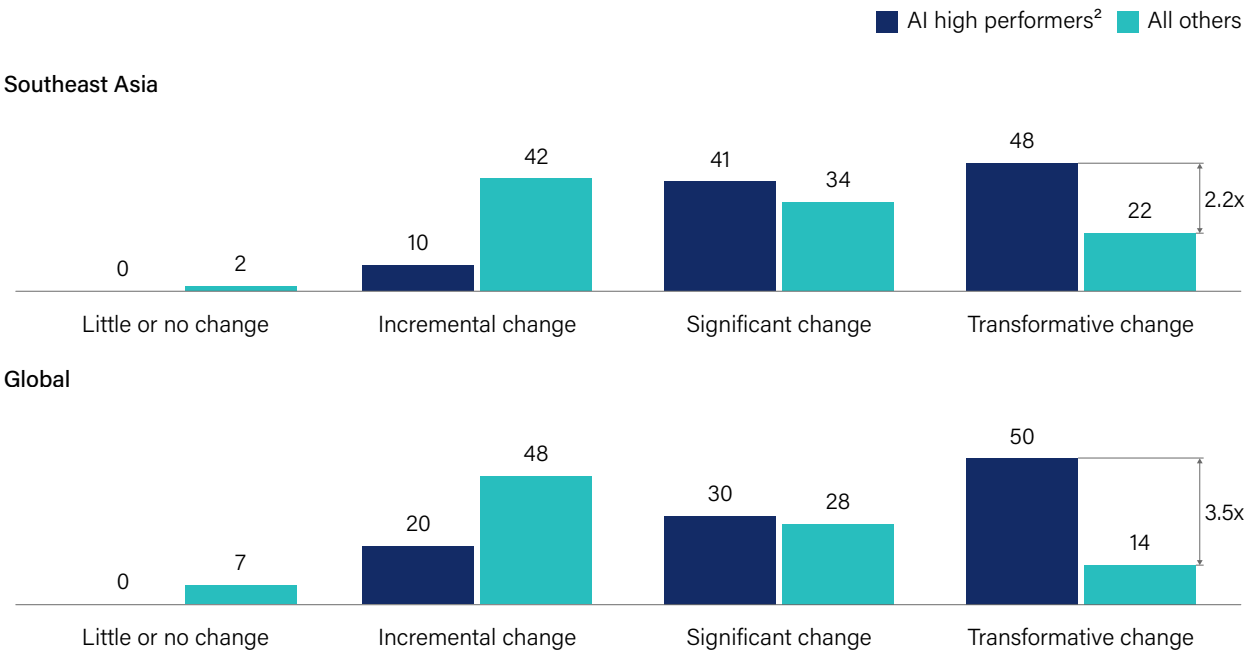
The limited EBIT gains seen so far across Southeast Asia highlight a structural challenge—one that echoes earlier digital and analytics transformations. Global McKinsey research shows that while most organizations can experiment with AI, only those that build the right organizational and technological foundations succeed in capturing sustained value. These companies drive enterprise transformation through innovation, growth, and decisive execution, offering lessons for organizations in Southeast Asia seeking to scale AI-led value creation.



Exhibit 9

Southeast Asia’s AI high performers are twice as likely to expect enterprise-wide, transformative change.

Extent to which respondent’s organization intends to use AI to change its business in the next 3 years,¹ % of respondents



¹Asked only of respondents who said their organizations have adopted AI in at least 1 business function. Respondents who answered “Don’t know/Not applicable” not shown.
²AI high performers are companies in Southeast Asia with annual revenues above US \$250 million that both attribute >5 percent of EBIT to AI use and report capturing “significant” value from AI. AI high performers n = 29; all other n = 184.
Source: McKinsey State of AI in Southeast Asia Survey 2025. 213 participants from organizations with over US \$250 million in revenue

Mayank Wadhwa, president of Microsoft ASEAN, said, “A ‘frontier firm’ is, in our view, where human ingenuity and AI work in lockstep to unlock new business models and competitive advantage across a simple success framework—whether it’s enriching the employee experience, reinventing customer engagement, reshaping business processes, or bending the curve of innovation. . . . The ones that are really

successfully scaling AI are the ones that are embracing this frontier firm mindset. They aren’t just adopting AI—they are becoming frontier firms, looking at human ingenuity and AI to work in lockstep on the business model and competitive advantage.” (See sidebar, “Key takeaways from an interview with Mayank Wadhwa, president, Microsoft ASEAN”)

Key takeaways

Key takeaways from an interview with Mayank Wadhwa, president, Microsoft ASEAN

In this discussion, Mayank Wadhwa, Microsoft's ASEAN president, talked about the significant potential of AI adoption in Southeast Asia, and about Microsoft's role in empowering organizations in the region to become "frontier firms."

Wadhwa first highlighted the huge upside of the growing digital economy in Southeast Asia. He said, "When I look at the market, I look at a [US] \$1 trillion opportunity by 2030, focused purely on the digital economy," adding that he thought the region could be the fourth or fifth largest economy in the world by then.

Commenting on the use of AI in Southeast Asia, he told us that the region is "not only a consumer of AI but also a cocreator," with diverse ecosystems and tripartite partnerships between government, academia, and industry. In his view, the adoption of AI in the region is shifting from "Why AI?" to "How fast can we scale responsibly?"

Wadhwa talked about how companies can become successful AI adopters, or what he calls frontier firms—companies where "human ingenuity and AI end up working in lockstep to unlock new business models and competitive advantage across a very simple success framework: having a clear business outcome, embedding AI into workflow, and focusing on people strategy and culture."

To realize the AI potential, however, Southeast Asia has certain challenges that need to be overcome. Wadhwa elaborated on these: "First, we have to start with the people . . . there is a talent shortage in finding AI skilled professionals." Second, he emphasized the challenge around infrastructure and integration, and third, around security and data protection.

With respect to the last point, Wadhwa was clear: "Before we have a conversation on AI, I always tell my customers: security, security, security—and then you can have AI because, unless you have the foundations of both security and data, you will not be unlocking the value of AI." He explained that Microsoft focuses on responsible AI frameworks, transparency, security by design, and guardrails and governance.

The conversation also focused on sustainability. Wadhwa emphasized that Microsoft is committed to sustainability, with the goal of being "carbon negative, water positive, and zero waste by 2030." To that end, the organization's multitude of data centers around the world have to be run in a sustainable manner: Carbon emissions are addressed by using renewable biofuels; zero water evaporation for cooling is achieved by adopting chip-level cooling [direct-to-chip liquid cooling] through a closed loop; and waste is reduced through a global circularity program to ensure that the company is zero waste by 2030.

Mayank Wadhwa is the president of Microsoft ASEAN.

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Transformative ambition, not incremental improvement

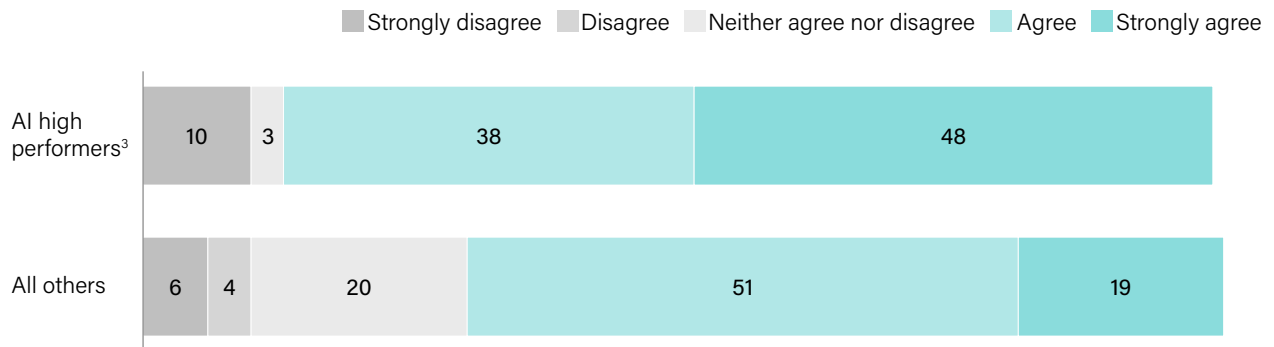
High performers are more than three times as likely as peers to hold an enterprise-wide AI vision and treat AI as core to business

reinvention rather than a collection of pilots. They define clear value targets, secure senior sponsorship, and align investment accordingly. In Southeast Asia, almost eight in ten of the respondents in high performers see strong senior leadership commitment for AI initiatives (Exhibit 10).

Exhibit 10

Southeast Asia's AI high performers are twice as likely to redesign workflows.

Extent of agreement that senior leaders demonstrate true ownership and commitment for AI initiatives,¹ % of respondents



Respondents who report fundamental redesign of organization's workflows after deploying AI,² % of respondents



Note: Figures may not sum to 100%, because of rounding.

¹Question: "To what extent do you agree or disagree that senior leaders at your organization demonstrate true ownership of and commitment to its AI initiatives?" Asked only of respondents who said their organizations have adopted AI in at least 1 business function.

²Question: "Which of the following statements describe your organization's workflows after deploying AI?" Asked only of respondents who said their organizations have adopted AI in at least 1 business function.

³AI high performers are companies in Southeast Asia with annual revenues above US \$250 million that both attribute >5 percent of EBIT to AI use and report capturing "significant" value from AI. AI high performers n = 29; all others n = 184.

Source: McKinsey State of AI in Southeast Asia Survey 2025. 213 participants from organizations with over US \$250 million in revenue

Repeatable scaling through workflow redesign

Instead of layering AI on top of existing processes, high performers are nearly twice as likely to redesign how work gets done—embedding AI into product development, supply chain management, and customer engagement. This integration ensures repeatable scaling and measurable outcomes.

Institutionalized governance and human oversight

Leading organizations formalize frameworks to decide when human validation is required, ensuring models remain accurate, reliable, and compliant. This structure enables scaling with confidence and accountability.

Investment at a different magnitude and pace

More than one in three high performers allocate over 20 percent of their digital budgets to AI, several times the share of peers. About three-quarters of them are already scaling AI use cases across the enterprise, compared with one in three among other companies.

Examples from within Southeast Asia mirror these global patterns. PETRONAS, Malaysia's national oil and gas company, aligns AI directly with its business strategy rather than pursuing technology in isolation. "The business strategy is our AI strategy," its chief data scientist, Dr. Rajamani Sambasivam said. This integration has enabled PETRONAS to deliver over 85 percent of digital value from AI and data science initiatives (see sidebar "Key takeaways from an interview with Dr. Rajamani Sambasivam, chief data scientist, PETRONAS). Similarly, PatSnap has embedded AI in its core product and operations, using automation and data-driven decision-making to expand globally and sustain rapid growth.

These experiences show that value creation depends as much on organizational mindset as on technology maturity. High performers combine bold ambition with rigorous execution, making AI both a source of competitive advantage and a catalyst for transformation.



Key takeaways from an interview with Dr. Rajamani Sambasivam, chief data scientist, PETRONAS

In this interview, Dr. Rajamani Sambasivam discussed how PETRONAS, Malaysia's national oil and gas company, views AI as a business tool to be used in a value-based approach.

Sambasivam explained that PETRONAS has been on an AI journey since 2017, with a clear focus on aligning AI with business strategy rather than technology. He said, "A technology-first strategy to AI can lead to misplaced focus and overhyped expectations, detracting from business-driven solutions."

"The business strategy is our AI strategy," he told us. "We didn't want to make a separate AI strategy or a digital strategy. We wanted to enable the business strategy through AI or digital." This approach has led to over 85 percent of the value being delivered through digital solutions coming from AI and data science.

While PETRONAS has seen a good adoption of AI, sustaining these solutions over time can be a challenge, as Sambasivam told us: "The value for the organization doesn't come by doing new things all the time but by consistently using the tools that have been deployed, day in and day out."

To address this, PETRONAS has implemented a citizen analytics program that, as Sambasivam said, focuses on "real-life problem-solving rather than theoretical training." It has upskilled over 26,000 employees and more than 5,000 have been trained to build machine learning models.

The company recognizes the importance of a value-based approach to scaling AI, particularly in an organization with complex, industrial operations. He explained, "We need to identify which data is of more value for the moment, work to improve it, develop a good map, solve that problem, demonstrate, and then go and improve data elsewhere."

PETRONAS has been working on developing a comprehensive technical inventory, as well as a set of skills levels for data scientists, ensuring that the right capabilities are built and maintained. Sambasivam said, "We have defined the skill sets, with levels of skill numbered from one to five. And in every domain, we have a 20-skills minimum." This framework helps to evaluate and develop the necessary skills, ensuring that the organization can sustain its AI initiatives and continually improve its data quality.

Dr. Rajamani Sambasivam is the chief data scientist at PETRONAS.

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Moving from piloting to performance

For most Southeast Asian enterprises, the next stage is to translate AI use into repeatable value. The region's early movers have built momentum, but scaling impact requires disciplined focus on a few high-value priorities (see sidebar, "Key takeaways from an interview with Derrick Goh, group chief operating officer DBS Bank, and Nimish Panchmatia, chief data and transformation officer DBS Bank").

Five actions could help companies strengthen execution and move closer to the performance frontier.

1

Prioritize value-dense journeys:

Two to three areas can be identified where AI could move the needle within six to 12 months, such as customer acquisition, risk management, or supply chain optimization. By concentrating investment and talent in these domains, tangible impact can be demonstrated and organizational confidence boosted.

2

Redesign, don't overlay: Workflows can be reimaged so that AI informs decisions, automates routine tasks, and frees capacity for higher-value work, and is not just an add-on to existing processes. Embedding AI into end-to-end processes could help drive efficiency and consistency.

3

Build a scalable foundation:

Organizations can consider investing in reusable data products, model catalogs, and secure cloud infrastructure. This could help reduce duplication and accelerate deployment across functions and markets.

4

Focus on usage and change:

Usage and business outcomes can be carefully tracked—not just the technical metrics. Employees can be trained to integrate AI into their work and be encouraged to use AI through performance measures and incentives.

5

Balance governance with innovation:

By establishing proportionate guardrails, accountability could be ensured without stifling experimentation. Responsible scaling can help build trust internally and externally, allowing companies to innovate more confidently.

These steps may appear pragmatic, but in combination they could separate those who pilot from those who perform—helping organizations embed AI into the business and generate sustained returns.





McKinsey commentary

Saurish Basu

Associate partner

“Organizations in Southeast Asia are rapidly progressing on getting their infrastructure set up for scaling AI. However, there continues to be an opportunity to get the intelligence in terms of domains and use cases to get the return on investment from AI. The winners will be those who are able to take the opportunity to reimagine their business and workflows, rather than purely using AI to digitize existing processes. Technology is the enabler, but the impact will be across every function in the entire organization.”

Key takeaways

Key takeaways from an interview with Derrick Goh, group chief operating officer, DBS Bank, and Nimish Panchmatia, chief data and transformation officer, DBS Bank

In this interview, Derrick Goh and Nimish Panchmatia discussed DBS Bank's AI journey over the past decade, its current status, and its future aspirations.

Talking about the bank's move into AI, Panchmatia explained, “We have been on an AI journey for over ten years now, of which the last five years have seen significant intensity.” This long-term investment in AI has allowed DBS Bank to rapidly scale the use of the technology to deliver better and quicker services, particularly in customer service and risk management.

He elaborated, saying, “We aspire to be an AI-enabled bank with a heart,” and added that the bank has moved beyond thinking of just finding more use cases, focusing instead on how AI can fundamentally change the bank's interactions with customers and employees in an empathetic and human-centric way.

Goh provided a concrete example of this transformation, explaining that AI-equipped chatbots are now handling customer queries in a more sophisticated manner: “Unlike NLU [natural language understanding], which is a single-question, single-answer technology, virtual assistants powered by generative AI can take a conversation in any direction you want.” This approach is designed to enhance the customer experience and operational efficiency, with the ultimate goal of minimizing branch visits and manual processes. However, should a customer require further assistance, a customer service officer remains available.

Goh also emphasized the importance of data quality and infrastructure, stating that DBS Bank took the foundational step of spending many years building a robust data lake. This effort ensured that the data was accurate, with proper lineage and metadata, making it ready for AI applications.

The combination of high-quality data and advanced AI models was a game changer and essential for driving meaningful innovation and value. He explained that even the most sophisticated AI models are only as good as the data on which they are trained, and that the management of these models is a critical skill for organizations looking to adopt AI.

DBS Bank faces several challenges to the widespread adoption of AI in financial services. Goh highlighted these issues, saying, “The barriers are largely related to the fact that we operate in multiple markets, and we have to adapt and comply with the data localization requirements.” For example, some jurisdictions have stringent regulations requiring on-premises solutions for AI, requiring more steps to apply models developed in other markets.

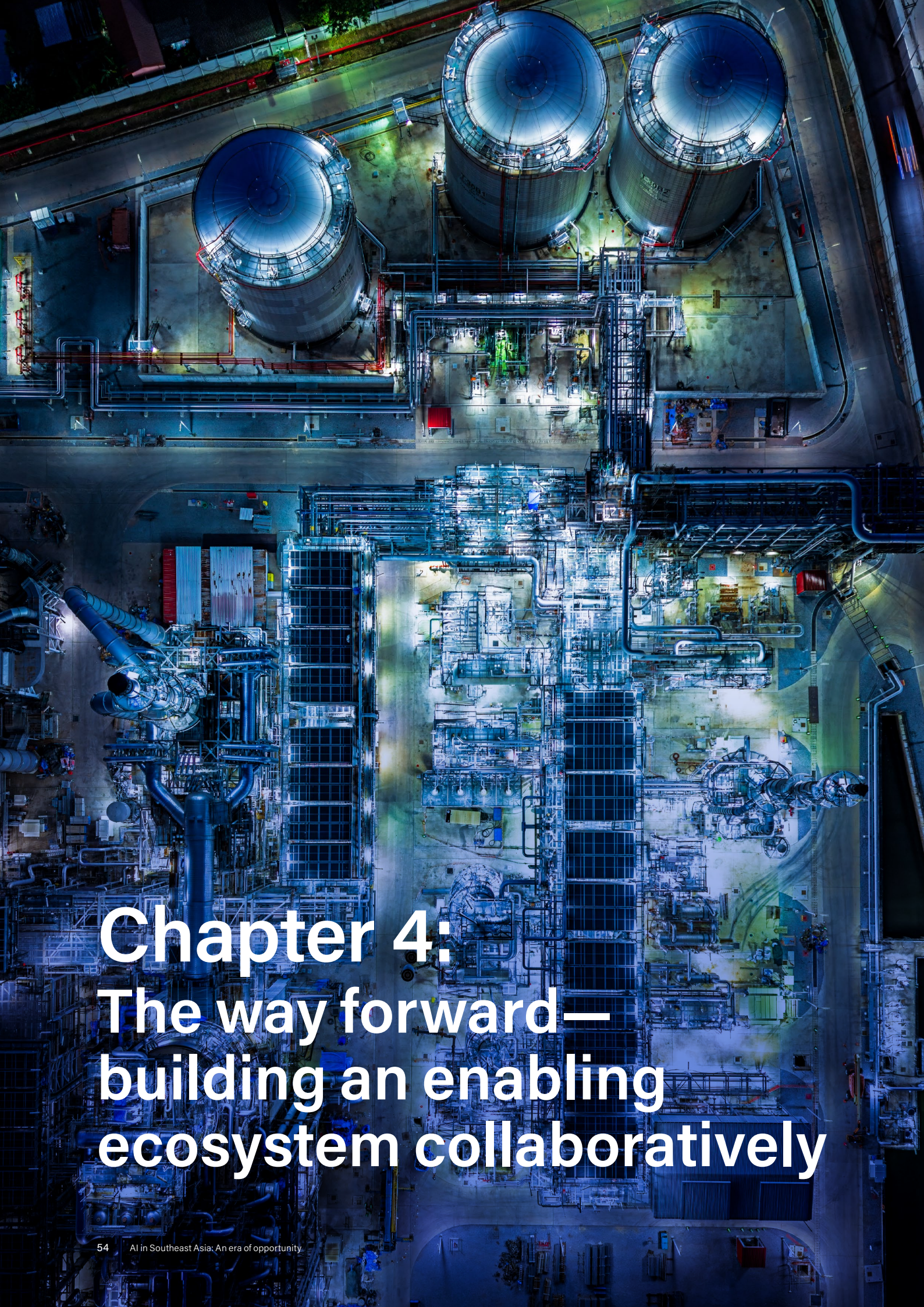
Goh addressed concerns about how AI would transform jobs, saying, “The end goal is not about cutting head count. The focus should be about how do we serve customers better, how do we become more efficient and effective to meet the needs of the customers.” He added, “The significant big AI use cases are largely in call centers and in software code writing. . . . Other areas of material impact would be on augmenting human capabilities by providing them [with] the tools to enhance their effectiveness.”

Both Goh and Panchmatia spoke of how the cultural mindset of employees is crucial for the successful integration of AI, with a focus on demonstrating the value and benefits of AI tools. Despite initial skepticism, employee adoption of AI increased significantly once the technology had demonstrated its value. Panchmatia noted, “Once it becomes useful to daily life, the resistance barrier drops.”

DBS Bank is preparing for the next frontier in AI, particularly agentic AI. Goh highlighted this by commenting, “We are at this dawn of agentic AI. The very rapid change that happened over the last few months is quite stunning, and I see these developments in AI as a significant turning point for businesses and the workforce. So, while DBS is deeply engaged in all aspects of traditional AI in terms of the use of structured data, the additional use of unstructured data in banking with generative AI has opened many opportunities of how we can serve customers better.”

Derrick Goh is the group chief operating officer of DBS Bank, where **Nimish Panchmatia** is the chief data and transformation officer.

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An aerial, high-angle photograph of an industrial facility at night. The scene is illuminated by various lights, creating a mix of blue, white, and yellow tones. In the upper half, three large, cylindrical storage tanks are visible, each with a flat top and surrounded by scaffolding and pipes. Below these tanks, a dense network of pipes, valves, and structural steel frames dominates the lower half of the image. The overall impression is one of a complex, large-scale industrial operation.

Chapter 4: The way forward— building an enabling ecosystem collaboratively

Southeast Asia's AI journey has reached a pivotal moment. Use is widespread and investment is rising, yet so much more value could be tapped. As companies move from experimentation to scaling, the next challenge is to convert early momentum into measurable economic and social impact. Achieving this will require two shifts: stronger collaboration across the ecosystem, and greater discipline within organizations.

Governments, technology providers, and enterprises each have a role to play in shaping the conditions for AI to flourish responsibly. At the same time, high-performing organizations are already showing what it takes to create value at scale—anchoring AI in strategy, embedding it in operations, and investing boldly in people and technology. Together, these collective and individual actions could determine whether Southeast Asia can transform early AI adoption into sustained competitive advantage.

A collaboration agenda for Southeast Asia

No single stakeholder can unlock AI's potential alone. The region's next stage of growth will depend on collaboration across government, industry, and academia to build the infrastructure, skills, and governance needed to scale AI responsibly.

Governments: Initiatives such as national AI strategies, sovereign data frameworks, and coordinated funding programs could help align incentives across markets. Regional collaboration—through ASEAN-level guidelines and cross-border data frameworks—may be critical to enable scale in a fragmented regulatory landscape.

Technology providers: Technology companies now have a unique opportunity to localize solutions for Southeast Asia's

diverse markets. By coinvesting in shared infrastructure, cloud and compute resources, and multilingual model development, capability gaps could be narrowed and inclusivity increased. Supporting open standards and providing access to safe, responsible AI tools could help smaller enterprises participate in the AI economy.

Enterprises: Companies could foster collaboration by partnering with academia and start-ups to accelerate innovation. Sharing best practices, codeveloping sector data sets, and participating in regulatory sandboxes could not only speed adoption but also enhance trust.

Training providers and academic institutions:

Education and training play a vital role in ensuring professionals remain equipped with the skills needed to thrive in a rapidly evolving landscape. Training and academic institutions could not only design and deliver courses that address emerging industry demands, but also continually update curriculums in response to shifting requirements. By collaborating with industry experts, these organizations could develop practical learning experiences that reflect real-world job needs, helping learners stay relevant and prepared for the future.

The region's AI ecosystem has already demonstrated that coordinated action is possible—with initiatives such as Singapore's AI Verify Foundation and Malaysia's national AI road map.⁴⁷ Prudential's Global AI Lab, launched in Singapore, is a partnership with government agencies and leading academic institutions that seeks to advance AI in insurance and health care.⁴⁸ In Indonesia, the Golden Vision for AI Transformation exemplifies how the private sector, government, and academia can collaborate to accelerate technology adoption.⁴⁹ Expanding such partnerships across borders could help Southeast Asia scale responsibly and lead with impact.



McKinsey commentary

Vinayak HV

Senior partner

“Southeast Asia’s dynamic diversity across languages, culture, and economic development provides one of the most exciting opportunities to accelerate the development of AI—the demographics of the region have seen it leapfrog many technology developments; AI is unlikely to be an exception.”

Creating an enabling ecosystem

The ability of companies to scale AI depends on the ecosystem around them—the policies, infrastructure, and partnerships that shape how innovation spreads. Governments, regulators, academia, and technology providers could accelerate progress by taking action in the following key areas.

Enable trusted data flows: Innovation could be encouraged by harmonizing cross-border data frameworks and privacy standards, while protecting consumers. Investments in regional data infrastructure could reduce costs and support local model development.

Expand regional talent pipelines: Skills shortages could be addressed through stackable credentials, apprenticeships, and cross-border mobility programs. Regional initiatives could balance talent supply and demand, while fostering collaboration between universities and industry.

Promote responsible AI at scale: To ensure AI systems are safe, fair, and reliable, shared testing facilities, model evaluation standards, and incident-reporting mechanisms could be established. A regional repository of responsible-AI best practices could guide both enterprises and regulators.

Catalyze sector collaborations: By facilitating partnerships in high-impact industries, such as health care, finance, and manufacturing, data sets and reference models could be codeveloped. Shared assets could accelerate innovation and attract investment for solutions that address regional challenges.

Strengthen infrastructure and inclusion: This could be achieved by expanding cloud and compute capacity, while ensuring equitable access for smaller enterprises and emerging markets. Infrastructure readiness—combined with digital inclusion—could determine how widely AI’s benefits are distributed.

A coordinated focus on these enablers could help Southeast Asia build a connected, trusted AI ecosystem that amplifies enterprise innovation and establishes the region as a leader in responsible, inclusive AI growth.

Southeast Asia stands at an inflection point in its AI journey. The region's early momentum—driven by a young, digitally savvy population, growing private investment, and active public sector leadership—has created a strong foundation for progress. Digital use is rapidly accelerating, yet barriers are holding back Southeast Asia from becoming a global AI hub, one in which all size companies can realize value from AI.

Taking into account the promising, yet still challenging, state of AI in Southeast Asia, the next phase will hinge on execution: How effectively enterprises, governments, and technology partners can work together to translate ambition into sustained value and kick-start the era of opportunity.

By deepening collaboration, investing boldly in talent and data foundations, and scaling AI responsibly, Southeast Asia could move from rapid adoption to enduring impact. The region has the opportunity not only to accelerate its own growth but also to shape what responsible, inclusive, and successful AI leadership looks like for the world.



Acknowledgements

The authors wish to thank the Singapore Economic Development Board, Tech in Asia, and all those who contributed to this report:

Karan Bajwa, president, Google Cloud, Asia-Pacific; Peter Bithos, group commercial executive, SEEK; Guan Dian, cofounder, PatSnap; Nikhil Dwarakanath, group head of data and analytics, Grab; Kiana Jafari, postdoctoral researcher, Stanford Institute for Human-Centered Artificial Intelligence; Derrick Goh, group chief operating officer, DBS Bank; Ronen Mense, president, AppsFlyer; Joel Neoh, founding partner, First Move; Nimish Panchmatia, chief data and transformation officer, DBS Bank; Vikram Rao, director of growth markets and strategic accounts, ASEAN, Amazon Web Services (AWS); Dr. Rajamani Sambasivam, chief data scientist, PETRONAS; Sateesh Reddy, group chief technology officer, Tonik Bank; Alexander Seminiano, senior vice president and chief technology officer, Bank of the Philippine Islands (BPI); Shamsul Izhan Abdul (Sam) Majid, CEO, Malaysia National AI Office; Josephine Teo, minister for digital development and information, Singapore; Mayank Wadhwa, president, Microsoft ASEAN; George Wang, senior vice president of information technology, Singapore Airlines; and Tao Zhang, cofounder and chief product officer, Manus AI.

The authors also wish to thank McKinsey colleagues: Bruce Delteil, Jon Canto, Khoon Tee Tan, Michael Park, Paul Beaumont, Sachin Chitturu, Timothy Yap, and Vidhya Ganesan, with Elaine Ee, Esther Subramaniam, Jialok Lee, Luck Joonkiat, Robert Robert, Sri Permaloo, Supparat Jirachotikul, Sunalini Sinha, Wayne Tong, and Yasmin Ramle.

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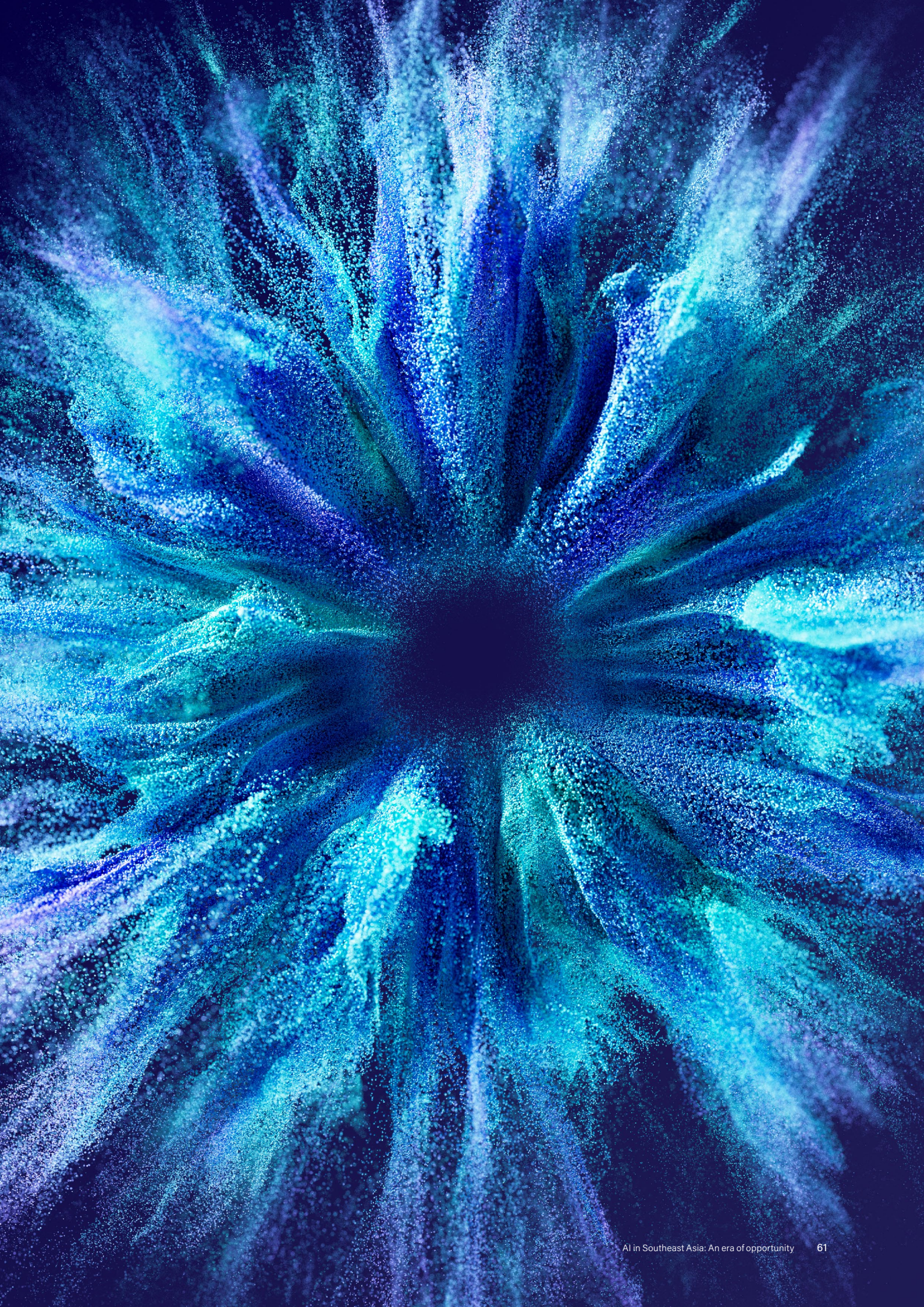
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February 2026

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