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MALAYSIA is home to over 1.07 million micro, small and medium enterprises (MSMEs), the backbone of our economy, driving employment and national output.

A Xerox survey of 1,033 SMEs found that 81% have already adopted artificial intelligence (AI), with 48% planning to expand its use within a year. It is clear that AI has moved beyond isolated pilot projects into core business capabilities.

The real strategic question is no longer whether AI will create or destroy jobs, but whether SMEs can decouple growth from headcount.

For SMEs, AI represents both a once-in-a-generation opportunity and a structural risk. It can either level the playing field or widen the digital divide.

Rewriting the rules for growth

For decades, SME growth followed a predictable formula: more customers meant more staff, leading to higher costs and operational complexity. AI is now breaking that equation.

For the first time, SMEs can scale not by adding headcount, but by embedding intelligence into their operations – unlocking productivity, efficiency and innovation previously associated with large enterprises.

In many ways, SMEs are better positioned than larger organisations to adopt AI. They are more agile, less constrained by legacy systems and faster to make decisions and implement changes.

Today, a small SME team can generate marketing campaigns at enterprise scale with a few clicks, deliver 24/7 customer engagement using chatbots and agentic agents, and founders can access real-time insights without dedicated analytics units.

In effect, AI enables SMEs to operate beyond their size.

This shift is not just technological – it is organisational. Routine work will decline. Companies will increasingly prioritise talent with creativity, decision-making capabilities and effective use of intelligent systems.

As McKinsey estimates, up to 30% of work hours could be automated by 2030 – creating space for higher-value contributions.

Growth will increasingly be driven by mindpower, not manpower. Companies will increasingly prioritise talent with creativity, decision-making capabilities.



Can AI level the playing field for SMEs?

■ Collaboration between industry, academia and government is essential to ensure AI adoption is inclusive

■ SMEs can scale without adding headcount

The friction in transition

Despite the promise, the barriers are real.

The first barrier is access. Advanced AI tools often require enterprise-grade cloud ecosystems, reliable digital infrastructure and a level of data maturity that many SMEs may not yet have.

The second is skills. AI adoption is not always plug-and-play; it requires digital literacy, process redesign and management oversight.

Many SMEs operate with lean teams focused on day-to-day operations, leaving little capacity for upskilling or experimentation.

Costs are another consideration. Beyond subscription fees,

SMEs must contend with integration, cybersecurity and training investments – often without guaranteed returns.

These constraints mean that while AI is powerful, adoption is neither automatic nor evenly distributed.

Data security and sovereignty

As SMEs integrate AI tools into their operations, data protection becomes a critical concern.

Customer records, transaction data and operational insights increasingly reside on digital platforms – many of which are foreign-owned.

Without proper safeguards, SMEs risk exposure to data breaches, compliance failures and long-term platform dependency.

Questions of data sovereignty – where data is stored, who controls it and how it is used – are becoming increasingly important.

Security must therefore be treated not as an add-on, but as foundational to sustainable AI adoption.

Old school versus new breed

The truth is, without implementing some form of AI or digital capability, many SMEs will struggle to remain competitive.

At the same time, this transition creates space for a new generation of enterprises. Ones that are tech-savvy and built around digital-first models.

Over the longer term, this raises a more strategic question. Could Malaysia emerge with a

more resilient and globally competitive class of entrepreneurs?

With the right ecosystem support, AI adoption can cultivate founders who are more data-driven, operationally disciplined and innovation-led.

The spillover effects could extend beyond individual firms, strengthening the national talent pool and deepening digital capabilities.

And with that, the country's economy becomes more productive and more competitive.

From research to real-world impact

At TM R&D, we see AI not merely as a technology layer, but as an enabler of real-world industry transformation.

Our focus is on translating advanced research into practical, scalable AI solutions – particularly in automation, data-driven decision platforms, and advanced customer experience solutions beyond basic chatbots, so that SMEs can adopt AI securely and effectively.

Equally important is building a broader ecosystem. Collaboration between industry, academia and government is essential to ensure that AI adoption is inclusive, and that SMEs are not left behind in this transition.

Policy and ecosystem intervention

So, what needs to be done?

Malaysia has made encouraging progress. The National AI Action Plan 2030 provides a strategic foundation, while initiatives such as the Malaysia

Digital Acceleration Grant from Malaysia Digital Economy Corp support SMEs at the early stages of adoption.

Budget 2026 has further strengthened this direction, with the establishment of the National AI Office, the launch of AI-focused faculties such as the Faculty of AI and Engineering at Multimedia University, and additional 50% tax incentives for AI and cybersecurity training.

These are important steps – but continued momentum will be key.

From intent to impact

For SMEs, the priority now is execution. AI adoption should not be approached as a trend or a standalone tool.

It must be aligned with business objectives, starting with clear problem statements and scaling deliberately.

There is no one-size-fits-all approach. The right solutions depend on the nature of the business, its data readiness and its strategic goals.

What matters is moving from experimentation to measurable outcomes.

The bottom line

The risk is no longer in adopting AI. The greater risk lies in choosing not to.

As competitive benchmarks shift, SMEs without AI will struggle to match on cost, speed and decision-making.

This is not just a technology transition – it is a structural one.

And how SMEs respond will shape not just their future, but the competitiveness of Malaysia's economy itself.

In the end, AI will not determine who grows. It will determine who survives.