



PRODUCTIVITY REPORT **2026**



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PRODUCTIVITY REPORT 2026

33rd EDITION

ADVANCING STRUCTURAL CHANGE FOR SUSTAINABLE PRODUCTIVITY GROWTH

Advancing structural change means creating an economy in which firms continuously upgrade, workers progress into more productive roles, institutions facilitate innovation, and every state contributes through its distinctive strengths.



The theme **Advancing Structural Change for Sustainable Productivity Growth** reflects Malaysia's imperative to move beyond growth driven primarily by labour and capital accumulation towards growth founded on efficiency, innovation and higher-value creation for higher productivity and competitiveness.

Productivity Report 2026 retains the theme from 2025, recognising that structural transformation is a sustained national undertaking involving coordinated reforms across sectors, states, institutions and firms.

Structural change extends beyond shifts in the composition of agriculture, manufacturing and services. It includes how firms organise work, develop talent, adopt technology and convert investment into productive outcomes. At the national level, Malaysia must deepen its industrial capabilities, strengthen linkages between manufacturing and services, expand knowledge-intensive activities and harness each state's distinctive economic strengths.

Sustainable productivity growth and competitiveness must be resilient, inclusive and enduring. It requires firms to use resources more effectively, strengthen management capabilities and redesign processes and jobs. Productivity improvements must translate into better wages, stronger enterprises and wider economic opportunities.

Talent, the business environment, and technology are mutually reinforcing drivers of sustainable productivity and higher competitiveness. Skills development, job redesign and productivity-linked compensation enable workers to contribute to and benefit from productivity gains. Clear and responsive regulations reduce business friction, while technology can improve operations and decision-making when supported by capable workers, reliable data and redesigned workflows. R&D must similarly progress beyond knowledge creation towards commercialisation and productive application.

The Productivity Report 2026 examines Malaysia's productivity journey across states, sectors and firms before assessing these principal drivers. **Advancing structural change means creating an economy in which firms continuously upgrade, workers progress into more productive roles, institutions facilitate innovation, and every state contributes through its distinctive strengths.**

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EXECUTIVE SUMMARY



Productivity Report 2026, retaining the report's 2025 edition's theme, **Advancing Structural Change for Sustainable Productivity Growth**, emphasises that productivity has been central to Malaysia's economic expansion. Still, future growth depends on deeper structural change.

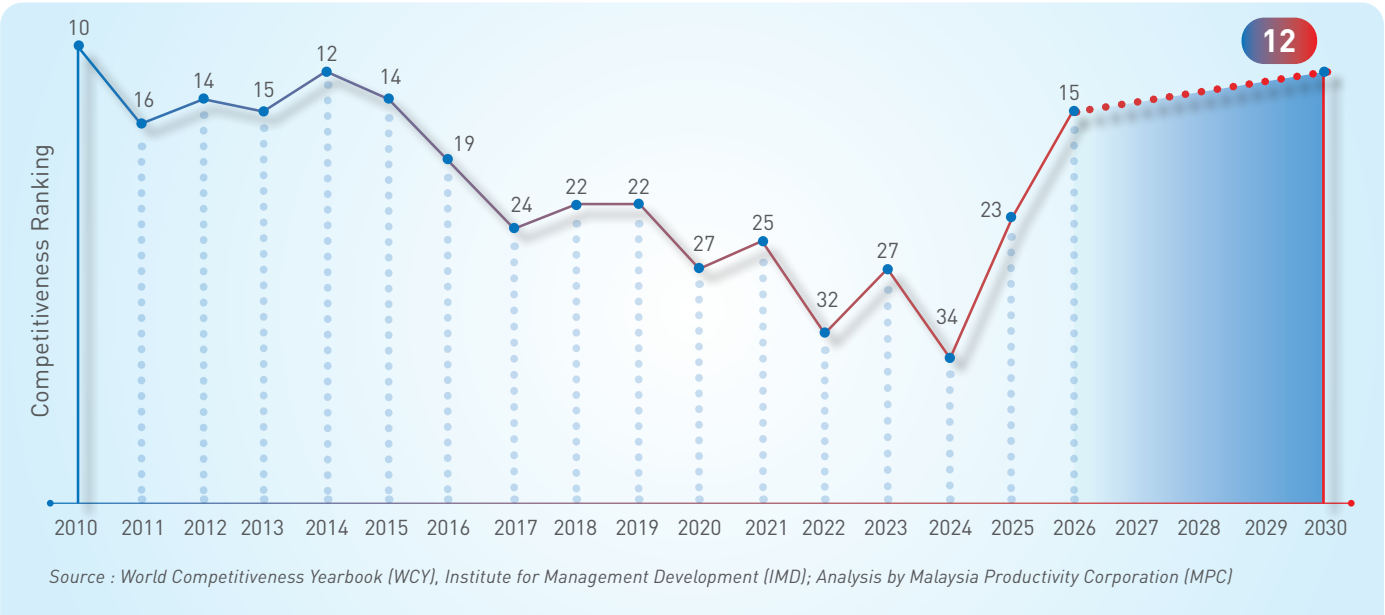
Real GDP grew 5.8-fold from 1990 to 2025, and labour productivity reached RM104,556 per worker in 2025. Yet, average productivity growth of 1.9% over the decade, an early shift towards services and a declining high-technology manufacturing share show the need to move from labour and capital accumulation towards efficiency, innovation and higher-value creation.

Performance remains uneven. Productivity Nexus sectors are catching up, while MSME productivity grew by 13.2% during the Twelfth Malaysia Plan, against 7.3% for large firms. MSMEs generate only 39.5% of GDP despite comprising 98.0% of establishments. State performance is concentrated; six states remain below the national benchmark, while diversified states recovered faster after the pandemic. Sector and place-based interventions are therefore essential for sustainable and balanced productivity growth across sectors and states.

Sustainable productivity gains require workforce and institutional reform. Firms using productivity-linked pay systems record higher wages and lower inequality, supporting PROSHARE programme, job redesign and skills upgrading. Regulatory reform has strengthened competitiveness where Malaysia rose to 17th in the IMD World Competitiveness Ranking (WCR) 2026 for Business Legislation sub-factor, a sharp increase from 46th in 2025, while the Bureaucracy Reform (Reformasi Kerenah Birokrasi – RKB) initiative delivered RM2.01 billion in compliance-cost savings. AI and R&D offer potential, but their impact depends on process redesign, data readiness, commercialisation and stronger firm capabilities.

The National Productivity Framework and Roadmap 2026–2035, now being developed, will shape the way forward for sustainable productivity growth for Malaysia. Grounded in whole-of-government and whole-of-nation approaches, the study applies spatial baselines and evidence-based diagnostics to align interventions from firms to sectors, states, localities and the nation. Through governance, measurable KPIs, state-specific strategies and strengthened Productivity Nexus platforms, the framework aims to narrow productivity gaps among firms, sectors, and states, lift annual growth towards 3.6% by 2030, and translate gains into resilient industries, better wages, balanced regional development and shared prosperity.

KEY HIGHLIGHTS



MESSAGE FROM THE MINISTER



Datuk Seri Johari Abdul Ghani

Minister of Investment, Trade and Industry

Productivity must be treated as an industry imperative, not just a national statistic. MITI remains focused on raising productivity where value is created: within firms, factories, supply chains and industrial clusters.

The global economy is being reshaped by geopolitical uncertainty, supply-chain realignments, rapid technological change and evolving trade policies. For an open economy such as Malaysia, resilience will depend on our ability to remain competitive while preserving open trade and diversifying strategic partnerships.

Productivity must therefore be treated as an industry imperative, not merely a national statistic. The Ministry of Investment, Trade and Industry (MITI), through Malaysia Productivity Corporation (MPC), remains firmly focused on raising productivity where value is created within firms, factories, supply chains and industrial clusters. Economic growth cannot continue to rely principally on additional labour, capital or lower costs. Our long-term competitiveness is determined by technology adoption, innovation, engineering excellence, workforce capability and the capacity of Malaysian firms to move into higher-value activities.

This report reinforces that direction. It highlights the need for deeper sectoral and firm-level upgrading, stronger MSME capabilities, job redesign, productivity-linked wages, smarter regulation and more effective commercialisation of research and development. The report also shows that AI produces results only when businesses redesign processes, strengthen data readiness, develop talent and measure outcomes.

Malaysia remains open to quality investments in semiconductors, electrical and electronics, AI, digital infrastructure, green technology, advanced manufacturing and next-generation mobility. The value of investment must be judged by the capabilities it anchors here through technology transfer, skilled employment, local supplier development and stronger domestic supply chains.

Malaysia continues to provide a stable, transparent and predictable policy environment and works closely with industry. The public and the private sector should translate the evidence in this report into measurable productivity gains. Our ambition must be clear in making stronger Malaysian industries, higher-value jobs and sustainable productivity and competitiveness.

CHAIRMAN'S STATEMENT



Datuk Kamaruzzaman Johari

Chairman, Malaysia Productivity Corporation (MPC)

The ongoing initiative to develop the National Productivity Framework and Roadmap 2026–2035 will establish the foundation for Malaysia's future productivity agenda. Through spatial productivity, national performance can improve sustainably when sectors and states are given fit-for-purpose support to bridge gaps.

Productivity Report 2026, which retains the theme Advancing Structural Change for Sustainable Productivity Growth, reflects an important reality that structural transformation to affect long-term productivity requires enduring commitment, coordinated action and sustained implementation.

Malaysia has made encouraging productivity gains. Last year, the nation recorded 4.0% growth with RM104,556 per employee. However, progress remains uneven among firms, sectors, and states. Bridging these gaps is central to building a more competitive, inclusive and resilient economy. National performance can improve sustainably when sectors and states are given fit-for-purpose intervention to bridge gaps and realise their full economic potential. The aim is 3.6% growth at RM122,745 per employee by 2030, aligning with the Thirteenth Malaysia Plan (13MP).

The ongoing study to develop the National Productivity Framework and Roadmap 2026–2035 will establish the foundation for Malaysia's future productivity agenda. It adopts the whole-of-government and whole-of-nation approaches, bringing together ministries, agencies, state governments, local authorities, industry, academia and communities around shared priorities. The study's spatial productivity approach will enable policies and interventions to respond to the economic structure, industrial strengths, workforce capabilities and development needs of each state and sector.

Productivity Report 2026 shares some earlier insights of the study as the way forward. The report also highlights the importance of talent, technology, artificial intelligence, regulatory reform, research and development, and stronger firm capabilities for sustainable growth. These drivers must deliver measurable improvements in output, value creation, wages and quality employment.

I reaffirm MPC's commitment to providing credible evidence, facilitating collaboration and translating policy into practical action. I call upon all stakeholders to support this shared mission. Together, we can narrow productivity gaps, strengthen Malaysian industries and create sustainable prosperity for every sector, every state, and every Malaysian.

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Dr. Halimahton Sa'diah Let

Mohd Azwan Mohd Salleh

Dr. Suriati Zainal Abidin

Dr. Nor Aishah Hassan



CHAPTER ONE

Malaysia's Transition to Efficiency-
and Productivity-Led Growth

MALAYSIA'S TRANSITION TO EFFICIENCY- AND PRODUCTIVITY-LED GROWTH

Malaysia enters 2026 with a larger economy and stronger international competitiveness. The central question is whether this progress can raise value added per worker, wages and resilience without relying on longer hours or continued labour expansion. Malaysia's productivity challenge is not the absence of growth. It is the insufficient pace, depth and diffusion of productivity gains needed to close the gap with frontier economies and sustain the country's recent improvement in competitiveness. Strong GDP expansion does not by itself establish productivity convergence. Output per worker reached RM104,556 in 2025, but the 2010–2025 trend averaged about 1.9% annually. Recent TFP gains are encouraging, but labour and capital remain important growth drivers. The enabling environment has improved faster than measured productivity outcomes.

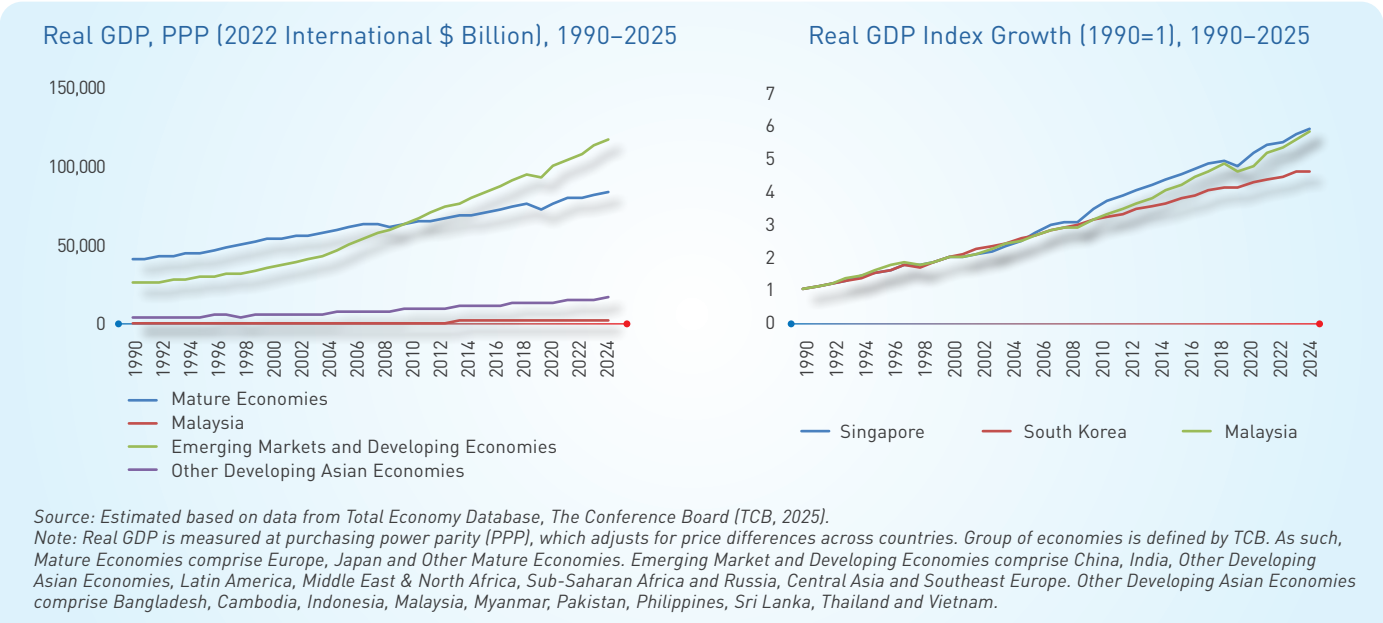
Malaysia's productivity challenge is not the absence of growth. It is the insufficient pace, depth and diffusion of productivity gains needed to close the gap with frontier economies and sustain the country's recent improvement in competitiveness

Shifting economic expansion towards productivity-led growth

Malaysia's economy has grown nearly six-fold over the past 35 years. Real GDP rose from USD 240.9 billion in 1990 to USD 1.41 trillion in 2025, signifying a 5.8-fold expansion. Malaysia's growth has outpaced its peer group, expanding faster than Mature Economies (2.0x) and the broader

Emerging Market and Developing Economies group (4.5x) over the same period. On an indexed basis, Malaysia is now closing the gap with advanced regional peers. Its growth index (5.84x since 1990) sits just behind Singapore (5.95x) and ahead of South Korea (4.66x).

Figure 1: Malaysia's Economy Expanded Rapidly Alongside Regional Peers



The growth decomposition traces the sources of this expansion : productivity contributed 4.6 of the 5.5 percentage points of annual growth in GDP per capita since 2000, leading every Malaysia Plan since the 8th.

Malaysia's GDP per capita grew by a strong 5.5% annually from 2000 to 2025. The standout driver was rising productivity, which fuelled 4.6 percentage points of this growth. This demonstrates that working smarter and generating higher-value output was the primary catalyst for Malaysia's economic success, far outpacing the standard contributions of workforce expansion and demographic shifts.

Table 1: Decomposition of GDP per Capita Growth, 2000–2025

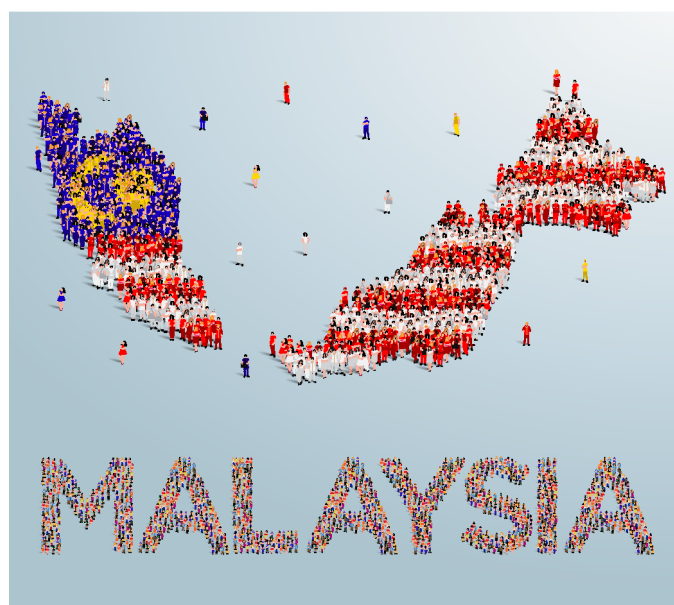
Drivers of GDP Growth	2000 - 2025	8MP 2001 - 2005	9MP 2006–2010	10MP 2011–2015	11MP 2016–2020	12MP 2021–2025
Change in productivity	4.6%	8.5%	5.2%	3.0%	2.6%	3.9%
Change in employment rate	0.0%	0.0%	0.0%	0.0%	-0.3%	0.5%
Change in participation rate	0.4%	-0.7%	0.2%	1.3%	0.3%	0.8%
Change in working-age share	0.6%	1.0%	0.9%	0.4%	0.0%	0.4%
GDP Per Capita Growth Rate	5.5%	8.8%	6.3%	4.7%	2.6%	5.6%

Source: World Bank (2012); Analysis by Malaysia Productivity Corporation (MPC)

Note: Calculation is based on the World Bank's growth-decomposition methodology

Productivity has led every Malaysia Plan since the 8th. However, its share eased over time, from 8.5 points at its strongest to 3.9 points most recently, as participation and demographics stepped up to broaden the base. Components may not sum to totals due to rounding. The 12th Malaysia Plan shows the healthiest mix yet: 5.6% growth, still productivity-led, but now reinforced by stronger employment and participation.

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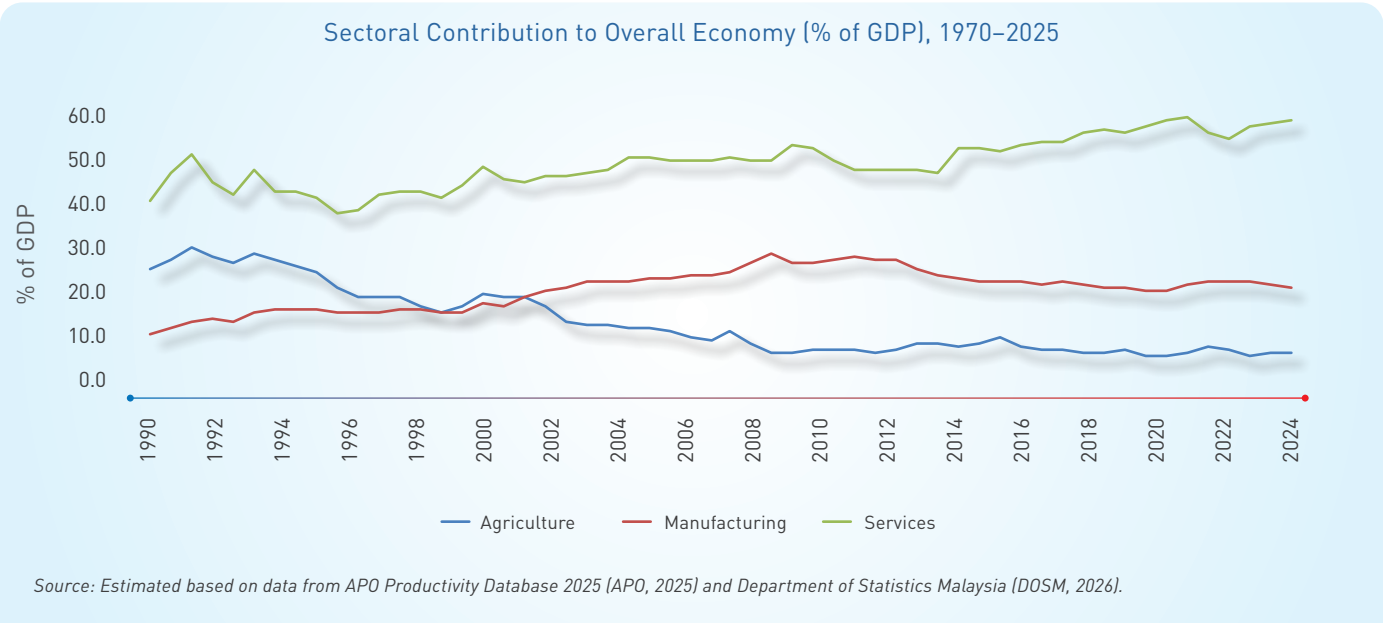


Sectoral structural change shifted the economic landscape

Malaysia’s economy has moved through the classic development path, from agriculture to industry and then to services. Manufacturing powered growth from the late 1980s through the early 2000s; services have led since. That transition came with a trade-off. Malaysia shifted towards a services-led economy before the full maturation of its manufacturing sector. Consequently, the economy is still working to unlock the extensive benefits that a deeper industrial base can deliver. Once realised, these advantages will drive further innovation and export upgrading.

Malaysia’s economy has moved from agriculture to industry and then to services. The transition came with a trade-off. Malaysia shifted towards a services-led economy before the full maturation of its manufacturing sector.

Figure 2 : Structural Transformation Continues: Charting the Course for Industrial Deepening



The opportunity is to reconnect services growth with higher-value industrial capability, and there are clear signs this is already happening. The World Bank’s April 2026 Malaysia Economic Monitor reports growth accelerated to 6.3% in Q4 2025, the best quarterly performance in three years, with strong new investment flowing into ICT, electronics, chemicals and data centres. Exports grew 11% in the same quarter on booming demand for electrical and electronics (E&E) products tied to AI-related activity. Malaysia’s industrial base is upgrading in real time. E&E, data centres and artificial intelligence (AI)-linked exports are becoming genuine growth engines, driving more than just services expansion.

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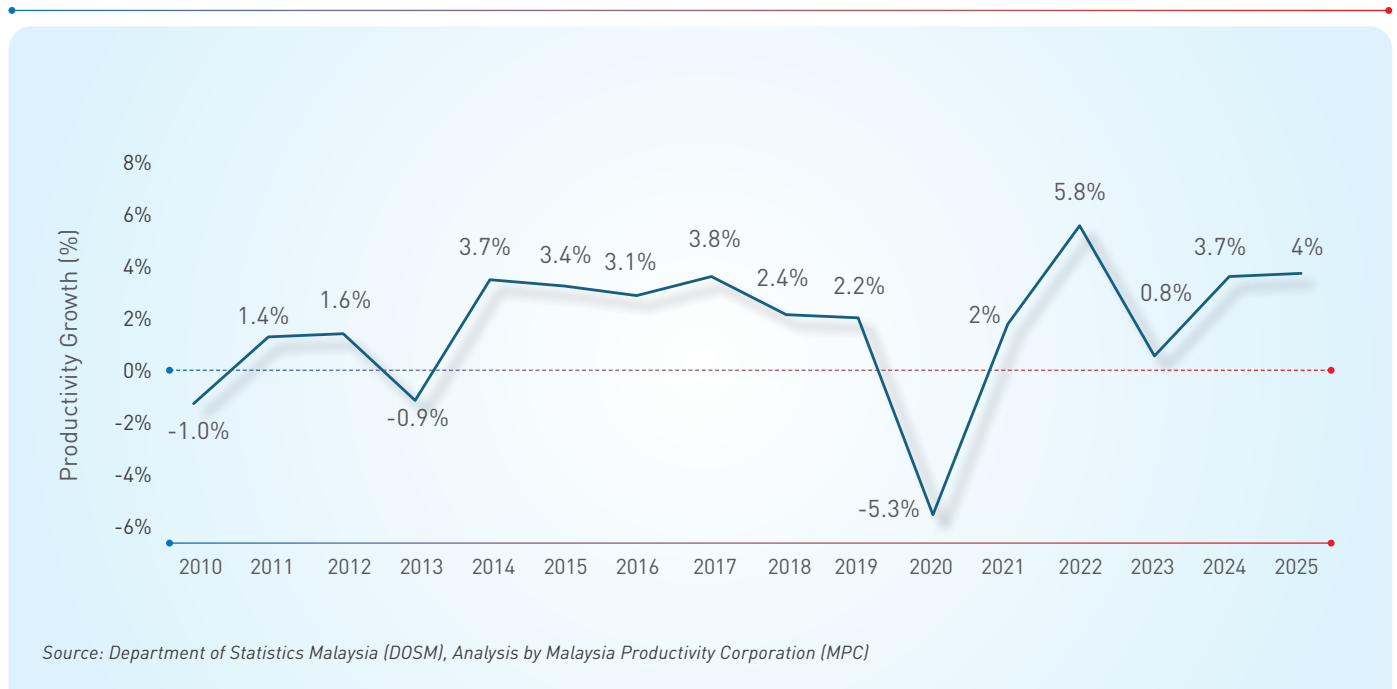
Productivity grows, but insufficient

Labour productivity, measured as real value added per employed person, rose from RM76,817 in 2010 to RM104,556 in 2025, an increase of 36.1%. It fell to RM89,179 in 2020 before recovering to its highest level in the 2010–2025 series. However, the increase masks weak and volatile momentum.

Figure 3 : Labour Productivity Recovered to Its Highest Level in the 2010–2025 Series



Figure 4 : Productivity Growth was Faster in Recent Years



Source: Department of Statistics Malaysia (DOSM), Analysis by Malaysia Productivity Corporation (MPC)

Average annual growth of about 2.2% remains well below the 3.7% target under the Malaysia Productivity Blueprint and the 3.6% requirement towards 2030. Contractions in 2010, 2013 and especially 2020 show sensitivity to economic shocks, while the 5.8% rebound in 2022 partly reflects post-pandemic normalisation rather than a permanent acceleration. Growth then fell sharply to 0.8% in 2023. Although the recorded growth of 3.7% in 2024 and 4.0% in 2025 is encouraging, continued improvement will be needed to strengthen Malaysia’s productivity performance towards 2030.

Productivity growth subsequently strengthened in 2026. In the first quarter of 2026, labour productivity per worker grew by 4.3% to RM26,168 per worker. The positive momentum continued into the second quarter of 2026, with labour productivity per worker growing by 4.9% to RM26,595 per worker. The improvement recorded in the first half of 2026 indicates stronger productivity performance, although

sustaining this momentum will be essential to support the achievement of Malaysia’s medium- and longterm productivity targets.

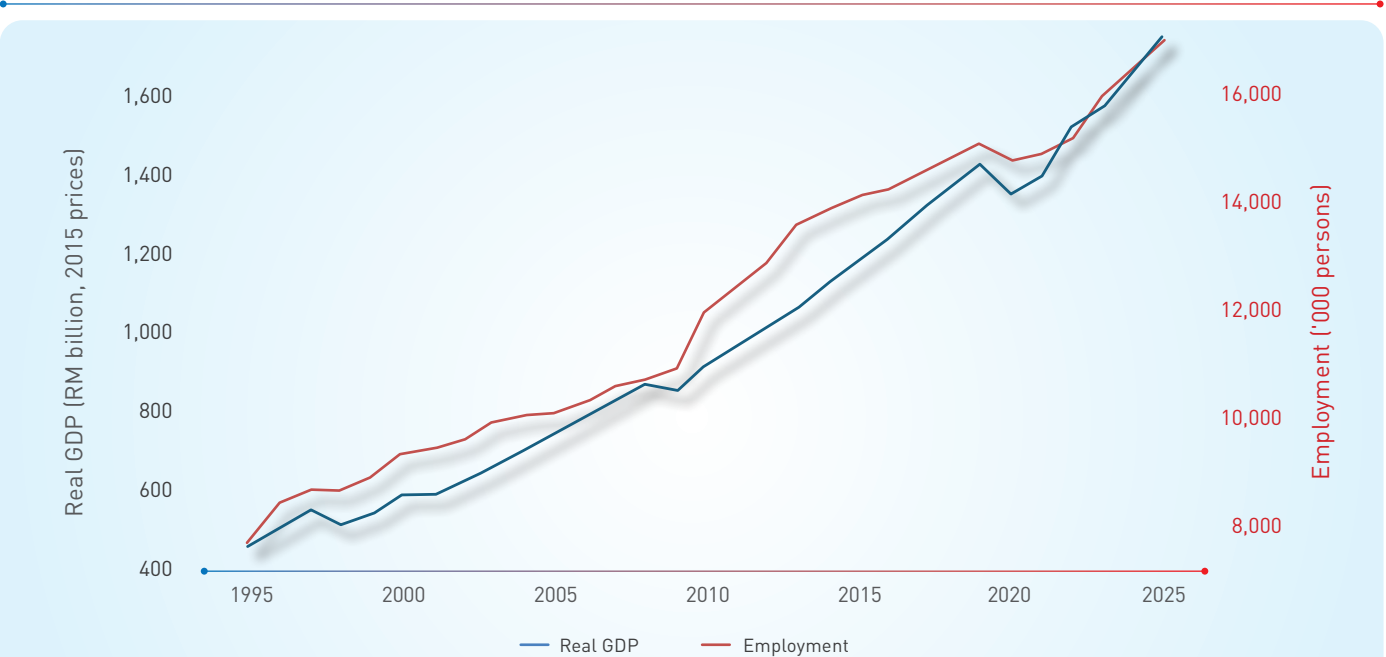
The central challenge is therefore not restoring productivity levels, but embedding durable and sustainable gains through technology adoption, workforce upgrading, stronger management practices and movement into higher-value activities across firms and sectors throughout the national economy.

The central challenge is embedding durable and sustainable gains through technology adoption, workforce upgrading, stronger management practices and movement into higher-value activities across firms and sectors.

Shifting growth towards sustainable productivity

Malaysia’s GDP and employment rising over 1995–2025, with temporary crisis disruptions. Job creation is essential, but growth can come from more workers and capital or from greater value added using existing resources. When employment expands almost as quickly as output, output per worker rises only modestly. The task is to improve the quality and value of employment, not weaken job creation.

Figure 5 : Real GDP and Employment Expanded Together, Reinforcing the Productivity Imperative



Source: Department of Statistics Malaysia (DOSM)

Productivity remained the larger contributor to GDP growth, but labour's contribution increased. **During 2021–2024, labour contributed about 2.0 percentage points and productivity 2.9 percentage points. This mix is less productivity-intensive than Malaysia requires, especially as population ageing narrows the scope for continued labour expansion.**

Malaysia's productivity engine is shifting gears from growth built on capital investment towards growth built on efficiency. Malaysia recorded a stronger recent contribution from TFP, but its total labour-productivity growth remained below several comparators. The recent shift towards efficiency-led growth is encouraging, but it is not yet firmly established.

Table 2 : Labour Productivity Growth Decomposition by Country (%), 1991–2025

Indicators	Period	Country (%)						
		Japan	South Korea	China	Malaysia	Indonesia	Philippines	Thailand
Labour Quality (A)	1991–2000	0.42	1.13	0.71	0.84	1.69	0.52	1.82
	2001–2010	0.45	1.11	0.81	0.64	1.03	0.33	1.32
	2011–2020	0.21	0.49	0.10	0.52	1.65	0.44	1.20
	2021–2025	0.21	0.38	0.07	0.45	-0.18	0.09	0.29
Capital Deepening (B)	1991–2000	1.32	3.20	3.27	2.79	2.34	1.37	4.13
	2001–2010	0.58	2.56	5.50	0.71	1.32	0.54	1.07
	2011–2020	0.10	1.85	4.87	1.29	2.16	3.83	2.35
	2021–2025	-0.21	0.29	3.93	0.37	2.09	0.84	0.65
Total Factor Productivity (C)	1991–2000	0.16	1.77	3.30	0.17	-2.04	-0.09	-2.24
	2001–2010	0.18	0.95	2.45	0.77	0.50	1.46	1.39
	2011–2020	0.04	0.78	1.30	0.31	-1.12	-0.33	0.01
	2021–2025	0.69	0.99	2.16	1.61	1.45	1.59	0.91
Labour Productivity = (A+B+C)	1991–2000	1.90	6.10	7.28	3.81	1.99	1.80	3.71
	2001–2010	1.21	4.62	8.76	2.12	2.86	2.32	3.78
	2011–2020	0.35	3.12	6.27	2.12	2.69	3.95	3.56
	2021–2025	0.69	1.66	6.16	2.43	3.36	2.53	1.85

Source: Estimated based on data from APO Productivity Database 2025 (APO, 2025) and Total Economy Database, The Conference Board (TCB, 2025).

Note: Labour quality captures changes in workforce skills and composition; capital deepening is growth in machinery, equipment and infrastructure per worker; total factor productivity is the efficiency gain not explained by either.

Regionally, Malaysia sits in the middle tier, behind China's investment and efficiency driven surge and South Korea's strong capital plus TFP profile, but ahead of a more varied group that includes Indonesia, the Philippines and Thailand. Indonesia's TFP swung from -1.12% in 2011–2020 to 1.45% in 2021–2025, the Philippines reached 1.59%, close to Malaysia's 1.61%, and Thailand's labour productivity growth halved from 3.56% to 1.85% over the same periods. Malaysia's TFP lead over its ASEAN peers is real but narrow and recent.

In the 1990s, Malaysia's capital deepening, meaning growth in machinery, equipment and infrastructure per worker, was the principal driver. It contributed 2.79 of the 3.81% labour productivity growth. By the 2021 to 2025 period, the picture had flipped where TFP, which is driven by efficiency, technology and better resource use, became the largest contributor at 1.61%, more than four times capital's contribution of 0.37%.

Malaysia's next competitive edge will build on traditional investment by focusing heavily on efficiency, driven by deeper innovation capability, faster technology adoption and stronger human capital.

Boosting productivity, strengthening competitiveness

Competitiveness reflects the quality of the environment in which firms invest, innovate and compete; productivity determines how effectively that environment is converted into value added, higher wages and resilience.

Malaysia's stronger competitiveness performance provides a platform for sustainable productivity growth. Malaysia reached 15th among 70 economies in the IMD World Competitiveness Ranking 2026, with a score of 81.9. Across the selected economies, stronger competitiveness generally accompanies higher productivity, although the relationship is illustrative rather than automatic. Malaysia performs ahead of Thailand, Indonesia and the Philippines on both measures, but productivity of US\$82,729 per employed person at purchasing power parity remains below most economies ranked above it. The ranking therefore signals stronger capacity to compete; it does not yet demonstrate convergence with the productivity frontier.

Malaysia's rising performance in WCR 2026 indicates stronger macroeconomic conditions, institutional responsiveness and enterprise capability.

The momentum is nevertheless broad-based. Malaysia's overall score rose from 68.1 in 2024 to 81.9 in 2026, while its rank improved from 34th to 15th. Economic Performance held fourth place; Government Efficiency advanced from 33rd to 14th and Business Efficiency rose from 40th to 16th. These gains indicate stronger macroeconomic conditions, institutional responsiveness and enterprise capability. Infrastructure improved slower, from 35th to 33rd and remains the factor-level constraint. Reliable digital, scientific, education, health and physical systems are essential for investment and technology to diffuse across firms, sectors and states.

Figure 6 : World Competitiveness Rank, Score and Productivity Performance, Selected Countries, 2026

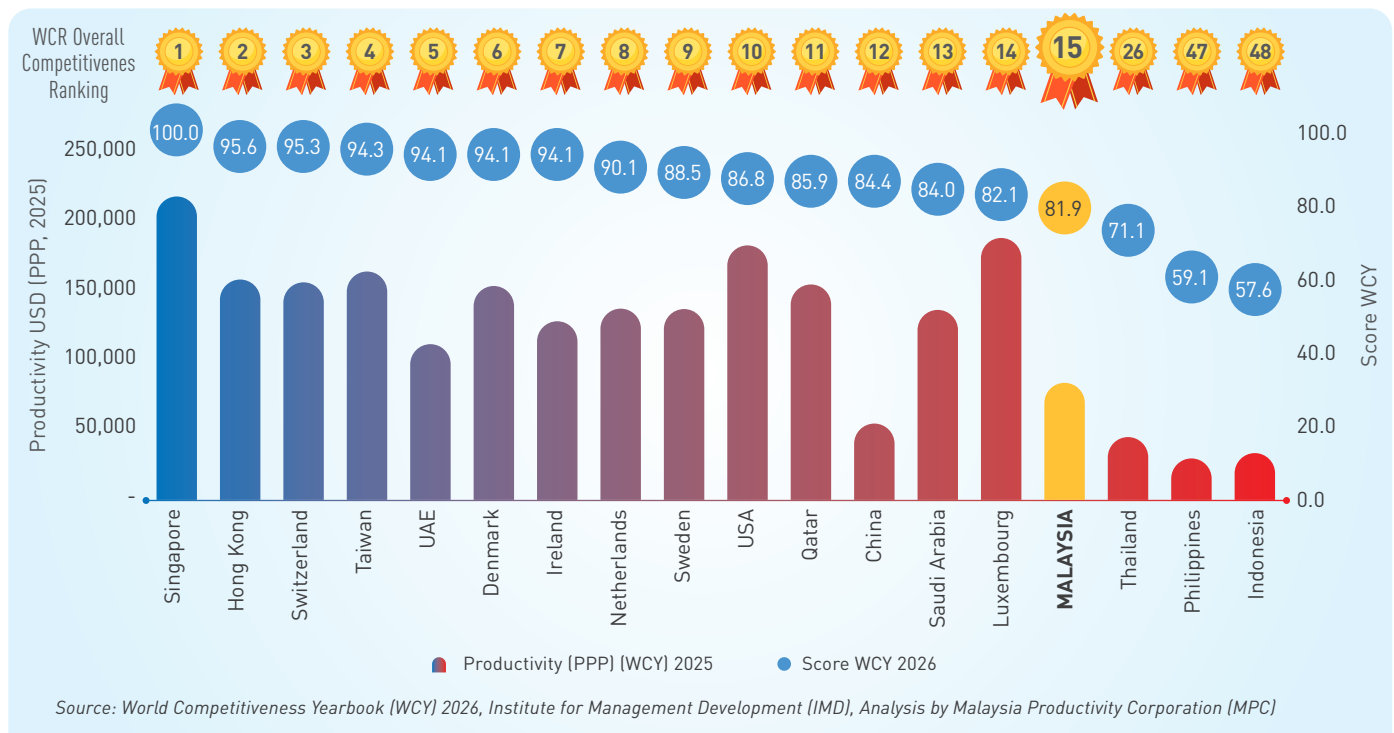
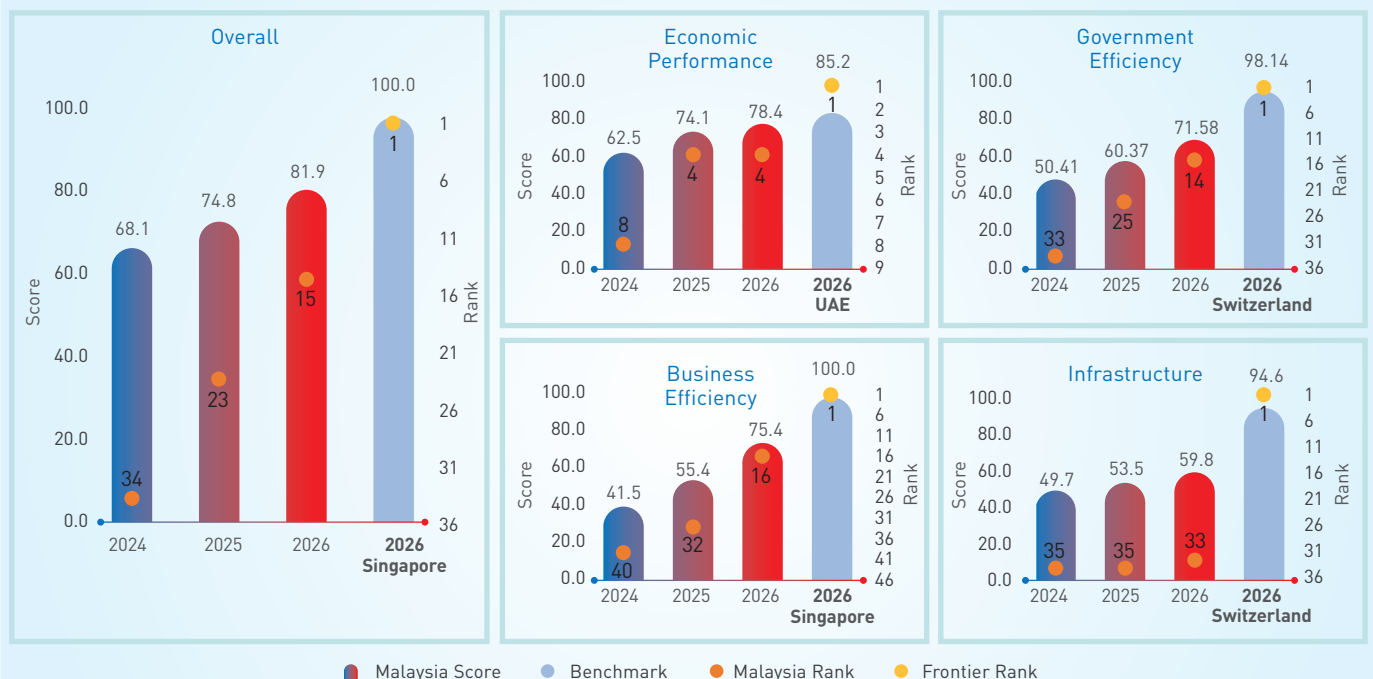


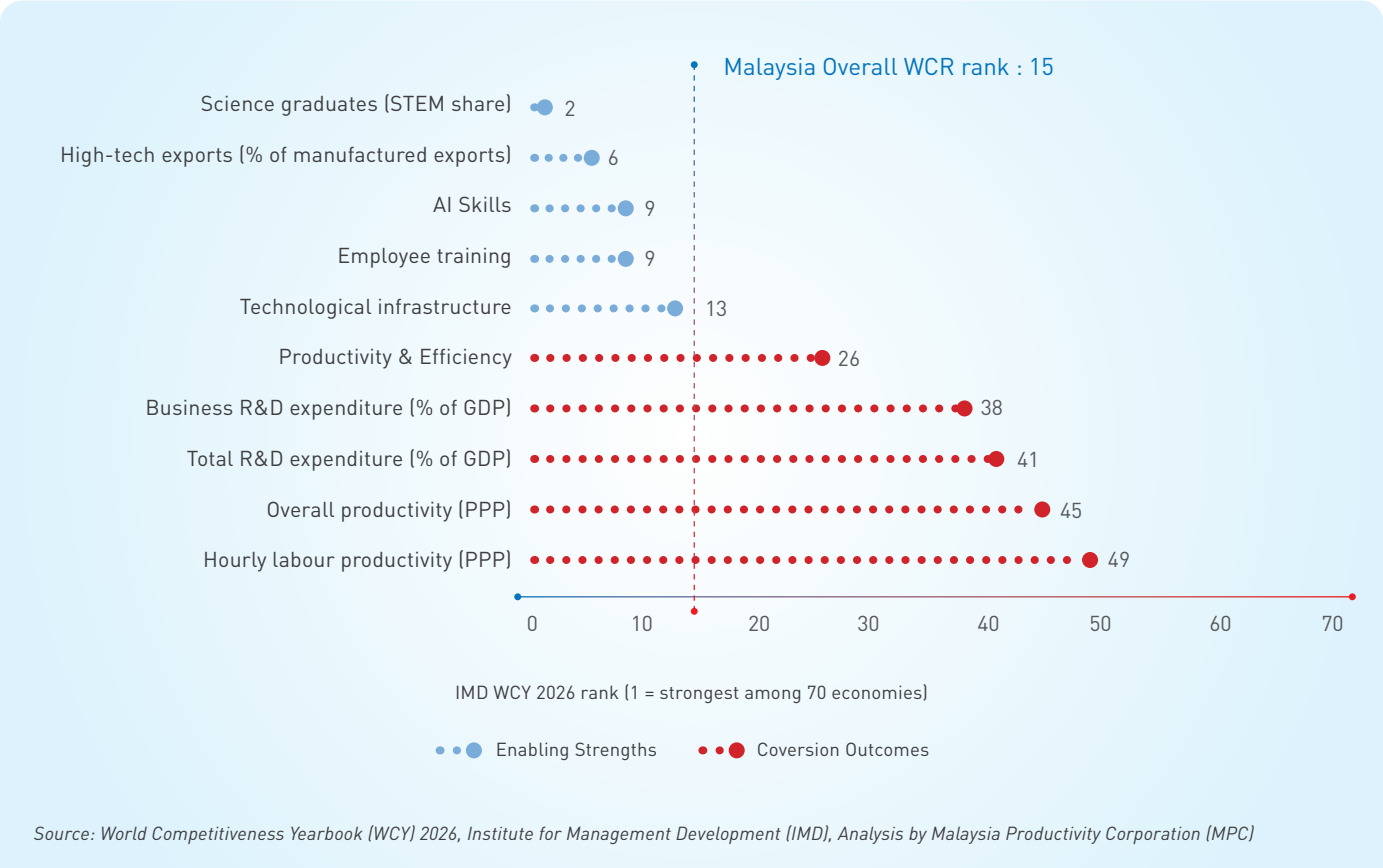
Figure 7 : Competitive Momentum Is Broad-Based but Uneven

Malaysia's Performance in WCR Overall Competitiveness and Factors in Comparison to Frontier Economy



Source: IMD World Competitiveness Yearbook 2026

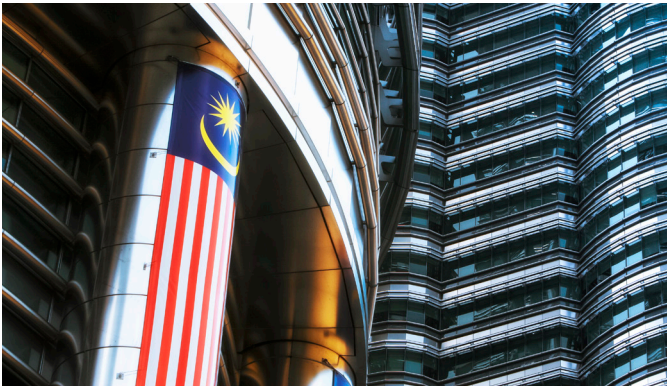
Figure 8 : Strong Capabilities Have Yet to Deliver Frontier Productivity



For selected WCR sub-factors and indicators, Malaysia ranks strongly for science graduates (2nd), high-technology exports (6th), AI skills and employee training (9th) and technological infrastructure (13th). Yet Productivity and Efficiency ranks 26th, business R&D intensity 38th, total R&D intensity 41st, overall productivity 45th and hourly productivity 49th. With 2,315 working hours per year, compared with the 70-economy average of 1,857, productivity and competitiveness cannot continue to depend on labour intensity.

Productivity and competitiveness reinforcing feedback loop cannot continue to depend on labour intensity.

Policy must convert talent, technology and export strength into higher output per hour through firm-level digital adoption, better management, R&D commercialisation, skills matching and wider diffusion among SMEs and regions. Sustained total factor productivity gains would turn today’s competitive momentum into higher-quality investment, stronger domestic value creation and inclusive prosperity.



Reinforcing competitive strength and sustainable productivity

Productivity has recovered, but its gains remain uneven among firms, sectors, states and localities. The problem is more structural than cyclical, requiring reforms in how resources are allocated, how firms operate, how workers contribute and progress and how institutions enable productive investment.

Recent improvements in efficiency-led growth are encouraging, indicating that Malaysia can increasingly generate value through innovation, better resource use and stronger enterprise capability. Productivity has recovered, but its underlying momentum is not yet sufficiently deep, consistent or widely shared. Growth still depends materially on additional labour and capital, while longer working hours do not necessarily produce

stronger output per hour. The transition towards a services-led economy has also progressed faster than the deepening of domestic industrial and technological capabilities. Productivity gains remain uneven among firms, sectors, states and localities. Strong talent, digital readiness and export capabilities have not always been converted into research commercialisation, management excellence, stronger domestic value chains or broad-based improvements in enterprise performance.

The problem is more structural than cyclical. Sustainable productivity growth requires Malaysia to change how resources are allocated, how firms operate, how workers contribute and progress and how institutions enable productive investment. Sectoral and firm-level reforms must support MSME upgrading, industrial deepening and stronger linkages between manufacturing and services. Place-based strategies must allow every state and locality to build upon its distinctive strengths while addressing specific constraints. Job redesign, skills development, productivity measurement and productivity-linked wages must ensure that workers both contribute to and benefit from improvement. **The required response is not a single programme, but an integrated reform agenda.**

Productivity Report 2026 “Advancing Structural Change for Sustainable Productivity Growth” examines national, sectoral, and spatial productivity gaps before considering workforce transformation, smarter regulation and a more responsive business environment. It also assesses how artificial intelligence and research and development can produce measurable gains through process redesign, reliable data, commercialisation and stronger organisational capability. The final chapter brings these priorities together through the emerging National Productivity Framework and Blueprint 2026 - 2035, paving the pathway for future sustainable productivity growth.



CHAPTER TWO

Bridging Sectoral and Firm
Productivity Gaps

BRIDGING SECTORAL AND FIRM PRODUCTIVITY GAPS

National performance is an aggregate of industries with very different productivity levels, growth paths, business structures and exposure to technology and trade. It reflects a wide range of firms, from globally integrated manufacturers and digital businesses to micro enterprises serving local markets. Malaysia's sectoral productivity challenge is the uneven capacity of industries and firms to sustain and spread higher-value performance.

Productivity enables firms to control unit costs while improving wages, quality and delivery. It supports innovation, export sophistication, investment quality and resilient supply chains. These outcomes depend on conversion inside firms whether skills become better work, investment becomes efficient capacity, technology improves processes and market access generates greater domestic value. Strong national institutions and infrastructure create the conditions; firms and sectors determine whether those conditions become measurable results.

Malaysia has productive, internationally connected sectors and frontier firms, but also a long tail of lower-productivity activities and smaller enterprises with limited capability to absorb technology, finance and knowledge. Structural change must address both sides which are deepen innovation and domestic value creation among leaders and accelerate diffusion and upgrading among firms and sectors that are catching up.

Sectoral and firm productivity are the microeconomic foundation of national competitiveness. Sustainable growth requires faster diffusion and stronger movement into higher-value activities.

Labour, capital and technology affect sectoral productivity

Skilled workers are the foundation for productivity upgrading. They drive technology adoption and higher-value work. Malaysia's labour productivity stood at US\$79,595 in 2023. This is behind Singapore's US\$199,663 and the UK's US\$120,567, but the direction is promising where Malaysia's skilled-worker share has been rising steadily. Closing the remaining gap means faster skills upgrading, better skills matching and creating more high-skilled jobs.

Capital intensity, consisting of machinery, equipment, technology and digital tools per worker, is the second lever. More capital per worker means higher productivity, especially when it enables automation and higher-value production. Capital intensity keeps improving as well, though Malaysia still trails Singapore and the Netherlands. The opportunity goes beyond more investment. What counts is that firms have the skills and management capability to put that capital to full use.



Figure 9 : Cross-country correlation between skilled workers and labour productivity, 2023

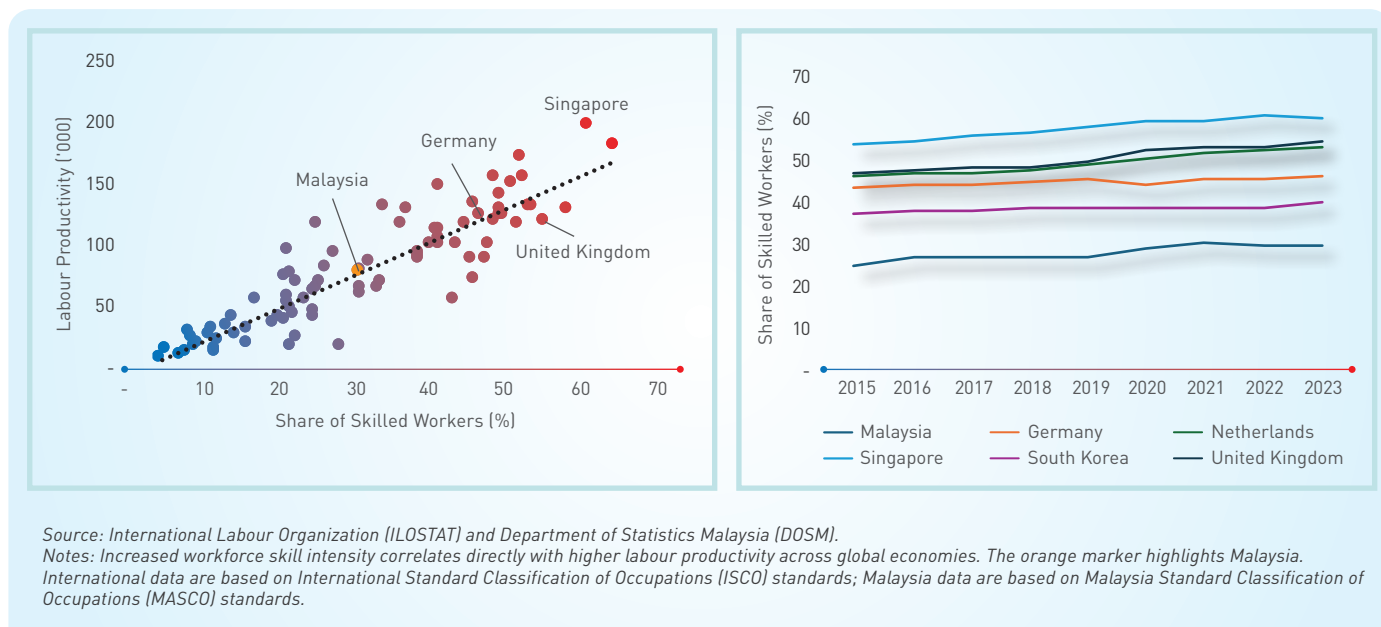
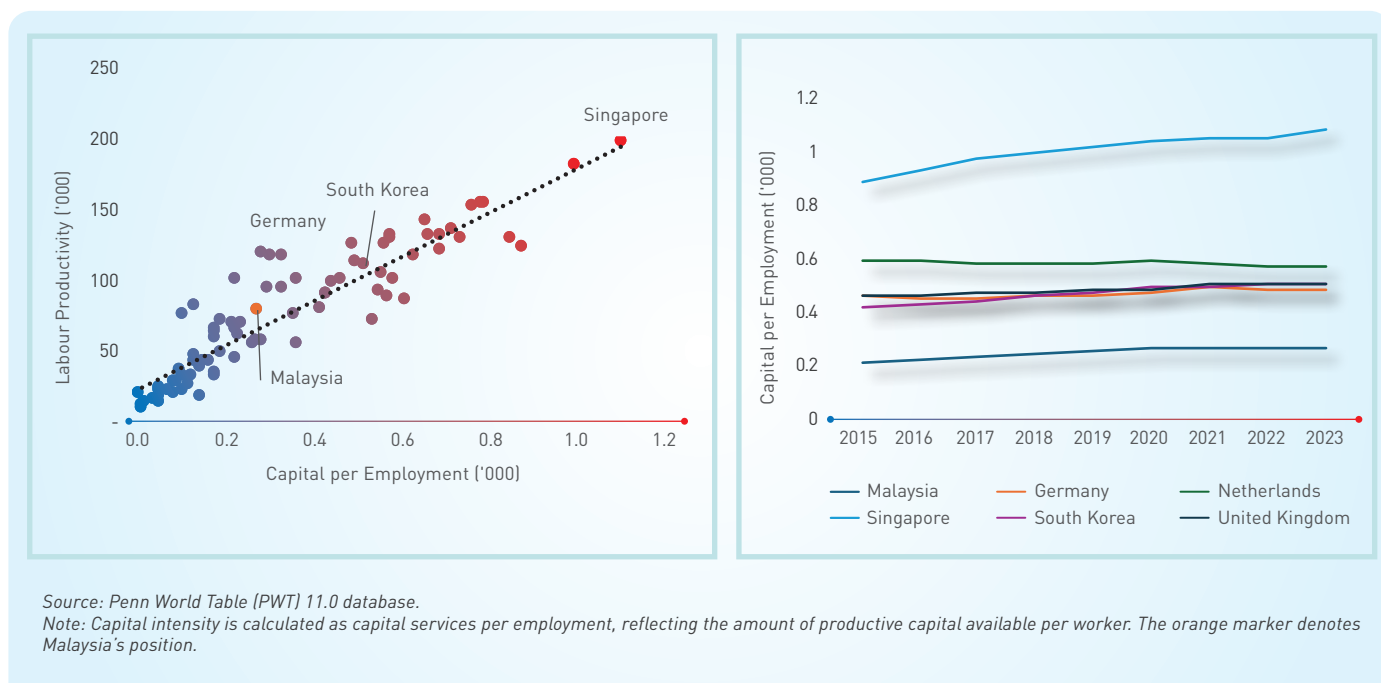


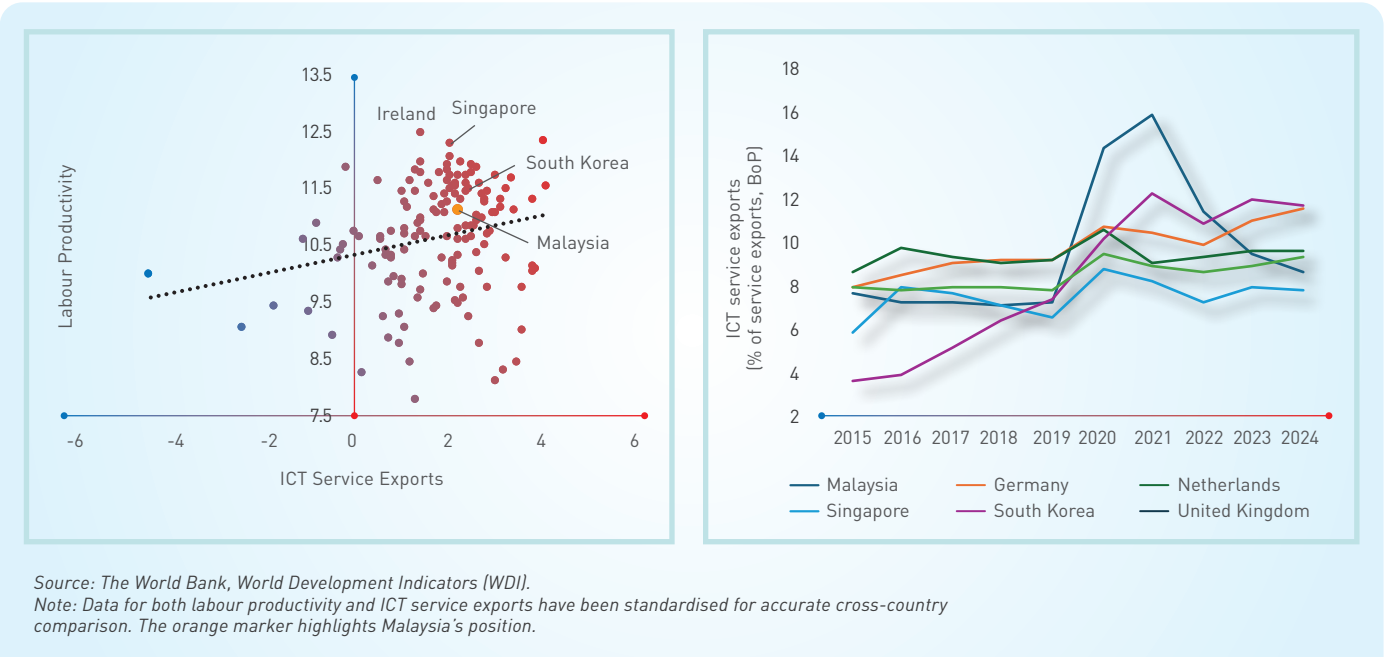
Figure 10 : Cross-country correlation between capital per employment and labour productivity, 2023



Technology adoption determines how effectively labour and capital convert into efficient production and market reach. Stronger ICT services correlate with higher productivity. Malaysia’s ICT service exports rose sharply after 2019, showing clear momentum in digital and technology-

enabled trade. The next step is spreading that momentum beyond ICT itself into manufacturing, logistics, agriculture and construction, through automation, cloud tools and stronger digital skills.

Figure 11 : Cross-country correlation between share of ICT service exports and labour productivity, 2024



Main economic sectors’ productivity is uneven

Malaysia’s main economic sectors show clear differences in productivity levels and momentum. Manufacturing and Mining and Quarrying are the most productive over 2015–2025, Services in the middle, and Agriculture and Construction trailing.

Manufacturing keeps strengthening its lead. This is primarily driven by higher capital utilisation and industrial capability. Services sector is closing the gap steadily too. Mining and Quarrying shows a different pattern, with high productivity levels, but flat growth. It signals that a strong starting position does not guarantee continued momentum. Construction rebounded strongly after 2021.

Lower-productivity sectors cannot be left behind because they support livelihoods and domestic demand; they must be transformed through appropriate technology, scale,

formalisation and market access. The Thirteenth Malaysia Plan (13MP) translates this agenda into a clear delivery challenge.



Figure 12 : Sectoral Productivity Trends and Growth, 2015–2025

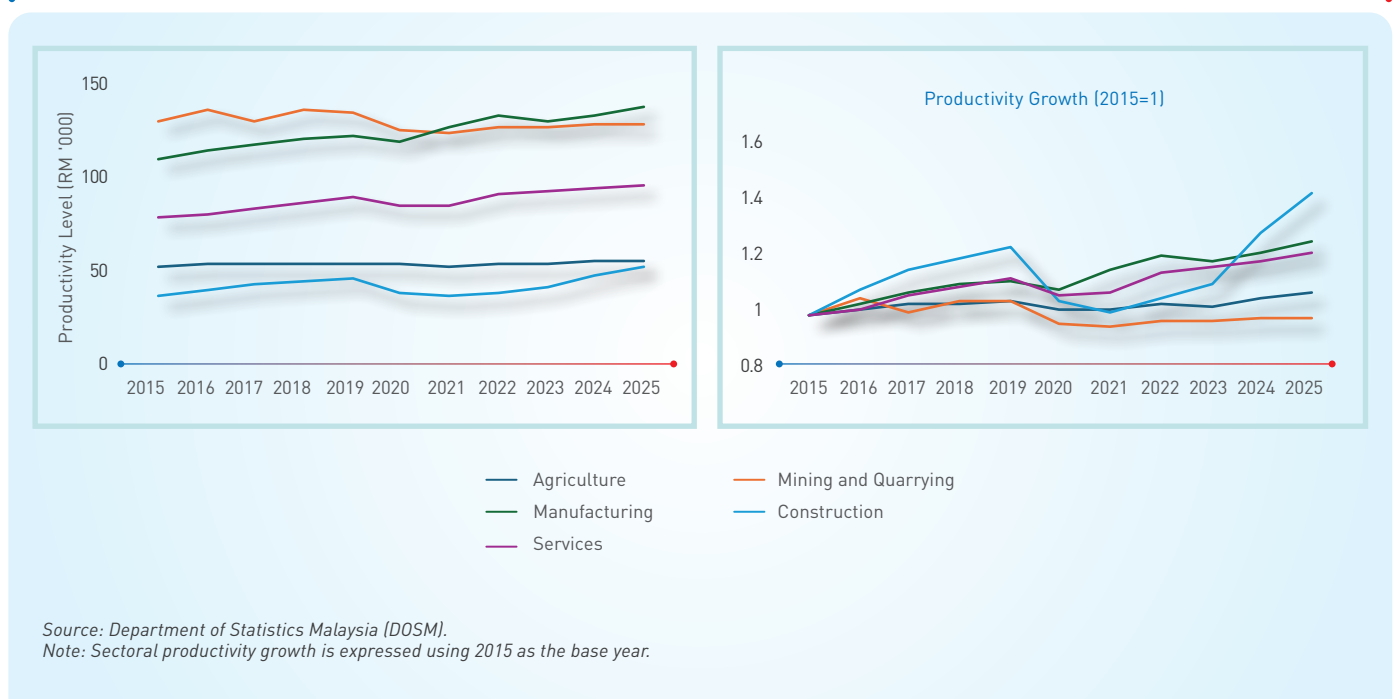


Table 3 : 13MP Targets Require Broad-Based Sectoral Acceleration

Sectors (RM)	2025	2030 Target	Average Growth 12MP (2021-2025)	Average Growth 13MP (2026-2030) Target
Agriculture	56,573	58,814	1.3	1.3
Mining & Quarrying	1,290,563	1,533,303	0.5	3.3
Manufacturing	140,732	170,976	3.2	4.4
Construction	52,753	64,754	6.9	4.6
Services	99,403	116,699	3.3	3.5
National	104,556	122,745	3.3	3.6

Source: Department of Statistics Malaysia (DOSM)

Note: Productivity per employee at constant 2015 prices

Achieving the national target requires every sector to contribute, but the pathway must differ according to productivity level, economic weight and structural constraint. The largest acceleration is required in mining and quarrying, where the target rises sharply from the average pace recorded during the Twelfth Malaysia Plan (12MP). Manufacturing must move to a higher growth path. This is strategically important because manufacturing anchors exports, engineering capability, technology transfer and demand for productive services. Services begins close to its target, but its scale means that even a small shortfall would materially affect national performance. Agriculture's target is only marginally above its recent pace. Maintaining momentum is necessary, but the low level means that gradual growth alone will not

produce rapid convergence. Construction's 13MP target is below its strong 12MP average, reflecting an expected normalisation after the recovery. The policy test is whether industrialised construction, digital project delivery, procurement reform and better skills can preserve genuine efficiency gains once base effects fade.

Achieving the national target requires every sector to contribute, but the pathway must differ according to productivity level, economic weight and structural constraint.

Nexus sectors narrow the gap but growth is still uneven

The Productivity Nexus, MPC's targeted sector programme, is designed to accelerate upgrading through sector-specific interventions. Nexus sectors are genuinely catching up. Their productivity grew from around RM69,000 to RM91,000 between 2015 and 2025, outpacing non-Nexus sectors' growth from RM96,000 to RM113,000 over the same period. Nexus sectors started from a lower base but are closing the gap faster (Figure 13). The clear exception is Aerospace, where productivity contracted by an average of 7.29% a year, underlining the need for targeted intervention. The task now is converting that faster growth into a higher productivity level. This can be achieved through continued technology adoption, firm capability building, skills development and value-chain integration.

Nexus sectors convergence is encouraging. The next task is converting the faster growth into a higher productivity level through continued technology adoption, firm capability building, skills development and value-chain integration.

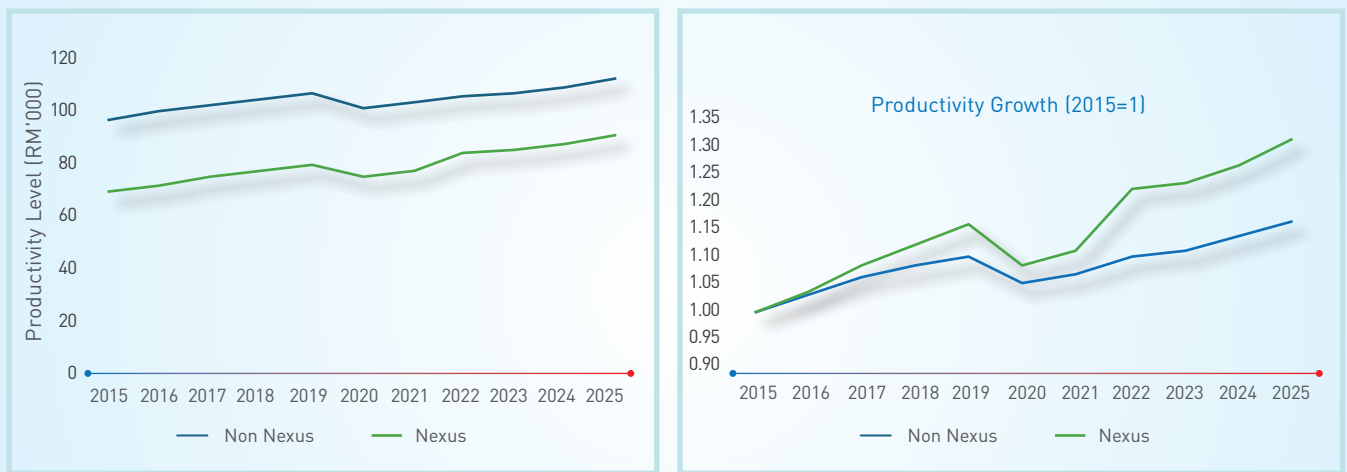
E&E, ICT, Automotive, Tourism, Professional Services, Logistics, and Machinery and Equipment combine strong productivity with strong growth, putting them at the head

of the Nexus pack. Private Healthcare and Construction are catching up: lower productivity today but growing fast enough to close the gap. Chemicals and Chemical Products, Pharmaceutical, and Agro-food sit in the losing-momentum group, where productivity levels remain high, but growth has cooled, calling for renewed technology adoption and capital utilisation.

The lagging cluster needs the most attention. Aerospace is the clearest case: productivity growth there averaged -7.29% over 2015-2025. This is a sharp contraction that puts it well below both its own historical trend and the rest of the Nexus. Retail and Food & Beverages also falls within this segment, reflecting lower value-added activity and slower technology diffusion. Its large GDP weight explains the apparent paradox: slow growth per worker, yet still among the biggest aggregate contributors.

Construction and private healthcare are catching up. Their productivity levels are below the Nexus benchmark, but stronger growth provides a platform for convergence. The priorities differ: construction needs digital and industrialised delivery, better coordination and skills; private healthcare can use technology, process redesign and specialised services to improve quality, capacity and export potential. Agro-food, chemicals, pharmaceuticals, automotive and ICT are classified as losing momentum because their productivity levels are above the benchmark while their full-period growth is below it.

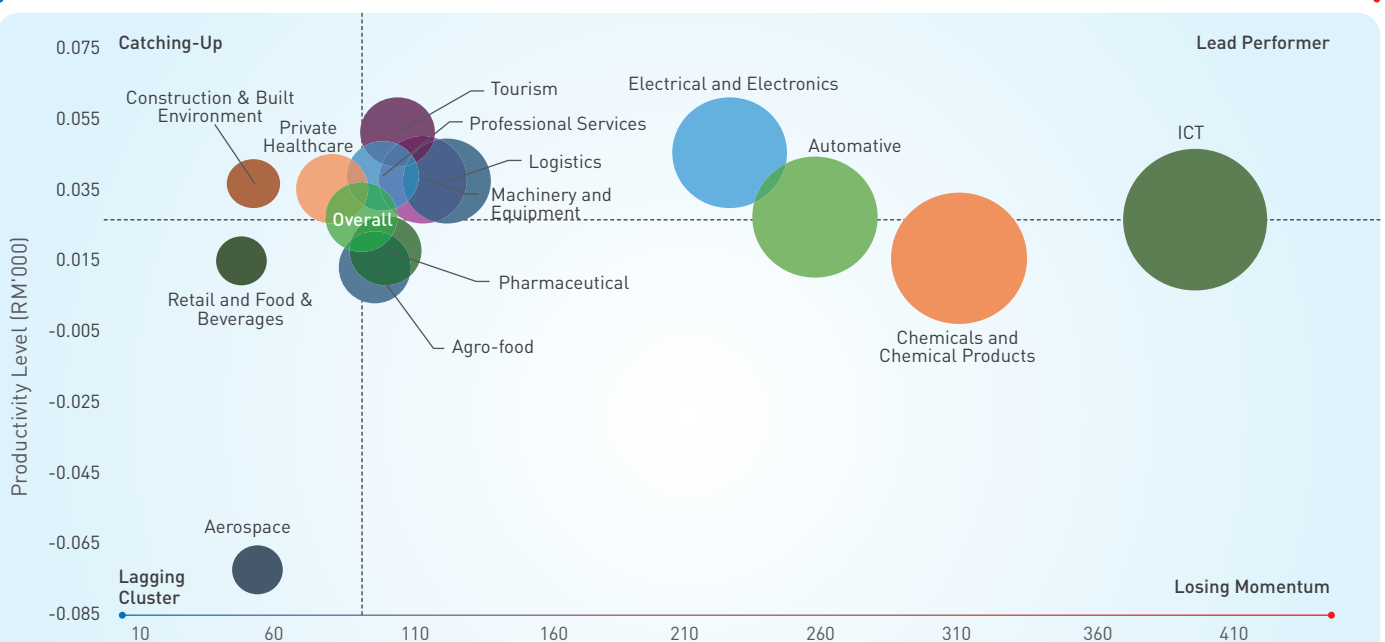
Figure 13 : Trends and Growth of Productivity Nexus and Non-Nexus, 2015–2025



Source: Department of Statistics Malaysia (DOSM).

Notes: Non-Nexus sectors encompass all national economic activities outside the targeted Productivity Nexus categories. To clearly track progress, productivity growth is indexed to a 2015 baseline, allowing for a standardised view of improvement over time.

Figure 14 : Labour Productivity Performance across Productivity Nexus, 2025



Source: Department of Statistics Malaysia (DOSM); Analysis by Malaysia Productivity Corporation (MPC)

Notes: Sector segmentation is based on each sector's position relative to the overall Nexus benchmark for productivity level and productivity growth. Lead Performers record high productivity and high growth; Catching Up sectors record low productivity but high growth; Losing Momentum sectors record high productivity but low growth; and the Lagging Cluster records low productivity and low growth. Bubble size denotes the relative size of labour productivity.

ICT and automotive remain highly productive and sit only slightly below the growth benchmark. Their position is an early signal that existing strengths require renewal through innovation, market expansion, supplier development and more productive use of capital and talent.

Recovery has reshaped momentum. Recent Nexus growth is strong, but part of it reflects reopening and low-base effects that cannot be repeated indefinitely. The full-period results place tourism, E&E, professional services, machinery and equipment, and logistics among the strongest performers. Aerospace is the clear negative outlier. Dividing the decade into pre-pandemic and recovery periods reveals a sharper shift. Tourism, logistics and construction accelerated markedly after 2021, while aerospace contracted and ICT growth moderated.

The exceptional tourism rate captures the restoration of travel activity from a depressed base. Logistics and construction also benefited from renewed mobility, investment and project execution. These gains are economically important, but sustainable productivity requires them to persist after utilisation and demand normalise. Aerospace's decline likewise reflects disruption and long production cycles as well as sector capability. The figures provide a basis for diagnosis, not a complete explanation.

The distinction is between recovery, catch-up and frontier upgrading. Recovery support restores viable capacity. Catch-up support spreads proven technology and management practices. Frontier support advances R&D, engineering, commercialisation and new markets. Each

Table 4 : Productivity Growth Differs Sharply Across Nexus Sectors

Nexus Sector	2015-2019 (%)	2021-2025 (%)	2015-2025 (%)
Agro-food	1.79	0.89	1.34
Chemicals and chemical products	2.14	0.42	1.59
Pharmaceutical	2.84	2.44	1.83
Electrical and electronics	4.36	3.34	4.63
Machinery and equipment	3.09	4.81	3.84
Automotive	2.52	4.38	2.77
Aerospace	3.39	-17.77	-7.29
Construction and built environment	5.61	9.37	3.70
Retail and food and beverages	3.50	3.56	1.51
Logistics	4.07	10.93	3.81
Tourism	3.92	37.22	5.17
ICT	4.15	1.11	2.71
Professional services	6.22	7.45	3.92
Private healthcare	2.44	6.32	3.57
Total Productivity Nexus	3.73	4.32	2.78
Non-Nexus sectors	2.46	2.19	1.55
Total Economy	2.85	3.07	2.01

Source: Department of Statistics Malaysia (DOSM); analysis by MPC.

Note: 2020 is excluded from the two subperiod columns to reduce pandemic distortion but included in the full period. p = provisional.

Totals differ from Chapter 1 owing to source and aggregation methodology.

should have a different time horizon and performance measure, while all remain tied to firm-level outcomes.

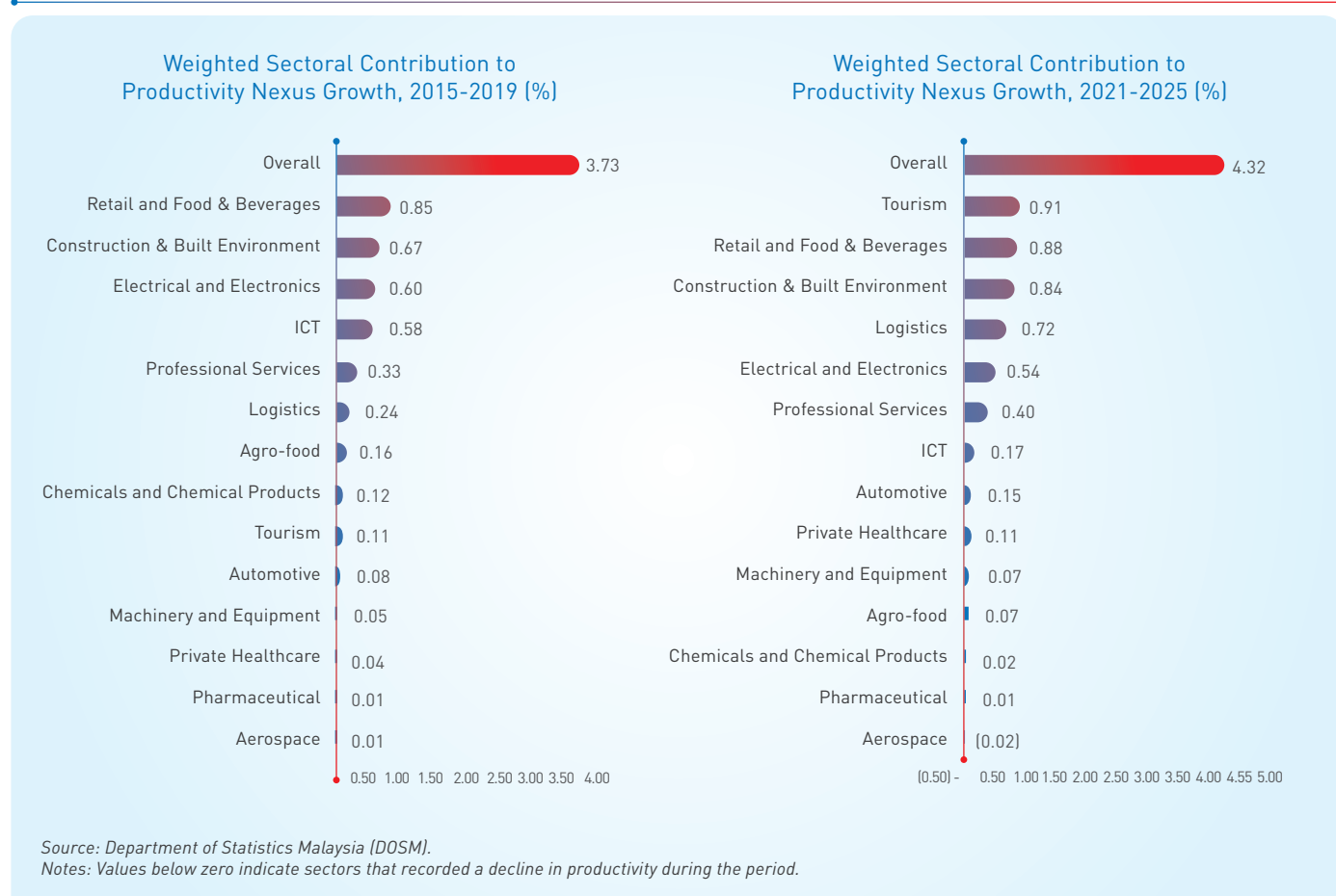
The Nexus sector is pulling more weight in aggregate: its productivity growth strengthened from 3.73% (2015–2019) to 4.32% (2021–2025). Weighting each sector's productivity growth by its share of Nexus GDP shows which sectors move that number.

Pre-2021, Retail and F&B, Construction, E&E and ICT led. Post-2021, Tourism (0.91%) took the top spot, followed by Retail and F&B (0.88%), Construction (0.84%) and Logistics (0.72%). E&E stayed solid at 0.54%; ICT slowed to 0.17%; Aerospace turned negative at -0.02%. The ICT slowdown

matters: a sector that once led the aggregate now barely moves it, a signal that digital-services growth is no longer converting into productivity at the earlier rate. Aerospace's negative contribution reinforces the case for sector-specific diagnosis rather than generic support.

The post-pandemic gains are economically important, but sustainable productivity requires them to persist after utilisation and demand normalise.

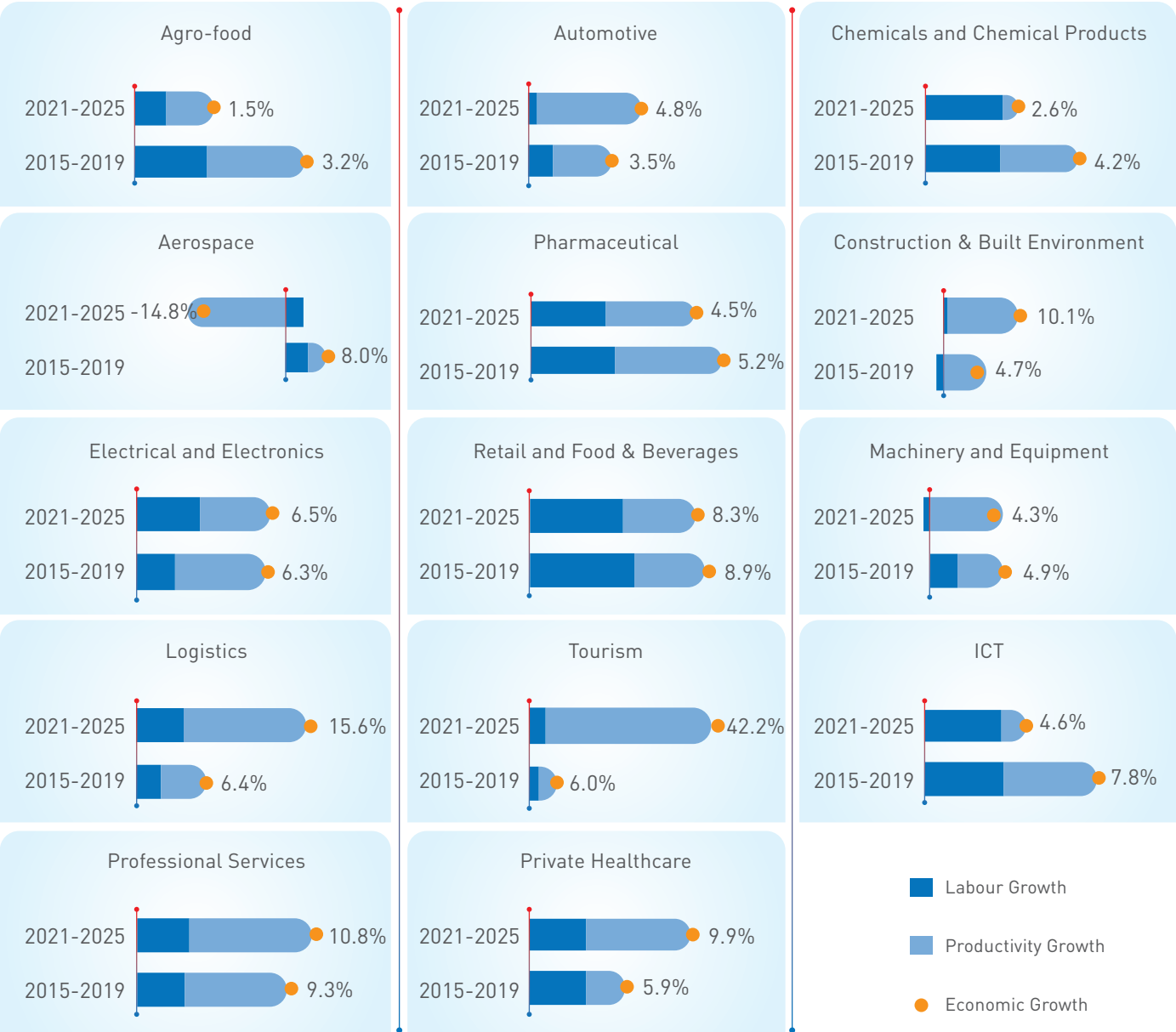
Figure 15 : Sectoral Contribution to Productivity Nexus Growth



Several Nexus sectors are now growing through higher output per worker rather than added headcount. Tourism led the rebound at 42.2% growth in 2021–2025, driven largely by productivity gains. Logistics strengthened from 6.4% to 15.6%; Construction improved from 4.7% to 10.1%, both showing genuine efficiency gains, not just recovery hiring.

Not every sector kept pace. Agro-food, Chemicals, Pharmaceutical, Machinery and Equipment, ICT and Retail and F&B all grew more slowly in GDP terms in 2021–2025 than before. Aerospace was the sharpest reversal, from 8.0% growth in 2015–2019 to a 14.8% contraction in 2021–2025. Whether these sectoral gains broaden further depends in large part on the enterprises that make up most of the economy mainly the Malaysia’s MSMEs.

Figure 16 : Decomposition of GDP into Labour and Productivity Growth



Source: Department of Statistics Malaysia (DOSM)

MSMEs are the scale opportunity

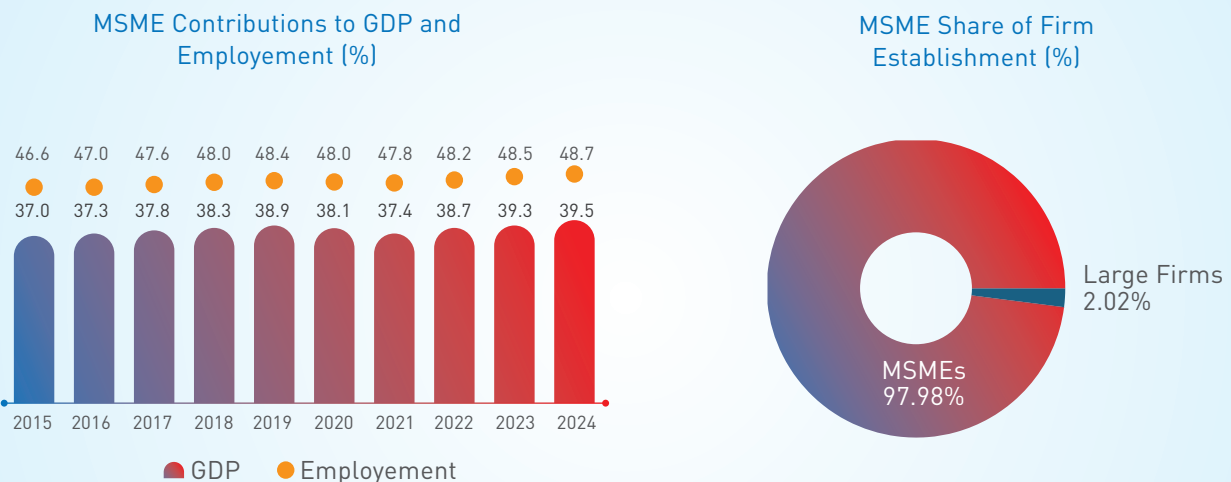
Micro, small and medium enterprises (MSMEs) are central to Malaysia's productivity performance simply by scale: they make up 98.0% of all business establishments, against just 2.0% for large firms. Even small productivity gains here ripple through the whole economy. MSMEs are growing their footprint on both fronts. Employment share rose from 46.6% to 48.7% between 2015 and 2024, while their GDP contribution climbed from 37.0% to 39.5%, progress on both counts. The gap between those two numbers, i.e. employing half the workforce but generating under 40% of GDP, is where the next opportunity lies. Because MSMEs carry so much of the economy's weight, lifting their productivity is one of the most effective policy levers available.

MSME productivity rose from about RM66,658 per worker in 2015 to RM85,299 in 2025. The gains were sustained rather than episodic. Large firms grew too, from RM99,380 to RM122,824 so the absolute gap remains, but the trajectory for MSMEs is a positive one.

The most encouraging signal whereby MSMEs are now growing faster than large firms. During the 11th Malaysia Plan, MSME productivity growth (1.3%) already edged past large firms (1.4%). The gap widened further in MSMEs' favour during the 12th Malaysia Plan, when MSME productivity growth hit 3.8% against 3.0% for large firms. The 2020 shock hit MSMEs hardest, with productivity dipping from RM75,625 to RM70,758, exposing their thinner financial and technological buffers. The strong recovery since shows resilience.

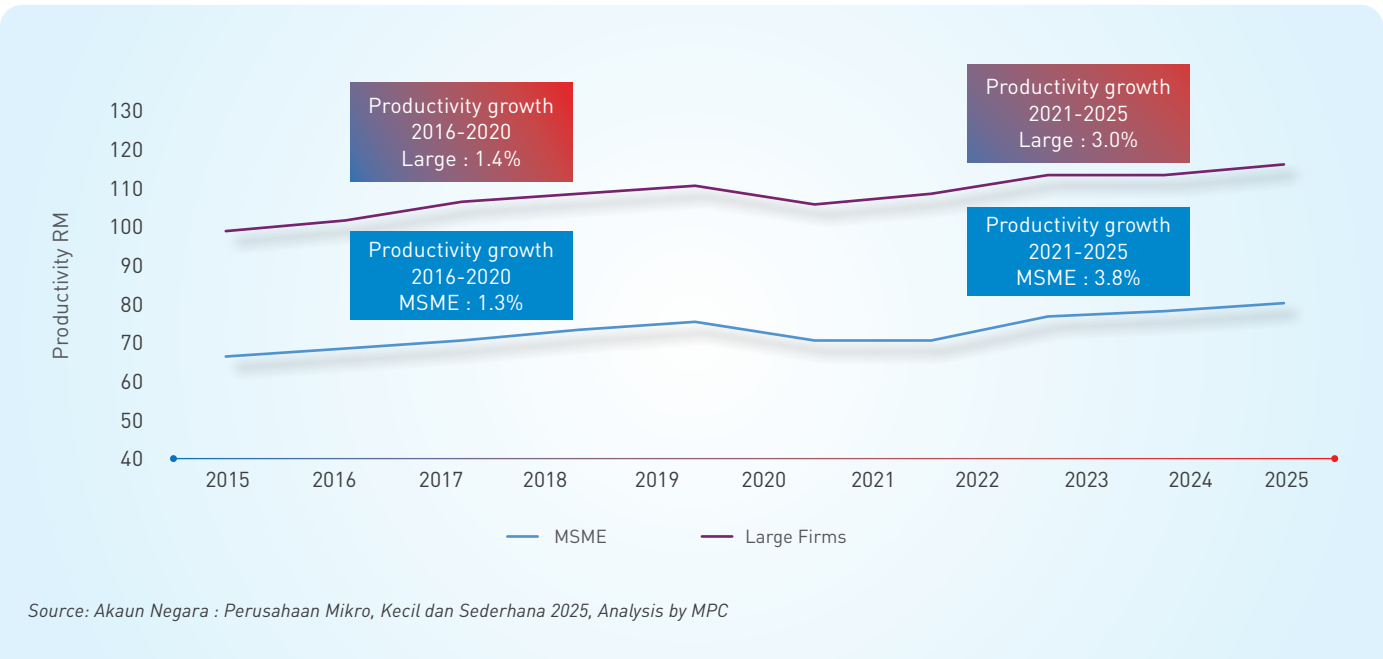
Because of their scale, even small productivity gains among MSMEs ripple through the whole economy.

Figure 17 : MSME Contributions to GDP, Employment and Establishments (%)



Source: Estimated based on data from the Department of Statistics Malaysia (DOSM, 2024).
Notes: Categorisation of MSMEs and large firms is based on definitions by SME Corp. Malaysia.

Figure 18 : Productivity of MSMEs and Large Firms 2015–2025 (RM'000)



MSME growth has leaned on labour more than efficiency so far. This is a pattern worth shifting, since Malaysia’s labour supply is tightening and wage pressures are rising. 2022’s rebound is the proof point that productivity-led growth is possible. MSME GDP growth swung from 1.4% in 2021 to 12.9% in 2022, powered largely by productivity gains as demand normalised (Figure 19). Growth moderated to 4.9% (2023) and 5.8% (2024) as the reopening boost faded, with labour still doing much of the work.

Services dominates MSME activity, contributing over 60% of MSME GDP throughout 2015–2024. Manufacturing is a distant second at around 20%. Mining and Quarrying MSMEs post the highest productivity (RM141,000 in 2024), but at just 0.5% of MSME GDP, that strength does not move the aggregate much.

Services is where the opportunity is, because of its sheer size. Its productivity rose from RM64,458 to RM79,862 over the period, indicating solid progress. Since Services carries most of MSME GDP, even modest further gains here would lift the whole MSME segment. The priority is to keep pushing digitalisation, technology adoption, skills and managerial capability into Services and Manufacturing specifically, while continuing targeted upgrading in Agriculture and Construction.



Services contributed over 60% of MSME GDP, making the sector the best opportunity for scaled growth.

Figure 19 : GDP, Labour and Productivity Growth Rates for MSMEs 2016–2024 (%)



Source: Estimated based on data from the Department of Statistics Malaysia (DOSM, 2024).

Figure 20 : Productivity by sector for MSMEs 2015–2024 (RM'000)



Source: Department of Statistics Malaysia (DOSM); Analysis by Malaysia Productivity Corporation (MPC)

Converting inputs into value

Malaysia’s next stage of productivity growth will come less from adding labour and capital than from innovation, knowledge and firms’ ability to absorb new ideas and put them to work. Research and development (R&D) investment matters, but it is only half the picture. The other half is bringing technology into daily use across firms. Malaysia’s productivity still leans more on labour and capital than on R&D, so wider technology diffusion is the more immediate lever. Technology adoption works best as part of a bigger upgrading push, not a standalone purchase of machines or software. OECD and World Bank evidence both point the same way. Digitalisation lifts productivity when it is matched by better workflow design, managerial capability and workforce skills, especially for SMEs, where financing and absorptive capacity are the binding constraints.

Another lever is firm capability, such as management quality, technical know-how, and strategic planning, which determines whether firms can use their labour, capital and technology effectively. The same conclusion emerges from a different angle whereby smaller firms lean on labour; medium and large firms lean on capital. The ones with stronger organisational capability are the ones able to move into higher-value, more specialised work.

Malaysian firms overall rely heavily on labour. That reliance is strongest in small firms, often because limited access to capital keeps them in labour-intensive operating modes.

Medium and large firms show a different profile that is more capital-intensive, reflecting better access to financing for machinery, technology and infrastructure. That capital orientation supports efficiency gains and scale that smaller firms cannot yet access. The path forward for smaller firms is not just more capital. It is building the managerial and technical capability to use capital effectively once they get it, alongside stronger standards compliance and innovation linkages. The pattern across firm sizes matches the sectoral evidence: what separates faster from slower productivity growth is not the volume of inputs but the capability to put them to work.



Table 5 : Total Factor Productivity Estimates

Sector	Aggregate		Small		Medium		Large	
	OP	LP	OP	LP	OP	LP	OP	LP
Labour	0.8122	0.8122	0.8872	0.8872	0.7143	0.7143	0.7317	0.7317
Capital	0.2124	0.1637	0.1230	0.0791	0.3130	0.2765	0.1854	0.1482
Intermediate		0.2005		0.3084		0.0889		0.2051

Source. MPC analysis, based on World Bank Enterprise Surveys (WBES).
Notes. Total factor productivity (TFP) is the part of output growth not explained by adding workers or capital, a measure of how efficiently inputs are used. The figures measure how strongly different inputs drive output, with higher numbers indicating a stronger impact. These values are relative and should be compared across firm sizes and input categories, rather than against a fixed baseline. (Estimated using the Olley-Pakes (OP) and Levinsohn-Petrin (LP) methods, two standard approaches for estimating firm-level efficiency).





CHAPTER THREE

Advancing Place-Based
Productivity Growth

ADVANCING PLACE-BASED PRODUCTIVITY GROWTH

Place-based productivity policy does not seek to make every state economically identical. It enables each place to build on its comparative strengths, address its most binding constraints and contribute more fully to national growth. Agglomeration in successful hubs can raise efficiency through deep labour markets, supplier networks and knowledge spillovers. However, when productive capabilities and connections remain uneven, these benefits do not spread widely enough. Malaysia's spatial productivity challenge is therefore not simply that states record different outcomes. It is that places differ in their capacity to convert investment, talent, infrastructure and sector strengths into sustained productivity.

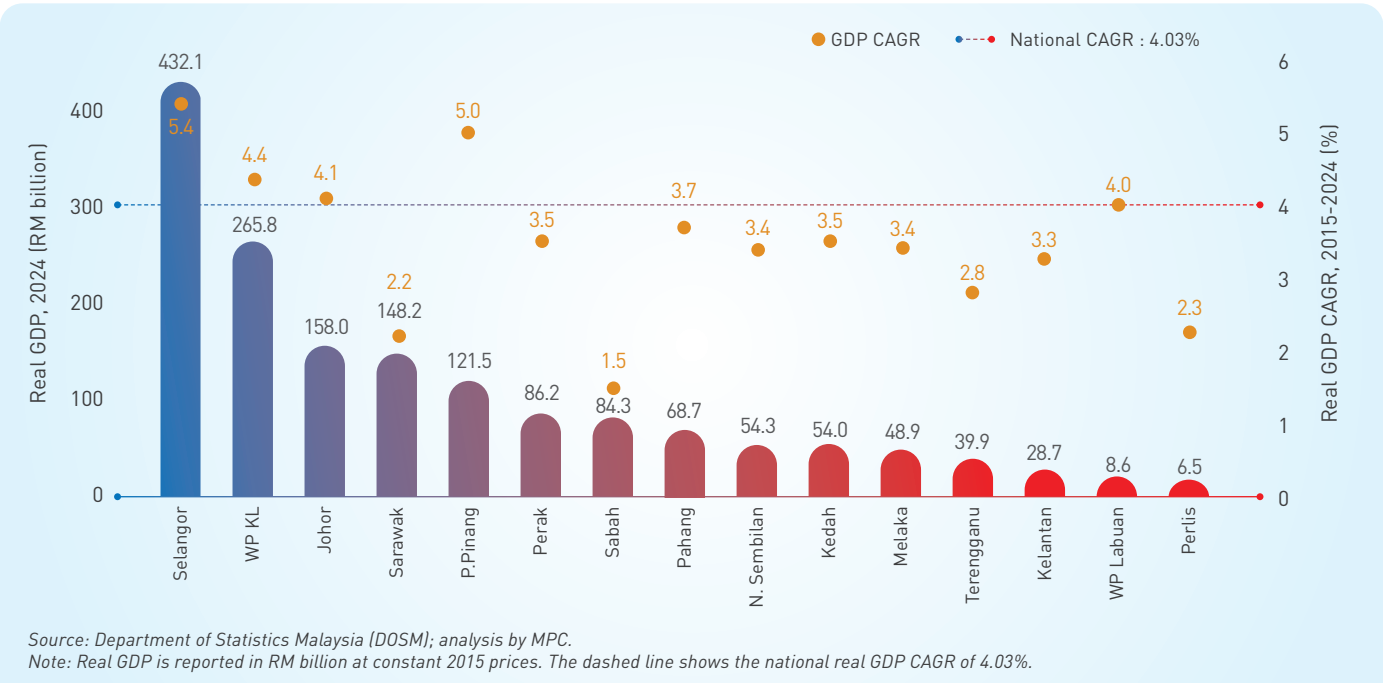
National productivity is built in places. Stronger local capabilities allow investment, talent and sector strengths to generate greater value for firms, workers and communities.

Economic scale remains spatially concentrated

Malaysia's leading state economies remain the engines of national growth, but economic momentum is becoming more spatially concentrated. Selangor was the largest state economy in 2024 and recorded the strongest expansion over 2015-2024. Pulau Pinang, W.P. Kuala Lumpur and

Johor also grew above the national compound annual rate. Their performance reflects cumulative advantages, including established industry clusters, diversified services, connectivity, investment capacity and large labour markets.

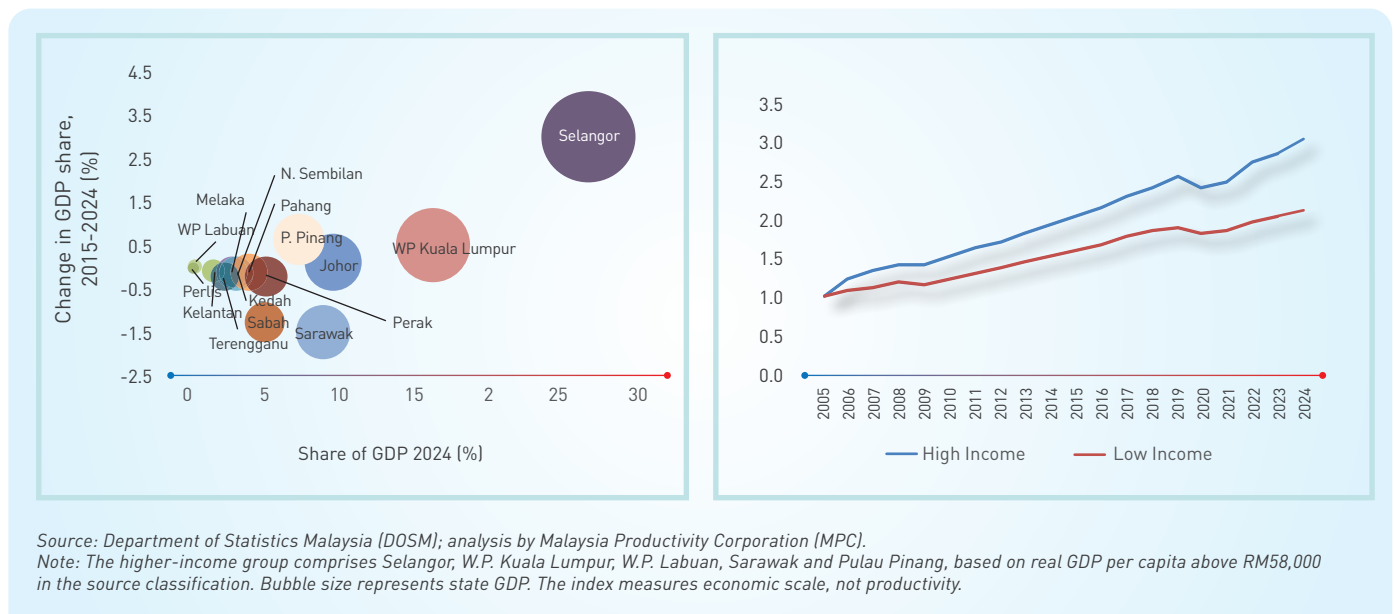
Figure 21 : Real GDP by state, 2024, and compound annual growth rate, 2015-2024



The main economic hubs strengthen Malaysia's export capacity and appeal to quality investment. Yet concentration also creates a national risk. When a small group of locations accounts for a large share of growth, infrastructure bottlenecks, skills shortages or external shocks in those locations can have wider effects. The appropriate response is not to slow successful states, but to improve the links through which their growth can support other places, including domestic supply chains, transport corridors, digital networks, talent mobility and partnerships between anchor firms and local enterprises.

The change in state GDP shares reinforces this message. Selangor gained about three percentage points of national output share between 2015 and 2024, while Pulau Pinang and W.P. Kuala Lumpur also gained share. Many other states were broadly stable or lost ground. Over the longer period, the GDP index for the higher-income state group rose to 3.05 in 2024, compared with 2.14 for the lower-income group. This is evidence of divergence in economic scale, not by itself proof of a widening productivity gap. Nevertheless, it signals that the capacity to attract activity, investment and people is accumulating unevenly.

Figure 22 : State GDP share and change, 2015-2024; GDP index by higher and lower-income state groups, 2005-2024



Malaysia must raise the ceiling in its strongest hubs while strengthening the corridors, suppliers and institutions that diffuse opportunity to more locations.

State capabilities define distinct pathways

States reach higher productivity through different combinations of assets and no single indicator can represent their competitiveness. Private investment, skilled workers, labour productivity, wages, household income, GDP per capita and economic growth establish each state capability. Together, they reveal varied starting points. Johor stands

out in the selected investment measure; Sarawak records the highest observed skilled-worker and wage values; W.P. Labuan has the highest observed productivity; W.P. Kuala Lumpur leads household income and GDP per capita and Negeri Sembilan records the strongest recent GDP growth in the profile.

Table 6 : Selected State Competitiveness Indicators Reveal Different Starting Points

State / Federal Territory	Private investment 2025 (RM bn)	Skilled workers 2024 (%)	Productivity 2024 (RM)	Average wage 2024 (RM)	Household income 2022 (RM)	GDP per capita 2024 (RM)	GDP growth 2022-2025 (%)
Malaysia	426.74	29.4	100,570	2,551	8,479	48,455	3.4
Johor	110.03	23.9	80,156	1,942	8,517	37,747	1.7
Kedah	27.79	19.8	82,215	1,643	5,550	24,367	1.5
Kelantan	1.64	29.5	71,084	2,466	4,885	15,171	2.5
Melaka	14.69	33.4	109,928	2,401	8,057	46,728	1.7
Negeri Sembilan	19.13	19.5	106,401	2,105	6,788	43,804	4.4
Pahang	8.11	38.3	106,316	2,885	5,777	41,163	3.6
Pulau Pinang	32.88	25.5	105,585	2,077	8,267	67,485	2.1
Perak	15.76	25.5	87,230	1,692	5,779	33,562	0.3
Perlis	0.217	38.5	84,394	3,067	5,664	22,065	4.2
Selangor	83.92	21.7	102,991	2,205	12,233	58,685	2.1
Terengganu	7.58	15.8	106,815	1,897	7,248	32,402	0.1
Sabah	14.55	21.4	62,070	2,083	6,171	22,528	1.8
Sarawak	14.19	51.6	129,525	4,043	6,457	58,854	2.5
W.P. Kuala Lumpur	63.26	28.8	100,223	2,048	13,325	128,541	0.1
W.P. Labuan	0.472	50.1	199,318	2,517	8,250	84,911	1.6

Source: State competitiveness profile reproduced from the original Chapter 3 compilation; underlying administrative and DOSM data.

Note: Indicators refer to different years and units. Private investment is an absolute value and is influenced by state size. Productivity is value added per worker. The figures should be used as a diagnostic profile, not as a composite state ranking. Data definitions and vintages should be harmonised before publication.

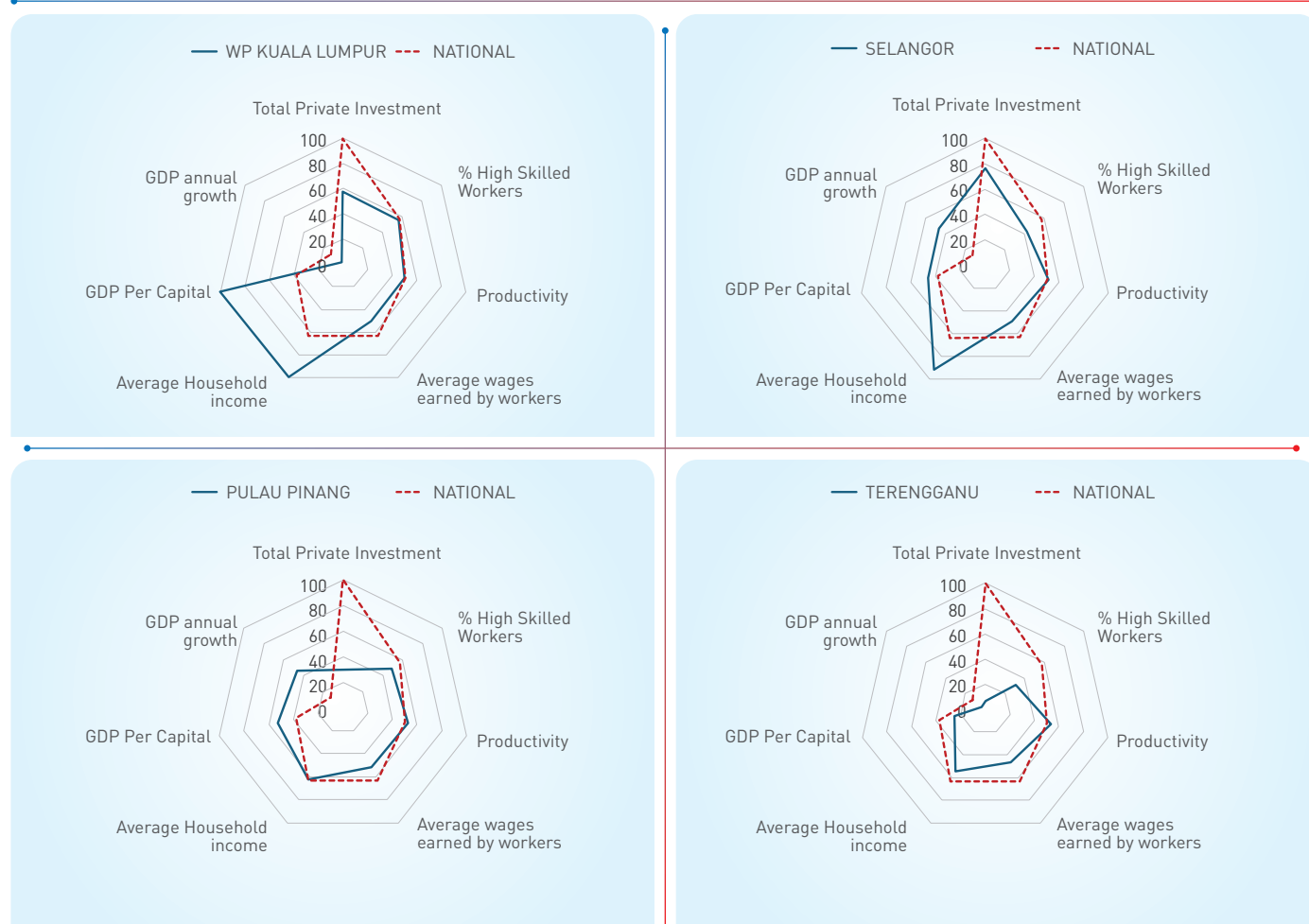
Table 7 : Observed State Frontiers Differ by Capability Dimension

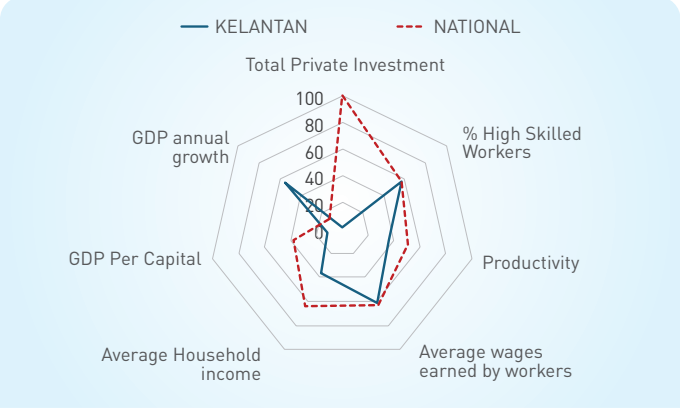
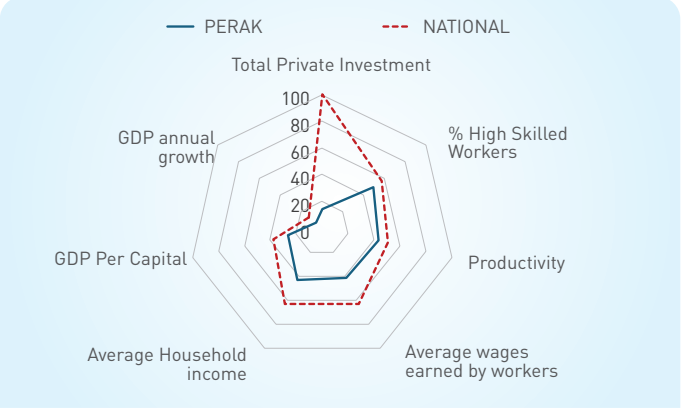
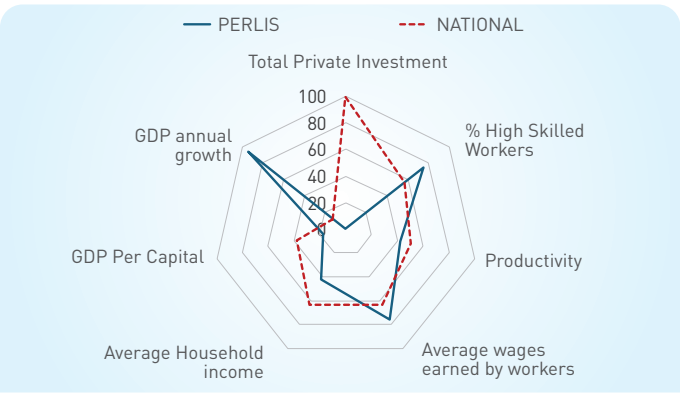
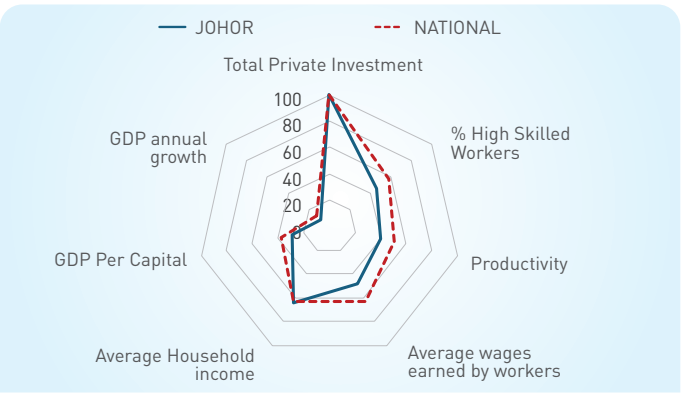
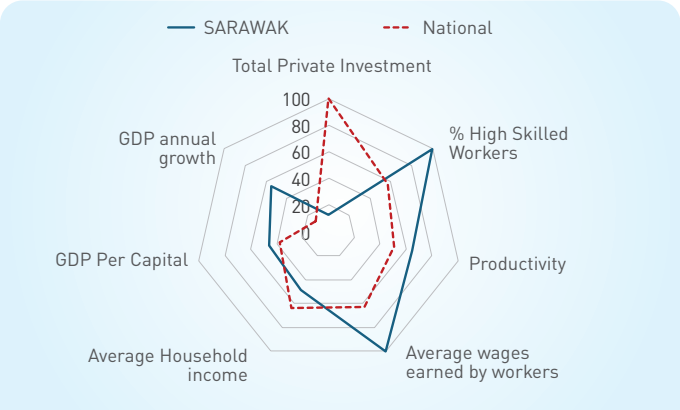
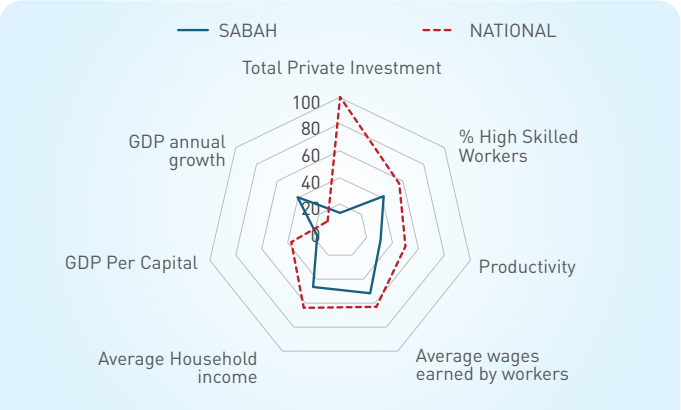
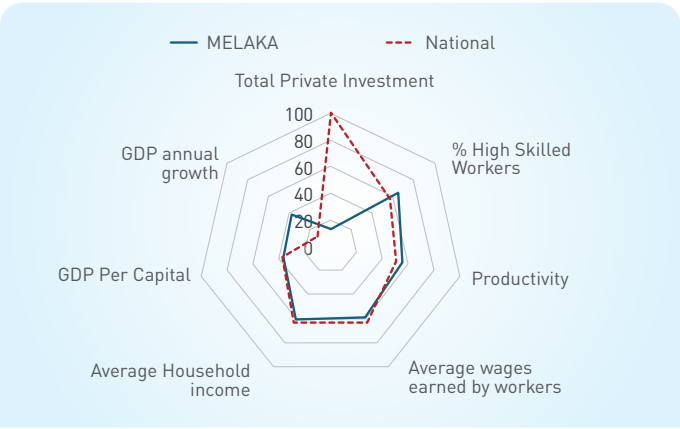
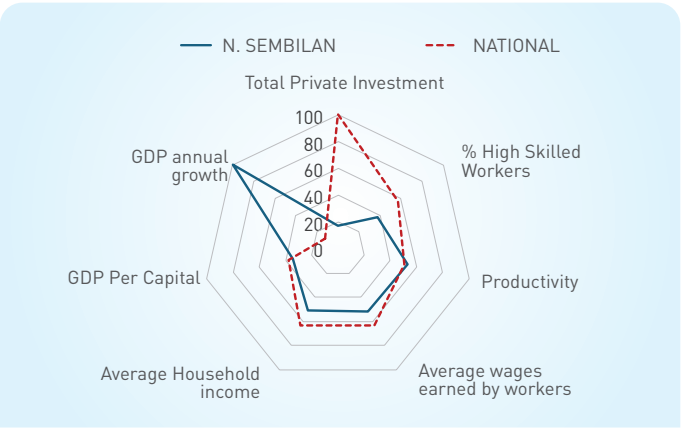
Indicator	Highest observed state value	State / FT	Malaysia reference
Private investment, 2025 (RM bn)	110.03	Johor	426.74*
Skilled workers, 2024 (%)	51.6	Sarawak	29.4
Labour productivity, 2024 (RM)	199,318	W.P. Labuan	100,570
Average wage, 2024 (RM)	4,043	Sarawak	2,551
Household income, 2022 (RM)	13,325	W.P. Kuala Lumpur	8,479
GDP per capita, 2024 (RM)	128,541	W.P. Kuala Lumpur	48,455
GDP growth, 2022-2025 (%)	4.4	Negeri Sembilan	3.4

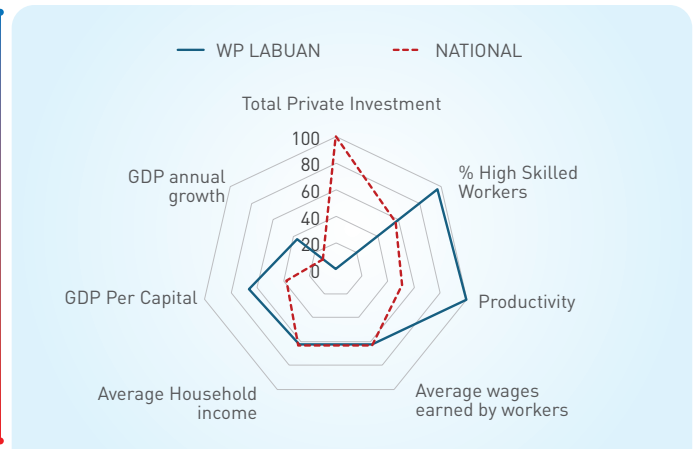
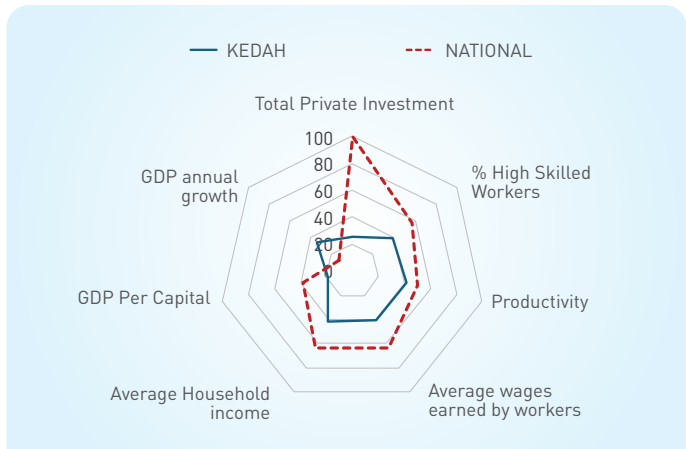
Source: State competitiveness profile reproduced from the original Chapter 3 compilation.

Note: *The Malaysia private-investment figure is the national aggregate and is not directly comparable with an individual state value. "Highest observed" means the maximum value in the supplied profile, not an estimated production frontier.

Figure 23 : State Capability Profiles Reveal Distinct Pathways







Source: State competitiveness profiles reproduced from the original Chapter 3 compilation.

Note: Profiles normalise selected indicators against supplied national and observed-frontier references. Pahang appears in Table 3.1, but no Pahang radar profile was included in the source material. Indicator years and units differ.

The profiles make the case for differentiated pathways. A state with strong investment but weaker skills may need workforce and supplier development. A state with high output per worker from resource-based activities may need downstream diversification and wider local spillovers. A large urban economy may need to address congestion, affordability and skills matching, while a smaller state may first require connectivity, enterprise scale and access to markets. Place-based policy begins with this diagnosis and directs effort towards the constraint most likely to unlock local value creation.

State competitiveness is multidimensional. The policy priority is to identify the capability that most limits each place from converting its assets into higher productivity.

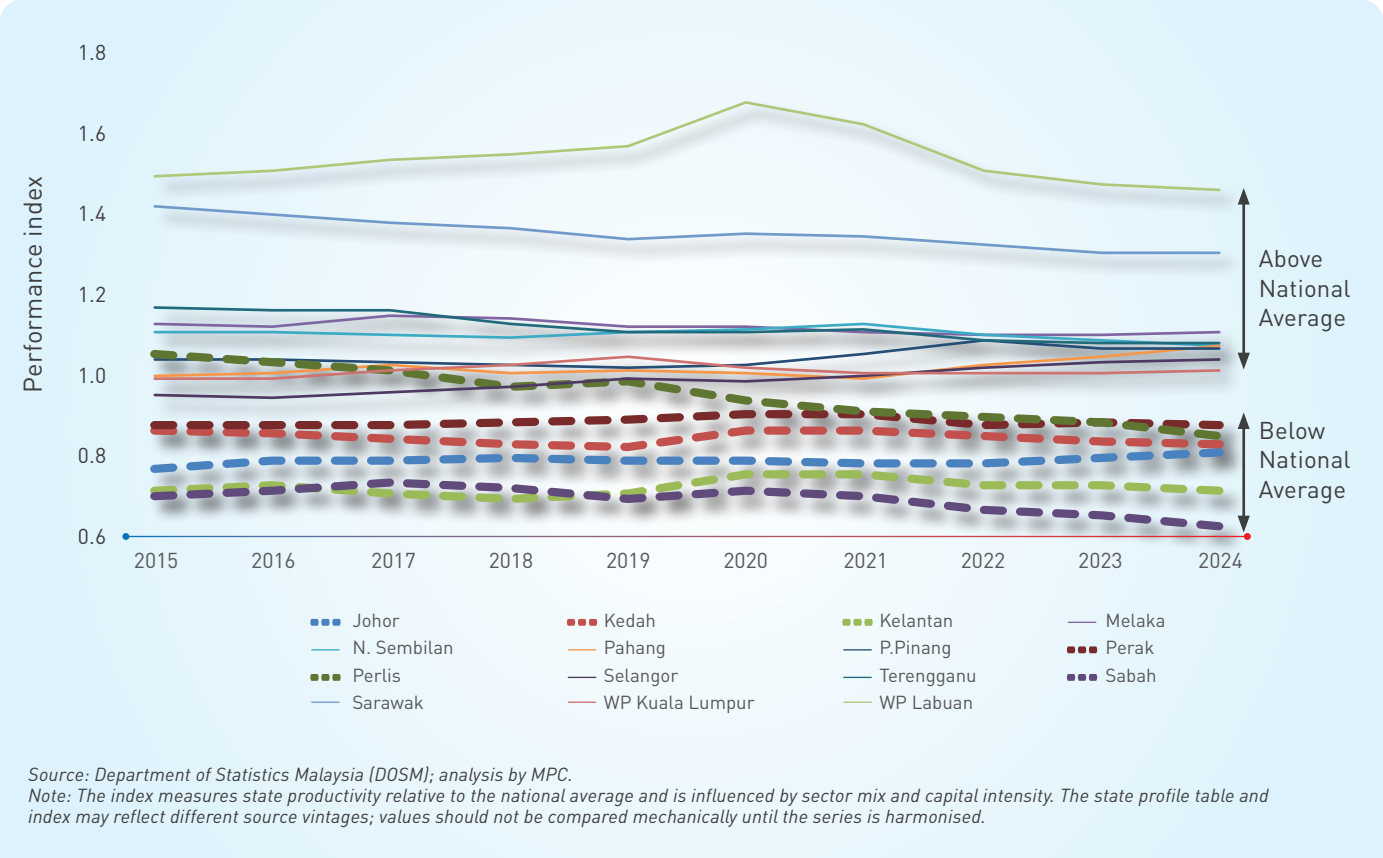


State productivity levels and growth diverge

Economic size and productivity are related, but they are not the same. W.P. Labuan and Sarawak record high productivity indices, reflecting specialised and capital-intensive activities, while Selangor, Pulau Pinang and W.P. Kuala Lumpur combine substantial scale with productivity

near or above the national benchmark. Johor, despite its large economic base and investment momentum, remains below that benchmark. A state average can also conceal highly productive clusters alongside a long tail of lower-productivity firms and jobs.

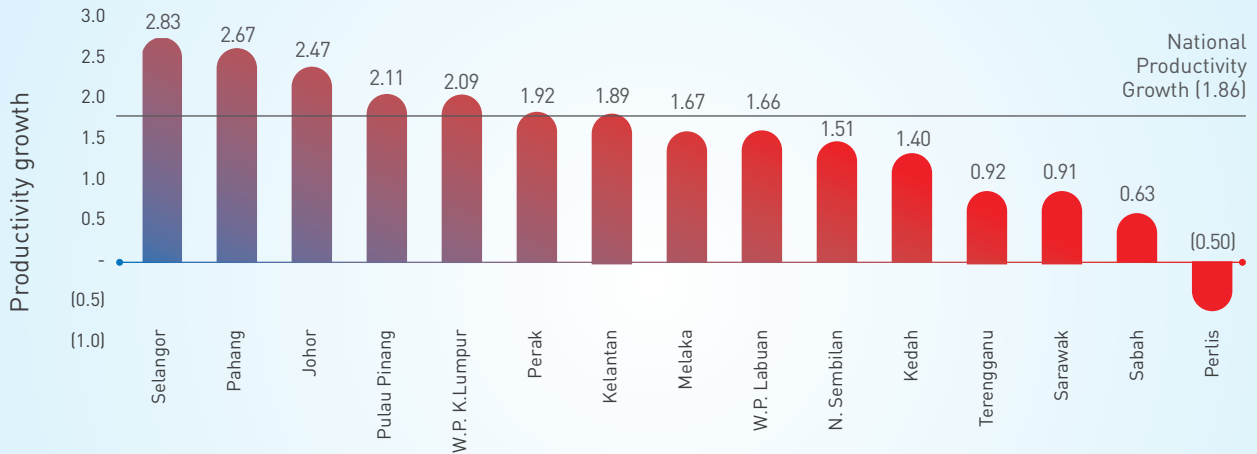
Figure 24 : State productivity performance index, 2015-2024 (national average = 1)



Relative positions have changed over time. Selangor and Pahang improved their standing against the national benchmark, while Perlis, Sabah, Sarawak and Terengganu lost relative ground. High productivity today therefore does not guarantee continuing leadership. States must keep upgrading technology, workforce capability, infrastructure and domestic value chains to sustain their advantage.

Growth provides a second and more dynamic perspective. Seven states exceeded the national productivity growth rate over 2015-2024. Johor, Perak and Kelantan were below the national productivity level but grew above the national rate, indicating selective catch-up. Selangor, Pahang, Pulau Pinang and W.P. Kuala Lumpur combined above-benchmark levels with faster growth and continued to push the frontier. By contrast, Kedah, Sabah and Perlis remained below the benchmark and grew more slowly, pointing to a need for more focused strengthening.

Figure 25 : Average annual productivity growth by state, 2015-2024 (%)



Source: Department of Statistics Malaysia (DOSM); analysis by MPC.

Note: The national average annual productivity growth rate was 1.86%. Faster growth from a lower level indicates potential catch-up but does not by itself establish convergence.

Some emerging states are catching up while several leading states continue to widen their advantage. Place-based typology signals that frontier states require innovation and capacity expansion; high-level but slower-growing states require renewal and diversification; lower-level but faster-growing states need support to sustain convergence and lower-level, slower-growing states require stronger foundations and targeted economic opportunities.

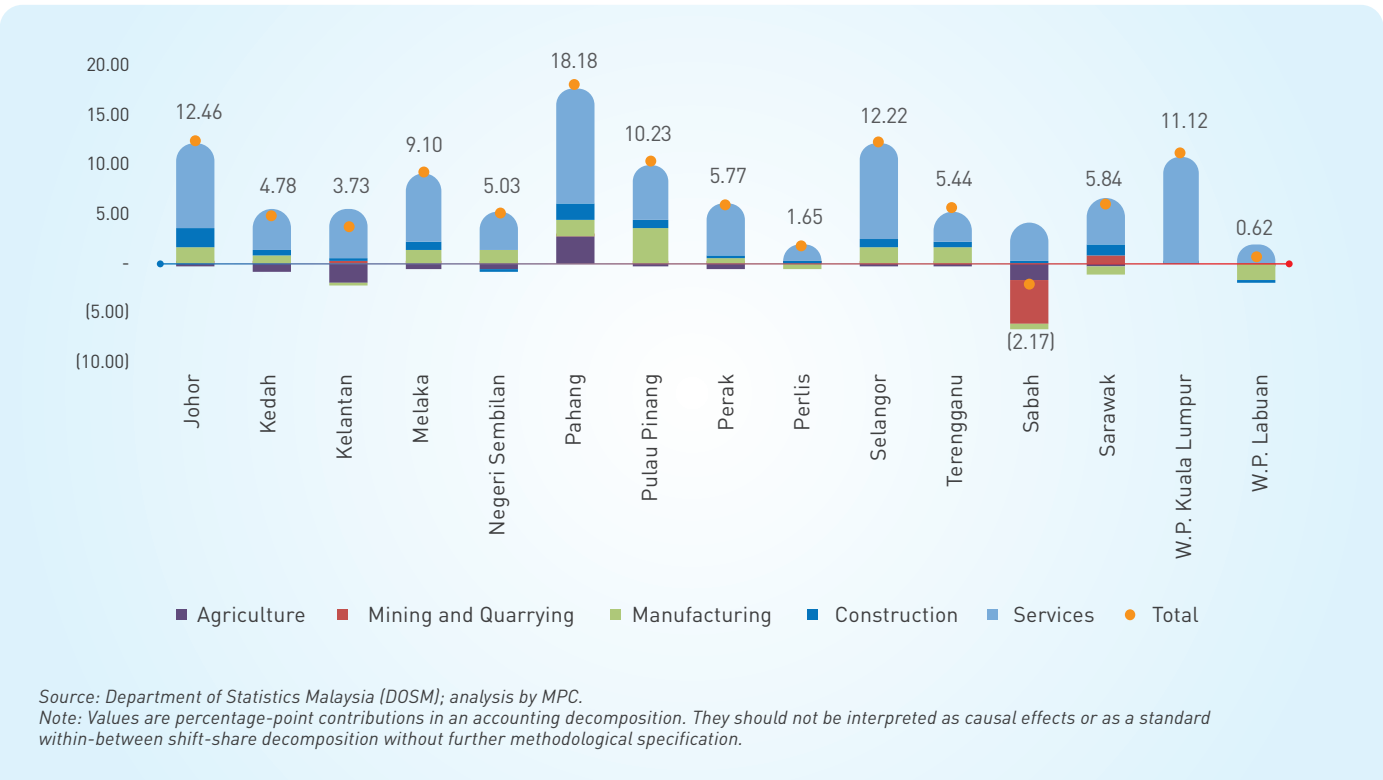
Productivity level identifies a state's current position; productivity growth shows its direction. Place-based policy must respond to both.

Sector mix shapes regional recovery post-pandemic

The post-pandemic recovery shows that state productivity is shaped by sector composition as well as performance within sectors. Services made a large positive contribution to productivity changes in Pahang, W.P. Kuala Lumpur, Selangor, Johor and Pulau Pinang during 2021-2024. Pahang also benefited from agriculture, while manufacturing contributed meaningfully in Pulau Pinang, Selangor and Johor. Sabah recorded an overall decline because contractions in mining and agriculture outweighed its positive services contribution.



Figure 26 : Sector contributions to changes in state productivity, 2021-2024



The decomposition demonstrates why a uniform national intervention would be less effective. A resource-based state facing weak commodity-sector productivity requires a different response from an urban economy driven by services, or an industrial state seeking to deepen manufacturing. It also cautions against treating recovery as structural improvement. Reopening and low-base effects can lift short-term performance; sustainable productivity requires gains that persist through better technology, organisation, skills, market access and movement into higher-value activities.

The contrast between Pulau Pinang and Sabah is instructive. Pulau Pinang's improvement was supported by both services and manufacturing, providing a broader base for resilience and supplier spillovers. Sabah's services contribution was positive, but declines in mining, agriculture and manufacturing produced a negative overall result. Place-based reform should therefore improve productivity within locally important sectors while developing complementary activities that reduce exposure to a narrow source of value creation.

State and sector strategies must work together because the same national policy can produce very different results across local economic structures.

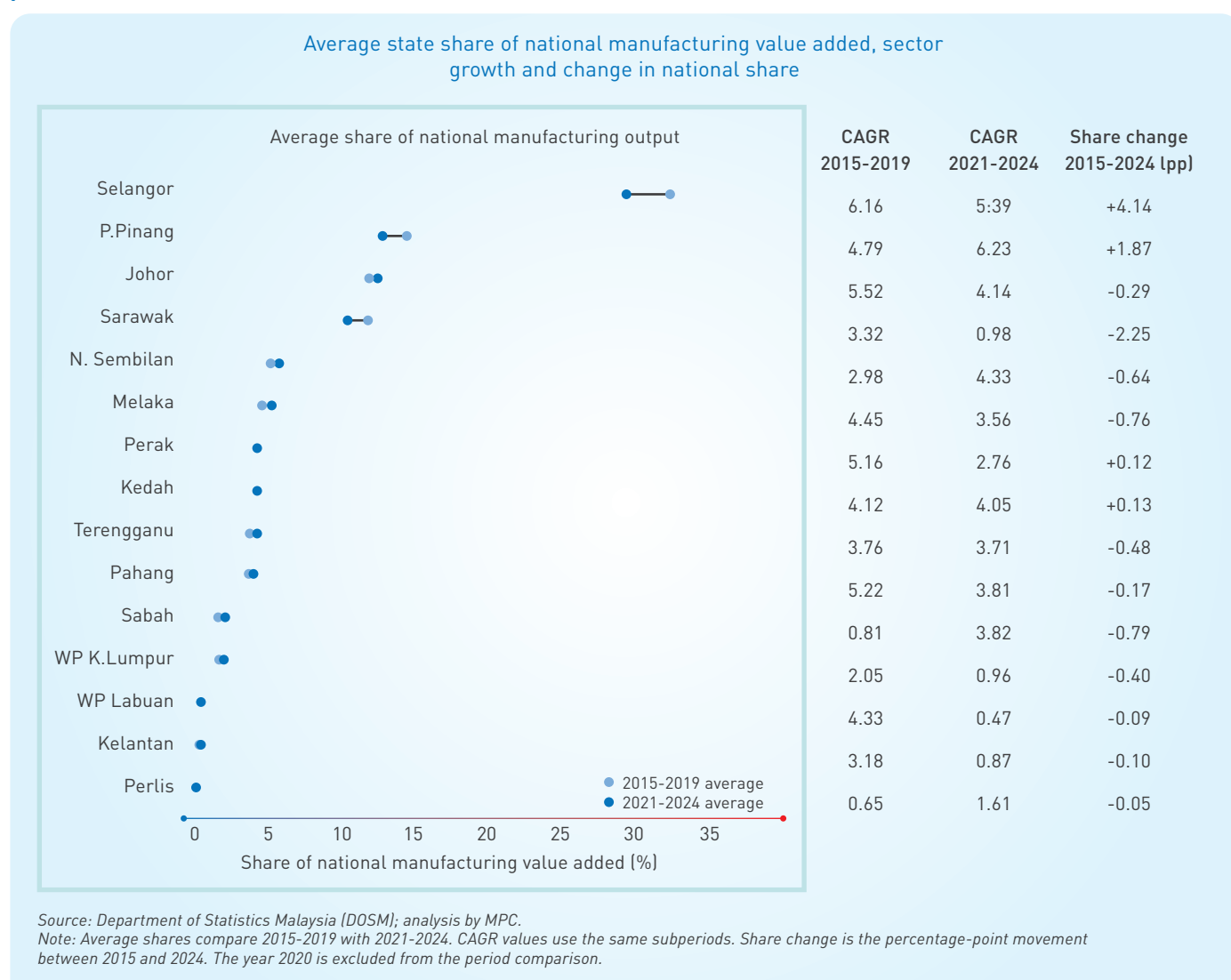


Manufacturing clusters anchor regional upgrading

Manufacturing remains concentrated in established industrial states, where mature ecosystems reinforce productivity and competitiveness. Selangor, Pulau Pinang, Johor and Sarawak account for much of the country's manufacturing activity. Selangor and Pulau Pinang strengthened their positions between the pre- and post-pandemic periods, illustrating the cumulative advantage created by infrastructure, technical talent, supplier depth, investor networks and access to productive services.

For these established hubs, the next step is not merely more production. It is deeper domestic value creation through engineering, automation, R&D, advanced services, local supplier upgrading and stronger linkages between multinational and Malaysian firms. Emerging industrial locations need a different package: investment-ready sites, reliable logistics and utilities, technical skills, capable MSMEs and integration with regional production networks. Malaysia should expand manufacturing where it complements local capability and market access, rather than replicate the same industrial model in every state.

Figure 27 : Manufacturing Remains Anchored in Established Clusters



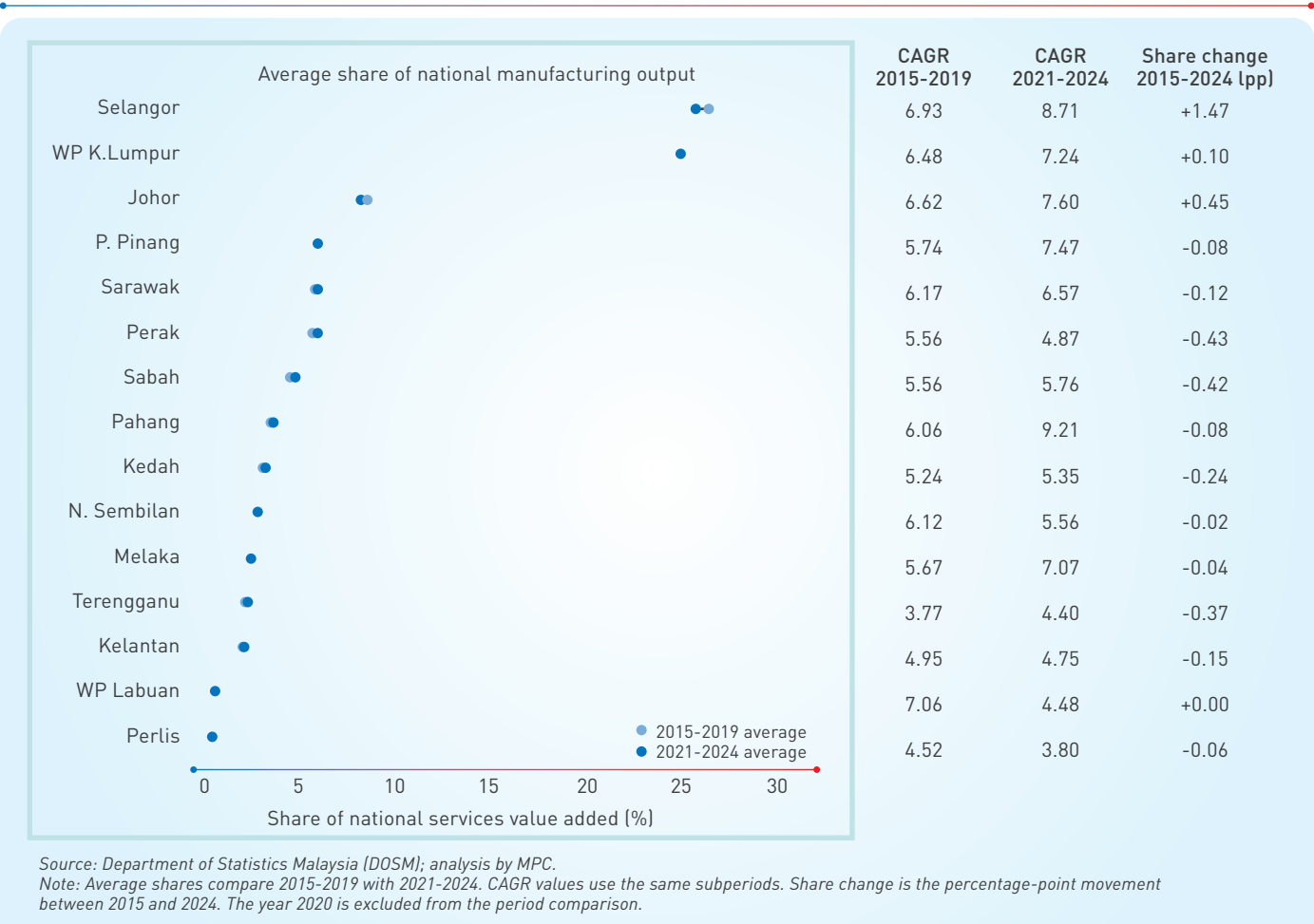
Recent growth also differs within the manufacturing map. Pulau Pinang and Negeri Sembilan recorded stronger post-pandemic momentum, while growth moderated in several other states. This variation underlines the need to diagnose capacity utilisation, product mix, investment quality and supplier readiness at cluster level. The objective is to create specialised regional ecosystems that can collaborate across state borders and move Malaysian firms into more complex parts of the value chain.

Higher-value services can broaden productivity gains

Services offer the broadest opportunity to diffuse productivity because they operate across every state and connect the wider economy. Selangor and W.P. Kuala Lumpur remain the principal services centres, while Johor is developing as a third hub. Several states recorded stronger services growth after 2020, but most did not secure a comparable increase in their share of national services activity. Recovery has therefore not fundamentally changed the spatial structure of the sector.

The opportunity is to raise the productivity, quality and tradability of services in more locations. Digital services, logistics, professional and business services, finance, tourism and modern support functions can create higher-value jobs beyond the largest cities. Their growth depends on digital connectivity, skilled talent, responsive regulation and links to manufacturing, agriculture and local visitor economies. Better services can also improve the productivity of other sectors by reducing transaction

Figure 28 : Average state share of national services value added, sector growth and change in national share



costs, widening market access and strengthening supply-chain reliability.

More productive services can broaden regional growth while improving the competitiveness of manufacturing, agriculture and local enterprises.

The pathway should reflect local demand and comparative advantage. Major urban hubs can deepen regional headquarters, finance, digital and professional services. Industrial states can expand engineering, design, logistics and after-sales functions. Tourism- and resource-based states can raise value through digital marketing, destination management, food processing, traceability and specialised business support. These are different service strategies, but each can generate more value per worker and strengthen the competitiveness of the local production base.

Place-based reform must enable convergence

A credible place-based agenda must combine differentiated state pathways with stronger connections across the national economy. Leading urban and industrial centres should advance frontier innovation while resolving congestion, skills and domestic value-capture constraints. Emerging industrial states should strengthen suppliers, logistics and technical capability. Resource-based economies should develop downstream activity, technology adoption and diversification. States with lower productivity need stronger foundations in connectivity, education, enterprise capability, finance, market access and effective local institutions.

Delivery must be built on clear state and local diagnostics, measurable outcomes and coordinated responsibility across federal and state governments, local authorities,

industry, academia and communities. State productivity dashboards should track not only output per worker, but also firm upgrading, skilled employment, wages, investment quality, technology use and domestic value added. The emerging National Productivity Framework and Roadmap 2026-2035 provides an opportunity to connect these outcomes from firms and localities through sectors and states to the national level.

Place-based reform succeeds when local action raises firm-level value creation and stronger inter-state connections spread the gains.

Stronger states reinforce national competitiveness

Malaysia's national competitiveness will increasingly depend on whether every state can translate its distinctive assets into sustained productivity growth. More productive states attract quality investment, support competitive enterprises, create higher-value employment and strengthen inter-state supply chains. This is not a zero-sum contest among states. Leading hubs must continue to raise the frontier, while catch-up states require targeted support to strengthen firm capability, skills, connectivity, technology adoption and local value chains. Stronger

links between industrial centres, secondary cities and resource-based regions can allow productivity gains to circulate through suppliers, workers and markets. By combining differentiated pathways with shared outcome measures and coordinated delivery, Malaysia can narrow persistent gaps without constraining its strongest growth engines. A more connected network of competitive states will make the national economy more innovative, resilient and inclusive, strengthening Malaysia's position in an increasingly demanding global environment.



CHAPTER FOUR

Productivity-Led
Wage Growth

PRODUCTIVITY-LED WAGE GROWTH

Malaysia's next phase of productivity growth will be powered by its workforce. Sectoral gains ultimately depend on how firms develop, deploy and reward workers. Higher productivity cannot rest on capital, technology or sector strategy alone. It also grows when firms organise work better, strengthen skills, redesign jobs and connect productivity gains more clearly to wages.

This chapter examines workforce reform as a firm-level productivity lever. It focuses on the productivity-wage gap, productivity-linked compensation, job redesign and practical tools such as the Productivity for Shared Prosperity (PROSHARE) Calculator. The aim is to show how Malaysia can move from a labour-cost model towards a productivity-centred workforce model, with the largest gains available among MSMEs.

Higher productivity cannot rest on capital, technology or sector strategy alone. It also grows when firms organise work better, strengthen skills, redesign jobs and connect productivity gains more clearly to wages.

Transitioning from Input-Led to Productivity-Centred Growth

Micro, small and medium enterprises (MSMEs) represent 98.0% of total business establishments and employ nearly half of the workforce. However, the Malaysia Productivity Corporation (MPC) 2025 study on Gini coefficient dynamics shows that their contribution to national value added declined from 42.7% in 2015 to 38.5% in 2022. Over the same period, labour productivity in large firms rose from RM150,000 to RM266,000 per worker, while MSME productivity increased more modestly, from RM74,000 to RM89,000. The gap between large firms and MSMEs has widened, and closing it is one of Malaysia's biggest productivity opportunities.

Note: This firm-level series is not directly comparable with the establishment-based MSME GDP share in Chapter 2 (39.5%), which uses a different data source. The productivity levels cited in Chapter 2 come from the same establishment-based series and likewise differ from the firm-level figures here.

Several structural factors explain the gap. Reliance on informal labour remains common in micro-enterprises, where workers include unpaid family members and working proprietors. This limits formalisation, weakens incentives for technology adoption and slows operational

modernisation, keeping wages compressed. The opportunity is to formalise work and link pay to measured productivity, opening clearer pathways for wages and career mobility.

Wage inequality is linked to lower productivity because it weakens incentives for skills acquisition and workforce upgrading. Moving towards productivity-centred growth requires firms to shift away from cost-based labour strategies and towards innovation, digital adoption, structured human resource practices and continuous skills development. Firms that use productivity-linked wage approaches report better outcomes in wage levels and income distribution.

This shift towards productivity-linked pay is reinforced by clear national policy direction. The Thirteenth Malaysia Plan (13MP), the Ekonomi MADANI framework and the New Industrial Master Plan (NIMP) 2030 collectively place workforce reform at the centre of economic transformation. Through the "Raise the Ceiling, Raise the Floor" approach, these frameworks seek to promote high-value, technology-driven industries while ensuring that productivity gains translate into better wages, greater social mobility and higher living standards.

This alignment is visible in national efforts to accelerate high-growth, high-value (HGHV) industries, expand digitalisation and artificial intelligence adoption, strengthen talent pipelines and reduce reliance on low-skilled labour. Initiatives such as Productivity Nexus and Akademi Dalam Industri (ADI) also support closer alignment between industry needs and workforce capabilities.

The opportunity now is to bring this national alignment into everyday firm-level practice. Many MSMEs still adjust wages mainly according to short-term financial performance

rather than measured productivity improvement, which weakens incentives to invest in capability development and operational upgrading. Building on the frameworks above, workforce reform will move faster with better regulatory frameworks, closer institutional coordination and stronger firm-level capability. The 13MP targets reflect the scale of the ambition: raising compensation of employees (the share of national income paid to workers as wages and benefits) to 40% of GDP, increasing median monthly wages to RM3,500 and achieving a 35% skilled-worker share by 2030.

Talent in the World Competitiveness Ranking 2026

Malaysia's talent progress is already registering internationally. In the Institute for Management Development (IMD) World Competitiveness Ranking 2026, the Labour Market sub-factor surged from 23rd to 3rd among 70 economies, one of Malaysia's strongest results; related indicator-level reforms are tracked in Chapter 4. Management Practices rose from 42nd to 15th and Attitudes and Values from 39th to 23rd, signalling growing business confidence in the workforce.

Education remains the unfinished half of the picture. The Education sub-factor held at 44th, with university education ranked 34th and management education 20th on meeting the needs of a competitive economy. The pattern mirrors this chapter's argument. Malaysia's workforce is competitive. Converting that talent into higher wages and higher-value work depends on the productivity-linked practices set out in the sections that follow (IMD World Competitiveness Yearbook 2026, Malaysia profile).

Productivity links to wages

Beyond international rankings, the strength of Malaysia's talent agenda is measured by how productivity gains translate into wages. The link between labour productivity and wage growth is central to inclusive economic development; when wages rise more slowly than output per worker, the difference is the productivity-wage gap that this section examines. Malaysia's task is to make that link stronger, especially in the MSME sector, so that productivity gains show up more consistently in wages.

Much of the disconnect reflects wage-setting practices that favour short-term profitability over long-term productivity. Aligning pay more closely with measured productivity would let wage growth keep pace with operational improvement and strengthen incentives for upskilling.



BOX 1

Linking Productivity to Wages – Malaysia, South Korea, Singapore and Japan

To understand why Malaysia’s wage growth has not kept pace with productivity, firm-level development can be benchmarked against Singapore, South Korea and Japan. A useful signal of a healthier link between productivity and wages is the point in a firm’s life at which its wage levels catch up with its productivity. In economies with earlier technology absorption and more responsive labour markets, firms tend to reach this point sooner. South Korean firms generally reach that point after 40 to 49 years of operation, while Singaporean firms do so earlier, after 30 to 39 years. Malaysian firms tend to reach it later, after 45 to 54 years, pointing to slower capability development,

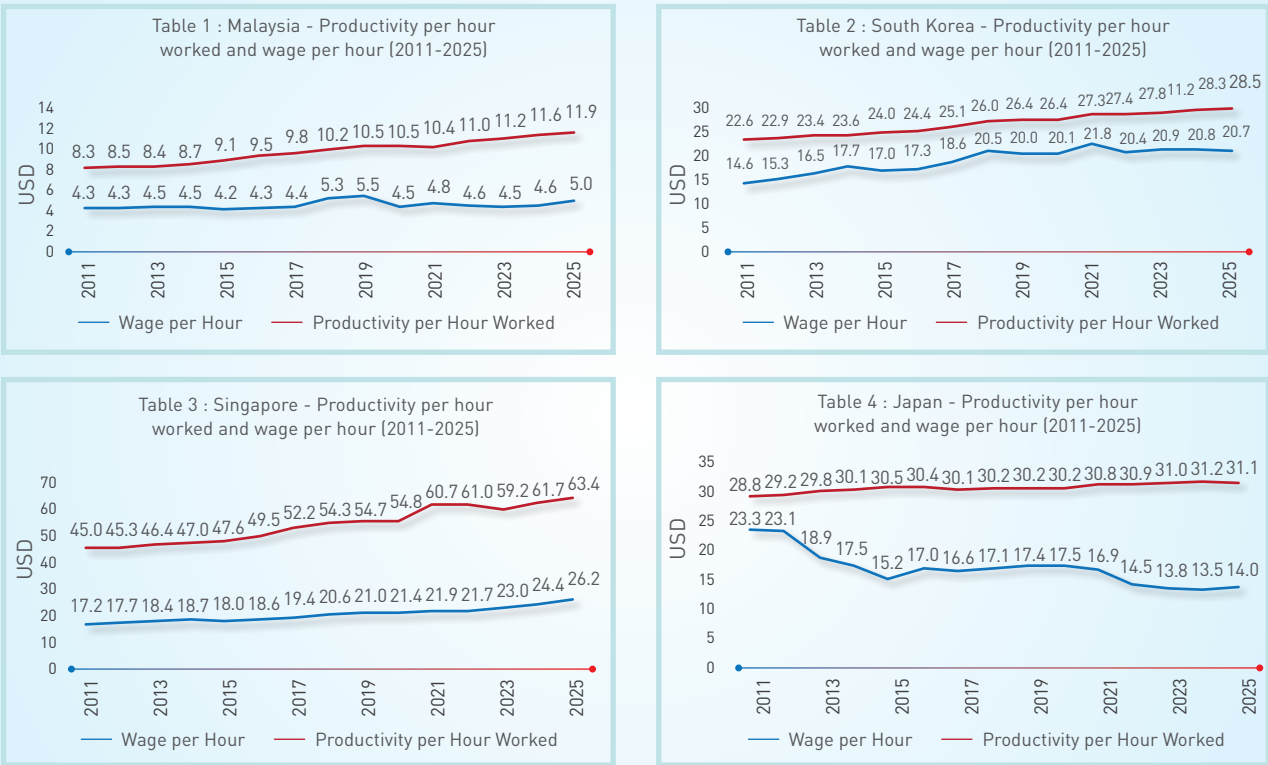
weaker early-stage upgrading and delayed formalisation of human resource governance.

The divergence between labour productivity and wage growth, or the productivity-wage gap, is a critical concern for policymakers and scholars in Asian economies. It affects income distribution, social equity and sustainable economic development (Goh & Wong, 2010). The analysis below compares the industrialisation strategies and labour-market frameworks of Malaysia, South Korea, Singapore and Japan.

What the data shows : productivity and wages per hour

International data show different trajectories in labour productivity and wages, measured in USD, across the four countries between 2011 and 2025.

Figure 29 : Productivity and wage per hour worked, Malaysia, South Korea, Singapore and Japan, 2011–2025 (USD)



Source: Euromonitor International, based on International Labour Organization (ILO), Eurostat and national statistics.

BOX 1

Linking Productivity to Wages – Malaysia, South Korea, Singapore and Japan

In Malaysia, manufacturing shows that wages and productivity do not rise in a straight line together (Tang, 2014). Productivity per hour increased from USD 8.3 in 2011 to USD 11.9 in 2025, while wages remained volatile at around USD 4.5 to USD 5.0, so productivity gains outpaced wages over the period. Early wage increases go hand in hand with productivity gains, but the link weakens at higher levels unless firms also invest in skills, technology and innovation.

South Korea operates a two-speed economy. Chaebols dominate high-productivity, high-wage segments, while SMEs lag in both productivity growth and wage progression, and regional concentration reinforces the divide between firms and locations (Aghion et al., 2021).

Singapore shows the strongest alignment between wages and productivity, particularly in high-technology sectors (Fong & Lim, 2015). Hourly wages rose steadily from USD 17.2 in 2011 to USD 26.2 in 2025, reflecting sustained investment in human capital and industrial upgrading.

In Japan, ageing, rigid employment practices and persistent gender wage gaps have weakened the transmission of productivity into pay (Chun et al., 2024; Hara, 2022). Labour productivity held steady at about USD 31 per hour, yet average hourly wages declined from USD 23.3 in 2011 to USD 14.0 in 2025.

Table 8 : Productivity-wage gap across Malaysia, South Korea, Singapore and Japan

Country	Productivity-wage gap	Key drivers/barriers	Notable policies/Institutions	Sectoral Notes
Malaysia	Inverted U-shaped, uneven transmission between productivity and wages	Skill mismatches, low TFP growth, need for R&D/IT/Training	Minimum wage policy, TVET reforms	High variation across manufacturing sub-sectors
South Korea	Widening gap, especially SME vs. chaebol, strong regional disparities	Chaebol dominance, hierarchical networks, labour market dualism	Reduced workweek, minimum wage hikes	Agglomeration effects, vertical integration issues
Singapore	Narrow gap in high-tech sectors, low TFP growth overall	Foreign ownership, export orientation, skills policy	SkillsFuture, innovation incentives	High productivity in tech-intensive sectors
Japan	Stagnant wage growth despite productivity, aging workforce	Occupational segregation, demographic shifts, TFP divergence	Equal pay legislation, R&D support	Service sector lagging

Source: State competitiveness profile reproduced from the original Chapter 3 compilation.

Note: *The Malaysia private-investment figure is the national aggregate and is not directly comparable with an individual state value. "Highest observed" means the maximum value in the supplied profile, not an estimated production frontier.

BOX 1

Linking Productivity to Wages – Malaysia, South Korea, Singapore and Japan

The comparative analysis points to four drivers of the productivity-wage gap. First, industrial structure and firm dynamics, especially the divide between large firms and SMEs, shape how productivity gains are distributed. Second, investment in skills and technology matters because firms that prioritise workforce development, digitalisation and innovation are better placed to translate productivity gains into wages.

Third, labour market institutions, including wage-setting mechanisms and segmentation, shape outcomes. Minimum wage policies can raise wages and support productivity, but their effect depends on complementary firm upgrading. Fourth, demographic and social factors, including ageing, gender disparities and regional inequality, affect access to quality employment and wage distribution.

For Malaysia, the gap reflects both structural and policy factors. Productivity has improved, but wage growth has not kept pace consistently, especially in lower value-added sectors. Key constraints include skill mismatches, uneven industry productivity and limited technology adoption among MSMEs. Wage policies, including minimum wage implementation, can support productivity when paired with firm capability-building and workforce upgrading.

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Embedding Productivity and Compensation Measurement for Firm-Level Workforce Reform

Addressing the productivity-wage gap requires systematic measurement at the firm level. As Malaysia shifts from a resource-based economy towards a value-creation model anchored in advanced technology and high-growth, high-value (HGHV) industries, labour market reform becomes more urgent. The policy challenge is to strengthen the link between productivity and wages so economic upgrading leads to more equitable wage growth. Macro-level policies set direction, but implementation depends on firm-level practices. Productivity and compensation measurement at the enterprise level is especially important for closing capability and operational gaps among Malaysian firms, particularly MSMEs.

Uneven transmission from productivity gains to wage growth has slowed middle-income wage progression and contributed to wage compression at the lower end of the labour market. A study by MPC indicated that 70.2% of Malaysian employees earn below RM4,000 per month, rising to 81.6% among MSME workers. Minimum wage adjustments have successfully raised the floor. The next task is easing wage bunching in the middle, lifting more workers into and beyond the middle-income range.

Successive minimum wage increases have reduced the share of workers earning below RM1,500. Growth in the RM3,001 to RM4,000 wage bracket has been limited. Semi-skilled and low-skilled workers remain concentrated within narrow wage bands, weakening incentives for skills upgrading and limiting progression into higher-value roles.

These dynamics matter for national wage ambitions. The 13MP target of a RM3,500 median monthly wage by 2030 (Section 3.1.1) is complemented by the NIMP 2030 wage target of RM4,510 for manufacturing. Reaching these targets means breaking wage compression and helping more workers move into higher-productivity, higher-wage occupations, especially technical, skilled and supervisory roles.

The policy challenge is to strengthen the link between productivity and wages so economic upgrading leads to more equitable wage growth.

Uneven Productivity-to-Wage Transmission Weakens Incentives to Upskill Workforce Reform

When productivity gains do not translate into wages, the incentives for human capital development weaken. If new skills or technologies do not lead to better compensation, workers have less reason to invest in training and firms have less reason to pursue deeper upgrading. This is visible in the MSME workforce, where nearly 60% of employees, more than 3.2 million workers, hold only SPM (Sijil Pelajaran Malaysia) qualifications or below.

Reliance on informal labour and lower-skilled foreign workers also keeps labour costs low but suppresses incentives for innovation and business upgrading. Although 59.7% of firms report higher productivity after digital adoption, only 23.8% offer higher pay for tech-skilled positions. The gap between the two figures shows the

digital skills premium is not yet being paid. With clearer returns and simpler implementation pathways, more firms are likely to find upgrading worth the investment.

An equitable labour market depends on the ability to measure and reward human capital contributions. Macro-level data alone can hide structural inequalities. Firm-level measurement is needed because productivity and wage dynamics vary sharply by enterprise size, operational maturity and ownership structure.

Company-level data by MPC reveal a dual structure in Malaysia's enterprise ecosystem. Large firms increased their share of national value added from 57.3% in 2015 to 61.5% in 2022. Yet they consistently allocated a smaller

proportion of their value added to labour compensation, indicating that higher profitability did not necessarily translate into a larger labour share. MSMEs, by contrast, devoted a greater proportion of their output to labour costs but generated less value added per worker. This constrained their capacity to pay higher wages in absolute

terms. Wage compression is therefore most acute among MSMEs, even though labour compensation accounts for a larger share of their value added. Firm-level measurement gives policymakers the visibility needed to identify the capital, productivity and operational constraints that keep MSME wages low.

Shifting from Profit-Driven to Productivity-Driven Wage Setting

Metrics matter because they reveal how wages are set in practice. MPC evidence shows that 69.4% of MSMEs adjust wages mainly according to short-term profit performance. Only 19.7% adjust wages in response to measured productivity gains. This profit-driven approach prioritises short-term financial performance over long-term human capital development.

Without company-level systems that measure performance and link it to compensation, wage adjustments remain reactive and wage growth can lag even when operations improve. The value of formal wage governance is visible in firms that use productivity-based pay structures. These firms report higher average monthly wages (RM3,051) and lower internal pay inequality (a Gini coefficient of 0.319, where lower means more equal). Firms without

performance-linked mechanisms report lower wages (RM2,674) and higher inequality (Gini 0.365). Measurement-based incentives help firms reward efficiency and give employees more transparent links between effort, productivity and pay.

Measurement also supports national wage and labour market policies. To put productivity-linked pay into practice, firms need structured approaches to training, technology transfer, job evaluation and wage administration. Regular reporting on wage distribution, employment composition and productivity can strengthen the evidence base for policy design and oversight. Over time, better firm-level data can shift the system from a narrow focus on wage floors towards productivity-linked wage growth and sectoral benchmarking.

Unlocking Firm-Level Growth with the Productivity for Shared Prosperity (PROSHARE) Calculator

Translating these measurement insights into firm-level improvement requires practical tools. Malaysian enterprises face a direct challenge. Survival and growth depend not only on capital investment but also on the effective deployment of human capital. To bridge traditional accounting and performance-based management, MPC is promoting the Productivity for Shared Prosperity (PROSHARE) Calculator. The tool translates financial and workforce data into a practical roadmap for workforce reform.

For business owners, the PROSHARE Calculator provides a diagnostic lens for organisational health. A firm enters its financial and workforce data; the calculator returns productivity, unit labour cost (labour cost per unit of output) and wage-capacity indicators, showing whether pay can rise without eroding competitiveness. By integrating

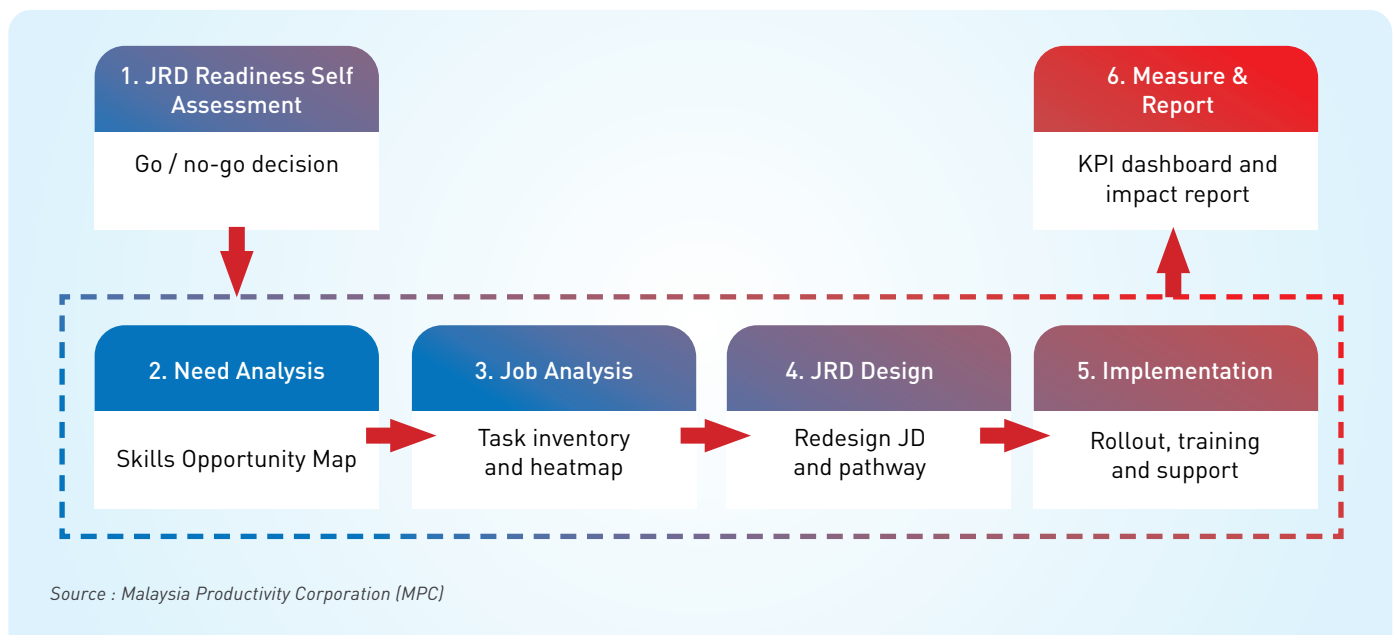
financial information with workforce performance, it helps firms assess whether compensation growth is aligned with wealth creation and labour productivity. This makes wage adjustments more transparent and can support morale, retention and employee trust.

In a more volatile market environment, the framework also offers predictive value. Through built-in scenario analysis, business leaders can simulate the likely effects of upskilling, automation or workforce expansion before implementation. By tracking unit labour cost and distinguishing between direct and indirect labour contributions, firms can identify bottlenecks and direct resources towards higher-value activities. This shifts the response from reactive cost-cutting to planned investment in human capital.

Used as part of annual operational and workforce planning, the calculator gives firms greater transparency, stronger internal trust and earlier warning when efficiency or wage outcomes begin to weaken. When workforce strategy is aligned with financial goals, firms are better placed to remain competitive and build a more skilled and better-compensated workforce.

Job Redesign (JRD) as a Firm-Level Productivity Strategy : Restructuring Roles, Tasks and Workflows

Figure 30 : Six-Step Job Redesign Methodology



Alongside wage reform, raising productivity also requires restructuring how work is organised. As Malaysia moves towards a value-creation economy, national priorities must be translated into firm-level practices. Job redesign offers a practical route by restructuring roles, tasks and workflows to raise productivity and support value creation.

In many MSMEs, inefficiencies arise from overlapping responsibilities, manual processes and centralised decision-making. Job redesign improves role clarity and accountability and brings digital tools into daily operations. This creates an operational base for productivity-linked wage systems.

JRD follows six structured steps, from readiness assessment through to impact measurement, aligning roles and skills with business priorities and delivering measurable improvements.



BOX 2

Job Redesign in Practice

Strategic Role Separation at Ever Delicious

Ever Delicious, an ISO 9001/22000, HACCP and Halal-certified cookies manufacturer, operates two highly utilised production lines. Despite its quality credentials, the company faced capacity constraints, with customer demand consistently exceeding production capability. This led to customer complaints related to product returns and quality inconsistencies. The root cause was a management bottleneck: limited middle-management depth and an overburdened Operations Manager responsible for both daily shop-floor execution and strategic decision-making.

Job redesign solution : The company addressed the issue through strategic role separation, dividing the single Operations Manager role into two specialised functions:

1. OM1 (Manufacturing & Compliance Excellence): Focuses on core operational execution, including production planning, quality assurance, preventive maintenance, Overall Equipment Effectiveness (OEE) optimisation and workplace safety.
2. OM2 (Business Support & Strategic Planning): Oversees broader business functions such as HR administration, product development, financial coordination, capacity planning and SOP documentation.

Implementation and technology enablement :

The division of responsibilities is being reinforced through the planned implementation of an ERP system and analytics dashboards for monitoring OEE and production yield. KPIs for the redesigned roles include improving OEE, reducing unplanned downtime, improving on-time delivery (OTD) and lowering staff turnover and overtime hours. By separating tactical operations from strategic

responsibilities, Ever Delicious reduced its middle-management bottleneck and created a clearer basis for execution and growth.

Sentral K.L. Duty Free: Professionalising Retail Leadership and Data Analytics

The duty-free retail operator manages 23 employees across outlets in KLIA2, Genting and Johor Premium Outlets (JPO). The business operates in a challenging environment marked by fluctuating tourist arrivals, competition from e-commerce platforms and rising operating costs. Internally, the organisation faced weak outlet-level decision-making, which reduced responsiveness and created inconsistent customer service. Limited analytics tools also constrained merchandising and inventory decisions.

Job redesign solution : The company introduced a Critical Role Enhancement initiative focused on Shop In-Charge roles, including officers, supervisors and assistant supervisors. Through job enlargement, these roles were expanded beyond routine operations to include greater outlet-level decision-making authority. Shop In-Charge personnel were repositioned as frontline leaders responsible for:

- Interpreting and utilising sales data
- Conducting inventory forecasting and stock control
- Managing staff rostering and scheduling
- Proactively resolving customer complaints and service issues

Implementation and technology : The redesigned roles were reinforced through digital tools, including the Xilnex Point-of-Sale (POS) system, Warehouse Management Systems (WMS), roster management applications and real-time sales analytics dashboards. A structured training programme focused on leadership development, coaching skills and upselling techniques. The organisation also

BOX 2

Job Redesign in Practice

introduced clearer career pathways, distinguishing between Operations and Management tracks. KPIs were aligned to measurable improvements, including :

- Sales revenue growth
- Inventory management efficiency and stock health
- Customer satisfaction (CSAT) performance



VStep : Digital Quality Inspection and AI-Assisted Manufacturing

VStep operates in competitive engineering manufacturing, where it faces pressure from foreign OEM supply chains. The company must comply with stringent quality and safety standards, including IATF 16949 and ISO 14001/45001, alongside frequent customer audits. Operationally, the company remained highly dependent on manual inspection, assembly and data-capture processes. This reduced productivity and increased the risk of human error. Ageing machinery also raised maintenance costs, further constraining efficiency and competitiveness.

Job redesign solution : The proof-of-concept (POC) focused on transforming quality assurance roles, particularly QA/QC Executives/Engineers and QA/QC Leaders/Inspectors. These roles moved from manual inspection towards digitally enabled quality analysis. The redesigned roles placed greater emphasis on analytical skills, real-time decision-making and proactive quality management, moving beyond routine checking.

BOX 2

Job Redesign in Practice

Implementation and technology : The firm adopted an integrated technology system comprising AI-assisted visual inspection, AR-enabled support tools and a Digital QMS/MES platform for real-time defect monitoring and data capture. The redesigned roles used Statistical Process Control (SPC) dashboards, automated escalation mechanisms and standardised Root Cause Analysis (RCA) processes. The transformation improved inspection accuracy, decision speed, product quality and customer audit compliance. It also showed how AI and smart technologies can strengthen operations when paired with redesigned human workflows.

Across the three pilots, the pattern is consistent: clearer roles, digital tools and measured accountability create the operating base on which productivity-linked pay can stand.



Digitizing QA/QC Roles at Victorious Step (VSTEP)

How Job Redesign (JRD) strengthens quality, traceability and audit readiness

QA/QC Executive / Engineer

QA/QC Leader / Inspector

REDESIGNED TO LEAD

DIGITAL QA/QC LEAD

1 Challenge

- Manual, error-prone inspection and reporting slowed decisions
- Rising operating costs, aging assets, and stringent IATF / ISO compliance and customer audits
- Limited financing and talent pipeline for automation

2 Jobs Redesigned

- QA/QC Executive / Engineer and QA/QC Leader / Inspector roles redesigned
- Lead digital inspection, analytics, and escalation
- Stronger ownership of traceability and compliance evidence
- Daily tool verification and calibration embedded in role scope

3 What We Did

- Introduced AI-assisted visual inspection, IoT-connected smart tools, and AR-enabled work aids
- Implemented SPC dashboards with auto escalation and embedded RCA (4M1E)
- Enabled Digital QMS / MES for real-time traceability of results, defects, and media
- Embedded daily tool verification / calibration into the work role
- Conducted a 6-month pilot with phased training in Digital Inspection App, Analytics, and IATF audit evidence

4 JRD Impact to Business

- Higher inspection accuracy and stronger defect detection
- End-to-end traceability with real-time quality data
- Shorter decision lead times and faster escalation
- Improved product quality and customer confidence
- Stronger audit readiness and compliance assurance

Turning inspection from paperwork into a real-time quality engine.

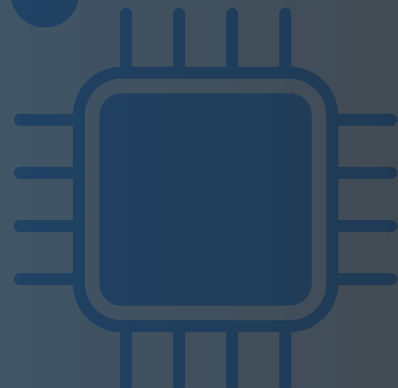




CHAPTER FIVE

Bureaucracy Reform Enhances
Business Readiness





BUREAUCRACY REFORM ENHANCES BUSINESS READINESS

Productive firms need more than access to capital, talent and technology. They also need a business environment that allows investment, compliance, expansion and restructuring to proceed with clarity and reasonable speed. Every repeated submission, uncertain requirement and avoidable approval delay absorbs management time, raises project risk and postpones the creation of value. Bureaucracy reform is therefore an economic reform: it releases resources from administration for production, innovation and growth.

Malaysia has strengthened important parts of its regulatory and institutional environment. The next task is to convert this momentum into a consistently better experience across the full business lifecycle. This chapter assesses that challenge through the World Bank's Business Ready

(B-READY) framework, the IMD World Competitiveness Ranking (WCR) and Reformasi Kerenah Birokrasi (RKB). Together, these perspectives show where rules are supportive, where delivery remains uneven and how productive government services can strengthen business readiness and national competitiveness.

Businesses need a business environment that allows investment, compliance, expansion and restructuring to proceed with clarity and reasonable speed.

Regulation Shapes Business Readiness

Regulatory quality affects productivity through time, cost, certainty and the allocation of resources. Clear and proportionate rules protect the public interest while allowing firms to plan, invest and adopt new technology. By contrast, overlapping approvals, inconsistent interpretation and repeated renewals divert labour and capital from higher-value activities. The burden is often greatest for MSMEs, which have less specialist capacity to navigate several agencies.

Good reform does not mean removing regulation indiscriminately. It means testing whether a rule is necessary, whether its requirements are proportionate to risk and whether delivery produces a net public benefit. Malaysia's National Policy on Good Regulatory Practice provides this discipline, while the Government Service Efficiency Commitment Act 2025 (ILTIZAM Act, Act 867) strengthens accountability for reducing burden and improving service delivery. The productive objective is a regulatory system that is predictable at the policy level and efficient at the point of use.

This distinction is important as Malaysia moves into more complex activities. Semiconductors, artificial intelligence, digital services, green technologies and advanced manufacturing require credible safeguards, but they also depend on rapid coordination across technical regulators. If requirements are clear and decisions are timely, regulation can strengthen quality, trust and investment readiness. If processes are fragmented, the same safeguards can become a barrier to technology diffusion and local supplier participation. Regulatory review must therefore consider cumulative burden across stakeholders, not only the cost of each rule in isolation.

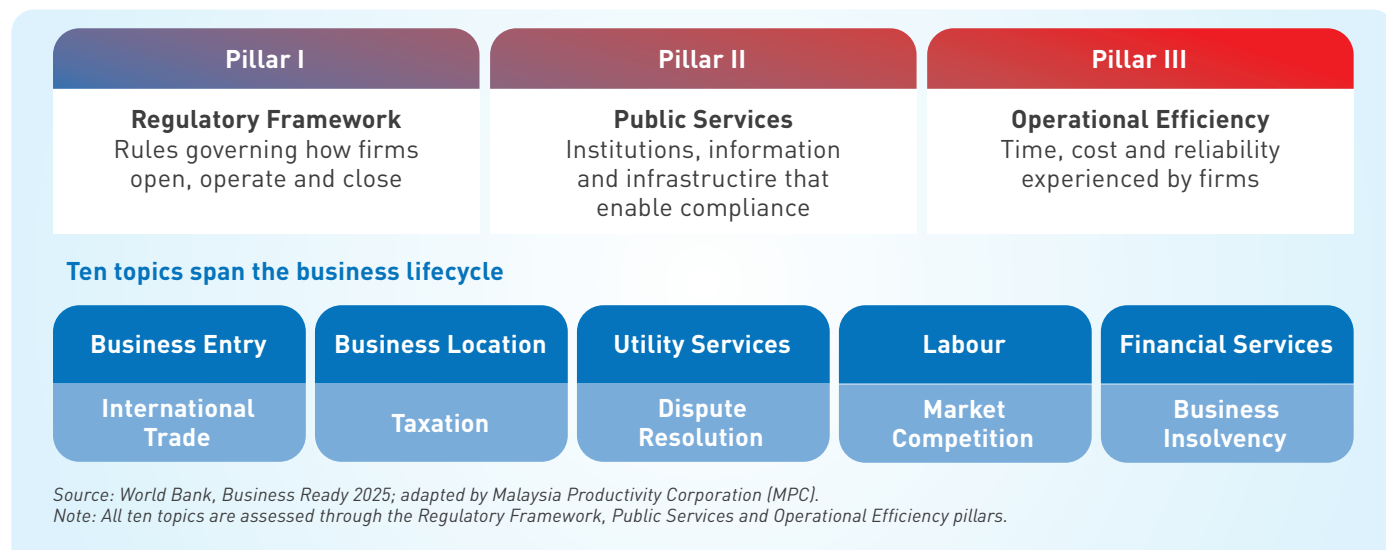
Efficient regulation protects legitimate public interests while minimising the time, uncertainty and duplication imposed on firms. The relevant test is the outcome delivered, not the number of procedures completed.

B-READY Tests Rules in Practice

B-READY broadens the assessment from rules on paper to the services and operational experience that determine whether firms can use those rules effectively. Its three pillars distinguish the Regulatory Framework, Public

Services and Operational Efficiency. Ten topics then follow the firm's lifecycle, from entry, location, labour, finance and utilities to trade, taxation, competition, dispute resolution and insolvency.

Figure 31 : B-READY Assesses Rules, Services and Operational Experience



This structure matters for productivity. A well-written requirement may still create delay if information is difficult to find, agencies do not share data, or firms must repeat the same step. Conversely, rapid processing without reliable standards can weaken trust and create future costs. B-READY therefore provides a practical diagnostic for aligning regulatory intent, government capability and business experience.

The three pillars should be read together. Regulatory Framework tests the quality of the formal foundation; Public Services examines whether government provides the institutions, information and infrastructure needed for compliance; and Operational Efficiency captures the time and practical reliability experienced by firms. A weakness in any one pillar can neutralise strengths in the others. This makes B-READY especially useful for identifying whether a problem requires legal amendment, service redesign, digital integration, capacity building or better enforcement. In its 2025 cycle, B-READY covered 101 economies and

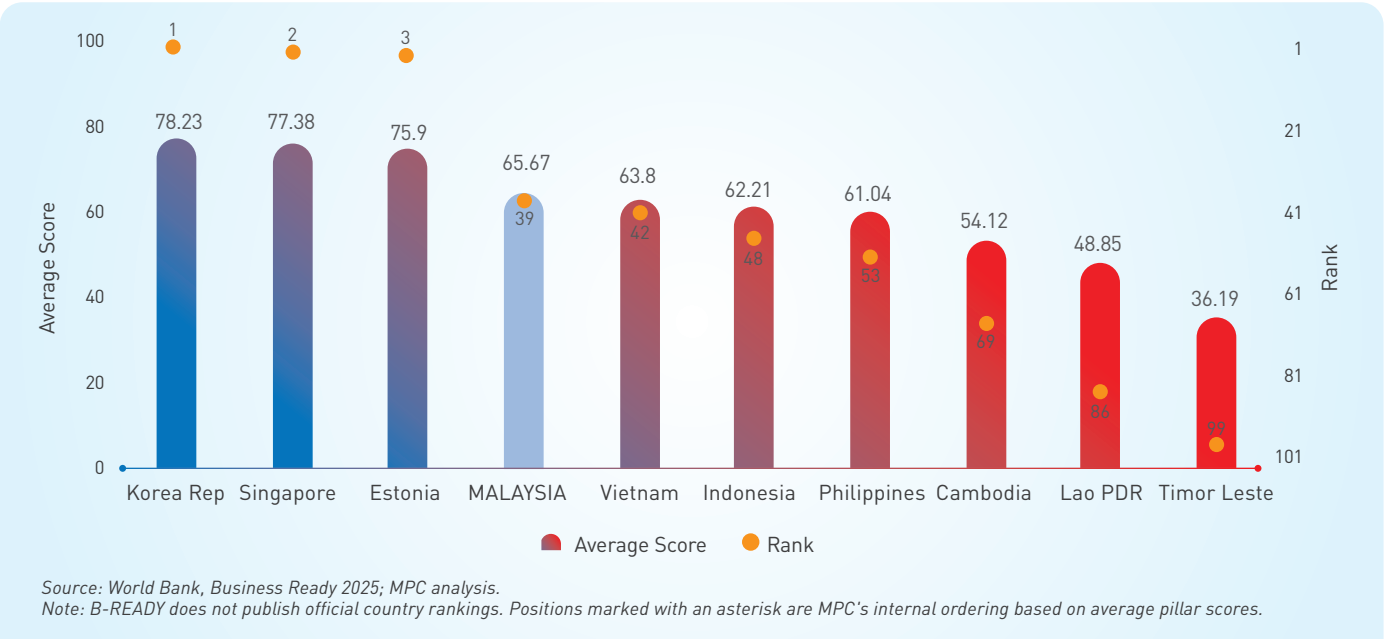
reported results by quintile rather than an official country league table. The B-READY report should be used to identify reform gaps and design interventions to increase productivity and improve the business environment.



Malaysia's Business Readiness Remains Uneven

Malaysia has a credible business-readiness foundation, but its performance is not yet at the frontier and remains uneven across the business lifecycle. Its average score of 65.67 places it above several regional comparators, while remaining below South Korea, Singapore and Estonia.

Figure 32 : Malaysia Performs Above Several Regional Comparators



The pillar results for Malaysia are relatively balanced, ranging from 63 to 68. Malaysia trails the selected benchmark in every dimension. The largest indicative gap is in Public Services, at 17 points, compared with 15 points in the Regulatory Framework and 11 points in Operational Efficiency. This points to implementation capacity, interoperability and end-to-end service delivery as the central reform frontier.

Business Entry and Utility Services each score 86, while Financial Services and Labour also provide comparatively sound foundations. Friction becomes more visible after entry. Business Location, International Trade, Taxation and Market Competition record mid-range outcomes, while Business Insolvency is lowest at 49. The 37-point spread between the strongest and weakest topics suggests that starting or connecting a business can be easier than operating, competing, reorganising or exiting efficiently.



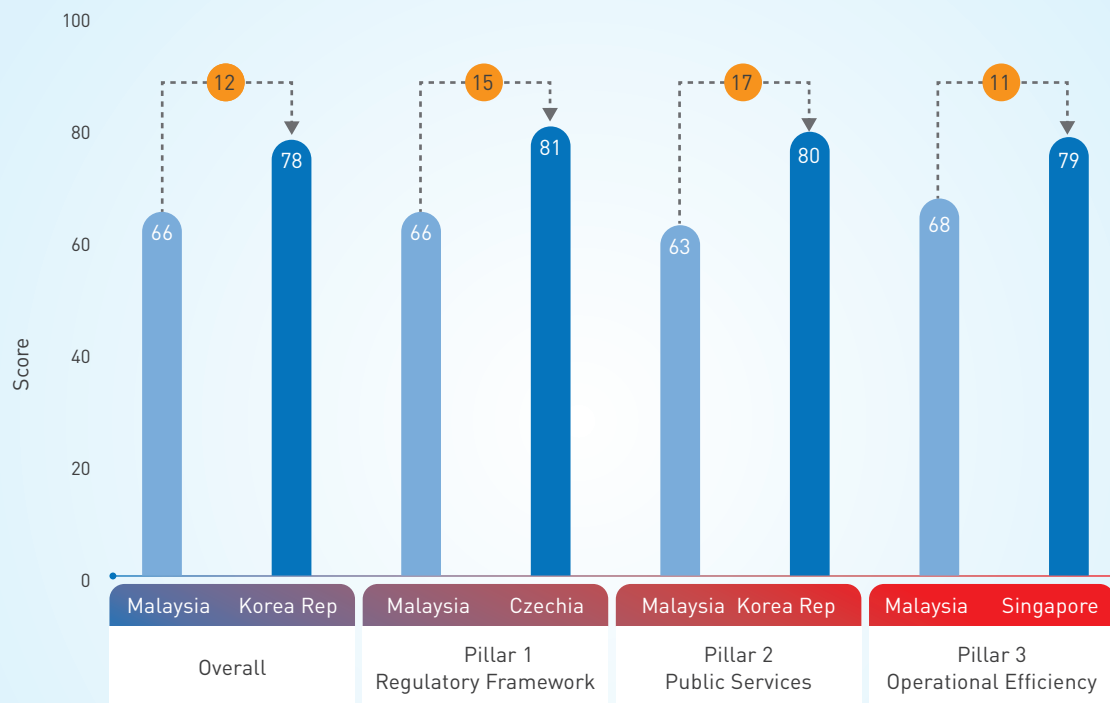
These weaknesses have direct productivity effects. Slow location and trade processes delay investment and working capital. Complex taxation raises recurring compliance costs. Weak competition can reduce incentives to innovate, while ineffective insolvency keeps labour, capital and assets tied to non-viable activity. Reform must therefore address complete business journeys across ministries, technical agencies, state governments and local authorities, rather than optimise isolated forms.

The policy response should also be differentiated. Entry reforms should preserve existing strengths while removing duplication in related approvals. Trade and tax reform should improve information, interoperability and dispute channels. Competition reform must connect sound

legislation with effective enforcement and contestable markets. Insolvency reform should allow viable firms to restructure earlier and non-viable firms to release assets more efficiently. These measures strengthen productivity by accelerating both firm growth and resource reallocation.

Malaysia's readiness challenge is not simply to make entry easier. It is to provide predictable, connected and efficient public services throughout the life of a firm.

Figure 33 : Public Services Show the Largest Benchmark Gap



● Gap between Malaysia's Performance and the Top-Performing Economy

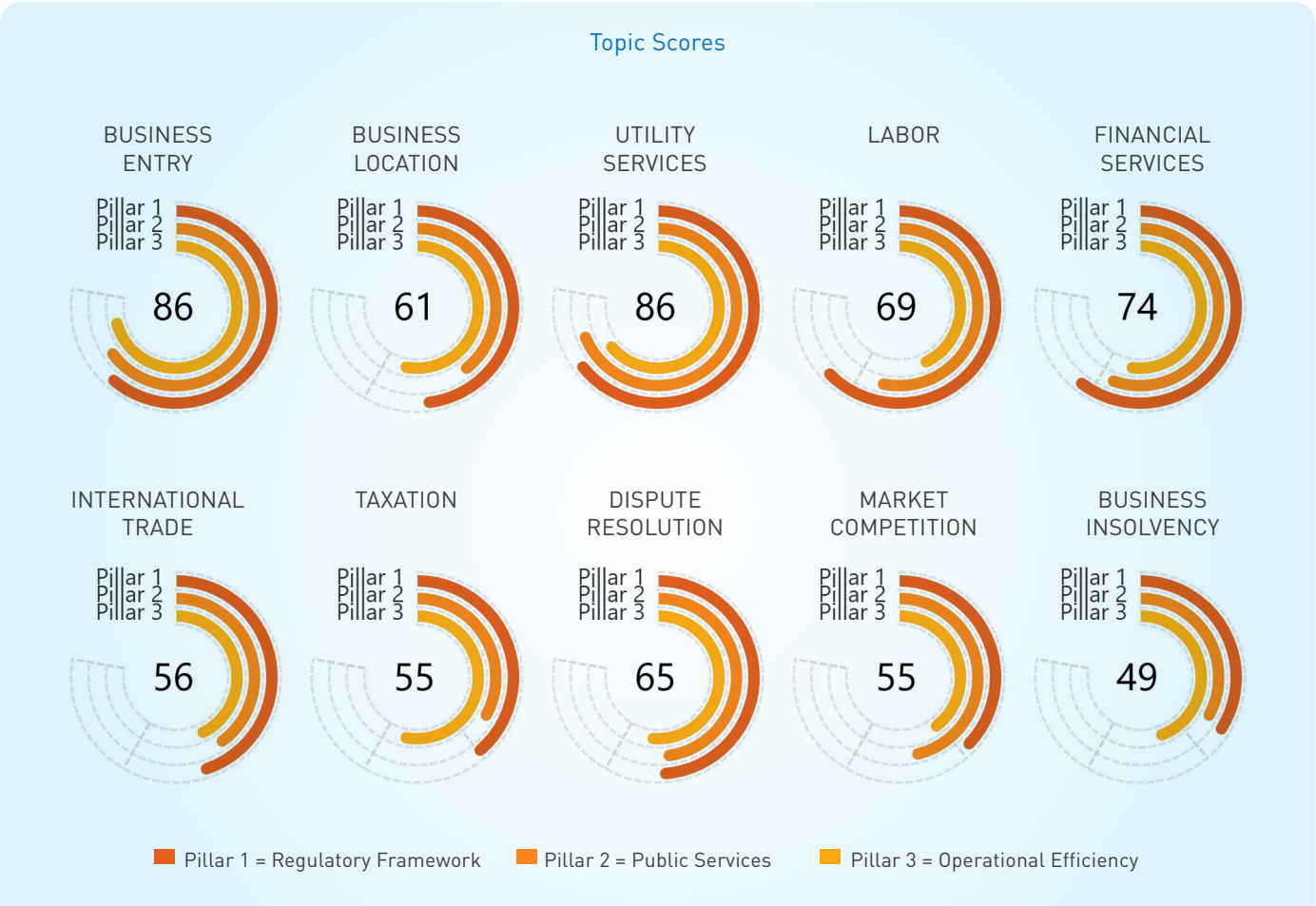
Source: World Bank, *Business Ready 2025*; MPC analysis.

Note: Each dimension is compared with the highest-scoring selected economy shown in the source analysis.

Figure 34 : Malaysia’s Scores in B-READY Pillars



Figure 35 : Readiness Is Strongest in Business Entry and Utility Services



Source: World Bank, Business Ready 2025, Malaysia Economy Profile.
Note: Topic quintiles are topic-specific; equal scores can fall within different quintiles.

B-READY and WCR Reinforce Priorities

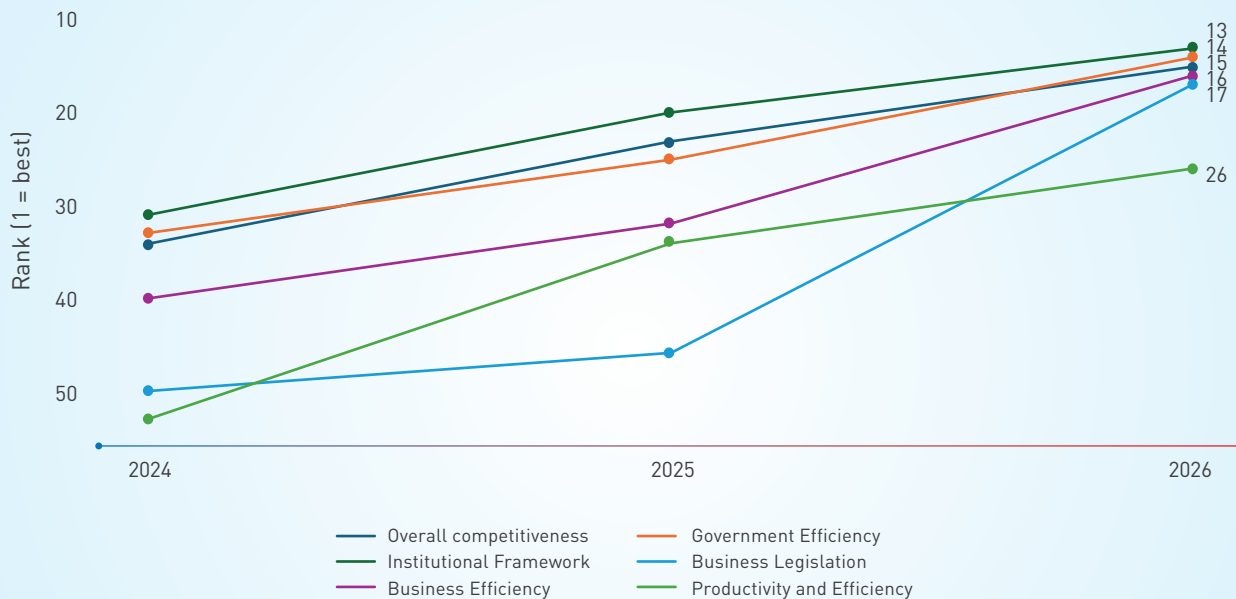
B-READY and WCR measure different layers of the same productivity system. B-READY diagnoses regulatory design, public services and actual transactions at the firm level. WCR evaluates the wider national environment in which enterprises compete, using both hard data and executive perceptions. Their methods and scales are not directly comparable, but considered together they show whether better institutions are being converted into business outcomes.

Malaysia's WCR trajectory is encouraging. Between the 2024 and 2026 editions, overall competitiveness improved from 34th to 15th, Government Efficiency from 33rd to 14th, Institutional Framework from 31st to 13th and Business

Legislation from 50th to 17th. Business Efficiency also advanced, while Productivity and Efficiency improved from 53rd to 26th. The direction is consistent with stronger institutional and regulatory confidence, although annual coverage increased from 67 to 70 economies.

Selected 2026 indicators reinforce this momentum. Malaysia scored above the WCR average for its legal and regulatory framework, policy adaptability, transparency, bureaucracy, competition legislation, firm creation and labour regulation. Bureaucracy ranked 6th and competition legislation 13th. These are valuable competitive assets because predictable rules and responsive administration shorten decision cycles and support investment.

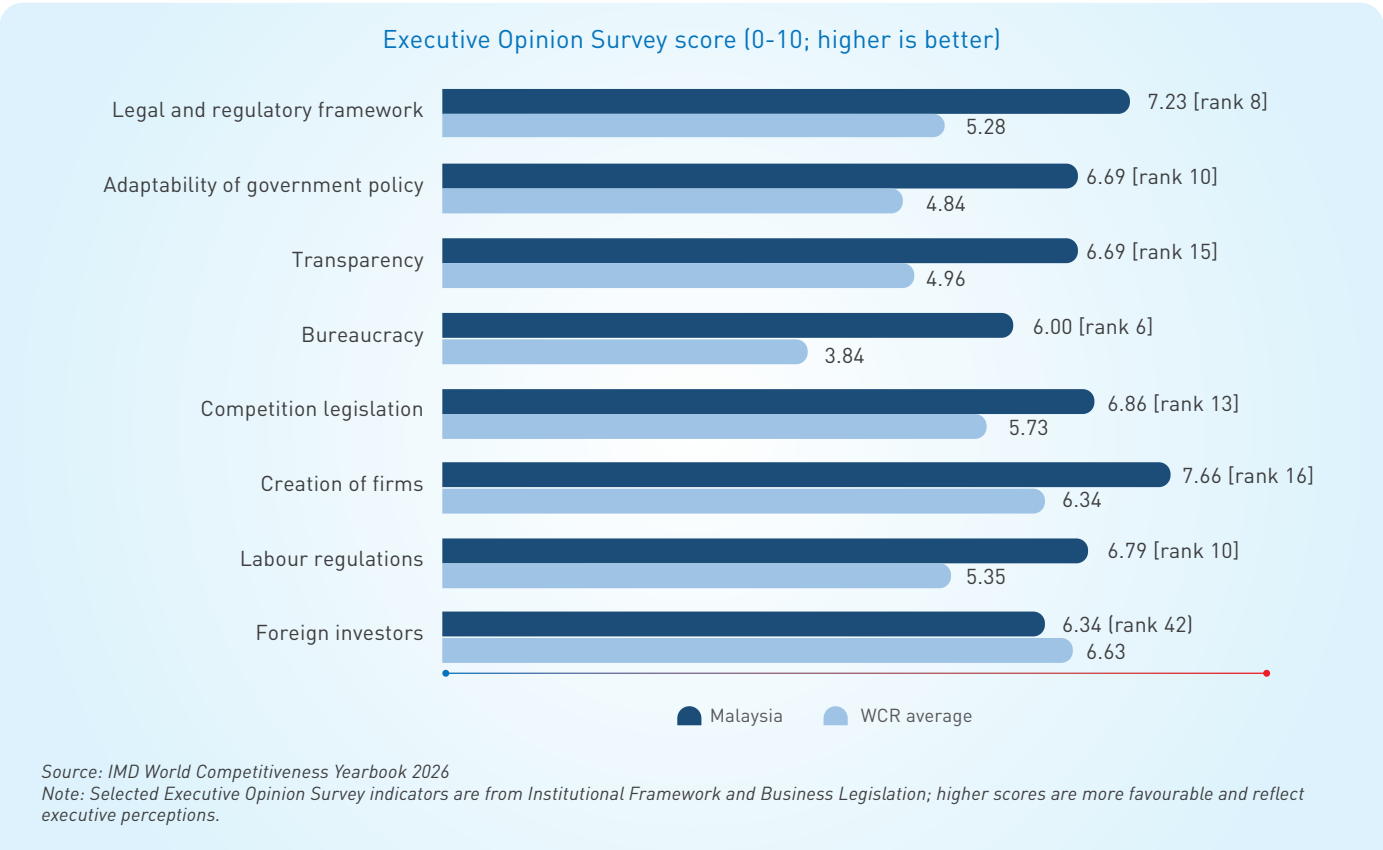
Figure 36 : Regulatory Rankings Improved Alongside National Competitiveness



Source: IMD World Competitiveness Yearbook 2026; Malaysia WCR Fact Sheet 2026.

Note: A lower rank is better. Country coverage increased from 67 economies in 2024 to 69 in 2025 and 70 in 2026, so movements are not perfectly like-for-like.

Figure 37 : Malaysia Scores Above the WCR Average on Most Regulatory Perceptions



The evidence also reveals a conversion gap. Foreign-investor openness remained below the WCR average and ranked 42nd. Rule of law ranked 42nd, while new business density was 49th at 2.2 registered businesses per 1,000 working-age people, using the latest data reported by WCR. In addition, Malaysia's strong WCR position for competition legislation sits beside a third-quintile B-READY result for Market Competition. Similarly, support for firm creation and shorter operating-licence times do not yet translate into high new-business density.

This contrast is constructive. It shows that the foundations are improving, but rules, enforcement, service quality and market response must move together. The bureaucratic reform agenda can use B-READY to locate transaction-level bottlenecks and WCR to test whether reform is strengthening institutional confidence and broader competitiveness. The shared outcome should be less management time spent on government requirements, more predictable processing and faster movement of resources into productive firms.

WCR survey gains signal confidence but do not prove that processing time or cost has fallen. Hard-data indicators also use different reference years. The value of triangulation is therefore not a single composite verdict, but a clearer reform question: do improved policies and perceptions correspond with verified results for firms?

Better rankings are an enabling signal. Sustainable productivity requires those gains to appear in firms' actual time, cost, certainty, investment and market performance.

Bureaucratic Reform (Reformasi Kerenah Birokrasi – RKB) initiative Converts Diagnosis into Delivery

RKB is the delivery mechanism for turning regulatory diagnosis into measurable improvements across government. Its reach expanded substantially between 2024 and 2025, with more projects registered and completed, wider guidance and greater participation across ministries, states and local authorities.

Scale is necessary, but activity is not the outcome. The reported value of compliance-cost savings under ILTIZAM rose from RM0.56 billion in 2024 to RM2.01 billion in 2025. This progress occurred alongside the WCR gains in bureaucracy and Government Efficiency. The next phase should strengthen attribution and verification by linking each reform to a baseline, affected users and measurable results.

RKB success is tracked through end-to-end processing time, total compliance cost, number of steps and agency hand-offs, repeat submissions, processing variability, digital completion and user experience. This distinguishes reforms that merely digitise an existing procedure from

those that genuinely simplify it. It would also direct effort towards high-impact journeys that affect investment, trade, construction, enterprise growth and public services. RKB 2026 should consequently move from a portfolio of projects to a prioritised reform pipeline. B-READY gaps, WCR weaknesses, industry feedback and administrative data can be combined to select journeys with the greatest economic value. Each project should identify an accountable owner, partner agencies, a baseline, a target and a post-implementation review. Publishing selected results would strengthen trust and allow successful solutions to be replicated across states and local authorities.

RKB projects and participation show implementation reach; verified reductions in time, cost, rework and uncertainty show productivity impact.

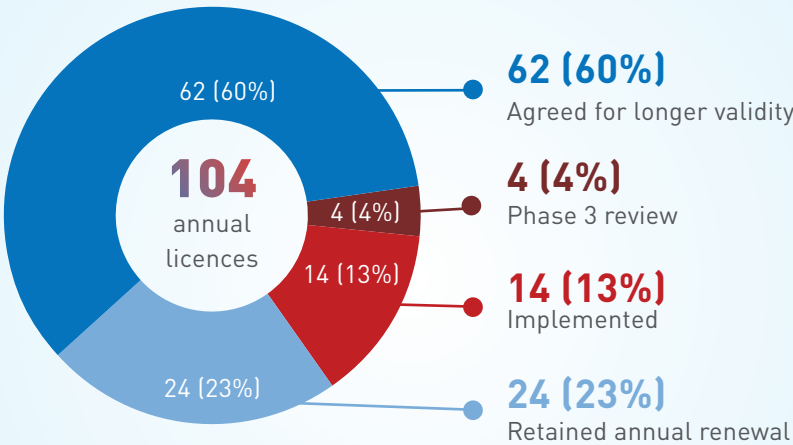
Table 9 : RKB Implementation Expanded Across Government

Indicator	2024	2025
Projects registered	200	807
Projects completed	46	279
Guidance sessions	183	790
Participants	1,500	5,854
Media statements	10	15
Documentaries	-	10

Source: Malaysia Productivity Corporation (MPC)

Licensing reform builds a substantial part of the RKB initiative. Licensing reform can release productive capacity quickly when regulatory safeguards are retained, and renewal requirements are matched to risk. At the federal level, 637 licences were reviewed and 104 required annual renewal. At the review date, 62 were agreed for longer validity, 24 were retained on annual renewal, 14 extensions had been implemented, and four were escalated for more complex actions.

Figure 38 : Most Annual Licences Can Move to Longer Validity



Source: Malaysia Productivity Corporation (MPC)
Note: Status of the 104 annually renewable federal licences at the review date.

Licences that remain annual largely concern national security, public health or international obligations. Other changes are being implemented according to complexity so that procedural adjustments can proceed quickly while policy, system and legislative changes receive proper scrutiny.

The licensing reform is expected to save RM15 million annually, with potential savings of up to RM90 million depending on approved validity periods. Its larger value is improved certainty: fewer avoidable renewals reduce interruption, allow firms to plan and free administrative capacity in both business and government. Extending the approach to state and local licences can also reduce geographical inconsistency.

Implementation should be monitored for unintended effects. Longer validity must be accompanied by risk-based inspection, accurate registries and clear triggers for review where public safety is involved. The reform objective is not weaker oversight, but less repetitive administration and better-targeted regulatory attention.

Longer licensing validity must be accompanied by risk-based inspection, accurate registries and clear triggers for review where public safety is involved.

RKB 2026 will also improve the delivery of government physical development projects so that public expenditure delivers stronger productivity returns. The stakes are large: Budget 2026 allocates RM81 billion for development expenditure within a wider RM470 billion public expenditure package. Delays in government projects weaken public service delivery, slow infrastructure readiness and reduce the productive value of development spending, so RKB aims to remove unnecessary administrative barriers and strengthen delivery through faster, clearer and more accountable processes.

Recent audit findings highlight the need to strengthen project delivery mechanisms across the public sector. Under the 12th Malaysia Plan, 202 federal government projects required closer monitoring and recovery intervention at the end of 2023, representing 5.93% of the 3,404 projects in progress. Another 107 projects were behind schedule.

More recent audit reporting indicates that implementation challenges continued in 2024, with 157 federal development projects classified as critically delayed or requiring recovery attention across 18 ministries as of 31 December 2024. These findings suggest that project delays are recurring implementation challenges that require a structured, coordinated and preventive response.

Many delays are linked to issues that arise before construction begins, including unclear project scope, lengthy approvals, land acquisition, utility relocation, scope changes, contractor management and contractors' financial capacity. If unresolved early, these issues can lead to repeated changes, longer timelines, cost escalation and weaker project outcomes.

Project readiness should therefore be treated as a core element of public investment efficiency, not as a routine administrative step. Improving project delivery requires stronger monitoring during construction and better planning, coordination and decision-making at the early stages.

RKB will address these root causes by simplifying processes, clarifying roles and improving coordination between implementing agencies, technical agencies and approving authorities. It will also strengthen project readiness by reducing unnecessary approval layers,

identifying risks early and resolving key requirements before construction begins. Progress will be measured through indicators such as delayed and sick projects, approval time before construction, extensions of time, delay duration and the value of projects affected by delays.

Tracking these indicators will shift reform efforts from general process improvement to measurable outcomes, helping government projects to be completed on time, within scope and with better value for public money.



Many delays in construction projects are linked to issues that arise before construction begins, including unclear project scope, lengthy approvals, land acquisition, utility relocation, scope changes, contractor management and contractors' financial capacity.

Broadening regulatory reform frontier

Beyond licensing, many regulatory burdens sit in non-licensing processes such as permits, approvals, inspections, reporting requirements, certification and registration, which collectively create delays and compliance costs. RKB 2026 will simplify these procedures, reduce redundant documentation, standardise requirements and use digital platforms to cut repeated submissions, especially where multiple agencies share a single approval chain.

Alongside process simplification, artificial intelligence will be introduced as an enabler of RKB implementation, helping agencies identify bottlenecks, analyse processing patterns, automate routine tasks and support evidence-based regulatory impact analysis, with real-time dashboards and early-warning indicators strengthening monitoring. AI will be embedded across the reform cycle, from issue identification and root-cause analysis to implementation tracking and post-implementation review, improving decision-making while maintaining regulatory integrity and accountability. The third front is coordination.

Bureaucracy is often complex because processes cut across ministries, departments, state agencies and local authorities and a single business approval may involve several regulators. RKB 2026 will therefore strengthen the whole-of-government approach through shared accountability, common data standards, integrated monitoring and stronger escalation mechanisms, informed by industry, citizens and PEMUDAH. The goal is system-wide reform that reduces fragmentation and improves the regulatory experience.

The RKB initiative contributes to the national agenda across three dimensions: productivity, competitiveness and public service delivery. From a productivity perspective, RKB reduces compliance time, costs and administrative burden, enabling businesses to focus on value-adding activities while improving service access for citizens. From a competitiveness perspective, RKB improves Government

Efficiency and Business Efficiency and streamlined regulations improve predictability and support business growth. For public service delivery, RKB strengthens responsiveness, transparency and accountability. Agencies adopt clearer standards and monitor outcomes, improving public trust.



The implementation of the ILTIZAM Act will further institutionalise reform through periodic regulatory reviews, a 25% burden-reduction target, the One-for-One rule (one existing regulation removed for every new one introduced) and a regulatory performance rating system. These measures help ensure that RKB becomes a sustained governance practice rather than a one-off initiative.

RKB 2026 marks a shift from activity to impact. Success will be judged by measurable outcomes delivered across the whole of government, not by the number of projects registered. Priority goes to reforms with direct economic value, led by licensing reform, public investment improvements and non-licensing reforms that reduce hidden administrative burdens. AI and data-driven tools will improve monitoring, and stronger coordination will reduce fragmentation across the regulatory ecosystem.

RKB success will be judged by measurable outcomes delivered across the whole of government, not by the number of projects registered.

BOX 3

RKB Reform Projects

EVCB Approval Reform Accelerates EV Infrastructure Readiness

The Electric Vehicle Charging Bay (EVCB) technical plan approval reform by the Fire and Rescue Department of Malaysia (JBPM) under the Ministry of Housing and Local Government (KPKT) shows how targeted process redesign can improve regulatory efficiency without compromising safety. Implemented between January 2024 and June 2025, the reform addressed delays caused by manual submissions, repetitive technical reviews and fragmented coordination, which had previously extended approval timelines to 28 working days.

The introduction of digital submission and approval through ePremis, supported by improved SOPs and streamlined workflows, reduced approval timelines to three working days and generated estimated compliance cost savings of RM1.2 million annually. The reform also supports Malaysia's low-carbon mobility agenda by accelerating EV infrastructure deployment, improving investor confidence and enabling faster project execution. It reinforces JBPM's role as a responsive regulator that balances safety and economic facilitation, and it provides a scalable model for other technical approval processes.

e-Penghulu: Digitalising Frontline Public Service

The e-penghulu initiative by the Perak State Secretary's Office shows how digitalisation can improve frontline public service delivery, especially in rural 13 Malaysia. Productivity Report 2026 administration. Implemented between January 2023 and June 2025, the initiative addressed inefficiencies in manual registration for disaster assistance and eKasih (the national poverty database) applications, which previously took up to one hour per application and delayed aid delivery. Through a mobile-enabled digital system, Penghulu officers can capture and verify applicant data in real time at the field level.

Integration with eKasih enables faster processing, better data accuracy and stronger monitoring, while reducing reliance on paper-based processes. Processing time fell to five minutes, a 91.7% reduction, with estimated annual savings of RM143,776. The initiative also improves disaster responsiveness, strengthens data integrity and supports evidence-based decision-making. Recognised by STAR as a high-impact digitalisation model, e Penghulu has strong potential for wider replication.

CIDB: Accelerating Foreign Laboratory Verification for Construction Materials

The Construction Industry Development Board (CIDB) implemented an RKB initiative to improve the approval process for foreign laboratory verification of construction materials, reducing processing time from 14 days to seven days. Previously, the process relied on manual applications and physical documentation, causing delays in issuing Certificates of Approval, particularly for critical imported materials such as steel components and Industrialised Building System (IBS) panels. These delays disrupted construction schedules and increased project costs. The CIDB Imported Material Inspection and Compliance (CIMIC) system digitised the workflow from application submission to approval, enabling integrated processing and full traceability.

Faster approvals reduce construction delays, improve project continuity and minimise non-productive waiting time. Even short delays in large projects can create additional costs of RM20,000 to RM50,000 per day, while extended delays can raise overall project costs and financial risk. By shortening the verification cycle, the reform reduces supply chain risk, limits cost escalation and supports timely project delivery. It also helps safeguard construction quality by reducing time pressure in material decisions.



CHAPTER SIX

Powering Productivity Through
Artificial Intelligence and R&D

POWERING PRODUCTIVITY THROUGH ARTIFICIAL INTELLIGENCE AND R&D

Artificial intelligence (AI) and research and development (R&D) are becoming central to how economies raise productivity, compete for quality investment and create higher-value work. AI can improve decisions, automate repetitive tasks, strengthen quality control and shorten delivery time. R&D creates the knowledge, products and processes that enable firms to move beyond adoption towards adaptation, invention and commercialisation. Together, they can raise the value generated from every worker, machine and unit of capital.

The policy objective is not technology adoption for its own sake, but sustained productivity growth through measurable value creation. A durable gain should appear in higher output per hour, better quality, lower downtime, faster cycle times, stronger resource efficiency, more reliable delivery and increased domestic value added. It should also strengthen workers rather than merely displace tasks, enabling firms to create better jobs, pay higher wages and respond more effectively to changing markets.

Countries and firms that apply technology well can contain unit costs without relying on low wages, meet international standards, innovate more rapidly and build resilient supply chains. However, technology spending can precede productivity gains. Firms must first develop data, skills,

management practices, organisational processes and governance arrangements that allow new tools to be used effectively. R&D faces a similar conversion challenge when research does not progress into commercial products, industrial processes or solutions that firms can scale.

Malaysia faces a shared AI and R&D problem: strong assets and rising investment do not yet translate consistently into broad productivity outcomes. The next phase must close this conversion gap. AI must move from experimentation into redesigned work and core operating decisions, while R&D must move more reliably from knowledge creation into commercial and industrial application. This chapter assesses where Malaysia stands, what firm-level evidence reveals, and how an integrated innovation system can turn national capability into sustainable productivity and competitiveness.

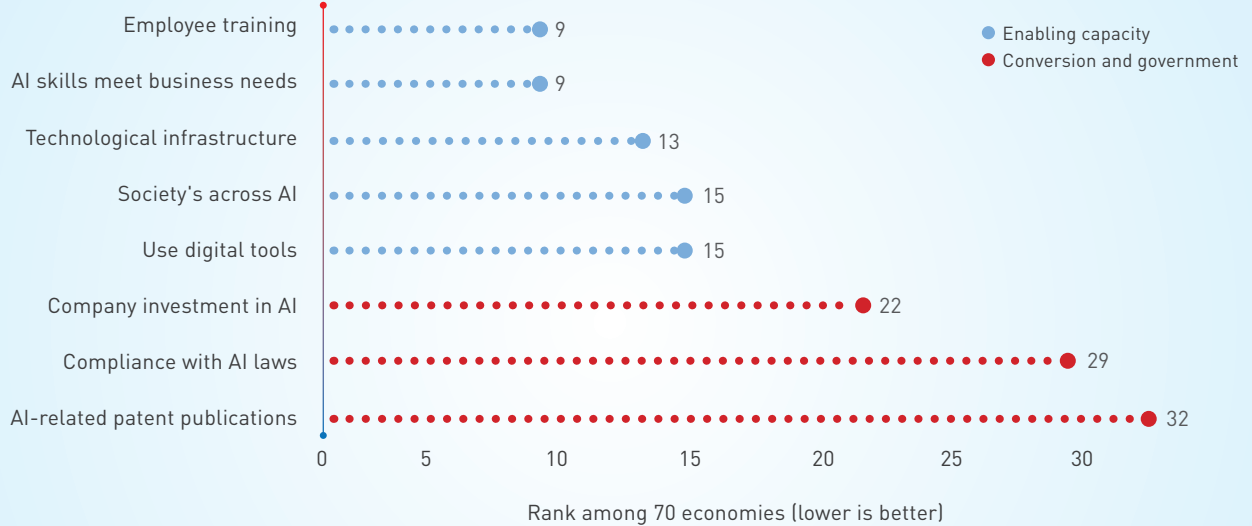
Malaysia's sustainable productivity gains come from converting AI and R&D capabilities into repeatable improvements in firms, jobs, products and value chains.

Turning AI Adoption into Productivity Gains

Malaysia begins from a credible position, with strong talent and digital enablers but a less developed record of converting those capabilities into AI investment, governance and innovation output. In the IMD World Competitiveness Yearbook 2026, Malaysia ranks ninth for both AI skills meeting business requirements and the priority companies give to employee training. Technological Infrastructure ranks 13th, while society's access to AI and companies' use of digital tools each rank 15th. These are valuable strengths as they indicate that firms can draw on a relatively supportive technology and skills base.



Figure 39 : Malaysia's AI Enablers Outpace Conversion Indicators



Source: IMD World Competitiveness Yearbook 2026 ; analysis by MPC.

Note: Rank among 70 economies; lower is better. Survey indicators refer to 2026. Technological Infrastructure is a sub-factor rank, while AI-related patent publications use 2024 data.

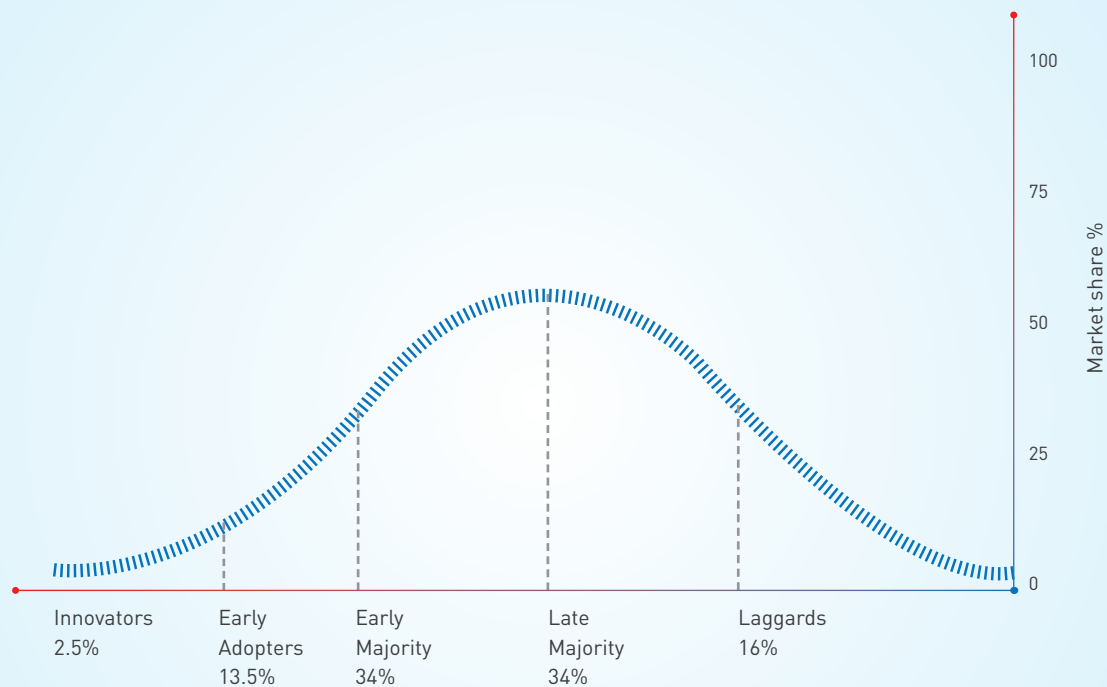
The conversion indicators are more mixed. Malaysia ranks 22nd for company investment in AI, 29th for company compliance with relevant AI laws and 32nd for AI-related patent publications. This shows that capability, investment, responsible implementation and innovation output are developing at different speeds. Firms need clear use cases, trusted data, suitable skills and accountable governance so that the country's digital strengths lead to higher output, better services and commercially valuable intellectual property.

AI is a general-purpose technology whose benefits spread gradually. The Rogers diffusion curve illustrates how innovators and early adopters move first, while economy-wide gains become more visible when the early and late majority integrate a technology into routine activity. The curve is a conceptual model, not an estimate of Malaysia's current adoption rate. Its relevance is that a few successful firms cannot shift national productivity unless effective practices spread to suppliers, small and medium enterprises (SMEs), services, regions and public institutions.

Firms need clear use cases, trusted data, suitable skills and accountable governance so that the country's digital strengths lead to higher output, better services and commercially valuable intellectual property.



Figure 40 : Rogers Curve – Diffusion of Innovation in Technology Adoption



Source: Adapted from Rogers, E. M. (2003), *Diffusion of Innovations*.
Note: The curve is a conceptual model and does not estimate Malaysia's current AI adoption rate.

Diffusion is not simply the purchase of software. AI must be embedded in work design, decision rights, data flows and performance measurement. A firm may deploy an AI tool but retain manual approval layers, fragmented databases or job roles designed for the previous process. In that situation, technology adds cost and complexity before it adds value. Organisational redesign, workforce capabilities and complementary investments are therefore essential for AI adoption to translate into productivity gains.

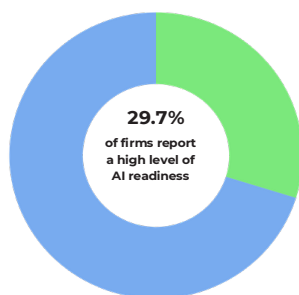
Firm-level evidence in Malaysia reflects this pattern. The firm-level analysis indicates that AI investment has not yet translated into meaningful productivity gains. The relationship between AI investment and labour productivity remains weak, suggesting that many firms are still at an early stage in converting technology adoption into measurable performance.

The Rogers diffusion curve illustrates how AI adoption progresses from innovators and early adopters to the early and late majority. Economy-wide productivity gains become more visible as adoption broadens and AI is integrated into business processes and organisational practices.

Figure 41 : AI Readiness and Adoption Landscape

Firms' readiness to adopt AI remains uneven, with most prioritizing incremental process improvements over transformative cost reduction. While interest in government support is high, there is still room to better align policy design with firms' specific needs.

READINESS AND MOTIVATIONS

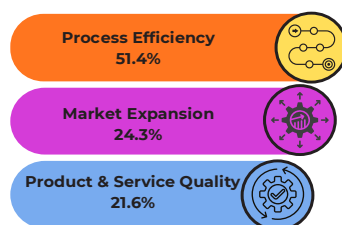


Many firms still lack the necessary skills, systems, and processes to integrate AI effectively

EFFICIENCY IS THE PRIMARY DRIVER OF AI ADOPTION

More than half of firms prioritize process efficiency, rather than radical cost reduction.

Primary Drivers for AI Adoption



OUTCOMES AND POLICY ALIGNMENT

72.9% of firms report improved outcomes

Gains are more evident in compliance and innovation than in measurable productivity improvements



78.4% are interested in government initiatives

Firms show strong interest in participating in government-supported AI initiatives, although program alignment could be further strengthened

Alignment with business needs can be strengthened

59.5% of firms feel that government initiatives align with their actual requirements, while **40.5%** indicate room for improvement.

Source: Malaysia Productivity Corporation (MPC)

Organisational readiness is the first constraint and it remains uneven. Only 29.7% of firms reported high readiness, while most others remained at moderate or low levels. Many firms still lack the skills, systems and processes needed to integrate AI effectively.

Firms are adopting AI for the right reasons. More than half (51.4%) adopt it to improve processes, followed by market expansion (24.3%) and product or service quality (21.6%). Only 2.7% adopt AI mainly to cut costs.

The early results are encouraging. Nearly three in four firms (72.9%) already report improved outcomes from AI, with 29.7% seeing significant improvements and 43.2% moderate ones. These gains are concentrated in compliance, customer engagement and innovation. The next step is to extend them into measured productivity.

Demand for government support is strong and programme fit is the next opportunity. A large majority of firms (78.4%) are willing to join AI-related initiatives, while 59.5% feel current programmes match their needs.

Aligning programme design more closely with firm-level requirements would convert this willingness into wider adoption.

The findings suggest that the AI productivity paradox is not a failure of the technology itself. It reflects a transition phase in which Malaysia is moving towards AI- and innovation-driven productivity, but the shift is still incomplete.

From a diffusion perspective, AI adoption is rising but has not yet reached the scale required to generate widespread productivity gains.

Many firms are also using AI for incremental operational improvements rather than embedding it into core business models. The challenge is therefore not only adoption, but transformation. Firms need the capabilities to redesign processes, integrate AI into decision-making and scale effective use across operations.

BOX 4

Malaysia's AI Productivity Paradox

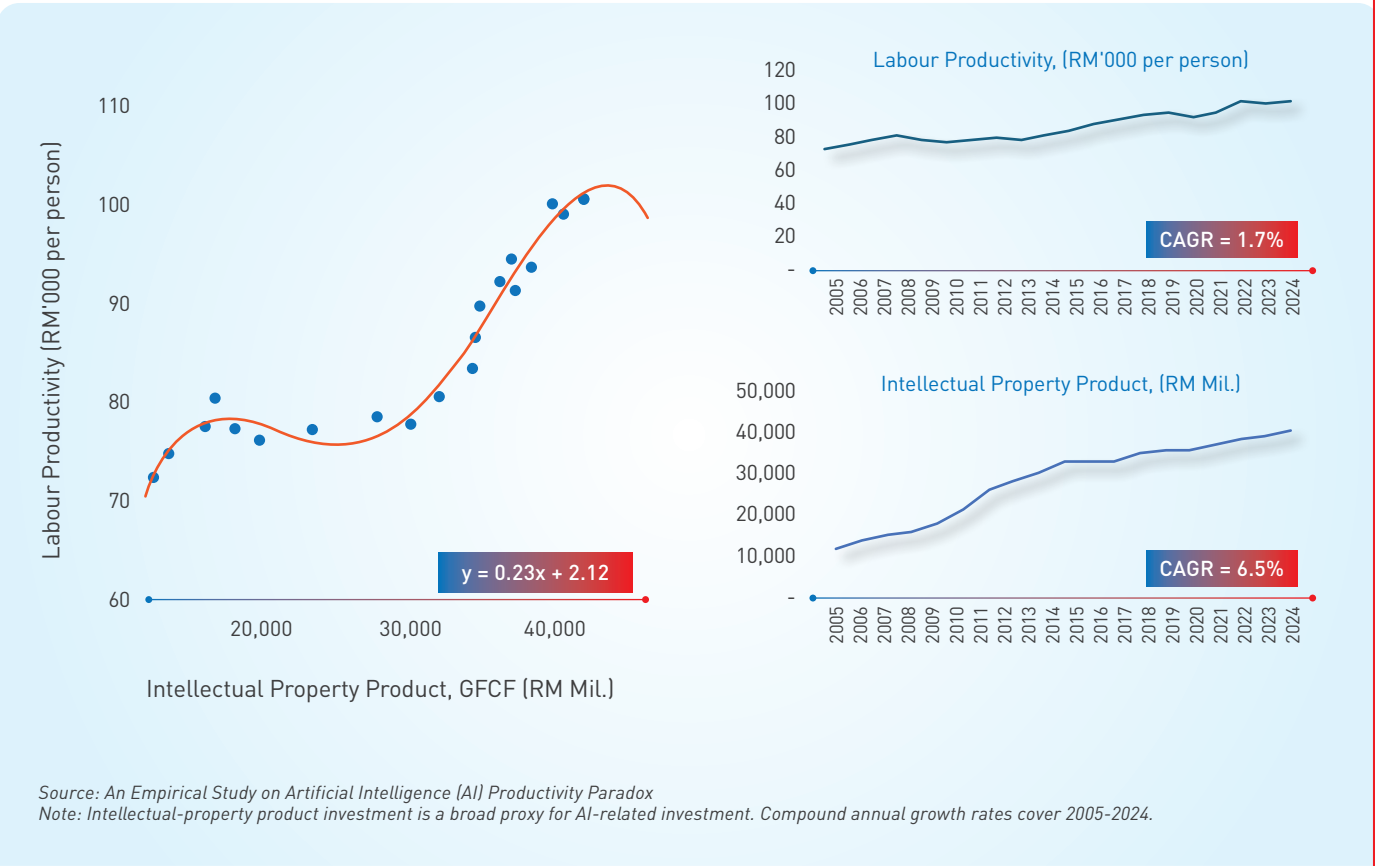
The AI productivity paradox arises when investment and adoption rise faster than measurable gains in output per worker. It does not mean that AI creates no value. It signals an adjustment period in which expenditure on technology comes before the organisational change, skills, data systems and governance required to realise its full benefits.

Malaysia displays this pattern at national and firm levels. The empirical study uses intellectual-property product (IPP) investment as the best available proxy for AI-related investment. Between 2005 and 2024, the proxy grew by 6.5% a year, compared with labour-

productivity growth of 1.7%. The results indicate that AI investment (IPP) has a positive and statistically significant effect on labour productivity, with a coefficient of 0.15 ($p < 0.05$). This suggests that a 1% increase in AI-related investment is associated with an approximate 0.15% increase in labour productivity.

The return is positive but modest relative to investment growth and selected comparator economies. IPP is broader than AI because it includes software, R&D and other intellectual assets, including mineral exploration, so the result should be read as indicative rather than AI-specific or causal.

Figure 42 : AI-Related Investment Grew Faster than Labour Productivity



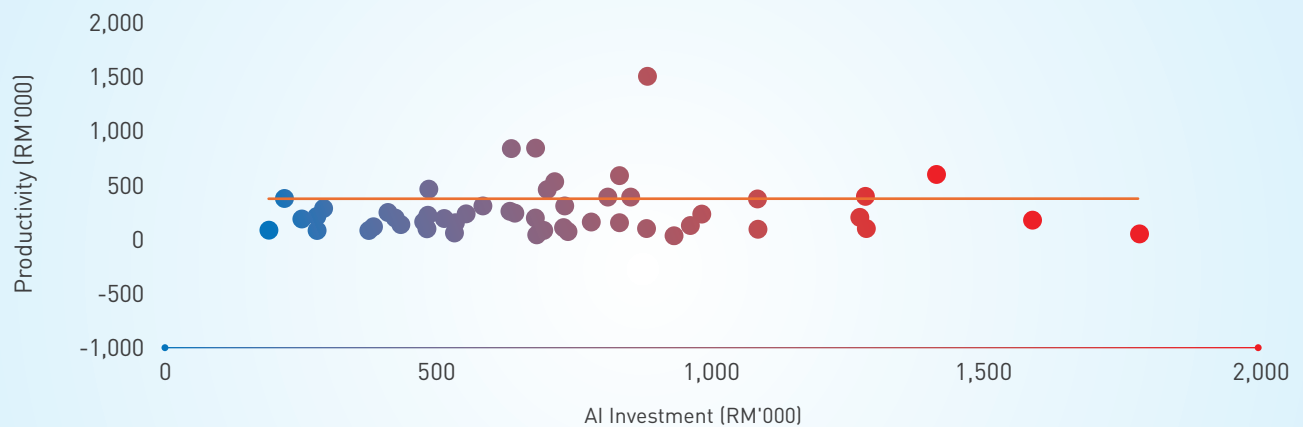
BOX 4

Malaysia's AI Productivity Paradox

Firm-level evidence reinforces the conversion problem. Among 57 manufacturing firms involved in digital and AI transformation programmes, AI-related investment had a weak and statistically insignificant relationship with labour productivity. The estimated coefficient was 0.1092, with a p-value of 0.664 and an R-squared of 0.003. Investment alone therefore

explains almost none of the productivity differences within this selected sample. This is not evidence that AI is ineffective. It indicates that workflow redesign, data readiness, employee capability, management quality and the maturity of implementation determine whether spending produces results.

Figure 43 : AI Investment Alone Does Not Explain Firm Productivity



Source: An Empirical Study on Artificial Intelligence (AI) Productivity, 2025

Note: Selected sample of 57 manufacturing firms involved in digital and AI transformation programmes. The estimated relationship is not statistically significant ($p=0.664$; $R\text{-squared}=0.003$).

Malaysia's central AI problem is the AI conversion into productivity gains, turning expenditure into redesigned work, measurable outcomes and sustained value creation. Six recommendations were proposed to mitigate the AI productivity paradox:

1. Strengthen AI measurement by extending the ICT Satellite Account and tracking inputs, adoption, outputs, outcomes and impacts.
2. Redesign jobs and accelerate reskilling so that AI augments workers and improves complete workflows.
3. Improve coordination, accountability and policy alignment across ministries and delivery agencies.
4. Prioritise high-impact sectors and MSMEs where productivity gains and spillovers can be greatest.
5. Establish practical public- and private-sector AI guidelines based on real problems, data readiness and measurable results.
6. Build an AI productivity research network linking government, universities and industry.

Source: An Empirical Study on Artificial Intelligence (AI) Productivity Paradox, 2025

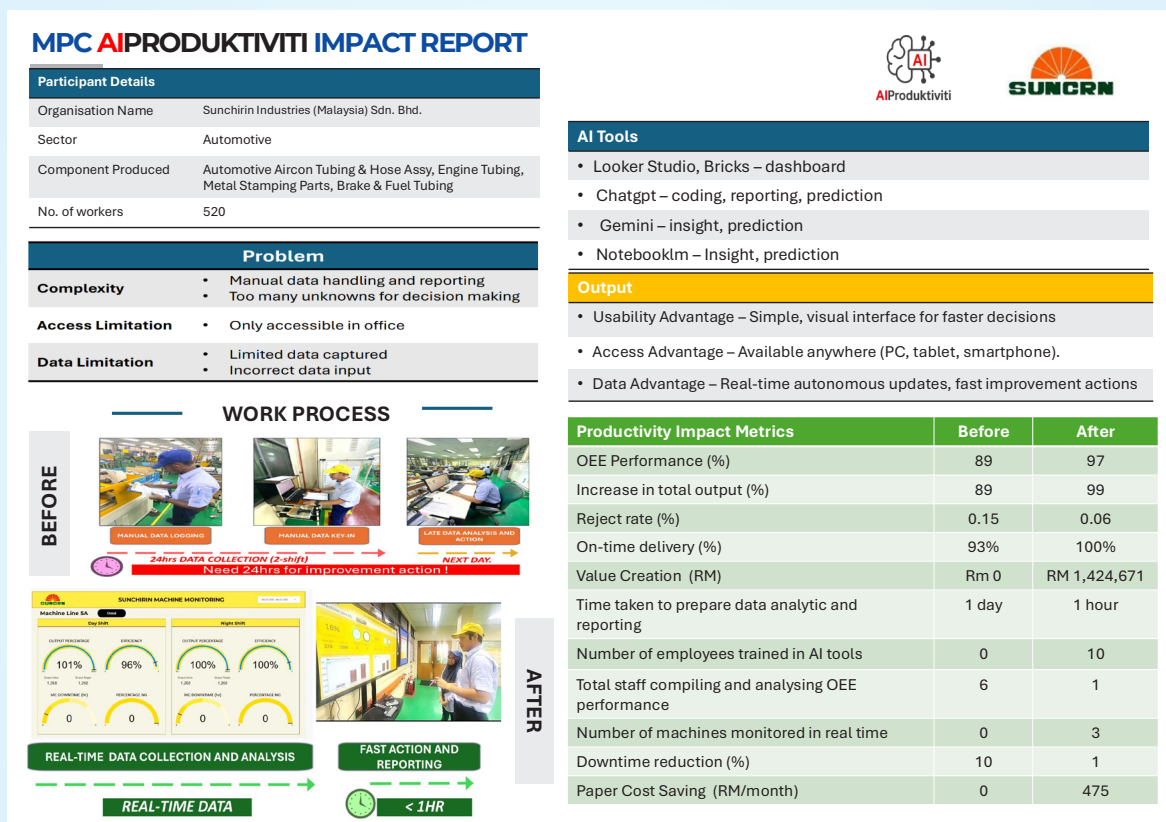
BOX 4

AI in Practice

The strongest firm cases begin with an operational problem and build the technology, data and workforce response around it.

Sunchirin Industries (M) Bhd. previously relied on manual production monitoring that delayed reporting and corrective action. Through MPC's AI for Productivity Transformation programme, the company developed an in-house dashboard for real-time monitoring. Overall Equipment Effectiveness increased from 89% to 97%, the output-performance measure rose from 89% to 99% and reporting time fell from one day to one hour. The case panel also reports improvements in reject rate, delivery and staffing required for OEE compilation.

Sunchirin Converted Real-Time Monitoring into Operational Gains



Source: MPC, AI for Productivity Transformation programme.

Note: Before-and-after indicators are reported by the participating firm and illustrate implementation results rather than a controlled impact evaluation.

Rightontrack Sdn. Bhd. addressed a different constraint: organisational knowledge was dispersed across platforms and depended on particular individuals. RightontrackGPT and NotebookLM were used to centralise information, reduce duplicated work and support faster reporting and collaboration. The case panel reports that report preparation and information retrieval fell from 24-72 hours to two hours, the number of platforms declined from six to two and use of shared dashboards spread across departments.

BOX 4

Malaysia's AI Productivity Paradox

Rightontrack Used AI to Reduce Knowledge Bottlenecks

MPC AIPRODUKTIVITI IMPACT REPORT		 	
Participant Details		Output	
Organisation Name	RIGHTONTRACK SDN BHD	- Instant Knowledge Access for All Employees: Reduced dependency on individuals; faster internal responses and improved collaboration. - Automated Report Generation: Reports created at a click of a button, integrating data from multiple departments into unified visuals. - Centralized Organizational Intelligence: One searchable source of truth integrating data, SOPs, project updates, and client information.	
Sector	IT SERVICES		
Component Produced	SOLUTION		
No. of workers	60		
Avg. Labour Cost (RM/day)*	(2961631/59)/288=174		
Problem		Productivity Impact Metrics	
- Information Locked in Silos: Employees rely on specific people or departments for answers, slowing issue resolution and creating knowledge bottlenecks. - Time-Consuming Report Generation: Manual data searches and cross-checks across multiple files caused long turnaround times for performance and client reports. - Fragmented Knowledge Access: Procedures, FAQs, and project data stored in separate folders, making responding and troubleshooting inconsistent.		Before	After
AI Tools - Custom GPT (RightontrackGPT): Acts as an internal knowledge assistant — instantly answers employee queries based on the organization's database and SOPs. - NotebookLM: Centralized knowledge base and auto-summarization of project notes, reports, and FAQs.			
		Number of employees trained in AI tools	4 → 20
		Report preparation time	24-72 hours → 2 hours
		Information retrieval time	24-72 hours → 2 hours
		Number of different platforms used to gather info (WhatsApp, Excel, Calls, Email, etc.)	6 → 2
		% of employees able to access real-time data without asking another department	80% → 20%
		Number of departments actively using shared AI dashboards	0 → 6
		% of duplicated effort across departments due to unclear roles	50% → 20%
		% increase in employee clarity of job scope (survey-based)	31% → 87%
		% improvement in cross-department communication (survey-based)	31% → 87%

Source: MPC, AI for Productivity Transformation programme.

Note: Before-and-after indicators are reported by the participating firm. The direction of the real-time-access row in the source panel should be verified before final publication

These cases are illustrative before and after evidence rather than controlled evaluations. Their importance lies in the implementation pathway. Both firms started with a defined bottleneck, integrated technology into an existing workflow, built internal capability and measured operational change. This is the model that should guide wider diffusion. Public support should reward validated productivity outcomes, help firms learn from successful implementations and enable suppliers and SMEs to adapt solutions to their own operating conditions.

Source: *An Empirical Study on Artificial Intelligence (AI) Productivity Paradox, 2025*



Converting R&D into Commercial Value

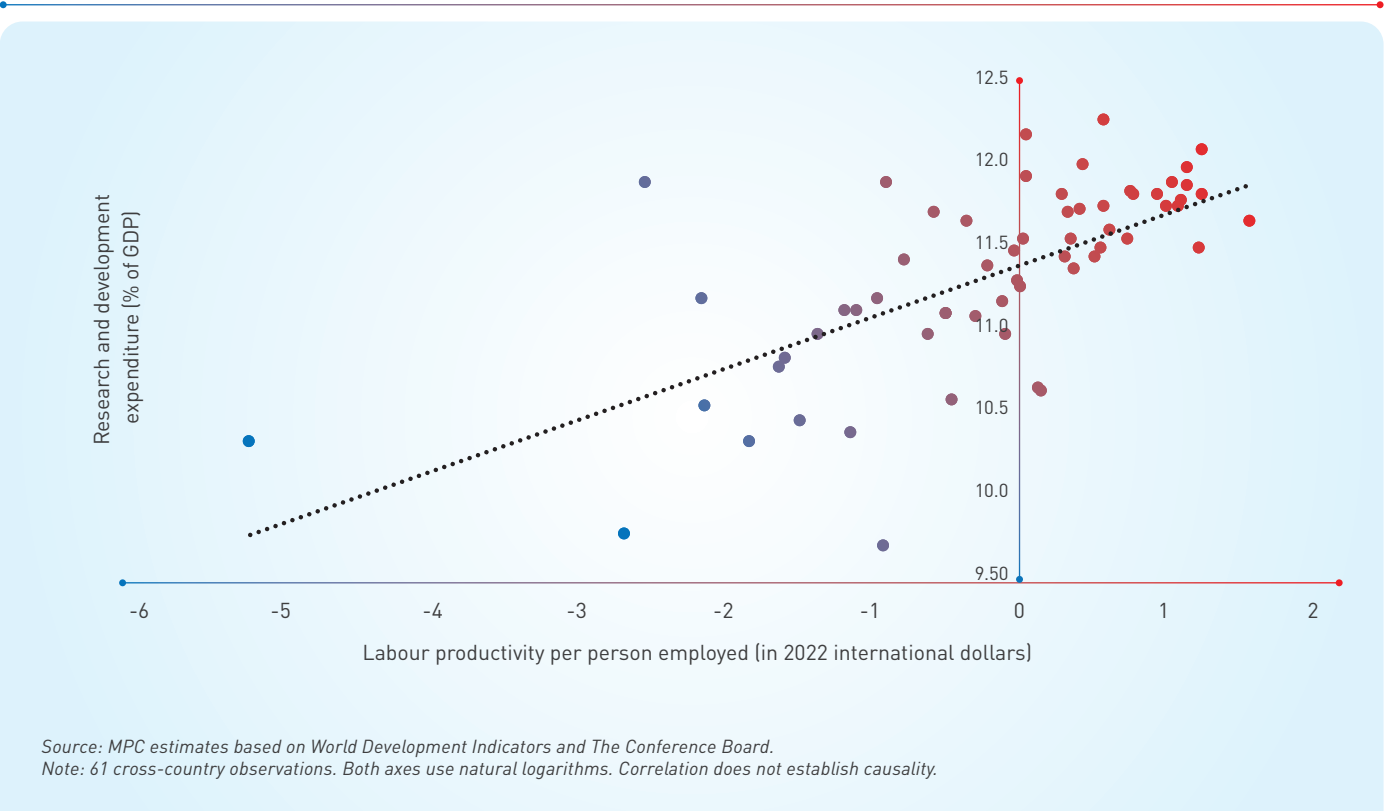
R&D Deepens AI and Innovation. The AI evidence leads directly to R&D. Firms need research capability to develop, adapt, test and improve technology, particularly when ready-made solutions do not fit local processes, languages, regulations or industrial requirements. AI can also strengthen R&D by accelerating analysis, simulation and experimentation. AI and R&D are therefore complementary: AI increases the speed and reach of innovation, while R&D gives firms the capacity to turn technology into differentiated products, processes and intellectual property.

R&D contributes to productivity by expanding knowledge and improving the quality of capital available to workers. Better machinery, software, processes, materials and designs allow firms to produce more or better output from

existing resources. Yet the effect is not automatic. Research must be connected to investment, commercialisation, skills and adoption inside firms. Where those links are weak, promising knowledge remains underused and the productivity return is delayed.

Cross-country evidence is consistent with this relationship. The draft dataset covers 61 observations and shows a positive correlation between the natural logarithm of R&D intensity and the natural logarithm of labour productivity. The correlation is 0.66, with an R-squared of about 0.43. Countries that devote more of their economies to R&D tend to record higher productivity, although the chart does not establish causality. Institutional quality, economic structure, skills and accumulated capital also shape both variables.

Figure 44 : Cross-Country Correlation between R&D Expenditure (% of GDP) and Labour Productivity per Person Employed (in 2022 international dollars)



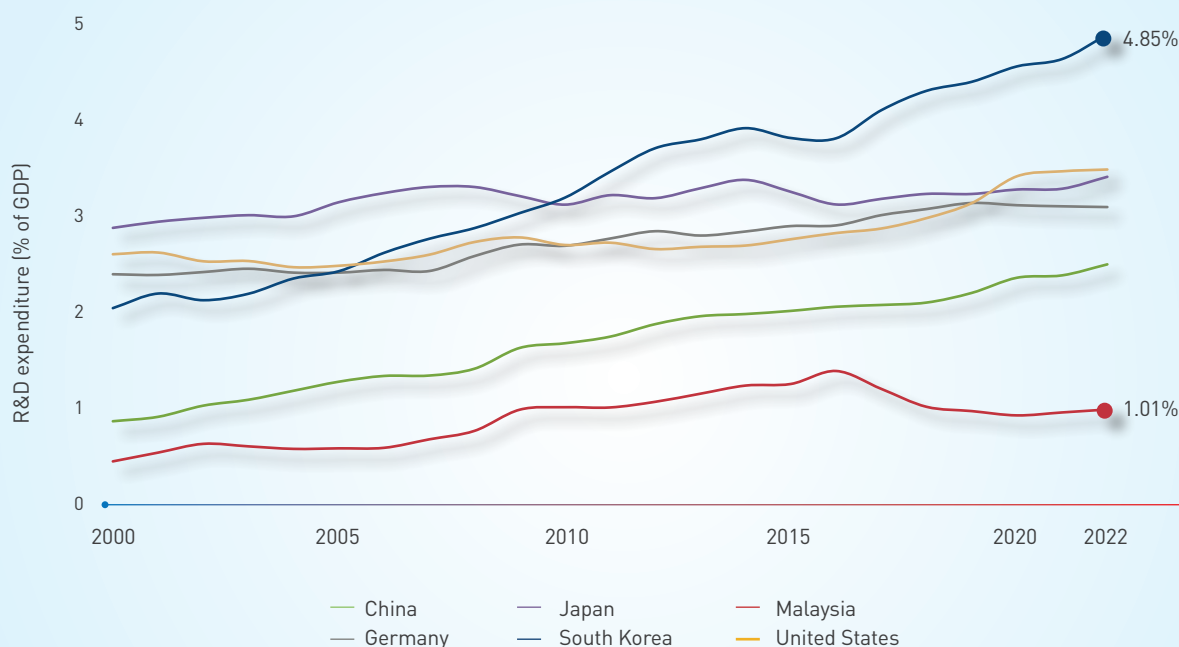
The implication is strategic rather than mechanical. Higher spending is important, but productive impact depends on what is funded, how research problems are selected, whether firms can absorb the results and how quickly solutions reach commercial scale.

Malaysia has raised R&D intensity substantially, from 0.47% of GDP in 2000 to 1.01% in 2022. Gross expenditure on R&D reached RM18.16 billion in 2022, and business enterprises accounted for 51.37% of total expenditure. This shows that the private sector is already a major participant in the innovation system.

However, the international gap remains wide. By 2022, R&D expenditure represented 2.49% of GDP in China, 3.07% in Germany, 3.40% in Japan, 3.49% in the United States and 4.85% in South Korea. Malaysia's level was therefore roughly one-third of Germany's and about one-fifth of South Korea's. The difference matters because sustained R&D investment builds laboratories, talent, supplier capability, intellectual property and firm-level learning over many years.

Recent competitiveness indicators present a balanced picture. Malaysia's Scientific Infrastructure sub-factor improved from 35th to 30th in the IMD World Competitiveness Yearbook 2026. Total R&D personnel reached 59,100 full-time-equivalent workers, ranking 30th. STEM graduates ranked second, while Technological Infrastructure ranked 13th. These are meaningful assets.

Figure 45 : Malaysia's R&D Intensity Remains Below Comparator Economies



Source: World Development Indicators; analysis by MPC.

Note: R&D expenditure as a share of GDP, 2000-2022. The annual series contains interpolated values where source observations were unavailable.

Intensity and diffusion remain the constraints. On the IMD measure, which uses 2024 data and therefore differs from the 2022 national series, total R&D expenditure was 0.94% of GDP and ranked 41st, business R&D was 0.48% and ranked 38th, and R&D personnel per capita ranked 46th. Malaysia ranked 34th in the Global Innovation Index 2025 and performed more strongly on innovation inputs than outputs. Taken together, the indicators suggest that Malaysia has strengthened parts of the innovation platform but has not yet converted them consistently into commercial and productivity outcomes.

In plain terms, for every RM100 the Malaysian economy produces, about RM1 goes into research, roughly 1/3 to 1/5 of the intensity of leading innovation economies such as Germany, Japan and South Korea. The encouraging part is the trajectory where Malaysia's R&D intensity has more than doubled since 2000 and sustaining that climb is central to the shift beyond labour and capital-driven growth.

A key issue in research, development, commercialisation and innovation (RDCI) is the weak linkage across that chain, from research through to implementation. This limits the conversion of innovation into productive capital. Although R&D can generate new knowledge, technologies and solutions, weak integration across the innovation

chain often prevents these outcomes from becoming practical and scalable economic applications. This weak conversion process reduces the productivity impact of RDCI. Innovations may remain underutilised, delayed in commercial uptake, or insufficiently embedded in firm operations and production systems. As a result, the potential of RDCI to drive investment in technology and equipment per worker, improve labour productivity and support sustained economic growth is not fully realised.

Malaysia's productivity is positively linked to R&D, labour and capital alike. However, labour and capital still carry more weight than R&D in the data. That is not a weakness in the R&D itself: the coefficient is smaller mainly because Malaysia's innovation system has not yet converted research into firm-level performance as effectively as more mature systems have.

Benchmarked against South Korea, Japan and Singapore, all three show a stronger R&D-to-productivity link than Malaysia. Japan leads, followed by Singapore and South Korea, reflecting deeper firm capabilities, stronger research-industry links, and more developed commercialisation channels in those economies. In plain terms, a 1% rise in R&D spending is associated with a rise in productivity of about 0.14% in Malaysia, against roughly 0.42% in Japan.





Table 10 : Estimated Effects of R&D, Labour and Capital on Productivity in Malaysia

Independent variable	Dependent variable : Productivity		
	R&D	Labour	Capital
Coefficient	0.1354***	0.6694***	0.5041***
t-Statistic	12.741	11.886	15.599

Table 11 : Estimated Effects of R&D on Productivity in South Korea, Japan and Singapore

Independent variable : R&D	Dependent variable : Productivity		
	South Korea	Japan	Singapore
Coefficient	0.2864***	0.4150***	0.3721***
t-Statistic	30.156	5.7697	20.244

Source: MPC estimates based on APO, World Development Indicators (WDI), and other relevant datasets

Notes: Asterisks (***) denote statistical significance at the 1% level.

The priority is therefore to strengthen how R&D translates into commercial application, rather than to raise R&D spending alone. Strengthening RDCI and industry-research collaboration is essential to improve the commercialisation of innovation into practical, scalable and

deployable solutions. Addressing this challenge requires stronger collaboration among firms, research institutions, universities, funding partners and implementation agencies so that innovation can move more effectively from knowledge creation to productive use.

BOX 5

Financing and Collaboration Convert R&D into Value

Malaysia's R&D challenge is not only to increase expenditure, but to improve conversion. Capital and research must lead to better processes, higher-value products, stronger firms and measurable productivity gains.

Blended Financing Builds SME R&D Capability

Aerospace suppliers face long qualification cycles, strict international standards and substantial investment requirements for machinery, metrology, automation and skilled personnel. Conventional lenders generally assess past cash flow, collateral and confirmed orders, which may undervalue technical qualifications, engineering knowledge and opportunities that take years to generate revenue.

Micron Concept Aerospace illustrates this gap. The company had established a supplier relationship with Collins Aerospace, a Tier 1 supplier serving Airbus and Boeing programmes, but required longer-term

capital to expand. Following consultations initiated by MPC and the Malaysia Aerospace Industry Association in 2022, Micron Concept was selected to pilot the AeroPN Blended Financing Model.

The pilot financing structure combined equity and debt to mobilise capital for CNC machining, metrology, tooling, automation, digital manufacturing and workforce capability while retaining commercial discipline. These investments are complementary because equipment alone does not generate productivity.

In manufacturing SMEs, industrial R&D can occur through systematic machine trials, tooling improvement, process optimisation and quality enhancement. Such work may shorten setup time, improve machining strategies and raise material-removal performance. It creates value when the resulting knowledge is embedded in skills, workflows and repeatable production outcomes.

RM10 million
Equity investment
through MTDC

RM47 million
Financing facilities from
MBSB Bank and MIDF

Six capabilities
Finance, engineering,
equipment, process,
materials and manpower

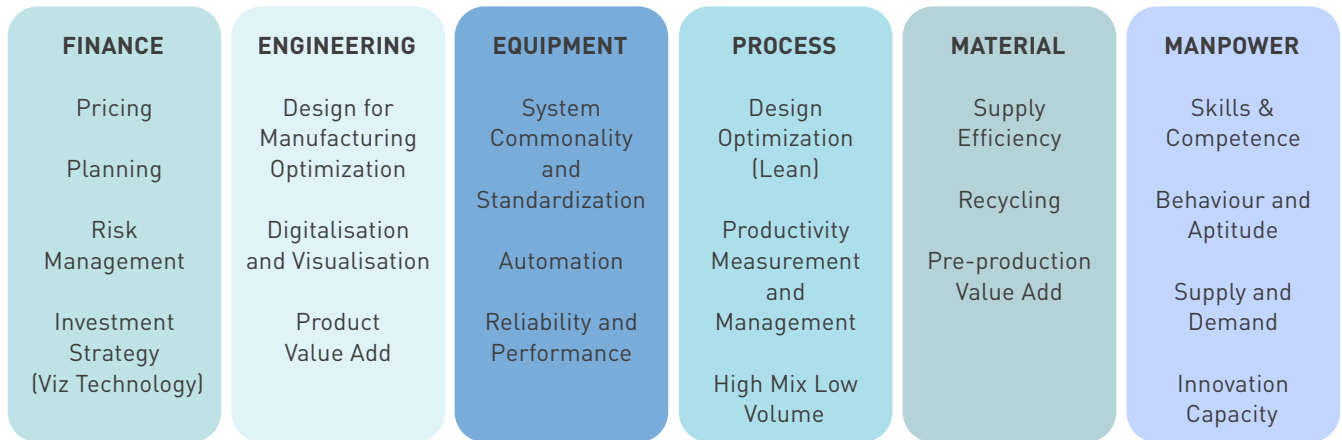
Research Starts with Industrial Outcomes

A second gap lies between research and industrial application. Firms understand problems such as excessive scrap, low machine utilisation and high production costs, but these are not always translated into research questions. Universities produce valuable publications, patents and talent, yet these outputs do not automatically become solutions that firms can adopt and scale.

AeroPN addresses this gap through six interconnected pillars. The framework recognises that technology is only one component of competitiveness: sophisticated equipment can deliver weak returns without suitable skills, reliable materials, appropriate tooling, process discipline and sound investment planning.

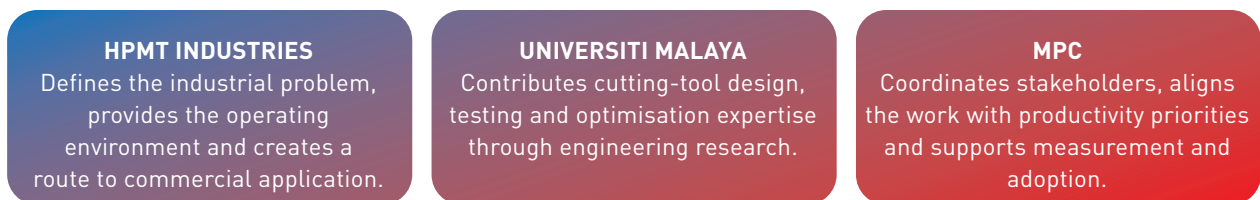
BOX 5

Six Thematic Pillars Frameworks

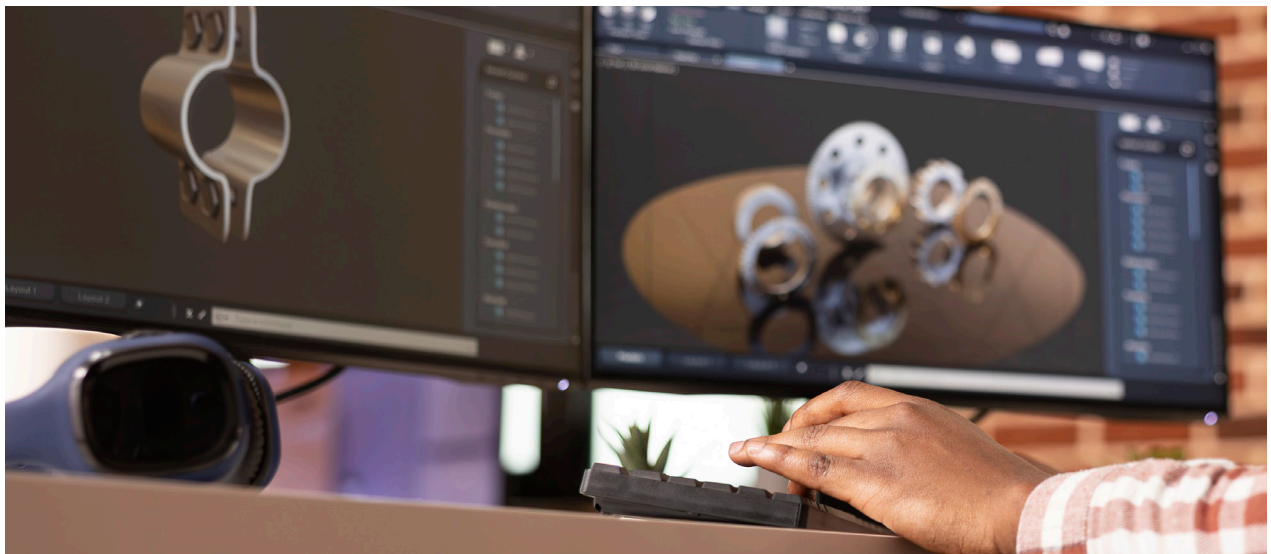


Source: Aerospace Productivity Nexus (AeroPN) and MPC.

Partners Perform Distinct Roles



The UM-HPMT-MPC collaboration applies the model to cutting-tool performance, which affects cycle time, tool life, surface quality, machine utilisation and production cost. Each partner contributes a distinct capability while remaining accountable to a shared industrial objective.



BOX 5

Financing and Collaboration Convert R&D into Value

Measure Industrial and Economic Value

The model should ultimately be judged by results. Publications, patents and trained researchers remain important, but should be assessed alongside operational and economic outcomes. Every project needs a baseline, target, milestone and post-project result so that research activity can be distinguished from productivity impact.

TECHNICAL AND OPERATIONAL OUTCOMES

Setup and cycle time; tool life; scrap and defect rates; material-removal performance; product quality; machine utilisation; lead time; process stability.

ECONOMIC AND CAPABILITY OUTCOMES

Value added per worker; unit cost; revenue from improved products; exports and higher-value contracts; skilled jobs; technology adoption; local engineering capability.

The principles can be adapted to semiconductors, medical devices, automotive, renewable energy, machinery and tool, die and mould production. Structures will differ by sector, but the standard should remain. Research must solve a relevant problem and produce evidence of industrial value.

The AeroPN cases remain early models and require continued measurement. Nevertheless, they indicate a credible direction for reform. Connecting patient capital, firm-level problems and research capability can turn industrial R&D into a practical driver of productivity, technological upgrading and competitiveness.

Source: MPC and Aerospace Productivity Nexus (AeroPN) case-study information.







CHAPTER SEVEN

Charting Malaysia's Productivity Future -
The Way Forward

CHARTING MALAYSIA'S PRODUCTIVITY FUTURE - THE WAY FORWARD

Turning AI Adoption into Productivity Gains

Malaysia enters the next phase of its development with stronger competitive momentum and a clearer understanding of what constrains productivity. The indications show an economy with credible strengths through resilient growth, improving total factor productivity, established industrial clusters, a large and increasingly capable enterprise base, stronger regulatory performance, and valuable talent, digital and research assets. Malaysia's rise in the IMD World Competitiveness Ranking signals that important conditions for enterprise and investment have improved.

Yet an enabling environment is not the same as a productivity outcome. Sustainable progress depends on whether firms, workers, sectors and states convert these advantages into more value per hour, better jobs, stronger domestic supply chains and commercial innovation. Malaysia's structural challenge can be expressed through three connected gaps. The pace gap is the distance between the longer-term productivity trend and the 3.6% annual ambition towards 2030. The diffusion gap reflects uneven performance across sectors, frontier firms and MSMEs, leading and lagging states and higher and lower-

skilled jobs. The conversion gap arises when investment, talent, regulation, AI and R&D do not consistently produce better processes, marketable products, higher wages or measurable public-service outcomes.

Malaysia does not lack productive assets or policy ambition. The priority is to make reform work together, reach further, and deliver measurable results. This requires structural change within firms as well as across the economy where resources moving towards higher-value activities, businesses upgrading their operating models, workers progressing into more productive roles and institutions removing barriers to enterprise. It also requires a delivery system that connects national priorities with sector, state, locality and firm-level action.

Malaysia's next productivity frontier lies in closing the pace, diffusion and conversion gaps together.

Medium-Term Prospects Remain Policy-Responsive

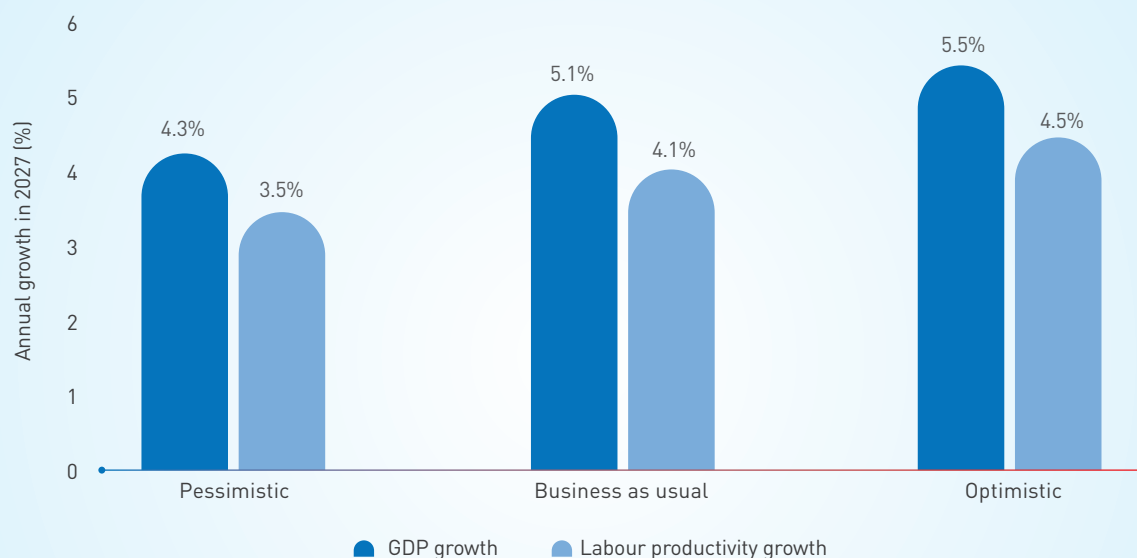
The indicative scenarios point to continued economic expansion through 2027. Under the pessimistic scenario, annual GDP growth moderates to 4.3% in 2027; under business as usual it reaches 5.1%; and under the optimistic scenario it reaches 5.5%. Labour productivity growth is estimated at 3.5%, 4.1% and 4.5%, respectively. 2025-2027, the corresponding average annual ranges are approximately 4.5%-5.5% for GDP and 3.7%-4.5% for labour productivity.

The business-as-usual path extends historical GDP trends, while the alternative paths are guided by assumptions from the IMF World Economic Outlook and the Thirteenth Malaysia Plan. Employment is estimated from its historical relationship with GDP, and labour productivity is derived as output per employed person. The results are therefore sensitive to model assumptions, global demand, trade and financial conditions, commodity markets and domestic implementation.

The policy message is nonetheless important. All three paths remain positive, but the stronger outcome is not automatic. It requires firms to adopt technology productively, workers to move into better-designed jobs, higher-value sectors to expand, and public institutions to reduce delay and uncertainty. The spread between scenarios is therefore policy-responsive, even if it is not fully within domestic control. Malaysia should use the near-term outlook as a window to lock in reforms before cyclical momentum fades.

Positive growth provides room for reform; sustained productivity determines how much of that growth becomes lasting prosperity.

Figure 46 : Medium-Term Growth Remains Positive but Policy-Responsive



Source: Estimated by MPC using Department of Statistics Malaysia data, with alternative assumptions guided by the IMF World Economic Outlook and the Thirteenth Malaysia Plan.

Note: Rates shown are annual growth in 2027. These are illustrative MPC scenarios, not official forecasts. Labour productivity is derived from projected GDP and estimated employment.

Six Priorities Can Accelerate Delivery

1. Upgrade firms and deepen value chains

National productivity will rise when more firms improve, not only when leading firms move further ahead. Sector strategies should distinguish between frontier upgrading, catch-up, renewal and restructuring. Manufacturing priorities should deepen engineering, automation, supplier capability and domestic value added; services reform should raise knowledge intensity and operational efficiency; agriculture should strengthen mechanisation,

scale, logistics and downstream processing; construction should preserve genuine post-pandemic efficiency gains through industrialised methods and better project delivery. MSME support should move beyond technology purchases and general participation targets. Firms need diagnostic assistance, management capability, process redesign, standards, finance, workforce development and routes into anchor-firm and export supply chains. Productivity Nexus platforms can serve as industry-led delivery mechanisms, but support should be evaluated through firm-level

outcomes such as output per hour, quality, downtime, cycle time, unit cost, domestic sourcing, sales and exports. Proven solutions should then be diffused across clusters and supplier networks.

2. Build distinctive place-based pathways

Place-based productivity should raise each state's productive capacity while connecting more locations to national growth engines. Leading industrial and urban hubs must continue lifting the frontier through innovation, advanced services, infrastructure and deeper clusters. Catch-up states require stronger firm capabilities, technical skills, market access and links to productive corridors. Resource-based and rural economies should move further downstream, improve logistics and build value chains suited to local assets rather than imitate the industrial structure of leading states.

This is not a programme to equalise state GDP shares. Agglomeration can raise efficiency, and strong hubs remain national assets. The objective is to improve diffusion through suppliers, workers, infrastructure and knowledge. State and local interventions should therefore begin with harmonised spatial baselines and identify the specific constraints that prevent local firms from absorbing investment and technology. State governments, local authorities, industry, academia and community actors should be co-designers, with responsibilities and targets aligned to national outcomes.

3. Redesign jobs and reward productivity

Skills generate value when work, technology and incentives are redesigned together. Training should be linked to the tasks, equipment and career pathways firms need, while job redesign should remove low-value work, clarify accountability and enable workers to use digital tools effectively. Management capability is equally important: firms need to measure productivity, organise teams, improve workflows and translate performance into better decisions.

Productivity-linked wage practices should be expanded in ways that are transparent, fair and suitable for different firm sizes. PROSHARE and related approaches can help businesses establish baselines, share gains and strengthen the link between higher productivity and wage progression.

This supports the Thirteenth Malaysia Plan's ambitions for skilled employment, median wages and the compensation of employees. The policy aim is a reinforcing cycle in which more capable workers enable higher-value activity, stronger firms pay better wages, and visible progression encourages further skills investment.

4. Make regulation deliver business outcomes

The next stage of bureaucracy reform must improve complete business journeys, not only individual rules. Malaysia's stronger performance in business legislation and institutional indicators is encouraging, but firms still experience friction when requirements cross agencies and levels of government. Reformasi Kerenah Birokrasi should prioritise high-impact journeys such as business entry, licensing, investment approval, construction, utility connections, trade and insolvency, with federal, state and local processes designed as one service chain.

Success should be measured through processing time, steps, hand-offs, rework, digital completion, compliance cost, first-time-right rates and predictability. Risk-based regulation, data interoperability and post-implementation review can reduce burden without weakening public protection. Each reform should publish its baseline, responsible owner, target and verified outcome. This will turn productive government service delivery into a competitive advantage for domestic enterprises and quality investment.

5. Convert AI and R&D into value

Technology and research support should begin with a productivity problem and end with a measured operational or commercial result. AI programmes should help firms define use cases, prepare data, redesign workflows, develop skills and govern implementation responsibly. Public support should be differentiated by readiness and focused on sectors and functions with strong spillovers. Measures of success should include quality, cycle time, capacity utilisation, resource use, service performance and worker augmentation, not adoption counts alone.

R&D policy should strengthen the full research development commercialisation innovation chain. Industry-defined problems, research capability, patient or blended finance, demonstration facilities, intellectual

property strategy and routes to market must be connected. Universities and research institutions should be rewarded for productive collaboration as well as knowledge creation, while firms should be supported to test, validate and scale solutions. A stronger conversion system will deepen domestic technology capability, create higher-value jobs and increase the value retained from investment and global supply chains.

6. Govern for results and learning

Productivity policy needs a shared delivery discipline across institutions. Every major intervention should specify the problem, target group, baseline, owner, expected productivity channel and review date. National indicators must be linked to sector, state, locality and firm outcomes without assuming that one measure fits every context. A common data architecture and dashboard should make progress visible, support course correction and distinguish genuine productivity improvement from cyclical recovery or participation activity.

Funding should increasingly follow evidence. Initiatives that demonstrate measurable gains should be scaled; those that do not should be redesigned or concluded. Independent evaluation, business feedback and periodic review will strengthen accountability and institutional learning. Whole-of-government coordination is essential to align policy, infrastructure, talent, regulation and financing, while a whole-of-nation approach ensures that firms, workers, researchers and communities help shape and deliver the agenda.

Every productivity intervention should have a baseline, an accountable owner, a measurable outcome and a route to scale.

Building the 2026-2035 Productivity Architecture

The ongoing Study on the National Productivity Framework and Roadmap (Kajian Kerangka dan Pelan Hala Tuju Produktiviti Negara) is intended to translate this reform agenda into a coherent ten-year national architecture. The study indicative modelling suggests that a business-as-usual trajectory without major structural change would remain below the target path through 2035.

The projections show that Malaysia's productivity challenge is structural rather than cyclical. Under the baseline trajectory, growth is expected to slow down from 2.2% in 2026–2030 to 1.7% in 2031–2035, leaving productivity substantially below the 13MP path by 2035. Closing this gap requires coordinated interventions that raise firm efficiency, accelerate technology diffusion and strengthen productivity across sectors, states and localities.

The proposed approach deepens the Malaysia Productivity Blueprint 2017 rather than discarding its sector-led foundation. It is designed around whole-of-government and whole-of-nation principles, with state and locality evidence used alongside national and sector data. The intervention logic will be built from firms through sectors

and subsectors, states and localities, to national outcomes. This bottom-up structure is important because the same national constraint can take different forms across industries and places.



Figure 47 : Productivity Growth Must Accelerate to Meet the National Target

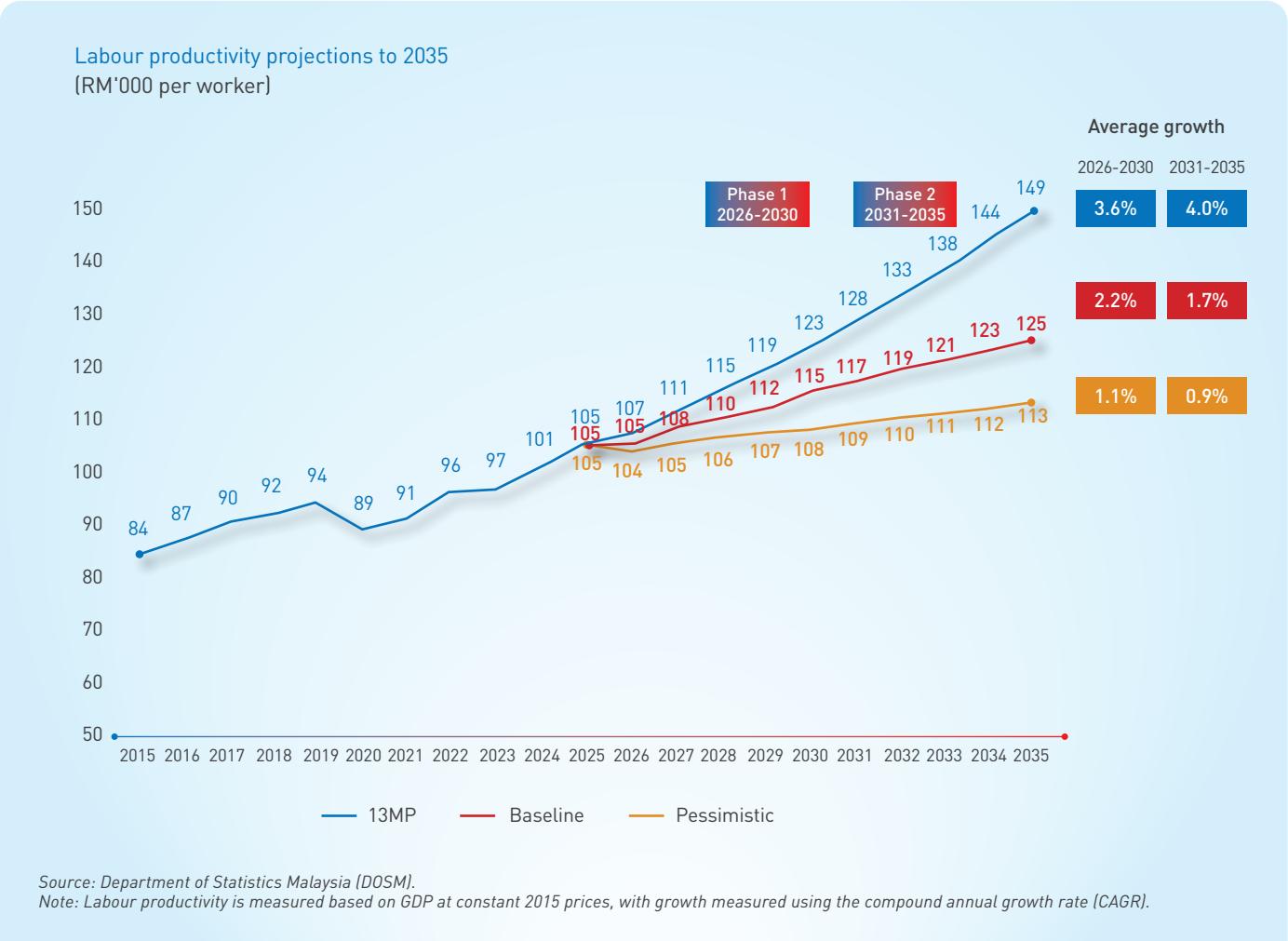
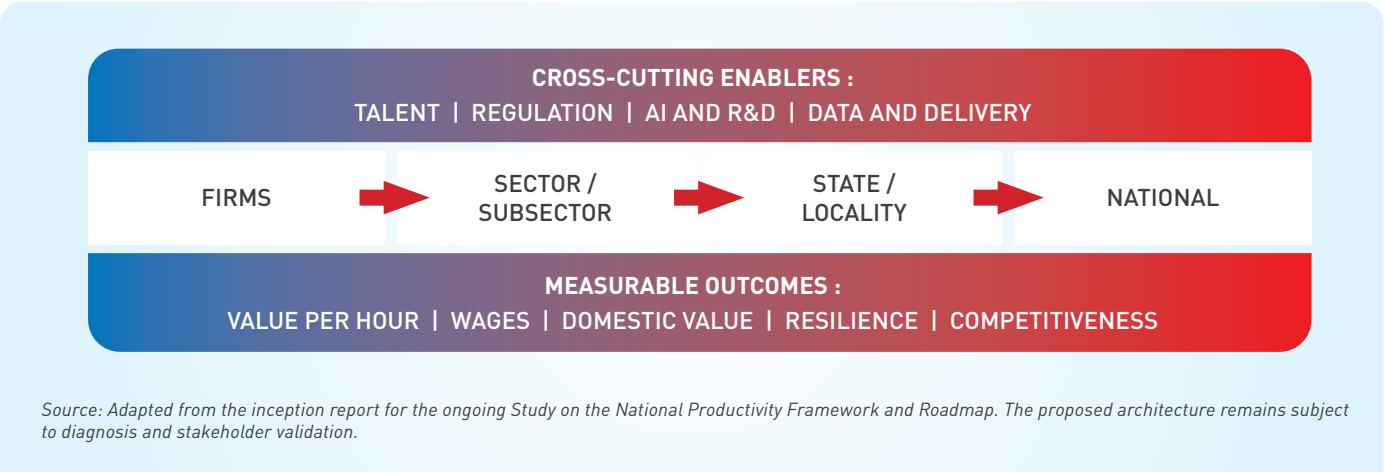


Figure 48 : A Firm-to-National Productivity Delivery Logic



The study has three linked phases. The baseline assessment reviews national, sectoral and state productivity performance, the implementation of the 2017 Blueprint and the Productivity Nexus. The comprehensive diagnostic examines firm characteristics, operating and supply-chain constraints, skills, technology use, investment, innovation, market access, regulation, finance and local economic conditions. The framework and roadmap phase integrates the evidence, identifies productivity opportunities and missions, develops proposed interventions and action plans, and validates the delivery architecture with stakeholders.

Its evidence base combines official statistics, state and local data, business surveys, focus groups, stakeholder consultations, international benchmarking and economic modelling. The early phase of the study includes engagements with 13 state governments and more than 100 industry engagement sessions across all states, and

seeks input from more than 2,000 respondents. Federal and state agencies, local authorities, Productivity Nexus representatives, MSMEs, large firms, academia, workers, gig workers, civil society and other partners are expected to contribute. This breadth is essential whereby durable reform must be informed by those who regulate, invest, manage, work and innovate.

The study is expected to produce the National Productivity Framework and Roadmap (National Productivity Blueprint) 2026-2035 and a companion National Productivity Action Plan 2026-2035. They are expected to set strategic direction, identify national and place-based priorities, clarify institutional roles, establish linked KPIs and propose governance, monitoring, evaluation, risk-management and communication arrangements. The delivery horizon is expected to distinguish early priorities for 2026-2027, medium-term transformation during 2028-2030 and longer-term capability building through 2031-2035.

Table 12 : Expected Implementation Horizons

SHORT TERM 2026-2027	MEDIUM TERM 2028-2030	LONG TERM 2031-2035
Foundation and early implementation	Scale and system integration	Deepening and institutionalisation

Note: Illustrative emphasis based on the inception report. Final sequencing and interventions remain subject to study completion and government consideration.

National targets need sector and spatial pathways; programmes need accountable owners and delivery partners; funding needs outcome criteria; and monitoring needs enough granularity to identify who benefits, where gains occur and whether they persist. Specific interventions and KPIs must remain subject to the study's final diagnosis and stakeholder validation. The framework should be judged by whether it creates a clear line of sight from national ambition to measurable change within firms, sectors and states.

Malaysia has a strong platform from which to advance. Competitive momentum, capable institutions, quality investment, industry experience and a growing technology base can support a more productive decade. The decisive task is disciplined execution is converting reform into higher output per hour, stronger Malaysian firms, better wages, resilient supply chains and more balanced opportunities across states.

The National Productivity Framework and Roadmap will provide the common direction, but delivery will require sustained ownership by government, industry, workers, academia and communities. With differentiated strategies, transparent measurement and a willingness to learn and scale what works, Malaysia can raise the productivity frontier while enabling more firms and places to reach it. That is how structural change becomes sustainable growth, and how productivity becomes shared prosperity and stronger national competitiveness.

Malaysia's productivity future will be secured by coordinated reform that delivers measurable value in every firm, sector and place.

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