MALAYSIA PRODUCTIVITY CORPORATION

PRODUCTIVITY REPORT 2024

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MALAYSIA PRODUCTIVITY CORPORATION

PRODUCTIVITY REPORT 2024

31st Edition

Driving Malaysia's Productivity

It is crucial to consider productivity from a holistic perspective, encompassing all levels. This entails implementing changes throughout the entire economy, a departure from the previous approach of only targeting specific areas to enhance productivity. The government and private sector, collaborating closely, are the driving forces in advocating for enhanced productivity.

A conducive business environment is an essential factor in boosting national productivity. Efficient policies should strategically bolster entrepreneurship, remove bureaucratic hurdles, and establish a regulatory framework that encourages equitable competition. A favourable business environment attracts investments and stimulates economic growth, leading to an overall boost in productivity.

Technology adoption and modern management practices are other crucial elements in productivity growth. Embracing advancements enhances efficiency, minimises costs, and boosts efficiency. Businesses should allocate substantial investments in research and development (R&D), cultivating a culture that values innovation and promoting seamless technology integration. Companies should shift towards applying artificial intelligence (AI)-related productivity tools to simplify processes and boost efficiency.

Building a demand-driven skilled workforce strengthens an economy's labour market and is vital for productivity and economic growth. A demand-driven workforce ensures workers with the right skills to thrive in today's competitive economic landscape, emphasising skills development, skilled job creation, wage growth, and effective labour-related policies.

A competent and appropriately qualified workforce impacts contribution to economic activities. Continuous efforts in enhancing skills foster innovation and effectiveness, rendering the labour market a crucial element in maintaining the strength and competitiveness of an economy.

Malaysia can unleash its economic potential by carefully considering these interconnected aspects in driving its productivity. This results in enhanced living standards for its citizens and positions the country in a stronger competitive spot globally. The harmonious interplay of government policies, business practices, technology, innovation, and labour market development catalyses a consistent rise in productivity, establishing the foundation for enduring prosperity.

The theme "Driving Malaysia's Productivity" echoes the essence of Productivity Report 2024.

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SHIFTING TOWARDS INDUSTRY-DRIVEN SKILLED WORKFORCE

Executive Summary

Malaysia's productivity level per employee rose to RM96,692 in 2023, compared to RM95,858 in 2022. The country's productivity growth was moderate but still positive, at 0.9 per cent last year.

The Mid-Term Review of the Twelfth Malaysia Plan aims to achieve a strong productivity growth of 3.8 per cent annually in 2024 and 2025. This objective demonstrates the government's commitment to enhancing productivity and efficiency across the economic domain, guaranteeing that Malaysia is making progress towards achieving the goals of the MADANI Economy framework.

The rise in the overall workforce to 16.2 million by 2023 showcases a promising trend in creating new employment prospects and increasing economic activities that can foster enhanced productivity growth.

The Productivity Report 2024 emphasises three critical drivers in boosting the nation's productivity: an effective business regulatory framework, technology adoption and modern management practices, and industry-driven talent development. The report takes a specific angle and emphasises focused recommendations for critical productivity drivers.

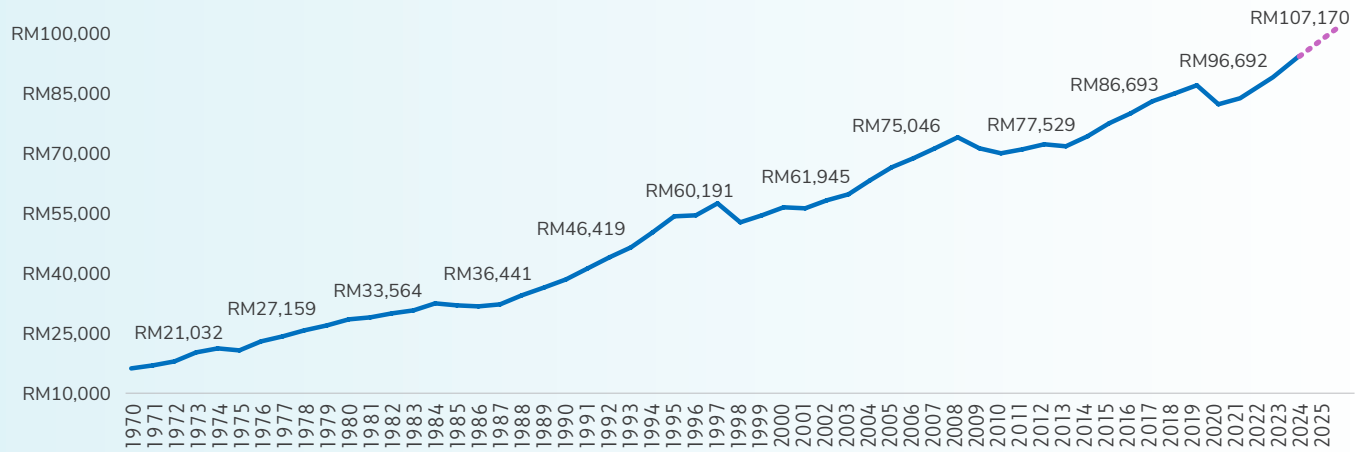
The report proposes adopting Good Regulatory Practice (GRP) in developing and implementing regulations to build a conducive business environment. This ties to Malaysia's inclusion in the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP). GRP adoption in the business regulatory framework is expected to maximise CPTPP benefits for Malaysia, promoting international trade, high-impact investment, and industrialisation.

Adopting technology and implementing modern management practices are pivotal for boosting productivity across industries. This enhances workplace efficiency and effectiveness, encourages innovation, and optimises resource utilisation. As the gap between the most productive and competitive firms and the rest is increasing, faster and broader adoption of technology, digitalisation, and modern management practices is necessary to push enterprises to higher value chains. Businesses should prioritise R&D to innovate processes, products, and services.

The development of sector skills bodies (SSB) in Malaysia is a novel move towards building an industry and demand-driven workforce, shifting away from the existing supply-driven approach. Materialising SSB necessitates active private-sector involvement and government support. The SSB establishment is expected to bridge the talent demand and supply gap, manage skills mismatches and underemployment, and create more high-skilled and high-wage jobs.

Key Highlights

MALAYSIA'S PRODUCTIVITY IS EVOLVING PROGRESSIVELY



Malaysia Plan	RMKe-2 1971-1975	RMKe-3 1976-1980	RMKe-4 1981-1985	RMKe-5 1986-1990	RMKe-6 1991-1995	RMKe-7 1996-2000	RMKe-8 2001-2005	RMKe-9 2006-2010	RMKe-10 2011-2015	RMKe-11 2016-2020	**KSP RMKe-12 2021-2025**
Average **Productivity** Growth	4.3%	5.8%	2.1%	3.6%	6.7%	0.9%	3.2%	1.1%	1.9%	1.2%	**3.7%**

WHAT HIGH PRODUCTIVITY MEANS FOR THE RAKYAT, BUSINESSES, AND THE GOVERNMENT

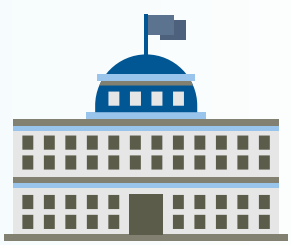
RAKYAT

Higher Wages

COMPANIES

Higher Profit

GOVERNMENT



Higher Revenue

Message From The Minister

We feel encouraged by Malaysia's 2023 productivity growth at 0.9 percent. Despite this modest uptick, its level notably increased from RM95,858 in 2022 to RM96,692 per employee in 2023, reflecting the fact that Malaysian workers created more wealth year-on-year

The World Bank's Malaysia Economic Monitor report has projected that Malaysia's economy will grow to 4.3 percent in 2024, up from 3.7 percent last year, against lower expected global growth rate of 2.4 percent. Bank Negara Malaysia, on the other hand, has forecast that Malaysia's economy will grow between 4.0 and 5.0 per cent this year, supported by, among others, steady employment, improved external demand, and robust domestic demand.

For any country's GDP growth to be truly meaningful, we must ensure that its benefits cascade to our SMEs and population. On that note, we feel encouraged by Malaysia's 2023 productivity growth at 0.9 percent. Despite this modest uptick, its level notably increased from RM95,858 in 2022 to RM96,692 per employee in 2023, reflecting the fact that Malaysian workers created more wealth year-on-year.

One complementary success factor is Malaysia's approved investments in 2023. Commendably, Malaysia registered a record-high RM329.5 billion in approved investments, a 23-percent increase year-on-year amidst global supply chain challenges, geopolitical-cum-trade tensions among superpowers, and persistently high inflation. These approved investments would involve 5,101 projects and potentially create 127,000 job opportunities in the process.

We find this encouraging as Malaysia's New Industrial Master Plan 2030 (NIMP 2030) was launched and implemented just last year. As NIMP 2030 addresses various structural issues that will better support productivity and higher wages, we are confident Malaysia will be on a firmer track towards becoming a more productive and high-income nation by 2030, as envisioned by the MADANI Economic Framework.

While these encouraging performance metrics are good news for the rakyat, we must not be complacent. There is a saying that success is a series of victories, both big and small. Success is also the sum of smaller but concerted efforts, repeated daily and tirelessly. Therefore, the Ministry of Investment, Trade and Industry (MITI) and its agencies remain committed to growing Malaysia's economy by diligently attracting more meaningful investments, empowering industries and boosting trade to bring about better prosperity to the nation.

On the productivity front, guided by NIMP 2030, MPC will continue to focus on key productivity multipliers: regulation, technology, and talent. On all three aspects, we will initiate more public-private collaboration to not only enhance the ease of doing business through regulatory reform, but also build a skilled future-ready workforce, while ramping up technology adoption and sustainable industrial practices across key export-based sectors.

The Productivity Report 2024 details Malaysia's productivity performance while focusing on selected areas in the productivity multipliers. Apart from being a useful guide to all stakeholders, these multipliers also clearly chart our competitiveness and productivity, to drive Malaysia's economy to greater heights and ultimately deliver prosperity to the nation, particularly to our SMEs and the *rakyat*.

Senator Tengku Datuk Seri Utama Zafrul Aziz
Minister of Investment, Trade and Industry

Chairman's Statement

This year, MPC is also emphasising business research and development (R&D), introducing the Productivity Grant programme to strengthen the firm-level innovation journey.

Productivity Report 2024 explores productivity dynamics based on three critical productivity drivers – a conducive business environment through effective and efficient regulations, adoption of technology, digitalisation, modern management practices, and skilled talent development. MPC's commitment is firmly rooted in its fundamental function – driving the productivity of the nation.

The report details the main productivity challenges and recommendations to boost Malaysia's productivity and competitiveness. A strong collaboration between the public and private sectors remains the foundation for implementing the recommendations. MPC's functions are further strengthened in 2024, playing the pivotal role in productivity improvement initiatives at the national, state, sectoral, and enterprise levels.

Among others, MPC is directly involved in developing the New Deal for Business (NDFB) document in collaboration with the Ministry of Economy and the Special Taskforce to Facilitate Business (PEMUDAH). NDFB pursues reform projects, tackling inefficient business regulations and regulatory structural issues. Reformasi Kerenah Birokrasi – RKB (Reforming Bureaucracy) is another project involving all ministries. The Chief Secretary to the Government introduced the project to ensure that regulation development and implementation meet the objectives of safeguarding the welfare of the people and promoting business development, productivity, competitiveness, and economic growth.

In developing sustainable and skilled future talent that meets the industry's demand, MPC spearheads the *Akademi Dalam Industri (ADI)* programme, collaborating closely with its strategic partners from the public and private sectors. At the state level, MPC works with selected state governments to implement projects to enhance productivity and bridge economic gaps among states in Malaysia. At the sectoral and enterprise levels, the focus is on enhancing the widespread adoption of advanced technology and digitalisation.

This year, MPC is also emphasising business research and development (R&D), introducing the Productivity Grant programme to strengthen the firm-level innovation journey.

Given its active role at all levels, MPC is considering strengthening its functions. Transitioning into an autonomous commission is one feasible potential expansion of MPC's roles and functions.

Our resolve remains steadfast in advancing Malaysia's productivity agenda. This report provides some aspects of what is and will be happening.

Datuk Kamaruzzaman Johari
Malaysia Productivity Corporation (MPC)

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CHAPTER 1

Malaysia's Productivity Remains Resilient

Malaysia's Productivity Remains Resilient

PRODUCTIVITY ADVANCES AN ECONOMY

Robust productivity stimulates economic growth and contributes to social well-being.

Productivity refers to the level of efficiency and effectiveness in converting inputs, such as labour and capital, into outputs, such as goods and services. It is crucial in increasing production capacity. Increased productivity means the ability to produce more output utilising the same resources, which leads to a growth of economic production. An efficient resource allocation enables optimal utilisation of available resources, reduces waste, and encourages sustainable practices, all of which contribute to long-term growth.

Innovation, technology adoption, and digitalisation frequently drive productivity. Productive countries and organisations allocate resources to new technology and inventive methods, enabling significant advancements in various economic areas.

Highly productive businesses produce goods and deliver services at lower costs and higher quality. Increased productivity enhances competitiveness in both local and international markets, making it easier for enterprises to attract investment and expand their market share. **With elevated productivity, businesses improve their profits, enabling them to pay higher wages and offer incentives to employees. Higher profits mean higher taxes for the government.** Higher taxes mean more income for a country, translating into increased benefits for its people. Productivity stimulates growth and raises the standard of living.

Consistently improving productivity leads to more stable, resilient, and sustained economic growth. Economies that enhance their productivity show reduced reliance on external factors and are better equipped to withstand economic downturns.

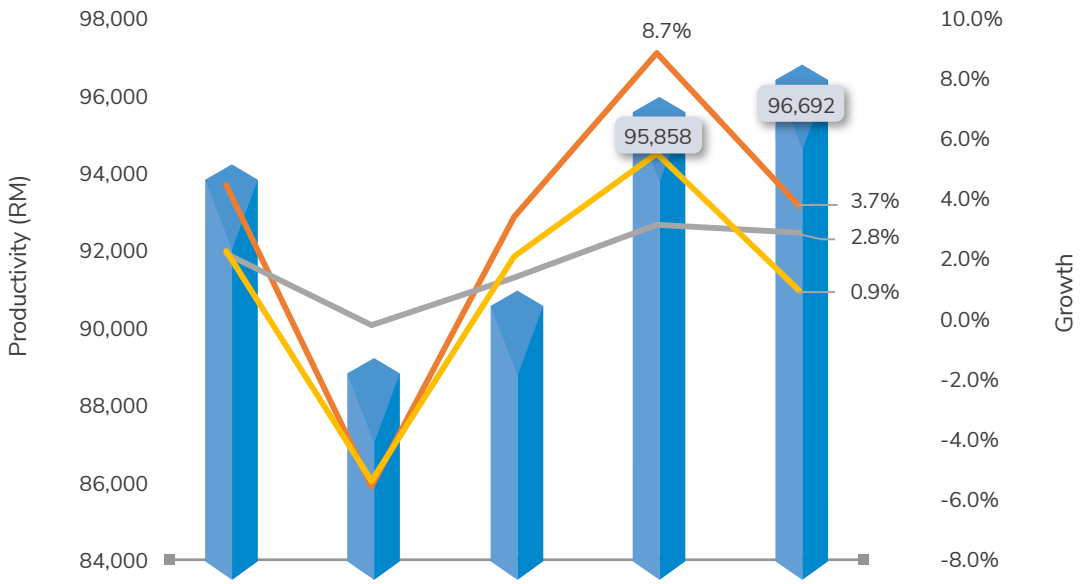
Malaysia's strategic imperative is to pursue robust productivity growth, with a 3.8 per cent annual growth target in 2024 and 2025.

MALAYSIA'S ECONOMY AND PRODUCTIVITY REMAIN POSITIVE

Malaysia's economic growth normalised to 3.7 per cent in 2023, following the stronger-than-expected surge in 2022, which was 8.7 per cent. The full-year growth for 2023 was slightly lower than the Budget 2024 forecast of approximately 4 per cent.

The country's subdued performance in 2023 aligned with the global economy. The World Bank's Malaysia Economic Monitor, April 2024 edition, reported that global economic growth moderated to 2.6 per cent in 2023, compared with 3.0 per cent growth in 2022. The report further indicated that as the global growth rate is expected to slow down to 2.4 per cent, Malaysia's economy is projected to pick up to 4.3 per cent in 2024. Malaysia's economy remains resilient amidst challenges.

Figure 1 : Malaysia's GDP, Employment and Productivity Growth, 2019 – 2023



	2019	2020	2021	2022	2023
Productivity (RM)	94,138	89,179	90,952	95,858	96,692
GDP Growth	4.4%	-5.5%	3.3%	8.7%	3.7%
Employment Growth	2.1%	-0.2%	1.3%	3.1%	2.8%
Productivity Growth	2.2%	-5.3%	2.0%	5.4%	0.9%

Source : Department of Statistics Malaysia (DOSM)

The ongoing fiscal restructuring benefitting the Government and the rakyat and efforts to enhance governance and ease of doing business have stimulated Malaysia's economic activities and progressively restored investor confidence. In 2023, Malaysia recorded the highest approved investment in history at RM329.5 billion, increasing 23 per cent from 2022.

The investment milestone is expected to increase job opportunities, especially high-skill and high-wage employment, strengthening the bidirectional effect of productivity and economic growth.

At the national level, labour productivity measures how much output is produced for every hour worked or every person employed. It measures the quality of skills, machines, and processes in production and service. Policymakers pay close attention to labour productivity performance as a key driver of high-quality economic growth, in addition to employment rate and wage growth.

Malaysia's 2023 productivity performance reflected the country's normalised economic growth. The country's 2023 labour productivity per employee was positive, moderated to 0.9 per cent compared with 2022's jump of 5.4 per cent.

The country's productivity level increased to RM96,692 per employee in 2023, rising slightly from RM95,858 in 2022. Despite the minimal rise, the progress indicates productivity resilience against economic challenges. This performance was attributed to the robust increase of the construction industry and the mining and quarrying sector, which gained 2.4 per cent and 3.6 per cent, respectively.

Consistent growth in domestic demand and stable global economic expansion and trade strengthened Malaysia's positive economic and productivity performances. These factors contributed to Gross Domestic Product (GDP) growth, which complemented the stability in employment growth of 2.8 per cent and 16,125 million employees in 2023, compared with 15,686 million employees in 2022.

The Twelfth Malaysia Plan (12MP) outlines a productivity growth target of 3.7 per cent during the plan's duration. Between 2021 and 2023, productivity per employee grew at an average annual growth rate of 2.8 per cent.

According to Bank Negara Malaysia, the Malaysian economy is expected to grow by 4.0 to 5.0 per cent in 2024, supported by rising domestic and foreign demand. A 2.5 to 3.5 per cent rise in productivity is anticipated to contribute to the growth.

TRANSFORMING INFORMAL SECTORS FOR ENHANCED PRODUCTIVITY

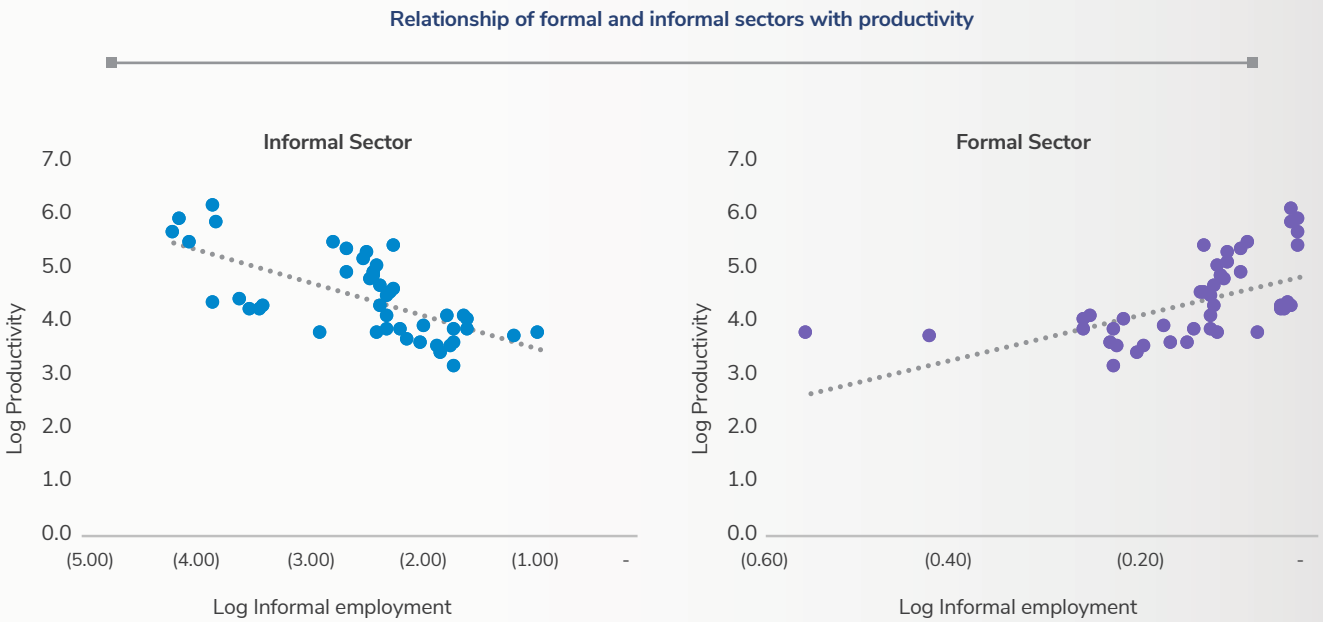
A large number of MSMEs operate in the informal sector. According to the Department of Statistics, Malaysia, the total employment count within the informal sector remained constant at 1.3 million, although its proportion declined from 11.2 per cent in 2013 to 9.6 per cent in 2021. Roughly two-thirds of individuals employed in the informal sector are self-employed or own-account workers. In contrast, in the formal sector, over 80 per cent of workers hold employee status or are engaged in paid employment.

The informal sector has impacts on a country's productivity. On one hand, it contributes to economic growth by providing employment opportunities, income generation, and entrepreneurial innovation. However, the lack of formalisation, limited access to training, and the absence of social protections in the informal sector can hinder productivity by reducing efficiency and leaving workers economically vulnerable.

Balancing the informal sector's positive contributions with the need for regulation and support optimises its impact on a country's overall productivity and economic development. When the sector is of significant size, it is important to comprehend the informal sector's contribution on productivity.

Utilising the primary and secondary data analyses along with qualitative policy assessments through stakeholder engagement, the results highlight the urgency of transforming the informal sector into a formal one. The analysis indicates that informal employment potentially reduces overall productivity, while formal employment contributes positively. This implies that the longer informal sector businesses operate in the market, the more their economic growth diminishes. This underscores the importance of interventions to encourage informal businesses to transition into the formal sector. It represents a viable strategy to mitigate the informal economy's adverse effects on the overall economy and worker productivity.

TRANSFORMING INFORMAL SECTORS FOR ENHANCED PRODUCTIVITY (CONT')



A lack of financial accessibility remains a major constraint in transforming the informal sector. For a holistic policy intervention, the proposed strategies for formalisation in Malaysia extend beyond financial accessibility and encompass regulatory reforms, institutional changes, and interventions within supply chains. A dedicated national policy for formalising the informal sector needs to be developed to ensure coordinated efforts among ministries, agencies, and financial institutions.

Note : The article is based on a project by Malaysia Productivity Corporation (MPC) in collaboration with the Centre for Future Labour Market Studies (EU-ERA), THE FUTURE. It is a summary of the study entitled "Informal Economy and Productivity Growth" submitted to the Asian Productivity Organization (APO).

References : Department of Statistics Malaysia, Government of Malaysia. Informal Sector and Informal Employment Survey Report, Malaysia 2021. Putrajaya: Department of Statistics Malaysia; 2022.

Source : Department of Statistics, Malaysia (2022), Analysis by EU-ERA

MALAYSIA IS ADVANCING, BUT NOT FAST ENOUGH

Malaysia has experienced progression over the past few decades, as evidenced by its increasing GDP per capita, supported by strong productivity growth. This implies improved living standards and the quality of life of its population.

Despite being ahead of several regional peers, such as Thailand and Indonesia, Malaysia's growth evolution is not fast enough. Malaysia and South Korea were former Japanese colonies during the second World War, but both economies have risen substantially in the decades thereafter.

According to the World Bank, Malaysia's GDP per capita was USD $373 in 1970, higher than South Korea's USD $256. Both countries were low-income, with much of their economies dependent on agriculture and natural resources.

Malaysia's economic growth has been steady but slower than South Korea's. In 1978, Malaysia and South Korea were in the same low-middle-income economic status, with Malaysia's GDP per capita higher than South Korea's, at USD 23,176 and USD 19,171, respectively. Both countries grew at the same pace until 1985, when South Korea's growth significantly surpassed Malaysia's progress.

South Korea took ten years to move into the upper-middle-income economic group in 1988. South Korea made a rapid transition from upper-middle-income to high-income status within 15 years (1988-2003). On the other hand, Malaysia took 17 years to shift to an upper-middle-income economy in 1995. Malaysia has remained in the upper-middle-income category since 1995, indicating a slower rate of economic advancement. In 2023, South Korea's GDP per capita almost tripled Malaysia's performance. Nevertheless, the trajectory looks promising for Malaysia to achieve a high-income economic status in ten years. The country could do better to hasten the transition.

Both countries' productivity performance almost mirrored their GDP per capita growth. Productivity performance correlates with GDP per capita. Between 1986 and 1995, both countries' productivity levels grew at about the same pace. South Korea's productivity surged from USD 46,237 in 1996 to USD 93,626 in 2022, while Malaysia's productivity grew more moderately from USD 43,309 in 1996 to USD 65,725 in 2022. Between 1996 and 2022, South Korea's productivity growth recorded an annual average of 2.9 per cent per year, while Malaysia's productivity growth was almost half that of South Korea at 1.6 per cent annually.

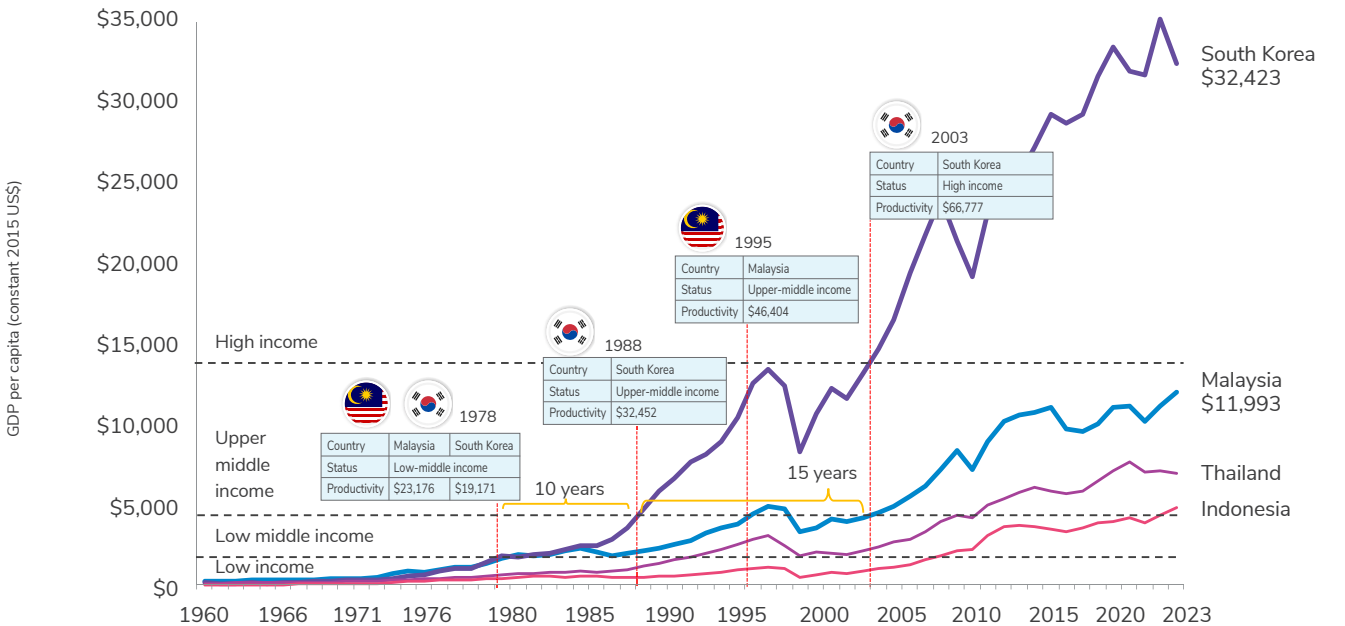
Productivity accelerates because of the emphasis placed on supporting local industries through facilitating the business environment, accelerating the use of technology, automation, innovation, and R&D, and building a workforce that meets industry demands.

As a result of South Korea's policies to increase productivity through business participation in R&D, the country's R&D expenditure as a percentage of GDP rose to over 4.0 per cent in 2022, whereas Malaysia's was approximately 1 per cent, with the majority of its R&D expenditure coming from the government.

Malaysia had approximately 30 per cent of skilled labour in 2022, whereas the proportion in South Korea exceeds 40 per cent, and the majority of established nations had around 50 per cent.

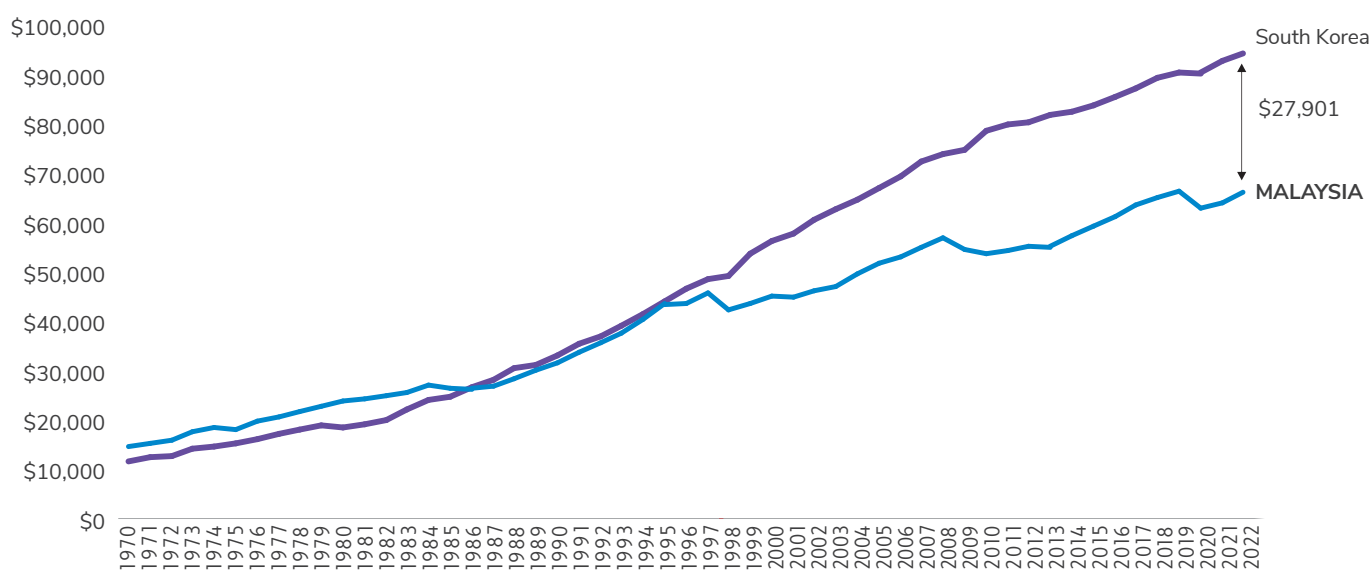
25 South Korean companies were included in the Fortune 500 list of the world's largest corporations, a result of the government's consistent support for domestic industries over the past fifty years. In contrast, Malaysia has only one company on the list, and that is an oil and gas company.

Figure 2 : Malaysia's Growth in Comparison to Selected Countries, 1960 - 2023



Note : Labor productivity per person employed in 2022 international dollars, converted using Purchasing Power Parities.
Source : The Conference Board, The Economy Database April 2023 & World Bank

Figure 3 : Malaysia's Growth in Comparison to Selected Countries, 1960 - 2022



Note : Labor productivity per person employee in 2021 using Purchasing Power Parities.
Source : The Conference Board, The Economy Database April 2022. Data 2022 projected by The Conference Board.

SOUTH KOREA : A TOP-DOWN REINVENTION, FUELLING ITS ROBUST R&D ECOSYSTEM

South Korea's ascension to a global leader in information and communication technologies is a result of a strategic, top-down approach driven by robust government policies, significant investments, and structural reforms. Historically an agrarian Japanese colony and battleground, South Korea rose to second place in Bloomberg's 2020 Innovation Index, just behind Germany.

This achievement is attributed to the country's strong R&D intensity, which is fueled by large investments from both the government and industry. South Korea has a significant number of researchers transitioning between industry and university, demonstrating its strong R&D ecosystem. The top-down approach to innovation has led to collaboration among government, businesses, and universities, as shown in the chaebol system, where companies like Samsung and LG invest extensively in R&D while being sheltered from competition.

The chaebol system, which was critical to South Korea's industrial expansion, was an important part of President Park Chung-hee's economic policy from 1961 to 1979. Park's administration pushed the economy away from relying on imported technology and towards developing domestic industry. His policies established the groundwork for enormous industrial conglomerates known as chaebols, which were given government subsidies to engage in R&D. During this time, significant institutions were established, including the Korea Institute of Science and Technology (KIST) and the Ministry of Science and Technology. The chaebols, which were protected from competition, concentrated on applied knowledge, resulting in substantial advances in industries such as petrochemicals, automotive manufacturing, shipbuilding, and consumer electronics. Samsung's growth from grocery dealer to South Korea's largest chaebol, accounting for 15% of the country's GDP in 2018, demonstrates the effectiveness of this method.

Following Park, the South Korean government has continued to promote innovation, with a concentration on high-tech industries and regional innovation hubs. By the mid-1980s, attention had switched to semiconductor design and manufacturing, with the establishment of institutions such as KAIST. The 1997 Asian Financial Crisis fueled a further shift towards technology and knowledge-intensive products. Regional innovation centres, like as Gyeonggi, have become magnets for industrial R&D and manufacturing, bringing together local and national universities and research facilities.

South Korea's transformation to a knowledge-based economy was aided by collaboration between the government and the private sector, R&D tax breaks, and foreign technology imports. The creation of small—to medium-sized firms in biotechnology, AI, cybersecurity, and broadband-based services in the 2010s, backed by government funding, illustrates the ongoing success of this methodical approach to encouraging innovation.

MAIN SECTORS' PRODUCTIVITY PERFORMANCE SUPPORTS GROWTH

The productivity performance of the main economic sectors is among the major contributors to national labour productivity. All of Malaysia's main economic sectors recorded positive average productivity growth between 2021 and 2023.

The services sector recorded the fastest growth rate at an average of 3.0 per cent, indicating robust post-pandemic economic activities driven by consumer demand, digitalisation, and expansion of business and financial services. The growth rate is expected to persist until 2025, indicating a possible achievement of the Mid-Term Review of the Twelfth Plan's target of an average 3.8 per cent annually during the 12MP duration. In 2023, employees in the services sector recorded RM92,251 per employee, increasing from those recorded in 2022 and 2023. At the end of 2025, its productivity level is projected to reach RM101,770.

The manufacturing sector's average productivity growth between 2021 and 2023 stood at 2.9 per cent. Implementing the NIMP 2030 action plans is predicted to contribute to achieving a 4.2 per cent average growth rate between 2021 and 2025. The sector's productivity level was above the national average, registering RM131,115 per employee in 2023, decreasing slightly from the amount recorded in 2022.

The 2023 productivity level in the construction sector was at RM40,574 per employee, the lowest compared to other main economic sectors. The construction sector's productivity growth rate averaged 2.0 per cent between 2021 and 2023, which is less than half of the 4.3 per cent target set for 2021 – 2025. Embedding technology advancement and mitigating challenges such as project delays, labour shortages, reliance on low-skilled workers, and regulatory hurdles could hasten its productivity growth in the future.

The agriculture sector recorded the slowest average productivity growth rate at 0.1 per cent between 2021 and 2023. The sector has much to improve to reach the 12MP target of 1.4 per cent annually. Its productivity level remained below the national average with a slight increase between 2021 and 2023. Factors such as limited technological advancement and innovation, reliance on traditional farming methods, and external challenges like climate change may have contributed to the slow growth.

The mining and quarrying sector's productivity level remained high, recording RM1,274,288 per employee in 2023. Nevertheless, its growth rate recorded an average of 0.4 per cent against the 12MP target of 2.8 per cent. The mining sector showed minimal growth between 2021 and 2023, which could be due to factors such as environmental concerns and fluctuating global commodity prices.

Figure 4 : Productivity Growth of the Main Economic Sectors

Sector	Labour Productivity Constant 2015, (RM) Actual			KSP RMKe-12	Average Growth (%)	
					Target KSP RMKe-12	Actual
	2021	2022	2023	2025f	2021-2025	2021-2023
Agriculture	52,840	53,240	53,263	56,890	1.4	0.1
Mining and quarrying	1,249,966	1,267,278	1,274,288	1,449,300	2.8	0.4
Manufacturing	128,662	133,902	131,115	148,210	4.2	2.9
Construction	36,732	38,658	40,574	47,290	4.3	2.0
Services	85,089	90,636	92,251	101,770	3.8	3.0

Note : Productivity (per employee) (constant 2015 prices)

Source : Department of Statistics Malaysia (DOSM), Mid-Term Review 12MP.

PRIORITY SUBSECTORS' PRODUCTIVITY PERFORMANCE NORMALISED

The 11 priority subsectors registered positive average productivity growth between 2017 and 2023, spanning across the pre, during, and post-pandemic years. All subsectors have returned to their 2019 pre-pandemic productivity levels in 2023, except the construction and built environment industry.

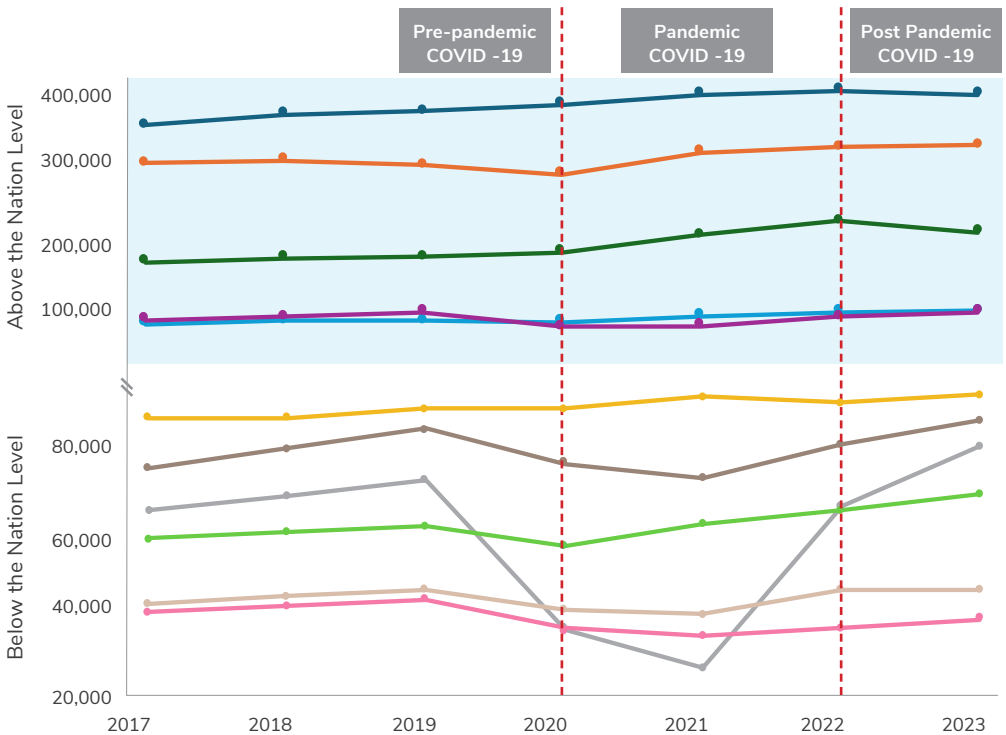
The E&E, chemicals and chemical products, machinery and equipment (M&E), and logistics subsectors recorded productivity levels above the national average. The adoption of advanced technology, mechanisation, robotics, artificial intelligence (AI), and automation may have contributed to these subsectors within the manufacturing and manufacturing-related services sectors. The ICT subsector has maintained robust productivity levels over the years and remains above the national average, indicating higher technology adoption and a skilled workforce.

On the other hand, labour-intensive subsectors, such as retail and food & beverages, construction, tourism, and agro-food subsectors, recorded below national average productivity levels, denoting that Malaysia's services sector still relies on labour and lacks technology adoption.

Malaysia Productivity Corporation (MPC) helms the establishment of Productivity Nexus to affect productivity at the industry and enterprise levels. Since 2017, MPC has been conducting productivity improvement initiatives to facilitate companies and industries to boost productivity performance.

In 2017, Malaysia Productivity Corporation (MPC) established Productivity Nexus to affect productivity growth at the industry and enterprise levels. MPC has been conducting productivity improvement initiatives to facilitate companies and industries to boost productivity performance.

Figure 5 : Productivity Performance of Priority Subsectors, 2017 - 2023



Economic Activity	2023 (RM)	Average Growth (%) 2017-2023
ICT	379,613	2.0
Chemicals and chemical products	313,438	1.7
Electrical and electronics	201,877	4.1
Machinery and equipment	101,288	2.9
Logistics	100,131	2.7
Agro-food	94,560	1.2
Professional services	88,490	3.2
Tourism	82,321	13.9
Private healthcare	70,711	2.5
Retail and food & beverages	47,521	2.0
Construction & built environment	40,574	0.6

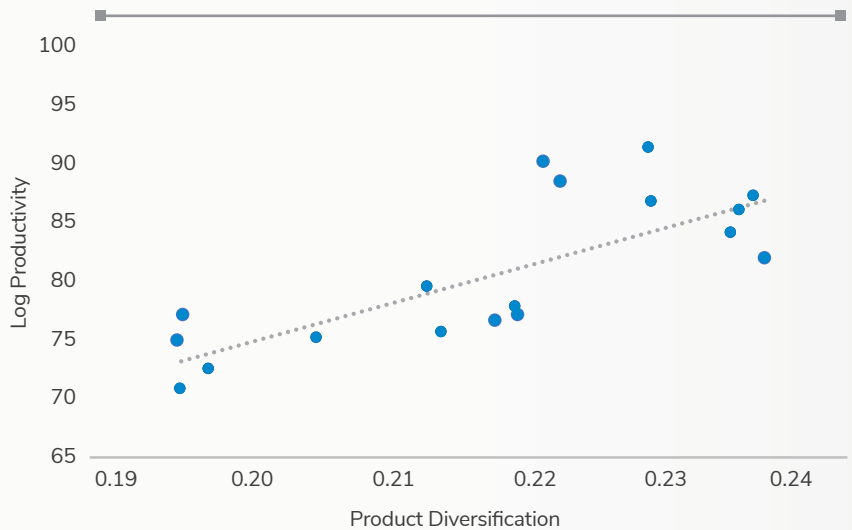
Source : Department of Statistics Malaysia (DOSM)

SUPPLY CHAIN DIVERSIFICATION ENHANCES PRODUCTIVITY

The global supply chain encompasses the allocation of resources, production, and the worldwide distribution of goods and services, creating a vital interconnection between companies, suppliers, and organisations. Recognising the risks to protect businesses from possible risks and future threats, firms have decided to adopt supply chain diversification by widening the pool of suppliers to reduce costs and enhance production's overall efficiency. The strategy equips businesses with the capacity to counter unforeseen risks, bolstering their resilience and adaptability to future challenges.

Supply chain diversification challenges firms in terms of human capital, which is the pivotal factor in facilitating and driving diversification strategies. Whilst this attests to firms' workforce readiness to face dynamic changes, it also reflects supply chain diversification's potential effects on labour productivity.

The link between product diversification and labour productivity



Evidence at the national level indicates the correlation between supply chain diversification and productivity improvement. It implies that diversification is essential to improve labour productivity, enhanced through diversification-linked enablers such as innovations, technology, and reskilling and upskilling.

Selected case studies among the electrical and electronic (E&E) companies indicate that supply chain diversification resonates in the industry, with a shift towards local suppliers. The increase in local supplier engagement reflects firms' commitment to fostering domestic partnerships, potentially driven by considerations of proximity, efficiency, and strategic collaborations with local businesses. However, this trend is not standalone as investment in innovation and workforce upskilling and reskilling are continuously committed to ensuring sustainable business growth while fostering productivity.

Note 1 : The product diversification index, which represents product diversification, was derived from the Herfindahl-Hirschman Index using trade statistics.

Note 2 : The article is based on a project by Malaysia Productivity Corporation (MPC) in collaboration with the School of Business and Economics, Universiti Putra Malaysia (UPM) and Centre for Future Labour Market Studies (EU-ERA), THE FUTURE. It is a summary of the study "Research on New Dynamics of Global Supply Chains and Implications for Productivity" submitted to the Asian Productivity Organization (APO).

Source : Department of Statistics Malaysia (DOSM), 2023; Analysis by EU-ERA

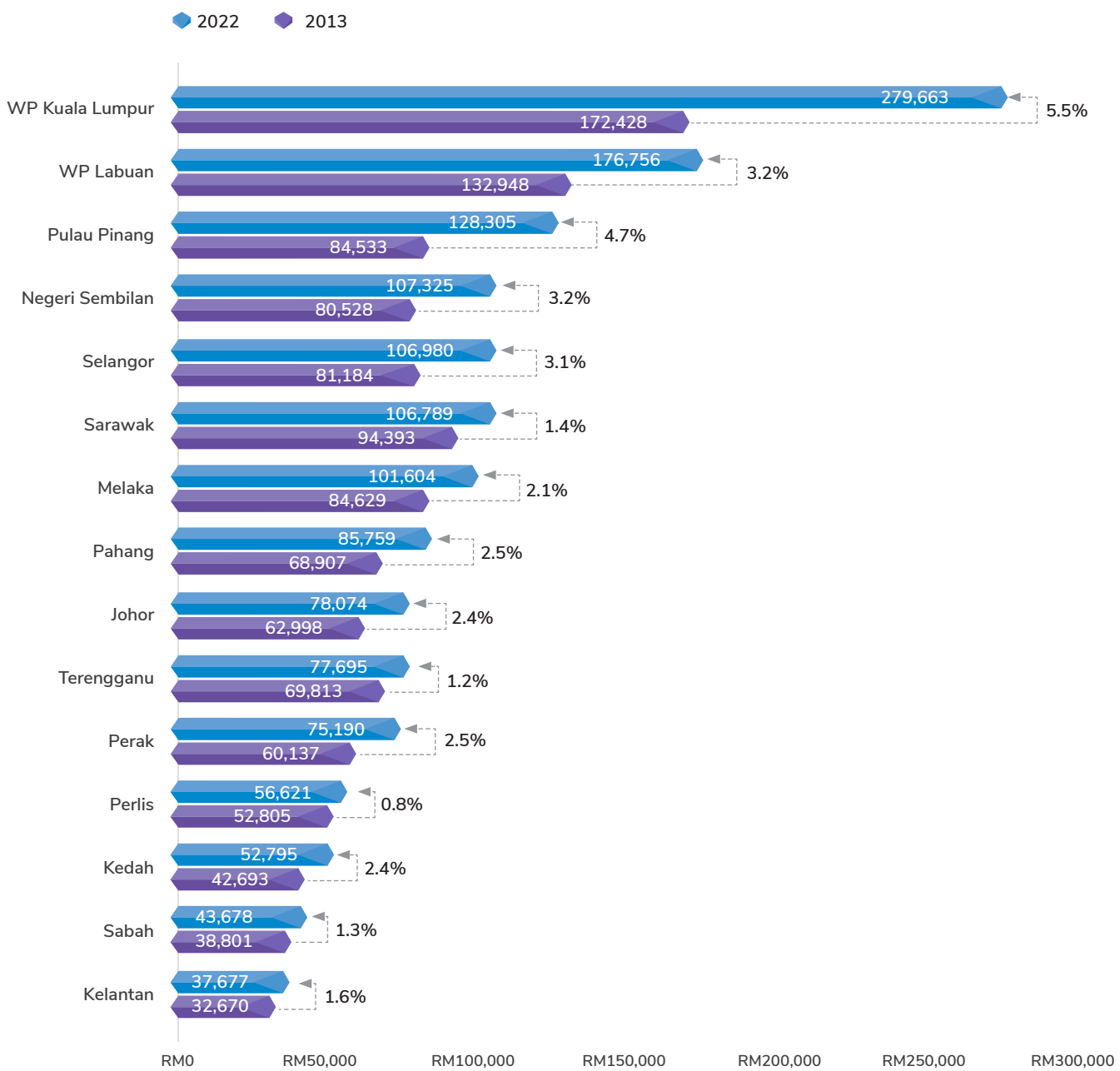
PRODUCTIVITY GAP AMONG STATES IS WIDENING

Malaysia's economic landscape is marked by a notable disparity in prosperity and productivity among states.

Kuala Lumpur and Pulau Pinang consistently recorded the highest productivity and economic growth, driven by their roles as Malaysia's economic hubs. The concentration of businesses, high-value industries, skilled workforce, and quality infrastructure contribute significantly to their economic and productivity performance. Over the 10-year period, Kuala Lumpur's productivity level increased almost double from RM172,428 in 2013 to RM279,663 in 2022.

Moderate-performing states, such as Negeri Sembilan and Melaka, benefit from proximity to Klang Valley and industrial diversification. Eight states consistently registered low productivity levels. In 2022, Kelantan recorded a low productivity level at RM37,677 per employee, lagging significantly behind the national average of RM95,858. The disparity impacted the state's economic output and contributed to a staggering RM1.48 billion GDP gap. The inability to match the national productivity level hinders the state's capacity to attract investments and foster sustainable business growth, perpetuating inequalities in opportunity and restricting overall economic and social development.

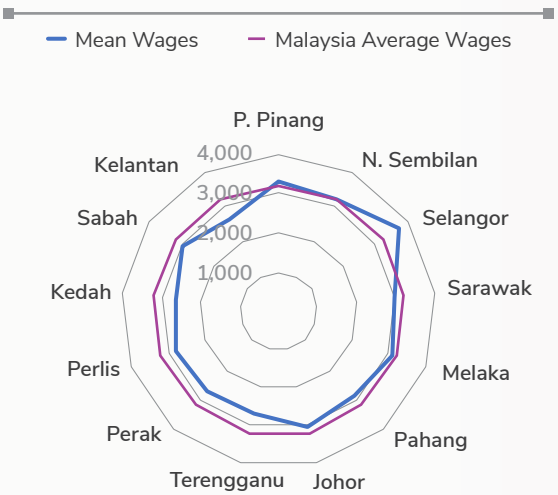
Figure 6 : Malaysia's State Productivity Performance, 2013 and 2022



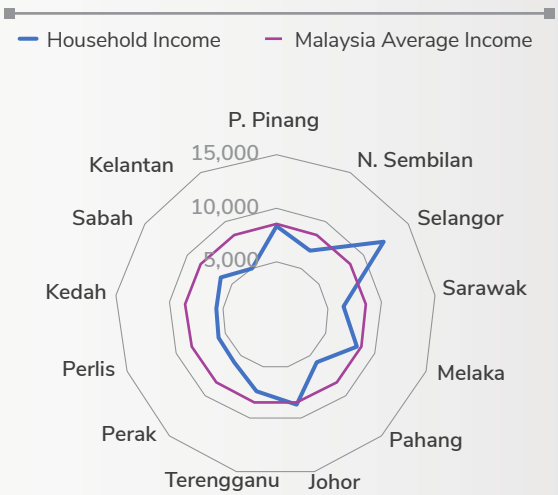
Source : Department of Statistics Malaysia (DOSM), Analysis by Malaysia Productivity Corporation (MPC)

SELECTED ECONOMIC INDICATORS BY STATE (STATES SORTED CLOCK-WISE BY PRODUCTIVITY PERFORMANCE IN 2022)

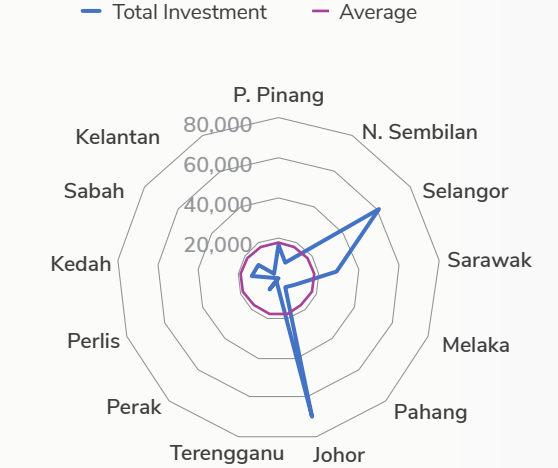
Average wages earned by workers



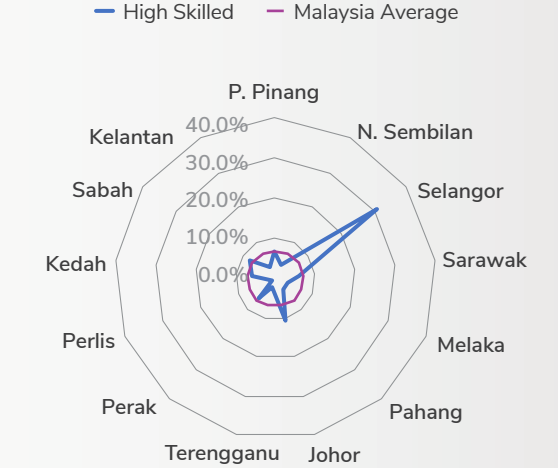
Household income



Total Private Investment



High Skilled Workers



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

Figure 7 : State Performance Comparison with Average Value

State	Productivity	Mean Wages	Household Income	Private Investment	High Skilled
P. Pinang	●	●			
N. Sembilan	●				
Selangor	●	●	●	●	●
Sarawak	●			●	
Melaka	●				
Pahang					
Johor			●	●	●
Terengganu					
Perak					
Perlis					
Kedah					
Sabah					
Kelantan					

● above-average performance

Low GDP growth and productivity lead to low household incomes and high levels of hardcore poverty, particularly in underperforming states.

Addressing socio-economic inequality is critical to attaining balanced regional development. Economic reform is required to ensure Malaysia becomes a developed, high-income, and respected country.

Balancing regional development with planned restructuring is one of the numerous structural issues that must be addressed. Understanding the various dynamics that drive this economic discrepancy is critical for policymakers and stakeholders.

Regional inequalities pose significant challenges for planners and policymakers tasked with driving economic progress. Many countries have used regional planning to address these issues.

Regional planning aims to better use the region's productive resources, such as land, labour, and capital while improving the region's integration with the national economy.

In doing so, it fulfils the goals of boosting the region's standard of living, accelerating national development, and achieving a more equal distribution of development gains.

REGIONAL PRODUCTIVITY DEVELOPMENT NETWORK BRIDGES DISPARITY

To address disparities among states, it is crucial for all parties to collaborate and analyse regional productivity constraints. **Businesses and policymakers should collaboratively conduct a thorough study to pinpoint specific obstacles to productivity growth across sectors.** By analysing these findings alongside macroeconomic data at regional and national levels, policymakers can develop focused interventions to enhance productivity and stimulate economic growth. Fostering cooperation and implementing well-thought-out plans can create a fair and robust economy where each state plays a significant role in driving the nation forward.

Establishing a Regional Productivity Development Network is a feasible solution as a platform for sharing knowledge and implementing capacity-building programmes to improve productivity in regions that encounter similar obstacles. This network would encourage stakeholder collaboration, promoting innovative solutions and best practices to address regional productivity disparities comprehensively.

According to the "OECD Regional Outlook 2016 : Productive Regions for Inclusive Societies" report, strategic actions to boost productivity and social inclusion across regions include:

i) Structural reforms combined with place-based approaches;

ii) Public investment drawing on subnational governments as well as regional, urban and rural development policies; and

iii) Multi-level governance reforms as good governance is associated with higher productivity levels and catching-up dynamics.

Figure 8 : Regional Level Initiatives - Towards Localised Productivity Interventions

Orientation and focus of the Malaysian Productivity Blueprint

New focus that will produce desired outcomes

National-level initiatives	Sector-level initiatives	Enterprise-level initiatives	Regional-level initiatives
			
National-level initiatives outline **immediate policy priorities** to uplift national productivity. • To be lead by core government ministries and agencies • Targets governance of productivity policies impacting all economic sectors	Sector-level initiatives outline **explicit sector strategies** to remove sector-level productivity barriers • To be lead by key industry and anchor enterprise in sector • Targets acceleration of productivity uplift, impacting large enterprises and SMEs in sector	Enterprise-level initiatives outline **specific enterprise strategies** to enhance operations related to productivity improvement • To be lead by management at enterprises (including SMEs) with guidance from Sector Productivity Centers • Targets productivity improvement at enterprises level	Regional-level initiatives outline **specific regional strategies** to increase the competitiveness of the regions, particularly at the state & locality level • To be lead by state government and agencies with close guidance by federal agency • Targets productivity improvement at all sectors in each state

Malaysia Productivity Blueprint (MPB) elaborated initiatives at all levels, including at the regional level, to ensure transformative productivity advancement. Respective state government and relevant state-level agencies should lead productivity improvement initiatives in close cooperation with the federal government. Productivity improvement initiatives should cover each state's main economic sectors.

MALAYSIA'S FUTURE OUTLOOK EXUDES OPTIMISM

The IMF World Economic Outlook Update January 2024 report projected global growth to stay at 3.1 per cent in 2024 and rise to 3.2 per cent in 2025. The forecast for 2024 to 2025 falls below the historical average of 3.8 per cent between 2019 and 2000.

Factors such as elevated central bank policy rates aimed at combating inflation, a reduction in fiscal support amidst high debt levels, which dampens economic activity, and sluggish underlying productivity growth contribute to the projection.

Despite lower global economic estimations, Malaysia's Ministry of Finance forecasted an optimistic projection of the country's GDP between 4.0 and 5.0 per cent in 2024.

In its April 2024 East Asia and Pacific economic update, the World Bank kept Malaysia's 2024 economic growth outlook at 4.3 per cent, reflecting a likely recovery in global growth and the easing of restrictive financial conditions.

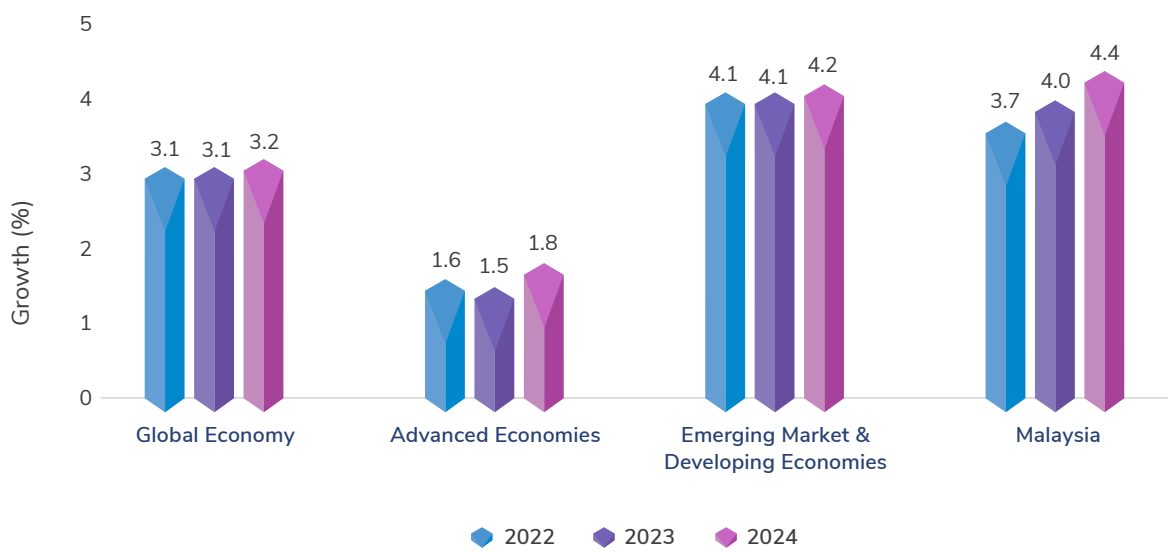
Robust domestic demand, reinforced by the implementation measures outlined in the New National Energy Transition Roadmap (NETR), the New Industrial Master Plan 2030 (NIMP 2030), and the Mid-Term Review of the Twelfth Malaysia Plan, support Malaysia's positive economic outlook.

The Mid-Term Review of the Twelfth Plan expected that Malaysia's economy would record an annual growth rate of 5.0 to 5.5 per cent from 2023 to 2025, compared to the previous period between 2021 and 2022, which saw a growth rate of 5.9 per cent. Domestic demand, particularly from the private sector, is expected to strengthen the growth projection. The services and manufacturing sectors are set to continue as the primary engines of economic growth, with the services sector expected to grow at an average annual rate of 5.2 per cent and the manufacturing sector at 6.4 per cent from 2023-2025.

The MADANI Economy framework addresses relevant structural problems related to wages and productivity while responding to the contemporary difficulties the rakyat faces, most notably the rising cost of living.

The White Paper on Progressive Wage is expected to positively affect labour productivity, with wage growth parallel to productivity performance.

Figure 9 : GDP Projections for 2024 and 2025 (Real GDP Growth, percentage change)



Source : IMF Economic Outlook April 2023. OECD Economic Outlook for Southeast Asia, China and India 2023.

The NIMP 2030 outlines Malaysia's commitment to fostering a high-income and skilled workforce, ensuring the prosperity of the rakyat and the flourishing of industries. Technology assumes a pivotal role as a catalyst for growth and productivity enhancement. The progression of technologies will empower the Malaysian workforce, enabling improved efficiency and accelerating innovative capabilities. This will attract more hi-tech and innovation-driven investments, including in green manufacturing and renewable sectors. Malaysia is set to enhance its productivity and sustainability practices.

Malaysia is optimistic about achieving the productivity target of an average 3.7 per cent annual growth rate between 2021 and 2025, with a productivity level of RM107,170 per employee in 2025, as outlined in the Mid-Term Review of the Twelfth Plan.

The future is promising.

EMPOWERING MALAYSIA'S INDUSTRIAL FUTURE : MPC'S ROLE IN NIMP 2030

The New Industrial Master Plan 2030 (NIMP 2030) outlines a visionary roadmap for Malaysia's manufacturing and related services sectors, aiming to bring about significant transformation. Malaysia Productivity Corporation (MPC) remains steadfast in its commitment to materialise NIMP 2030 by focusing on initiatives related to key productivity multipliers: regulatory reform, technology and digitalisation, and skilled talent development, contributing to Malaysia's enhanced global competitiveness.

NIMP 2030 is designed to strategically capitalise on emerging global trends and generate significant growth within a seven-year timeframe. It aims to bring Malaysia's industries up to par with advanced economic, technological, and environmental standards by fostering collaboration between the government and the private sector through a mission-based approach.

MPC's facilitation in regulatory reform is of utmost importance. MPC facilitates a dynamic and adaptable industrial environment by streamlining and updating regulatory frameworks.

Regulatory reform initiatives aim to streamline business regulatory processes and create an environment promoting innovation and rapid industry growth. For instance, by implementing strategies to overcome trade barriers, MPC aims to strengthen Malaysia's position in international markets. A conducive business climate is essential for attracting both local and foreign investments.

MPC strategises its actions to encourage the adoption of technology and modern management practices at the organisational and sectoral levels in the public and private sectors. This involves implementing the Industry4WRD initiative, which converts traditional factories into smart factories and establishes Malaysia as a centre for generative AI, improving the technological presence of the country's industries.

Developing a skilled workforce is a crucial aspect of MPC's strategy for NIMP 2030. Through implementing policies like the progressive wage system and expanding work-based skills enhancement programmes, such as the *Akademi Dalam Industri (ADI)*, MPC is dedicated to nurturing a workforce equipped with skills and knowledge to meet the industry's demand.

THE WORLD ECONOMIC FORUM (WEF)'S FUTURE OF GROWTH REPORT SIGNALS MALAYSIA'S READINESS TO BECOME A HIGHLY PRODUCTIVE ECONOMY

The World Economic Forum (WEF) released its The Future of Growth Report 2024, calling for a new approach to economic growth that balances innovativeness, inclusiveness, sustainability, and resilience while creating an equilibrium of speed and quality. The Report assesses 107 economies across four economic groups: high-income, upper-middle-income, lower-middle-income, and low-income.

Among the upper-middle-income economies, Malaysia's scores are notably high. With an average Gross Domestic Product (GDP) of USD17,900 per capita in 2023, Malaysia's GDP per capita averaged 2.4 between 2018 and 2023. Malaysia scored 56.2 on Innovativeness, 61.7 on Inclusiveness, and 65.1 on Resilience. However, it fell short of the Sustainability dimension at 39.6.

The country's commendable performance in 3 out of 4 Future of Growth dimensions signals its readiness to shift to a high-income nation, indicating higher GDP per capita and a more robust productivity performance.

Malaysia Productivity Corporation (MPC), WEF's Partner Institute, regards Malaysia's performance as a positive indication of a strong productivity trajectory.

Malaysia's performance in WEF's The Future of Growth Report will help policymakers address the country's economic growth and productivity performance through a more balanced approach, incorporating the critical elements of innovation, inclusion, sustainability, and resilience goals more effectively.

The Future of Growth Report 2024 emphasises a significant economic slowdown, with the growth rate estimated to fall to the lowest in three decades by 2030. Boosting productivity across all sectors and regions must be at the forefront to mitigate the incoming challenges.

According to the Report, most countries continue to grow moderately in sustainable and inclusive ways, and their potential to absorb or generate innovation has room for improvement, as does their contribution and vulnerability to global shocks.

The inclusiveness dimension, which assesses how well an economy's trajectory includes all stakeholders in the benefits and opportunities it generates, and the resilience dimension, which assesses how well an economy's trajectory can withstand and recover from shocks, have the highest global average scores, 55.9 out of 100 and 52.8 out of 100, respectively.

Meanwhile, the global average for the sustainability dimension, which measures an economy's ability to retain its ecological impact within finite environmental limitations, is 47.7 out of 100.

The innovativeness dimension achieves the lowest global score, with a global average of 47.5 out of 100, capturing the extent to which an economy's trajectory can absorb and evolve in response to new technological, social, institutional, and organisational developments to improve the longer-term quality of growth.

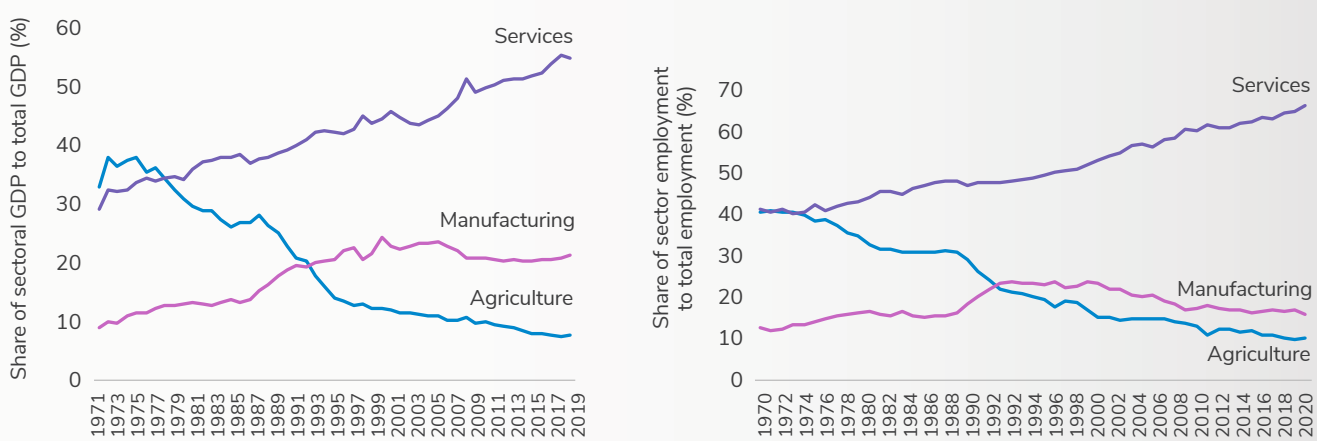
FOSTERING PRODUCTIVITY FOR THE REVERSAL OF PREMATURE DEINDUSTRIALISATION

Agriculture was the primary source of output and employment in the early stages of economic development. As the economy progressed and income increased, output and employment in the agriculture sector shifted to the manufacturing sector, which became the next engine of growth with greater levels of capital accumulation, economy of scale, and technological progress. Economies around the world emulated this era of industrialisation to promote economic growth.

However, deindustrialisation occurs when the focal economic development shifts from manufacturing to services, suggesting that consumer demand has shifted from manufacturing to services.

Two crucial indicators illustrating deindustrialisation are the decline in the share of manufacturing output to total Gross Domestic Product (GDP) and the share of employment in the manufacturing sector to total employment.

Trends of Agriculture, Manufacturing and Services GDP share to total GDP, and employment share to total employment in Malaysia, 1970-2020



Note : This box article was contributed by the Centre for Future Labour Market Studies (EU-ERA), THE FUTURE. It summarises the study submitted to the Asian Productivity Organization (APO) under the project "Premature Deindustrialization and Productivity Performance."

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Source : Computed from APO Productivity 2022 database

FOSTERING PRODUCTIVITY FOR THE REVERSAL OF PREMATURE DEINDUSTRIALISATION (CONT')

The share of manufacturing to GDP increased from 10 per cent to 25 per cent from the 1970s to 2000, which aligned with employment expansion. After 2000, while the services sector continued its rapid expansion, the manufacturing sector's share had been loosening its grip to drive economic development further. This trend suggests the existence of a premature deindustrialisation pattern within the period.

Despite the observed pattern of premature deindustrialisation over the years, its negative impact on labour productivity appears inevitable, with empirical evidence indicating that each percentage increase in premature deindustrialisation results in a 0.5 per cent decrease in labour productivity.

However, this effect can potentially be mitigated through several measures: increasing labour wages to boost worker morale and efficiency, adopting advanced technologies to enhance operational efficiency and create high-skilled jobs, improving education systems to develop a demand-oriented skilled workforce, and advancing financial development to support industrial growth through necessary capital investments.

By focusing on these strategies, countries can counteract the adverse effects of premature deindustrialisation and foster sustainable economic growth. Implementing the New Industrial Master Plan (NIMP) 2030 is expected to counter premature deindustrialisation of the manufacturing sector.

UNLOCKING INNOVATION AND EFFICIENCY : THE PRODUCTIVITY GRANT

Malaysia Productivity Corporation (MPC) has launched the Productivity Grant, an initiative designed to support groundbreaking products and services that enhance customer productivity and operational efficiency.

The Productivity Grant promotes business Research & Development, Commercialisation, and Innovation (R&D&C&I), aligning with the government's aspiration to enable private sector-led economic growth and encourage private sector spending on R&D. The grant focuses on the agro-food, tourism, and professional services subsectors in its initial launch in 2024.

The Productivity Grant aims to :

- **Encourage Innovation** : The grant seeks to address unmet market needs and propel Malaysia into a new era of innovation by stimulating the development of advanced technologies, novel processes, or unique concepts.

- **Enhance Productivity** : The grant supports products and solutions that improve operational efficiency, reduce costs, and enhance the quality of outputs, benefiting both businesses and consumers.

- **Drive Economic Growth** : The grant contributes to Malaysia's overall economic development by backing ventures with potential for scaling, creating jobs, and fostering competitive advantages.

Selected companies must demonstrate multiplying impacts on firm-level productivity performance, creating more skilled job opportunities, increasing business profitability, and improving workers' wages.

CHAPTER 2

Good Regulatory Practice (GRP) Improves Business Climate

CPTPP AND GRP INTERSECTION BOOSTS MALAYSIA'S ECONOMY

Malaysia's inclusion in CPTPP enhances trade, investment, and industrialisation and boosts the country's productivity and global competitiveness

Malaysia ratified the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) on 30th September 2022, becoming the ninth of 11 countries participating in the agreement. Malaysia's ratification of CPTPP represents a significant milestone with diverse economic implications.

The move is anticipated to significantly enhance the country's economic structure across various domains, encompassing investment, commerce, industrialisation, and the broader business environment. Malaysia's productivity and global competitiveness are expected to improve as CPTPP provides a comprehensive description of its advantages in both the professional and economic domains.

Malaysia's inclusion in the CPTPP enhances the country's attractiveness as a foreign direct investment (FDI) destination. FDI promotes economic diversification and facilitates the transfer of expertise and technological knowledge, which is expected to enhance the productive delivery of products and services. This could result in a positive trend in terms of the increase in Gross Domestic Product (GDP) and employment rates.

Malaysia can enhance its investment climate by adhering more closely to the regulatory criteria and commitments defined in the agreement. This facilitates the establishment of a conducive atmosphere for both inward and portfolio investments. The alignment is expected to expedite the development of infrastructure, the progress of technology, and the generation of employment opportunities, fostering economic expansion.

CPTPP facilitates the elimination of various non-tariff barriers and substantially reduces tariffs among its member nations, pushing Malaysia's entry into untapped markets for its exports, specifically in sectors where Malaysia holds a competitive edge. Moreover, it facilitates the acquisition of imports, both primary resources and investment assets, which are indispensable for domestic enterprises.

Eliminating or reducing trade barriers increases Malaysia's commercial activities, enhances the nation's trade balance, and improves the efficiency of resource allocation. Analysts anticipate this will bolster Malaysian exports' competitiveness and improve consumer welfare by granting them access to a wider range of goods at prices on par with those other nations provide.

CPTPP is anticipated to expedite industrialisation in Malaysia, contributing significantly to economic diversification. The agreement supports the growth of Malaysia's manufacturing sector while promoting economic diversity. This is achieved through the facilitation of enhanced accessibility to primary resources, cutting-edge technology, and expanded market opportunities.

Enhancing Malaysia's industrial capability and fostering economic diversification are vital for securing the nation's enduring economic viability. Aligned with Malaysia's objectives of attaining a high-income economy, CPTPP is expected to foster innovation, boost productivity, and generate valuable employment prospects.

CPTPP exerts a significant influence on the business environment in Malaysia, including a diverse range of entities, including major businesses and small and medium-sized enterprises (SMEs).

By implementing trade and investment regulations that exhibit enhanced transparency and predictability, the agreement effectively mitigates the expenses linked to commercial operations. It fosters novel prospects for Malaysian enterprises to assimilate into worldwide value networks.

The expected consequences encompass a rise in Malaysian enterprises' worldwide competitiveness, an augmentation in export potential, and an improvement in attracting and retaining foreign investment.

The agreement promotes the exploration of worldwide markets by small and medium-sized firms (SMEs), fostering a forward-thinking and globally oriented entrepreneurial environment.

The CPTPP's primary advantages are mainly economic; however, the secondary consequences for Malaysian society are significant. The deal is expected to enhance living conditions by generating new employment opportunities, mainly skilled jobs, increasing income potential, and improving consumer choice.

The advantages for society go beyond economic indicators and encompass improved availability of top-notch products and services, heightened job prospects in industries with potential for expansion, and a general enhancement in socio-economic circumstances.

Ratifying CPTPP signifies a deliberate economic shift, enabling the country to leverage the potential benefits of international trade and investment movements. Due to its comprehensive nature, the benefits of CPTPP extend across investment, trade, industrialisation, and the broader economic landscape. CPTPP will drive Malaysia's economic development and facilitate its integration into the global economy.

The move aligns with the New Industrial Master Plan (NIMP) 2030, which focuses on bolstering the manufacturing and manufacturing-related services sectors over the next seven years until 2030. Malaysia's inclusion in CPTPP supports NIMP 2030's missions to advance economic complexity through innovation and production of more sophisticated products, embrace technology and digitalisation to enhance productivity and create new economic growth opportunities, decarbonise the manufacturing sector to achieve net zero emission, and safeguard economic security and inclusivity by enabling supply chain resilience, fostering entrepreneurship, supporting SMEs, and promoting equitable economic activities.

QUALITY REGULATORY FRAMEWORK ENSURES CPTPP IMPACT

Malaysia should establish a quality, supportive, and friendly regulatory framework to maximise the advantages of CPTPP. The rationale underscores the importance of regulatory consistency and adjustment to the intricate dynamics of international trade agreements.

Global trade operates in an inherently competitive environment. **Malaysia has the potential to significantly enhance its competitive advantage by adopting a regulatory structure that aligns with the demands of the CPTPP and promotes those standards.**

Harmonising its domestic regulations with the principles of the agreement guarantees Malaysian economic sectors to compete equitably. This includes the implementation of optimal methods for safeguarding intellectual property, ensuring regulatory processes that are predictable, clear, and open, and adhering to environmental and labour standards. The alignment facilitates access to member markets and enhances its attractiveness to FDIs, which seek a regulatory framework that is both consistent and secure.

CPTPP aims to enhance economic integration among its member states by removing non-tariff barriers and addressing regulatory issues. Building a legal framework that promotes this integration is imperative to ensure the smooth movement of capital, goods, and services. Malaysia should prioritise the removal of redundancies and inefficiencies that could hinder full economic integration.

This requires thoroughly examining the existing regulations and legislations, with the potential for making necessary modifications. Malaysia can leverage the CPTPP benefits to enhance its integration into the global economy by implementing regulatory reforms that promote innovation, entrepreneurship, and equitable competition.

Commencing reforms within the country's business regulatory framework enables Malaysia to achieve transformative changes. CPTPP sets forth strict requirements for the mechanisms utilised in regulatory processes by requiring transparency, effective governance, and the preservation of human and labour rights.

Complying with these standards includes conducting a comprehensive assessment and reforming domestic policies and regulations. Such reforms can significantly enhance the provision of public services, corporate governance, and the general business environment. Consequently, Malaysia will become increasingly attractive not only to foreign investors but also to its domestic businesses and entrepreneurs.

Establishing regulations that are consistent, coherent, and harmonious with each other enables the maximum benefits of any trade agreement. Aligning Malaysia's policies and regulations with CPTPP objectives necessitates that Malaysia establish a regulatory framework that is supportive and conducive across different sectors and levels of government.

Achieving alignment is crucial to prevent policy conflicts that could undermine the agreement's benefits and ensure that all sectors of the economy can fully capitalise on the opportunity it presents. This requires policymakers and regulators to make a dedicated effort to continuously engage in discussions, coordinate actions, and collaborate within the government, the private sector, and civil society.

An effective regulatory framework fosters trust and confidence among Malaysia's trading partners and economic investors. This showcases Malaysia's commitment to enforcing equitable and open trade practices and the effectiveness of regulatory procedures and international benchmarks. Confidence is crucial for effectively executing CPTPP and Malaysia's broader economic diplomacy and international trade connections.

GRP APPROACH BUILDS A QUALITY REGULATORY FRAMEWORK

Adoption of Good Regulatory Practices by member countries is one of the critical elements of CPTPP, as encapsulated in Chapter 25 of the agreement titled "Regulatory Coherence". The chapter refers to the use of Good Regulatory Practices in the process of planning, designing, issuing, implementing, and reviewing regulatory measures to facilitate the achievement of domestic policy objectives and in efforts across governments to enhance regulatory cooperation and promote international trade and investment, economic growth, and employment opportunities.

In achieving regulatory coherence, CPTPP member states need to affirm the importance of:

- Sustaining and improving CPTPP benefits through regulatory coherence in facilitating increased trade of goods and services and enhanced investments among member states;
- Identifying regulatory priorities and establishing and implementing regulatory measures to address the priorities at the appropriate levels subject to member states;
- Achieving public policy objectives through the role of regulations;
- Considering input from interested persons and parties in developing regulatory measures; and
- Developing regulatory cooperation and capacity among the member states.

The essence of Chapter 25 aligns with Malaysia's move to implement the Good Regulatory Practice (GRP) approach in developing, reviewing, and implementing policies and regulations as stipulated in *Pekeliling Am Bilangan 1 Tahun* 2021, National Policy on Good Regulatory Practice (NPGRP) dated 22nd June 2021.

NPGRP is a revision and improvement of the National Policy on the Development and Implementation of Regulations (NPDIR) introduced in 2013. NPGRP guides the implementation of GRP as an inclusive, systematic, and comprehensive regulatory tool for developing, reviewing, and implementing regulations.

The policy provides more explicit guidelines for broader dissemination and effective GRP adoption in Malaysia. New and existing regulations should comply with GRP principles and the Malaysian Government's intervention in the economy. NPGRP's objective is to promote an effective, efficient, and accountable regulatory system and a rulemaking process that support efforts to realise Malaysia's economic development goals.

The GRP approach is crucial in creating a quality regulatory framework that promotes economic growth and a thriving business climate for Malaysia and in its cooperation with other CPTPP member states. Implementing GRP will improve Malaysia's involvement in CPTPP, promoting the growth and expansion of the country's economy.

GRP advocates for regulations based on empirical facts, subjected to cost-benefit analysis, and aligned with global standards whenever feasible. This ensures that regulations are not excessively burdensome or limiting, promoting efficiency and effectiveness instead of imposing unnecessary constraints.

Implementing GRP enhances Malaysia's regulatory environment's attractiveness for international investors and local enterprises. This will promptly uphold

Malaysia's obligations under CPTPP. The alignment enhances Malaysia's credibility and reliability as a trading partner, fostering greater economic integration with other member states and attracting investments.

Transparency is a core tenet of GRP, which aims to ensure that stakeholders are consistently informed and actively engaged in regulatory development, revision, and execution processes. Transparency is crucial for investors and businesses to ensure predictability, a vital factor to consider when making strategic decisions and investment selections.

Malaysia can enhance the confidence of both domestic and foreign investors by augmenting the transparency of its regulatory processes. This would lead to a decrease in the risk associated with investing decisions. In the CPTPP context, member nations must maintain high regulatory practice standards by prioritising predictability, transparency, and consistency to ensure seamless trade and investment flows.

GRP promotes a regulatory environment that encourages innovation and competitiveness. Prioritising agile, flexible, and adaptive policies and regulations provides a conducive environment for creating innovative business models and technical advancements. Industries, including digital trade, services, and e-commerce, play a crucial role in CPTPP, requiring an agile regulatory framework that supports the inclusion of new technologies and aligns with fast-paced technological and digitalisation growth.

Implementing a set of laws that promotes innovation can support Malaysian businesses across various sizes in enhancing their competitiveness in the global market, facilitating the country's economic complexity, expansion, and diversification.

An essential element of GRP is integrating input from stakeholders. This commitment ensures that regulations are grounded in reality and address the many perspectives and needs of all stakeholders, including corporations, civil society, and the general public.

Heightened stakeholder engagement yields more efficient and equitable regulations, increasing the probability of successful execution and compliance. The collaborative approach is crucial for dealing with intricate trade matters under CPTPP, guaranteeing that Malaysia's regulatory policies are well-informed and supported.

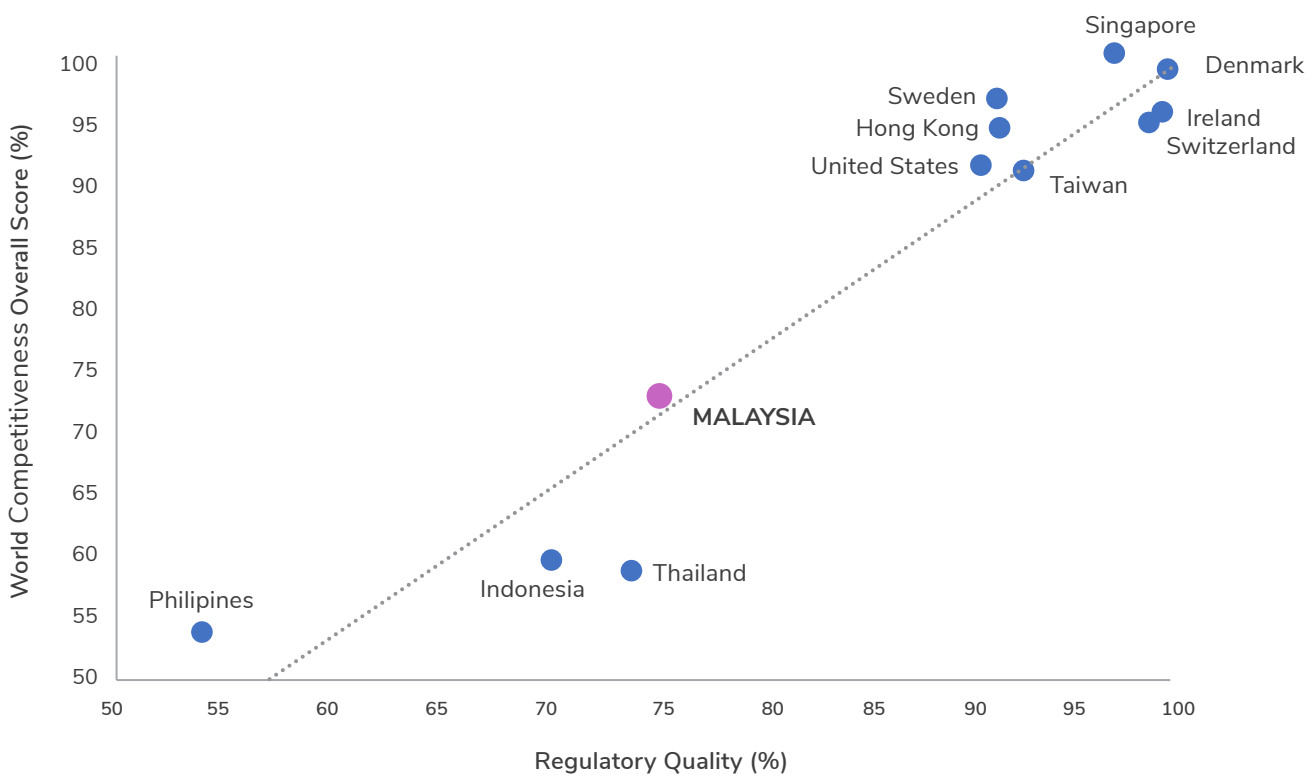
By advocating for transparent, uniform, and fair regulations, GRP helps reinforce the principles of the rule of law. A robust legal framework is essential for instilling trust in business by guaranteeing the enforceability of contracts and the protection of rights. Within the CPTPP framework, this is important for global investors and partners seeking assurance that their investments and interests will be safeguarded.

MALAYSIA'S REGULATORY QUALITY HAS ROOM FOR IMPROVEMENT

Economies with strong regulatory quality rank high in global competitiveness primarily because their well-designed policies and regulations improve efficiency and reliability for market participants and institutions, domestically and internationally. This underscores a strong relationship between global competitiveness and regulatory quality.

Highly competitive economies, such as Denmark, Ireland, Switzerland, Singapore, Taiwan, Hong Kong, Sweden, and the United States, which ranked in the top ten by the Institute for Management Development (IMD)'s World Competitiveness Ranking (WCR) 2023, scored high percentile ranks in 2023 Worldwide Governance Indicators (WGI)'s Regulatory Quality Percentile Rank. These economies scored above 90 per cent.

Figure 10 : Selected Countries' WCR Overall Score and WGI Percentile Rank of Regulatory Quality, 2023



Source : World Competitiveness Ranking (WCR) 2023 and Worldwide Governance Indicators, 2023 Update

Figure 11 : Productivity Growth of the Main Economic Sectors, 2019, 2022, 2023

Subsector	World Competitiveness Ranking 2023		Worldwide Governance Indicators, 2023 Update	
	Overall Ranking n=64	WCR Overall Score	WGI Regulatory Quality: Percentile Rank	Regulatory Quality: Estimate of Governance
Denmark	1	100.00	98.58	1.84
Ireland	2	99.71	95.28	1.64
Switzerland	3	99.13	94.34	1.62
Singapore	4	97.44	100.00	2.21
Taiwan, China	6	93.11	90.57	1.41
Hong Kong SAR	7	92.05	93.87	1.59
Sweden	8	91.86	96.23	1.68
United States	9	91.14	91.04	1.42
Malaysia	27	75.75	72.64	0.64
Thailand	30	74.54	58.49	0.17
Indonesia	34	70.75	59.43	0.21
Philippines	52	54.14	53.77	0.06

Note : The Percentile Rank among all countries ranges from 0 (lowest) to 100 (highest); the Estimate of Governance performance ranges from approximately -2.5 (weak) to 2.5 (strong).

Source : World Competitiveness Ranking (WCR) 2023 and Worldwide Governance Indicators, 2023 Update

The top performers with the highest regulatory quality Estimate of Governance, such as Singapore (2.21), Denmark (1.84), Sweden (1.68), Ireland (1.64), and Switzerland (1.62), correspondingly recorded high ranks in the world competitiveness ranks and scores.

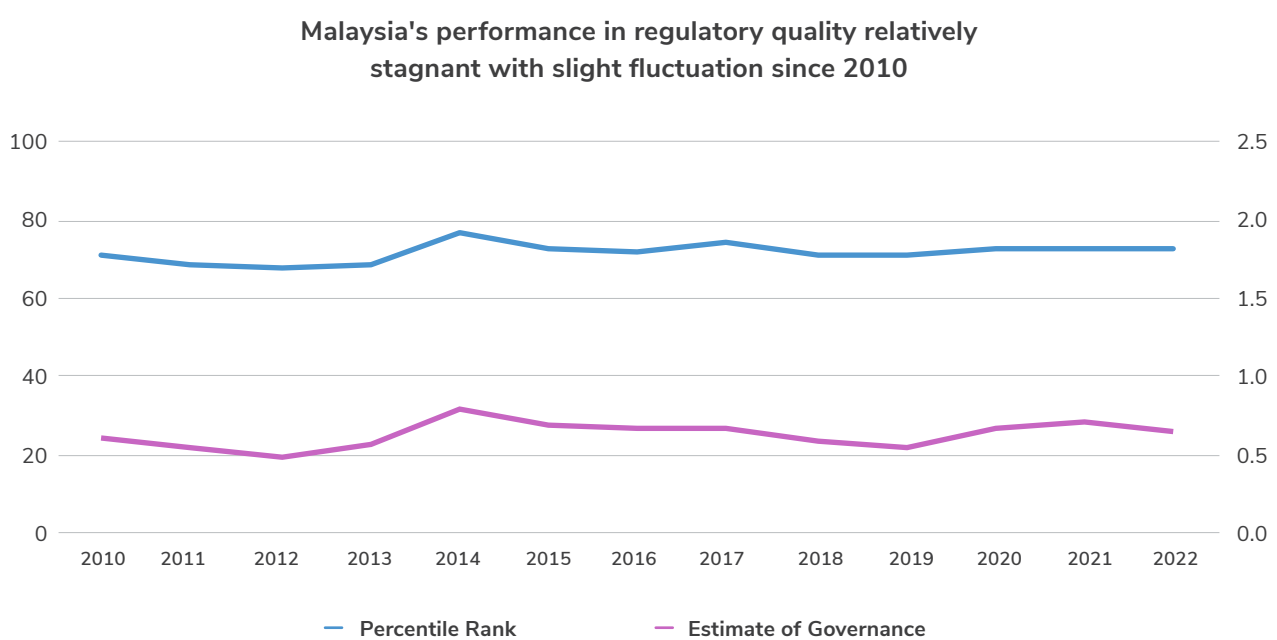
Malaysia's global competitiveness was ranked 27th among 64 economies, with an overall score of 75.75 per cent. While Malaysia's performance in 2023 improved by five spots compared to 2022 (2022:32) and the country ranked higher than its regional

counterparts such as Thailand (2023:30), Indonesia (2023:34), and the Philippines (2023:52), the nation still has room for improvement to catch up with highly competitive economies and position itself among 12 most competitive countries by 2030, as targeted in the MADANI Economy framework. Malaysia has much to improve compared to its closest neighbour, Singapore, which ranked fourth in the world competitiveness ranking.

Malaysia's 2023 WCR rank and overall score correlate with its performance in WGI Regulatory Quality. With a percentile rank of 72.64, Malaysia's regulatory quality is perceived to be better than approximately more than 70 per cent of countries globally. Yet, it is still far from countries such as Singapore, Denmark, Ireland, and Sweden, whose scores are approximately 100 per cent.

Malaysia's regulatory quality estimate of 0.64 in 2022, which reflects perceptions of the government's ability to formulate and implement sound policies that permit and promote private sector development, is relatively robust. However, compared to the average governance estimate, it indicates that while Malaysia is performing well, its regulatory environment has room for improvement further to enhance its attractiveness for investment and business development.

Figure 12 : Malaysia's Performance in WGI Regulatory Quality, 2010 - 2022



Year	Percentile Rank	Estimate of Governance
2010	70.81	0.61
2011	68.72	0.55
2012	67.77	0.48
2013	68.25	0.57
2014	76.44	0.80
2015	72.86	0.70
2016	71.90	0.66
2017	74.29	0.67
2018	71.43	0.58
2019	71.43	0.55
2020	72.86	0.67
2021	72.38	0.71
2022	72.64	0.64

Source : Worldwide Governance Indicators (WGI), 2023 Update

Malaysia's regulatory quality performance relatively stagnated, with a slight fluctuation between 2010 and 2022. The performance increased in Percentile Rank and Estimate of Governance in 2014, a year after the introduction of NPDIR when GRP was initially established. Since then, there has been no significant improvement in Malaysia's regulatory quality performance.

Enhancing the regulatory framework to support efficient and effective policy and regulation development and implementation could improve Malaysia's ranking in terms of regulatory quality, potentially leading to a higher overall competitiveness performance and improving Malaysia's appeal and attractiveness as a preferred investment and business destination. This could involve reforms that streamline business processes, improve transparency, and promote effective regulatory governance, which is pivotal in attracting foreign investment and fostering a dynamic private sector.

QUALITY REGULATIONS ENABLE GLOBAL MARKET INTEGRATION

Malaysia faces challenges in its business regulatory structure in the context of global economic integration. These problems substantially threaten Malaysia's endeavours in trade, investment, and factory output, perhaps causing substantial damage.

The repercussions of trade and investment-related regulations may have detrimental impacts on Malaysia's economy when they are more burdensome than facilitative. While CPTPP aims to reduce tariffs, non-tariff measures (NTMs) pose a significant barrier. NTMs are characterised by stringent quality controls, diverse standards, and certification requirements, resulting in increased expenses and time delays.

The intellectual property rights system also needs improvement. This includes enforcement measures which hinder technology transfer and commerce in knowledge-intensive commodities, leading to difficulties in these areas.

In addition, imposing regulations that limit the unrestricted movement of capital directly affects Malaysia's appeal as a destination for investment. The legislative approach to Malaysia's labour market may also differ from the flexibility required by contemporary enterprises, affecting the industrial sector's growth and productivity.

The regulatory framework often needs to catch up in adjusting to the requirements of developing industries, such as biotechnology and digital services, which are crucial for promoting economic diversity.

The adoption and application of GRP, or Regulatory Impact Analysis (RIA), has yet to be widely utilised. This lack of widespread use may lead to the development of policies and regulations that are not fully optimised or fail to consider the long-term impacts that may arise.

Inadequate resource allocation sometimes hinders the development and upkeep of GRP, impeding its systematic and proliferated implementation.

Institutional inertia, in the form of long-established habits and the apparent increase in job scope linked to implementing GRP procedures, hinders regulators and institutions from fully adopting the GRP approach in developing new regulations and revising existing laws.

Current regulatory measures tend to be more reactive than strategic due to the absence of a comprehensive approach, affecting the seamless shift to adopting the GRP approach.

Regulations imposed by CPTPP may pose challenges for Malaysian exporters, hindering their ability to meet the high standards set by the agreement and limiting their access to the market. Malaysian exports' competitive advantage could be improved if customs procedures and standards can harmonise with the privileged access provided by CPTPP.

The regulatory environment's perceived unpredictability and complexity may discourage FDI and trade partners, which is crucial for maximising the benefits of technology transfer and investment under CPTPP. Inadequate regulatory mechanisms for investor protection can lead to wasted opportunities for attracting investment in critical industries.

Over-regulations may impede supply chain integration, hindering Malaysia's ability to effectively integrate into regional and global supply chains and limiting its participation in global production networks. As such,

Malaysia's regulatory framework should align with CPTPP's call for regulatory coherence among member states, which intertwines with domestic policies and regulations.

Malaysia must promptly resolve its regulatory issues and challenges to fully capitalise on CPTPP and ensure sustained economic development. To do this, it is imperative to wholeheartedly adopt GRP, which requires restructuring institutional practices and regulations to create a more favourable business environment for success.

GRP HARNESSES CPTPP'S BENEFITS FOR MALAYSIA

Malaysia is currently at a critical juncture that will determine its future economic path as global trade agreements like the CPTPP continue to progress. The effectiveness of regulators and policymakers in implementing GRP is crucial. Regulatory provisions have gained significant prominence in recent regional trade agreements. As global trade has become more complex and integrated, non-tariff barriers and regulatory measures have emerged as critical issues affecting trade and investment flows.

To address these challenges, regional trade agreements have increasingly incorporated GRP provisions in a concerted effort to create a more unified regulatory environment and enhance cooperation among member countries, reducing barriers related to regulations and other trade and investment-related policies.

GRP refers to a set of principles and disciplines used by governments and regulatory bodies in the development, implementation, and review of regulations and policies. These practices aim to ensure that regulations undergo sound analysis, informed decision-making, and transparency in the regulatory process, thereby ensuring that regulations achieve the intended policy objectives, minimise regulatory burdens, and are proportionate.

All regulators must ensure that regulatory processes in their jurisdiction are consistent with the following GRP principles:

- Government intervention should be effective, efficient and proportional to the issue being addressed.
- A range of feasible policy options must be considered, including self-regulation, co-regulation, and non-regulatory approaches, and their benefits and costs must be assessed.
- Adopting the option that generates the most significant net benefit for the community.
- Rules and regulations should not restrict competition unless it can be demonstrated that the restrictions' benefits to the community as a whole outweigh the costs or that the objectives of the regulation can only be achieved by restricting competition.
- Providing effective guidance to relevant regulators and regulated parties to ensure the regulation's policy intent and expected compliance requirements are clear.
- ensuring regulation remains relevant and effective over time.
- Consulting effectively with affected critical stakeholders at all stages of the regulatory cycle.

Malaysia Productivity Corporation (MPC), the oversight body responsible for nationwide GRP implementation, has developed a toolkit that establishes the framework for policymakers and regulators to adopt GRP.

The emphasis on regulatory coherence in the CPTPP highlights the significance of having a consistent and harmonised regulatory framework. The organisation requires member countries, including Malaysia, to ensure that rules are formulated, implemented, and evaluated according to common principles. The core of this coherence is in implementing GRP, which encompasses methods that enhance effectiveness, efficiency, proportionality, and inclusivity in the regulatory process.

The Malaysian government recognises this by continuously investigating creative methods to uphold and improve efficiency and competitiveness through GRP.

1. PLANNING

In the planning stage, the process entails identifying the necessary regulations, establishing objectives, and outlining the specific actions required to create these regulations. The process must be strategic and consider the regulatory environment, objectives, and the desired impact on stakeholders. Organising the regulations with clarity and enforceability in mind when designing is essential. This involves analysing the language's clarity, feasibility, and projected impact.

2. DESIGN

The process involves conducting regulatory impact assessments when developing regulatory measures. As such, institutions need to:

a. Assess the need for a regulatory proposal, including a description of the nature and significance of the problem;

b. Examine feasible alternatives, including, to the extent possible, their costs and benefits, risks involved as well as distributive impacts; and

c. Take into consideration the potential impact of the proposed regulation on SMEs.

The process often relies on the best reasonably obtainable existing information, including relevant scientific, technical, economic, or other information. It provides public access to information on new regulatory measures and, where practicable, makes information available online.

3. ISSUANCE

Regulatory issues refer to the official release or publication of regulations to ensure that all parties affected by these regulations are informed and clearly understand the requirements. This stage requires that the measures be articulated and promptly made accessible to the public. During the delivery phase, the main emphasis is effectively implementing and enforcing laws to achieve the desired results.

4. DELIVERY

Regulators need to ensure that measures are published and establish mechanisms to provide continuing opportunities for interested persons to provide input on matters relevant to enhancing regulatory coherence. Enforcement should be based on “responsive regulation” principles and on risk assessment and management.

5. REVIEW

Reviewing entails conducting regular assessments to evaluate the efficacy of current legislation, pinpointing areas that might be enhanced or eliminated. Consultation guarantees the active involvement of stakeholders at every stage of the regulatory process, allowing for the acquisition of valuable perspectives and strengthening the transparency and democratic nature of the rule-making process.

6. CONSULTATION

Concerning a new proposed covered regulatory measures that are likely to affect trade or investment, regulatory agencies shall endeavour to:

- publish the proposed regulation no less than 60 days in advance of the date on which comments are due;
- provides sufficient time for an interested person to evaluate the proposed regulation and formulate and submit comments;
- explain the purpose of, and rationale for, the proposed regulation; and
- consider comments received during the comment period and are encouraged to explain any significant modifications made to the proposed regulation.

Regulatory agencies should use the Unified Public Consultation (UPC) portal to facilitate stakeholder engagements in the rule-making process.

Implementing GRP at all levels of government necessitates a synchronised effort, including all tiers of governance. The central coordinating body is crucial in enhancing interagency interaction and coordination, supporting the efficient evaluation of proposed regulatory actions, and providing recommendations for systemic enhancements.

To maintain smooth economic ties, Malaysia's regulators must harmonise domestic legislation with international norms to prevent anomalies. This alignment is not solely focused on adhering to regulations but also on bolstering Malaysia's position in the worldwide supply chain and attracting international investments.

A primary goal of GRP is to diminish superfluous regulatory constraints that impede competition and innovation. It is essential to simplify laws and choose the alternative that produces the highest overall benefit for the community.

The decisive factor in this course of action is the effectiveness of regulators and policymakers in implementing GRP within the regulatory framework. Malaysia's ability to fully benefit from the CPTPP is directly influenced by its adherence to GRP.

It impacts the ease of conducting trade, the level of trust investors have, the development of industries, and the creation of new ideas and technologies. Adhering to the CPTPP standards can improve the ability of Malaysian exporters to enter new markets and attract foreign direct investment, increasing the overall competitiveness of the nation's economy. Interagency collaboration should be enhanced to ensure efficient multiparty cooperation and consultation, avoiding redundancy and duplication.

Given the emphasis on regulatory coherence in the CPTPP, a harmonious regulatory environment is crucial. CPTPP mandates that all member nations, including Malaysia, ensure that regulations are created, enforced, and assessed in alignment with a shared set of principles. The basis of this type of coherence lies in the implementation of GRP, which encompasses measures to improve effectiveness, efficiency, proportionality, and inclusivity in the regulatory process.

MPC'S STRATEGIC FACILITATION IN REGULATORY REFORM

Malaysia Productivity Corporation (MPC) plays a crucial role in spearheading regulatory reform initiatives to streamline business processes and remove unnecessary bureaucratic hurdles. Through its active engagement with stakeholders and its mandate to foster productivity, MPC has facilitated reforms that have improved business regulatory processes and compliance, optimising the costs of doing business and use of resources, and minimising processing time. Implementing regulatory reform will contribute significantly to achieving the MADANI Economy's targets, with the aim to position Malaysia among the 30 biggest global economies and the 12 most competitive countries internationally within the next 10 years. MPC's facilitation of regulatory reform, including technology integration in government services, will yield RM1.5 billion in compliance cost savings for the private sector.

KULAI FAST LANE (KFL) / JOHOR FAST LANE (JFL)

The KFL/JFL model has reduced the processing time for construction permits from a traditionally three-year duration to 14 months, setting a new standard for project completion that has directly resulted in attracting several high-profile investments to Johor. The duration covers regulatory processes from submission of development plans until starting of operation. Currently, 24 development projects use the KFL/JFL model, 8 of which are data centres. The model is replicated in other local authorities and states. The JFL model has also been extended to the Johor-Singapore Special Economic Zone (SEZ).

SMARTGPB by the Jabatan Kastam Diraja Malaysia (JKDM)

The SMARTGPB system reduces processing time for the movement of goods by licensed manufacturing warehouse (LMW) companies from 3 to 7 days to only 1 minute by digitalising the approval process. The pilot project started in Pulau Pinang and has now been scaled up to other states nationwide. The system leads to compliance cost savings of RM200 million per year.

***Reformasi Kerenah Birokrasi* (RKB) Initiative**

The Chief Secretary to the Government (KSN) has introduced the *Reformasi Kerenah Birokrasi (RKB)* Programme to ensure that regulation development and implementation meet the objectives of safeguarding the welfare of the people and promoting business development, productivity, competitiveness and economic growth. Through RKB, ministries, departments, and government agencies are directed to conduct regulatory reviews to address issues and challenges related to bureaucratic red tape and streamline regulatory delivery for greater efficiency and effectiveness. As of April 2024, 200 regulatory reform projects have been registered by 28 ministries, with 10 high-impact projects identified as priorities.

Express Construction Permit 2.0 (E10 2.0) in Kedah

Initiative E10: Express Construction Permit started in Kulim, Kedah, led by its local authority (Majlis Perbandaran Kulim Kedah - MPKK) in cooperation with relevant government agencies and the private sector. The E10 regulatory reform initiative expedited the approval processes in industrial developments, from submitting plans to starting business operations. The duration was shortened from 24 months to 10 months, or a duration agreed upon by all parties, leading to a more than 65 per cent increase in investment. E10 has been expanded to E10 2.0 to cover more aspects and processes in industrial and commercial developments, including expediting the land conversion process, facilitating sick projects, construction project monitoring via drone-to-map technology, and Building Information Modelling (BIM). The model is being replicated nationwide.

Land Conversion and Development Process through the i-UJKT System

The i-UJKT system has reformed the land conversion and development regulatory process. Before i-UJKT, these procedures took more than nine months to complete. The i-UJKT system shortens the process to 72 days. The system uses the one-piece-flow process, which means only one digital document format moves across various agencies and regulatory bodies.

Guidelines for Short-Term Tourism Rentals in Perlis

The guidelines for short-term tourism rentals have been developed for Perlis to boost its tourism industry productivity. The guidelines enable income generation from vacant accommodations and provide tourists and visitors with more choices for short-term rentals beyond hotels and homestays registered under the Ministry of Tourism, Arts and Culture (MOTAC). This regulatory framework enables fair competition and a level playing field among tourist accommodations in Perlis.

Seberang Perai Express and Effective Development (SPEED)

SPEED facilitates smoother interactions between investors and the Seberang Perai local authority (Majlis Bandaraya Seberang Perai – MBSP) in streamlining construction projects and ensuring timely approvals of development and construction permits. The initiative reduces the approval time for development plans from 133 days to fewer than 73 days. The project also embeds sustainability principles,

MPC'S STRATEGIC FACILITATION IN REGULATORY REFORM (CONT')

integrating green building concepts such as using solar panels for renewable energy and rainwater harvesting.

Kangar Fast Track, Perlis

Perlis has launched the Kangar Fast Track initiative, led by the local authority of Kangar (Majlis Perbandaran Kangar, Perlis), to facilitate investments and industrialisation. It has modelled its implementation on the E10 framework. The Perlis State Government has formalised a Memorandum of Understanding (MOU) with the Northern Corridor Implementation Authority (NCIA) to implement the Kangar Fast Track in the Chuping Valley Industrial Area (CVIA). This could potentially attract investments worth RM 4.5 billion and create 12,000 job opportunities.

The New Deal for Business (NDFB)

In January 2024, YB Rafizi Ramli announced the development of the New Deal For Business (NDFB) initiative to boost business confidence, stimulate economic growth, and drive national digital transformation. NDFB will have an impact on foreign and domestic investments, job creation, and Malaysia's GDP. The NDFB document entails the government's commitment to resolving issues and challenges to improve Malaysia's business environment by tackling structural and situational challenges in business regulatory compliance. The focus is on reforming the regulatory framework and implementation to deal with bureaucratic red tape, inefficient regulations, and unnecessary regulatory burdens on businesses and the rakyat. The Special Taskforce to Facilitate Business (PEMUDAH) is responsible to implement and monitor NDFB projects.

NDFB adopts the World Bank's Business Ready (B-Ready) framework, comprising ten topics related to the firm life cycle, from starting a business, operating and expanding a business, to closing a business. B-Ready report replaces the World Bank's Doing Business report, which assessed a country's ease of doing business. Malaysia will participate in B-Ready from 2025.

CHAPTER 3

Technology and Modern Management Increase Productivity

MODERN MANAGEMENT AND TECHNOLOGY ENHANCE PRODUCTIVITY

Productivity remains a crucial measure of competitiveness at the firm level in today's business environment. In the face of global competitiveness and technological breakthroughs, firms must adopt modern management techniques and solid technology infrastructures as an essential strategy for growth, expansion, and high performance.

Modern management practices, such as Total Quality Management (TQM), provide a systematic and methodical way of managing an organisation. The goal is to enhance the quality of products and services by continuously making improvements based on constant feedback. This entails enhancing staff engagement, customer contentment, and systematic resolution of issues through a series of managerial techniques.

Modern management requires every employee to actively contribute to achieving shared objectives. Complete employee dedication can only be achieved once fear has been eliminated from the workplace, empowerment has been implemented, and management has created a suitable environment. High-performance work systems seamlessly incorporate ongoing improvement initiatives into regular business processes. Self-managed work teams represent a type of empowerment.

Process thinking is a crucial aspect of modern management. A process is a sequential set of actions that receive inputs from suppliers, whether within the organisation or from external sources and convert them into outputs that are then provided to customers, who can be either internal or external to the organisation. The procedure involves clearly defining the necessary stages and closely monitoring performance measurements to identify any unexpected deviations. The many components of an organisation, such as management, workers, suppliers, and customers, must collaborate harmoniously to accomplish the company's objectives. Effectively explaining comprehensive strategy should be emphasised throughout the organisation. Effective modern management highlights efficient communication to guarantee that all employees comprehend the company's quality standards and actively participate in the ongoing enhancement process.

Data on performance measures is essential to assess an organisation's performance accurately. Modern management practices necessitate an organisation's ongoing collection and analysis of data to enhance the accuracy of decision-making, attain consensus, and enable predictions based on historical data.

The relationship between modern management and productivity is intrinsically robust. It enhances operational efficiency within a company, resulting in notable enhancements in production. The organisation's emphasis on continuous improvement motivates it to discover novel methods for performing jobs more efficiently and effectively, boosting productivity and innovation. Implementing modern management leads to an enhancement in quality, reducing waste in terms of time, effort, and materials. This waste reduction subsequently contributes to an additional boost in productivity.

Integrating digitalisation and technology is increasingly significant in executing modern management across sectors. Businesses gain a substantial advantage by incorporating cutting-edge technological tools into their management practices

to increase productivity and operational efficiency. Utilising digital tools to expedite processes, improve data collection and analysis, and foster a culture of continuous improvement constitutes integrating technology into organisational management. Crucial technologies may comprise:

i. **Big Data and Data Analytics :**
Modern management emphasises data-driven decision-making. Organisations can leverage vast data sets to reveal patterns, correlations, and insights that guide enhancements in quality through the implementation of big data analytics. By aiding in comprehending customer preferences and identifying operational constraints, these analytics directly improve the capacity to resolve quality concerns proactively.

ii. **Enterprise Resource Planning (ERP) Systems :**
ERP systems integrate sales, marketing, finance, human resources, and purchasing, among other aspects, of an organisation. These systems improve interdepartmental communication and ensure all activities adhere to the organisation's quality standards through data centralisation. This alignment is of the utmost importance to preserve uniformity and guarantee that all departments work towards the same quality standards, thereby increasing overall efficiency.

iii. **Customer Relationship Management (CRM) :**
CRM systems facilitate the administration of an organisation's engagements with its existing and prospective clients. CRMs can be utilised to collect customer feedback, handle complaints, and promote a customer-centric approach that emphasises customer satisfaction. By comprehending customer requirements and promptly fixing grievances, product quality and service provision can be substantially improved, resulting in increased productivity.

iv. **Automation and Artificial Intelligence :**
Implementing automation technology and artificial intelligence can substantially mitigate errors and enhance the overall efficacy of manufacturing operations. Based on real-time data, AI algorithms can forecast equipment failures, automate mundane duties, and optimise production schedules. Automation maintains a consistent standard of quality for the product by mitigating the variability that can arise from human error.

v. **Internet of Things (IoT) :**
The use of Internet of Things (IoT) devices enables real-time monitoring of production processes, furnishing instantaneous data on performance metrics that influence quality. Real-time monitoring facilitates preventative maintenance and expeditious rectification of deviations from the intended quality standard, consequently reducing periods of inactivity and augmenting efficiency.

Implementing technology in modern management contributes directly to increased productivity and firm competitiveness. Automating and streamlining data management processes substantially reduces time wastage and resource consumption, improving operational efficiency. Enhancing data analytics expedites the decision-making process and makes successful outcomes more probable, diminishing the need for iterative cycles of experimentation. Continuous monitoring and immediate feedback loops contribute to the preservation of output quality, reducing rework expenses and time wasted on defects and rework. Enhancing the customer experience and promptly incorporating customer feedback are effective strategies enabling organisations to bolster customer loyalty and lifetime value, pivotal determinants of sustained productivity.

KNOWLEDGE-BASED CAPITAL (KBC) NECESSARY FOR PRODUCTIVITY GROWTH

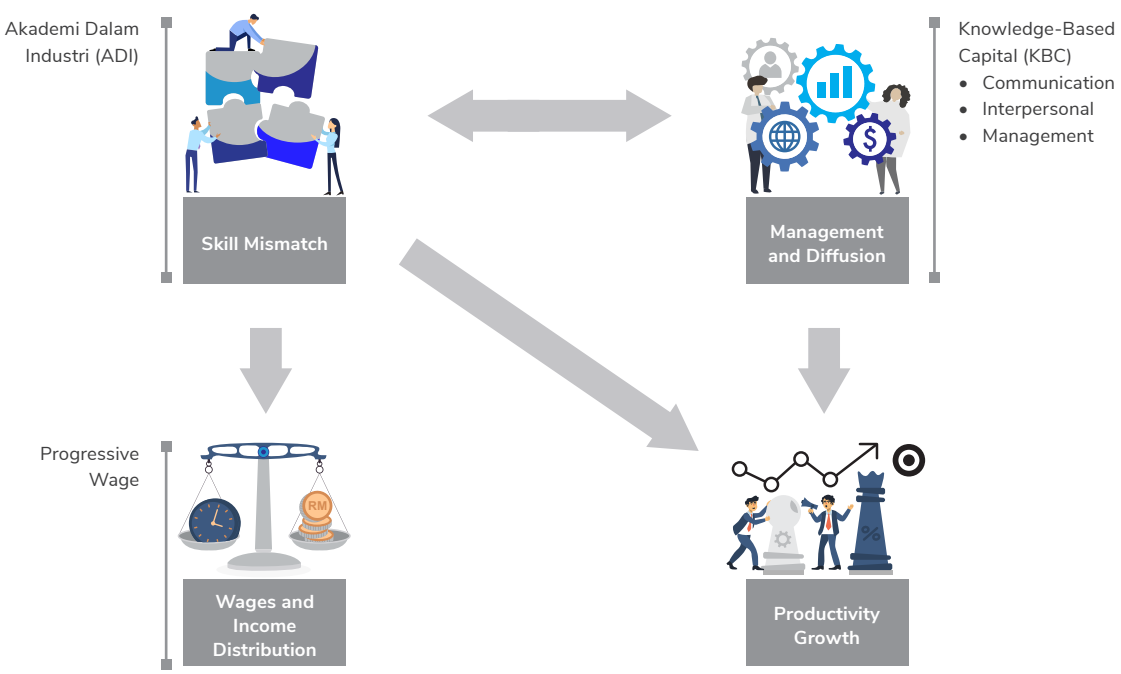
The Organisation for Economic Co-operation and Development (OECD) highlighted the importance of Knowledge-Based Capital (KBC) as a crucial element in improving productivity and fostering economic growth in contemporary economies.

KBC refers to intangible assets that contribute to the value creation within a company or economy. The concept is crucial to understanding how investments in knowledge-based assets can stimulate innovation, enhance productivity and efficiency, and provide a competitive edge.

The OECD model of KBC encompasses a wide array of intangible assets, including communication, interpersonal skills, management practices, research, data, software, and design skills, that embody human ingenuity.

Investing in KBC is crucial for driving future growth in productivity and improving living standards. In many countries, there has been a notable trend of businesses prioritising investment in KBC over physical capital like machinery, equipment, and buildings. For example, there has been a notable shift towards investing in KBC rather than physical capital in both the United Kingdom and the United States. This shift has shown a strong correlation with the growth of productivity.

Figure 13 : Productivity Improvement Model through Modern Management and Technology



Source: Adapted from the OECD's Knowledge-Based Capital (KBC) Model

The productivity improvement model through modern management and technology diffusion adapted the OECD's KBC model to emphasise the intertwining role of management and technology diffusion in impacting productivity growth, mitigating skill mismatches, and ensuring fair wages and income distribution.

Elements in modern management such as leadership, customer focus, strategic planning, human resource management, process management, and information and analysis can significantly enhance all KBC processes. For example, a study discovered that organisational learning has a positive impact on knowledge acquisition, storage, sharing, application processes, and sustainable organisational performance.

Technology diffusion plays a crucial role in the shift towards economies that rely heavily on knowledge and intellectual pursuits. Take the automotive sector, for instance; new car features, like advanced ignition systems, enhanced fuel injection, and safety cameras, have a substantial software element. Much of the expenses of introducing a new model to the market can be attributed to electronics and software.

The main reason for productivity slowdown is not so much the pace of innovation but the sluggish pace at which innovation spreads throughout an economy, creating a widening gap between the most productive firms and the rest. Raising the productivity of laggard firms via a better diffusion of technology and knowledge can help to bridge the gap and contain the rise in wage inequality. Technology diffusion can also reduce production costs and increase the quality and variety of the necessary inputs and services, which can increase real incomes.

The Classification of KBC and Its Possible Effects

Type of KBC asset	Mechanisms of output growth for investor in the asset
COMPUTERISED INFORMATION	
Software :	Improved process efficiency, optimised vertical and horizontal integration
Databases :	Better market segmentation and appropriation of consumers' rent. Optimised vertical and horizontal integration. The use of information to improve logistics and production efficiency
INNOVATIVE PROPERTY	
Research & Development	New products and services. Quality improvements to existing ones. Better ways of producing output. New technologies
Copyright and License Costs :	Knowledge diffusion (inventions and innovative methods)
New Product Development in the Financial Industry :	More accessible capital markets. Reduced information asymmetry and monitoring costs
New Architectural and Engineering Designs :	Fixed costs leading to production in future periods. Quality improvements, enhanced processes
ECONOMIC COMPETENCIES	
Brand-Building Advertisement :	Price premium. Increased market share. Changes in consumers' preferences
Market Research :	Targeted products and services. Increased market share
Workers' Training :	Improved production capability of workers. Increased skill levels
Management Consulting :	Faster and better decision-making. Improved production processes
Organisational Capital :	Faster and better decision-making. Improved production processes

Source : Based on the classification in Corrado et al. (2005), "Measuring Capital and Technology: An Expanded Framework," in Measuring Capital in the New Economy, C. Corrado, J. Haltiwanger and D. Sichel (eds.), Studies in Income and Wealth, Vol. 65, The University of Chicago Press, Chicago, IL.:

BEST PRACTICE IN MODERN MANAGEMENT PRACTICES : MICRON CONCEPT SDN. BHD.

Micron Concept Sdn. Bhd. (Micron), a machining company categorised as a Small and Medium Enterprise (SME), has shown impressive practices in integrating Total Quality Management (TQM) and Lean principles. Micron, founded in 2005, fully entered the aerospace industry through a specialised entity in late 2011. The company is expanding its operations by constructing a new building measuring around 20,000 square feet and investing in innovative machines and technology to suit the aerospace industry's strict requirements.

Micron intends to grow from a local SME to a key player in the aerospace industry. To do this, Micron is implementing lean and autonomous process solution that aim to increase manufacturing output through a consistent high-mix, low volume process. This strategy attempts to treble output per square foot of factory space, reduce reliance on low-skilled labour and mitigate operational hazards.

The initial phase of Micron's TQM initiative focused on an extensive training programme covering both management and operational levels. The second phase emphasised the practical integration of TQM and Lean principles into Micron's processes and systems. The success was assessed using rigorous performance criteria. These criteria measure improvements in quality, productivity, and operational efficiency.

Micron's successful implementation of TQM and Lean concepts serves as a good model for other SMEs looking to scale up operations and strengthen their market position. A culture of continuous improvement, supported by strong performance measures, fosters long-term operational improvements. The company's productivity, quality, and competitiveness have improved as a result of its strategic approach to training, process integration, and continuous improvement.

Micron received support from the government in realising this project. Several aerospace SMEs will receive the similar government support in various forms. The government, in collaboration with EXIM Bank, provides companies with loans at an interest rate of less than 3 per cent, enabling them to undertake investments in equipment, training, software, R&D, facilities, and working capital. The government also partners with MTDC to provide companies with working capital through equity investment.

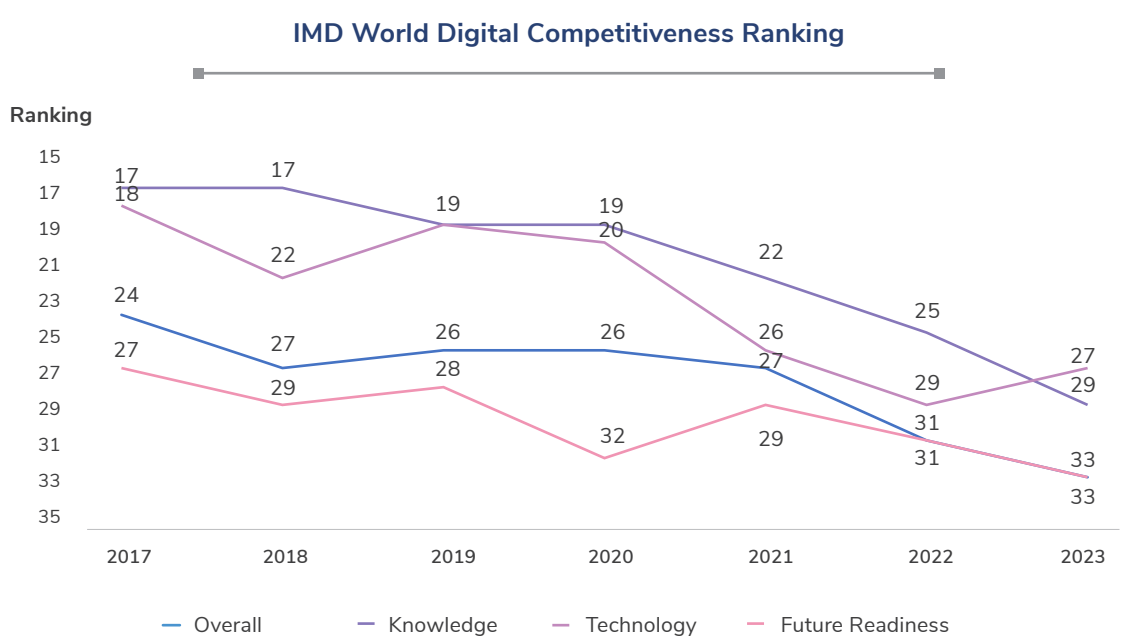
MALAYSIA'S DIGITAL COMPETITIVENESS HAS ROOM FOR IMPROVEMENT

The Institute for Management Development (IMD)'s World Digital Competitiveness (WDC) Ranking offers valuable insights into world economies' capabilities and preparedness to embrace and explore digital technologies as a catalyst for economic transformation in various sectors.

WDC 2023 measured the capacity and readiness of 64 economies using 54 indicators covering three factors – Knowledge, Technology, and Future Readiness. Knowledge measures an economy's know-how necessary to discover, comprehend, and develop new technologies, including the areas of talent, training and education, and scientific concentration. The technology subfactor assesses the overall context that enables digital technology development, comprising regulatory, capital, and technological frameworks. The Future Readiness factor looks at a country's level of preparedness to exploit digital transformation, covering adaptive attitudes, business agility, and IT integration.

Over the years, Malaysia's performance in the WDC ranking declined in overall performance and all factors. Malaysia's overall digital competitiveness ranking fluctuated downward between 2017 and 2023. Beginning at the 24th position in 2017, it decreased to 27th in 2018, followed by a modest improvement and stability around the 26th position in the following years and a significant decline to 33rd in 2023.

Figure 14 : Malaysia's Position in the IMD World Digital Competitiveness Ranking, 2017 – 2023



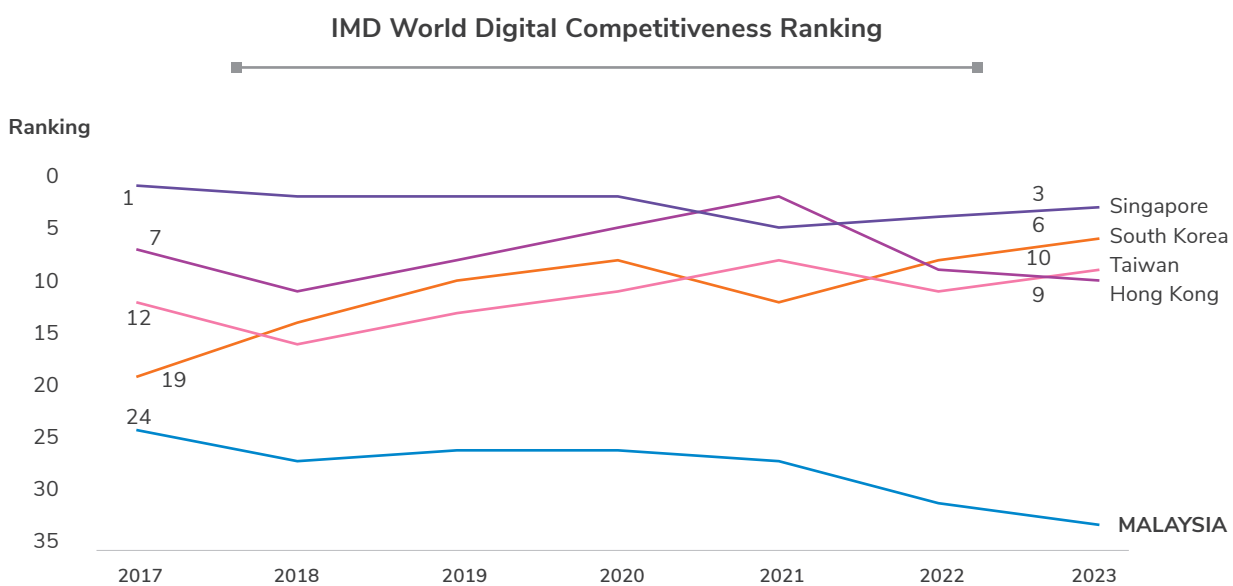
Source : World Digital Competitiveness Report by the Institute for Management Development (IMD)

The ranking for the Knowledge subfactor declined from 17th in 2017 to 29th in 2023. The decrease indicates challenges in developing, upholding or progressing the knowledge, skills, and expertise required for digital achievement. Although Malaysia is investing in technology, there may be areas in education, workforce skills, or innovative capabilities that are not keeping up with the rapid technological advancements or global competitors.

The Technology subfactor ranking started strong at 18th in 2017 but declined through the years to 31st in 2022. Malaysia's ranking in Technology improved in 2023 to 29th. Despite minor fluctuations, the consistent stability in the technology component suggests continuous investments in technological infrastructure and tools, reflecting Malaysia's strong dedication to digital transformation.

Malaysia's Future Readiness ranking declined from 27th in 2017 to 33rd in 2023, suggesting stronger planning and strategies to adjust to the evolving digital landscapes. This encompasses, among others, the physical framework, regulations, societal norms, and economic strategy that foster digital advancement.

Figure 15 : Malaysia's WDC Rankings among Asian Peers



Source : World Digital Competitiveness Ranking and World Competitiveness Yearbook (WCY) by the Institute for Management Development (IMD)

Malaysia lagged in digital competitiveness among selected regional peers, such as Singapore, South Korea, Taiwan, and Hong Kong.

Despite Malaysia's declining performance in WDC 2023, Malaysia recorded strong performance in several indicators. Malaysia stood second in Graduates in Sciences, fourth in Women with Degrees, fifth in High Tech Exports and Government Cyber Security Capacity, seventh in female researchers, and eighth in Smartphone Possession. 13 areas were identified for improvement, which recorded below-average performance in WDC 2023.

Figure 16 : Malaysia's Top Performing Indicators

No.	Indicators	2023
1	Graduates in sciences	2
2	Women with degrees	4
3	Female researchers	7
4	High-tech exports	5
5	Smartphone possession	8
6	Government cyber security capacity	5

Source : Worldwide Governance Indicators (WGI), 2023 Update

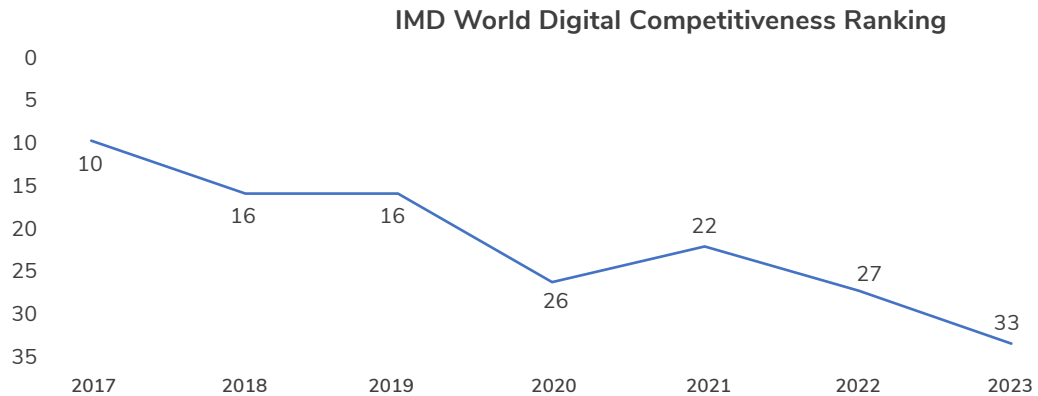
Figure 17 : Malaysia's Areas for Improvement in WDC Rankings

No.	Indicators	2022	2023	Changes
1	Privacy protection by law content	55	56	-1
2	Starting a business	51	52	-1
3	High-tech patent grants	45	49	-4
4	Scientific and technical employment	46	49	-3
5	Internet retailing	46	48	-2
6	E-Government	41	46	-5
7	Software piracy	45	45	=
8	Total public expenditure on education	41	44	-3
9	Total R&D personnel per capita	38	43	-5
10	E-Participation	27	42	-15
11	Educational assessment PISA – Math	41	41	=
12	Investment in Telecommunications	27	40	-13
13	Total expenditure on R&D (%)	40	40	=

Source : World Digital Competitiveness Ranking and World Competitiveness Yearbook (WCY) by the Institute for Management Development (IMD)

The declining trend in the Digital Transformation in Companies ranking between 2017 and 2023 implies that Malaysian enterprises face a setback in digital transformation. Malaysia's performance deteriorated from 10th to 33rd over seven years, ranking average at 33rd compared to some countries.

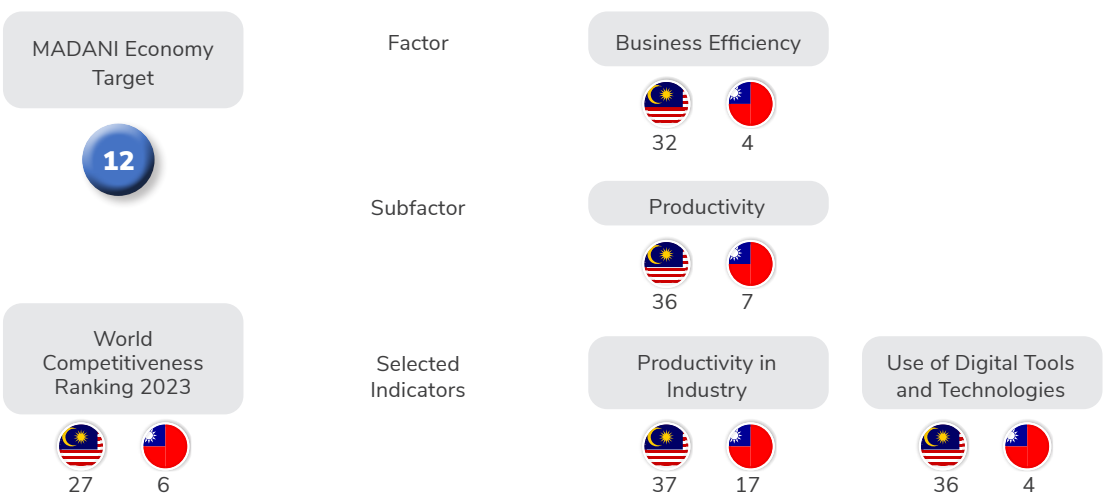
Figure 18 : Malaysia's Ranking in Digital Transformation in Companies Indicator and Its Performance among Selected Countries



Country	Rank 2023
Denmark	1
Qatar	2
Saudi Arabia	3
Taiwan	7
Indonesia	9
South Korea	11
Singapore	12
Thailand	28
Malaysia	**33**
Philippines	40

Source : World Digital Competitiveness Ranking and World Competitiveness Yearbook (WCY) by the Institute for Management Development (IMD)

Figure 19 : Malaysia's Competitiveness Ranking Compared to Taiwan



Source : World Competitiveness Yearbook (WCY) 2023

Malaysia looked to Taiwan as a model for modern management and technology, recognising Taiwan's global influence in ICT technology. Taiwan has the potential to play a significant role in the advancement and execution of Industry 4.0. Malaysia and Taiwan have comparable industrial structures, and their proximity enables knowledge sharing and collaboration.

In the IMD World Competitiveness Yearbook (WCY) 2023, Malaysia's overall global competitiveness ranked 27th, while Taiwan holds the impressive 6th spot. One of the critical factors influencing competitiveness is business efficiency. Malaysia ranked 32nd in this area, while Taiwan held a solid 4th position. Malaysia's productivity ranked 36th compared to Taiwan's seventh position. The gap between Malaysia and Taiwan in Productivity in Industry rankings relates to the disparity in the use of digital tools and technologies. Malaysia fell behind at 37th and 36th, while Taiwan excelled at 17th and 4th in the respective areas.

Malaysia has the potential to enhance its productivity and competitiveness. This can involve implementing strategies and initiatives supporting industries, particularly the manufacturing sector, improving productivity through skill development, knowledge enhancement, and technological advancements. This includes improving total factor productivity (TFP), investing in machinery, automation, and digitalisation.

SECTORAL AND FIRM-LEVEL CHALLENGES IMPACT DIGITAL COMPETITIVENESS

Productivity challenges at the firm level can impact productivity and competitiveness performance at the sectoral and national levels. Malaysian firms face several issues and challenges that may have contributed to the declining rankings in technology and digitalisation-related criteria and overall digital competitiveness.

The gap between the most productive firms and the rest has increased. The productivity growth gap between frontier companies and other firms raises questions about why seemingly non-rival technologies and knowledge do not diffuse to all firms. The OECD The Future of Productivity report indicated that in these early years of the 21st century, the productivity of frontier industrial firms increased by 3 per cent per year more than that of other firms in the same sector. That gap increases to 5 per cent in the services sector, where firms have lower skills and productivity levels. The trend is also prevalent among Malaysian companies, where the productivity gap is widening between the national frontier companies, among others, multinational companies (MNCs), large corporations, and small and medium enterprises (SMEs). A lack of technology diffusion and modern management practices across and within firms, among others, contributes to the widening disparity between firms.

NIMP 2030 has identified the manufacturing sector as the primary contributor to Malaysia's economic growth and development. The sector constitutes approximately 25 per cent of Malaysia's GDP and accounts for around 80 per cent of the country's total exports. The manufacturing sector offers substantial employment opportunities for around 2.4 million individuals, accounting for approximately 15 per cent of Malaysia's total employment. **While the sector has progressed, its improvement, especially in economic complexity, has been marginal, affecting its advancement and maximum contribution to Malaysia's economy.** Malaysia's participation in the manufacturing value chain remains in relatively lower-value segments. Among the productivity challenges facing the manufacturing sector in Malaysia are a lack of exposure to improvement programmes, low

awareness to explore high technology and innovation, a shortage of skilled workforce to explore advanced technology, and resource constraints and funding to invest in technology.

Firms also perceive that investments in technology, including hardware, software, and implementation costs, are high and require a longer time for the return on investment. Concerns about the technology's long-term viability and the risk of becoming obsolete quickly can also deter companies from investing in technology. The Malaysian Institute of Economic Development (MIED) 2021 report on The State of the Malaysia Economy 2021 highlighted the concern of high initial investment costs as a barrier to technology adoption for SMEs. This indirectly reflects the potential limitation of available financial products in supporting innovation and growth-oriented investments by SMEs.

Several studies and reports have also highlighted the challenges SMEs face in accessing financing from Malaysian financial institutions. Bank Negara Malaysia (BNM)'s Development of the Financial Sector Understanding Financing through the Lens of Small and Medium Enterprises (SMEs) report indicated that while the government has implemented various programs to support SMEs, many still rely on internal funds or borrow from friends and family members due to difficulties in getting bank loans. This suggests that the existing financial products might not fully cater to SMEs' needs.

The World Bank's Malaysian SME Program Efficiency Review pointed out a potential "disconnect" between government programmes and actual SME needs. While funds are allocated, the low disbursement rate might indicate issues with programme design or accessibility for SMEs. The Edge Malaysia in Financing Gap in Malaysian Small-Medium Enterprises: A Supply-Side Perspective report discussed the paradox where banks claim abundant funding for SMEs, yet businesses find it challenging to access. This indicates a potential gap between the type of financing offered and what SMEs need, potentially creating a support shortfall.

Productivity challenges at the firm level can significantly impact employment and wage levels within a sector. Less productive firms may need to adjust their operations to improve efficiency and maintain competitiveness. This could involve implementing cost-cutting measures such as reducing wages or workforce numbers. It is crucial to consider the potential impact of these decisions on consumer spending and overall economic demand. On the other hand, increased productivity can help boost wages and create more jobs, positively impacting economic growth.

Should productivity challenges persist at the firm level, Malaysia will lose economic opportunities and investment, limiting the growth potential. Addressing productivity challenges at the firm level is vital for the survival, success, and overall efficiency of sectors and national economic prosperity. Efforts to improve firm-level productivity, such as by implementing technological advancements, encouraging technology diffusion, providing skills training, implementing modern management, and offering incentives for innovation, can have wide-ranging positive effects on the overall economy.

MODERN MANAGEMENT PRACTICES REDUCE BUSINESS OPERATIONAL COSTS

Local industry players, especially SMEs, need to adopt modern management practices, including technology and digitalisation, to reduce operational costs and resource use.

To raise industry awareness and understanding, more programmes, such as workshops, seminars, and training programmes on modern management principles and benefits tailored to different industries and company sizes, are needed.

Government support and collaboration with industry associations can spread awareness through targeted campaigns and outreach programmes. Exchange and sharing of best practices and case studies of successful implementation by local companies could motivate other companies to adopt modern management. To ensure diffusion from frontier companies, a platform could be established to share best practices, expertise, and knowledge with other companies. The platform could also include modern management experts, practitioners, and academicians, fostering knowledge transfer and support.

Evidence-based and data-driven implementation of modern management necessitates studies and research, especially in addressing barriers hindering modern management adoption in Malaysia, such as cost concerns, lack of skilled personnel, or cultural resistance to change. Modern management implementation strategies should be cost-effective and adaptable to local businesses and their constraints.

The government is pivotal in encouraging industries to use modern management practices. Government-backed initiatives, such as tax breaks, subsidies, or grants, ease the initial implementation costs, enabling more companies to adopt modern management. Recognition and award programmes could also motivate companies to excel in implementing modern management practices.

The Energy Performance Contracting (EPC) by the government encourages companies to adopt modern management through efficient use of energy. The absence of collateral and low interest rates via EPC attract more companies to retrofit less efficient equipment to create more savings and increase productivity. Collateral-free EPC provides a competitive advantage by attracting industries or clients who might be hesitant due to perceived financial risks or barriers. Increased affordability allows industries to undertake energy efficiency projects with minimal financial risk, benefiting from energy savings without significant upfront capital. This acceleration in project implementation eliminates delays associated with securing collateral, enabling quicker realisation of savings and benefits. Enhanced return on investment (ROI) positions EPCs as a cost-effective investment with the potential for significant long-term savings, as the financial benefits outweigh the initial investment. Reduced financial burden from low-interest financing decreases the overall cost of capital for energy efficiency projects, making them more affordable and allowing companies to undertake larger projects or implement more extensive measures without budget strain. Improved cash flow results from lower monthly loan payments, enabling companies to allocate funds to other business operations or investments while benefiting from energy savings. This leads to a faster return on investment (ROI) as lower financing costs reduce the payback period, enhancing the financial attractiveness of EPCs. Access to low-interest financing facilitates the pursuit of energy efficiency projects, bolstering long-term sustainability and market competitiveness. Improved environmental impact through these energy efficiency upgrades demonstrates industries' commitment to sustainability and corporate responsibility enhancing their reputation and appeal to environmentally conscious consumers.

IMPACT OF MODERN MANAGEMENT PRACTICES

1. Improved Performance Efficiency :

Lean management focuses on eliminating waste and streamlining processes, increasing productivity and reducing costs. Studies suggest that lean manufacturing practices can reduce lead times by 30-50%, cut development costs by 20-50%, and increase productivity by 10-30% (Womack, J. P., & Jones, D. T. (2003). Lean thinking: Banishing waste and creating wealth in your corporation, Simon and Schuster; The Lean Enterprise Institute: https://www.lean.org/)

Innovation : Design thinking and agile management encourage creativity and rapid experimentation, leading to groundbreaking products, services, and business models. (Kelley, T. (2014)).

Creative Confidence : Companies adopting design thinking reported a 55% increase in new product success rates and a 70% increase in customer satisfaction (Source : **https://designthinking.ideo.com/).**

2. Enhanced Employee Engagement Empowerment :

Modern management emphasises empowering employees, fostering a sense of ownership and encouraging their participation in decision-making. This increases motivation, engagement, and ownership of tasks. (Source: Spreitzer, G. M., & Sutton, R. I. (1999). Employee autonomy correlates with increased motivation, job satisfaction, and performance (Source: Hackman, J. R., & Oldham, G. R. (1976); Motivation through the design of work: Testing some assumptions, Organizational Behavior and Human Performance, 16(2), 250-279)).

Attracting and Retaining Talent: Modern management practices can make a company more attractive to potential recruits and help retain top talent by fostering a positive work environment and offering opportunities for growth and development (Source: Friedman, T. L. (2011), The world is flat: A brief history of the twenty-first century, Farrar, Straus and Giroux). Companies with strong employer branding and positive work environments typically attract and retain higher-quality talent (Source : **https://www.glassdoor.com/index.htm).**

3. Increased Adaptability Data-Driven Decision-Making :

Modern management practices leverage data analytics to gain insights, understand trends, and make informed decisions, allowing companies to adapt to changing market conditions and customer needs more effectively. (Source: Davenport, T. H., & Harris, J. G. (2007). Competing on analytics: The new science of winning. Harvard Business Review Press).

A McKinsey study found that data-driven companies are 23 times more likely to outperform their competitors in terms of profitability (Source: McKinsey & Company: **https://www.mckinsey.com/capabilities/mckinsey-digital/how-we-help-clients/digital-culture-and-capabilities).**

Technology-driven interventions increase productivity

MPC facilitated various enterprise-level technology-driven interventions to increase productivity by reducing utility costs, minimising wastes, and optimising business operational costs. These interventions are simple, easy, cheap, and fast to be implemented by businesses.

i. Rossa Hotel, a boutique hotel in Melaka, was a Proof of Concept for MPC's Productivity Step-up for Hotels programme, which aimed to enhance the efficient use of energy to offset high business operating costs. Using an EMS reduced the maintenance cost by half.

Before
Preventive maintenance and scheduled checks were not properly conducted, resulting in monthly costs of RM2000.

After
Implementing the Energy Monitoring System (EMS), maintenance costs decreased to RM1000 per month.

Outcome
The EMS helps detect air conditioning problems early, thereby reducing maintenance costs. Business operating costs decreased by up to RM12,000 per year.

ii. People & Global Sdn Bhd participated in the Digital Acceleration for Learning and Industrial Adoption (DALIA) programme. Specialising in products like wet wipes and diapers, the company has enhanced productivity through digitalisation and automation, reducing waste from 5 per cent to 2 per cent and cutting the daily production planning process from 4 hours to 1 hour using #GoogleAppSheet.

Before
4 hours production process planning time

After
Using a simple technology from Google to create an application to automate planning reduced the planning time to 1 hour.

Outcome
The application led to RM2,000 value creation for the company.

Agile management : Agile management promotes flexibility and rapid response to change, allowing companies to adjust their strategies and operations quickly. (Source: Beck, K. (2000). Extreme programming explained: Embrace change. Addison-Wesley Professional). Companies adopting agile practices reported increased project success rates, improved team morale, and faster product delivery (Source : https://www.agilealliance.org/.)

4. Enhanced Customer Focus Customer Relationship Management (CRM) :

CRM systems and customer journey mapping help companies understand customer needs better, personalise their offerings, and provide a superior customer experience. (Source : Peppers, D., & Rogers, M. (1997), The one-to-one future: Building customer relationships with one customer at a time. Harvard Business Review Press).

Studies by the Aberdeen Group showed that companies using CRM software experience increased customer retention rates by 27% and improved sales win rates by 12% (Source: Aberdeen Group: https://www.aberdeen.com/).

IMPLEMENTING ESG PRINCIPLES IN MODERN MANAGEMENT INCREASES BUSINESS PRODUCTIVITY

The paper "Does ESG performance promote total factor productivity? Evidence from China", published in Frontiers in Ecology and Evolution (2022), explores the relationship between a company's Environmental, Social, and Governance (ESG) performance and its total factor productivity (TFP). Analysing data from 2,413 Chinese A-share listed companies between 2010 and 2018, the study reveals a positive correlation between robust ESG performance and higher efficiency in converting inputs into outputs. Utilising a comprehensive ESG rating system, the research underscores that companies with superior ESG scores exhibit greater operational efficiency. This finding persists even after accounting for other factors such as firm size, industry, and economic growth, thereby reinforcing the significance of ESG practices in enhancing productivity. Diving deeper into specific ESG factors, the study highlights that strong environmental performance, particularly in pollution reduction and resource conservation, correlates positively with TFP. This suggests that environmental responsibility leads to significant operational efficiencies. The correlation between social factors, such as employee satisfaction and fair labour practices, and TFP is positive. This indicates that investment in employee well-being can contribute to improved efficiency. Strong governance practices may still indirectly influence efficiency by promoting transparency and accountability within the organisation.

The exemplary benefits of ESG practices can be seen in the case study of Sime Darby Plantation (SDP), a leading Malaysian palm oil producer. SDP has embraced sustainable palm oil production and community development as key facets of its ESG strategy. The company adheres to certification schemes like the Roundtable on Sustainable Palm Oil (RSPO), promoting responsible plantation management and reducing environmental impact. SDP's conservation efforts include setting aside areas for biodiversity protection and implementing community development programmes that improve healthcare, education, and infrastructure. These initiatives reduced SDP's environmental footprint, enhanced community well-being, and bolstered the company's brand reputation, attracting environmentally conscious consumers and responsible investors. The strong ESG practices at SDP have influenced productivity by mitigating risks associated with environmental regulations and community conflicts, improving employee morale, and enhancing market access through certification and a strong sustainability reputation.

Source : https://www.frontiersin.org, https://simedarbyplantation.com

ARTIFICIAL INTELLIGENCE IS IMPERATIVE TO ENHANCING PRODUCTIVITY

AI can transform the global economy's productivity and GDP potential. Malaysia is positioning itself as a frontrunner in digital transformation by implementing strategic initiatives designed to use Artificial Intelligence (AI) capabilities. **The development and implementation of Malaysia's main policies aim to expedite economic growth, improve productivity, and establish a strong national AI ecosystem.**

Malaysia's Digital Economy Blueprint sets an ambitious strategy to enhance the nation's GDP by 26 per cent over the next ten years by strategically deploying AI technologies. This blueprint is a strategic plan for incorporating digital technology into the nation's economic structure, shifting Malaysia into a technologically advanced, high-earning country.

The 12MP highlights the importance of Malaysia's readiness for the Fourth Industrial Revolution (4IR) through the development of emerging technologies. The Government's dedication to innovation is seen in the annual 5.1 per cent increase in research and development (R&D) spending. This growth is targeted explicitly towards areas such as integrated circuits, driverless cars, and AI. This plan emphasises the significance of shifting from conventional industries to technology-driven sectors to maintain global competitiveness.

The National AI Strategy emphasises the country's objective of establishing a prosperous AI ecosystem. This approach aligns with worldwide technological patterns and focuses on cultivating abilities that will enable industries, promote efficiency in the public sector, and improve its residents' overall quality of life. The primary emphasis is on constructing necessary infrastructures, such as data centres and networks, which are crucial for advancing AI research and development.

NIMP 2030 recognises the significance of AI in generating high-skill employment opportunities, fostering innovation in smart manufacturing, and propelling technical progress. The policy outlines the crucial role of AI in positioning Malaysia as a technologically advanced country capable of effectively competing globally.

The GovTech Malaysia programme seeks to transform government operations by embracing digital technology, paving the path for a digital revolution in the government sector. Through the implementation of AI technologies, the government aims to enhance service delivery, promote transparency, and encourage citizen engagement. This action is a component of a more comprehensive plan to guarantee that digital technology is advantageous for all sectors and contributes to sustainable development.

A 2018 simulation, using data from McKinsey, reported that Malaysia's baseline growth is about 4.4 per cent. With AI-led growth, there is an additional 1.2 per cent growth impact. This translates into a further 30 per cent GDP growth over the baseline forecasts by 2030—such a forecast positions Malaysia notably above many other countries with similar economic characteristics.

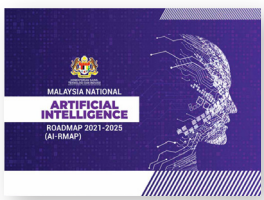
The simulation indicated that when comparing Malaysia to other countries, it is evident that while nations like Sweden, South Korea, and Singapore have higher per capita GDPs, **Malaysia's AI-led growth rate could be competitive, suggesting a robust strategy to leverage AI for economic enhancement.** This indicates an aggressive adoption and integration strategy that could potentially offset higher-income countries' advantages due to their early start in AI adoption.

Figure 20 : Malaysia's Policies in Building the National AI Ecosystem

"To increase GDP of nation by 26% in the next decade by implementing A.I"

"Strategy D1 : **Accelerating readiness to face the 4-IR** - The annual 5.1% growth in E&E exports will bw led by products line integrated circuits, due to the continued demand for emerging technologies such as autonomous vehicles, artificial intelligence (A.I).."

"**Mission 2 : Tech Up for a digitally vibrant nation** - A.I is povital for Malaysia's economic growth and productivity, as it cultivate high-skilled jobs, catalyze innovation in smart manufacturing, and drive technological advancements.."



"**Mission** : To create a thriving national A.I ecosystem."

"Towards Digital Revolution in Governemnt (GovTech Malaysia)"

While the prospects are promising, the path is fraught with challenges. A persistent skill gap must be addressed to utilise AI capabilities fully. In addition, adequate digital infrastructure is essential to support the wide-scale deployment of AI technologies. Malaysia's regulatory frameworks should also work on balancing innovation with privacy, security, and ethical considerations through robust regulatory frameworks will be critical.

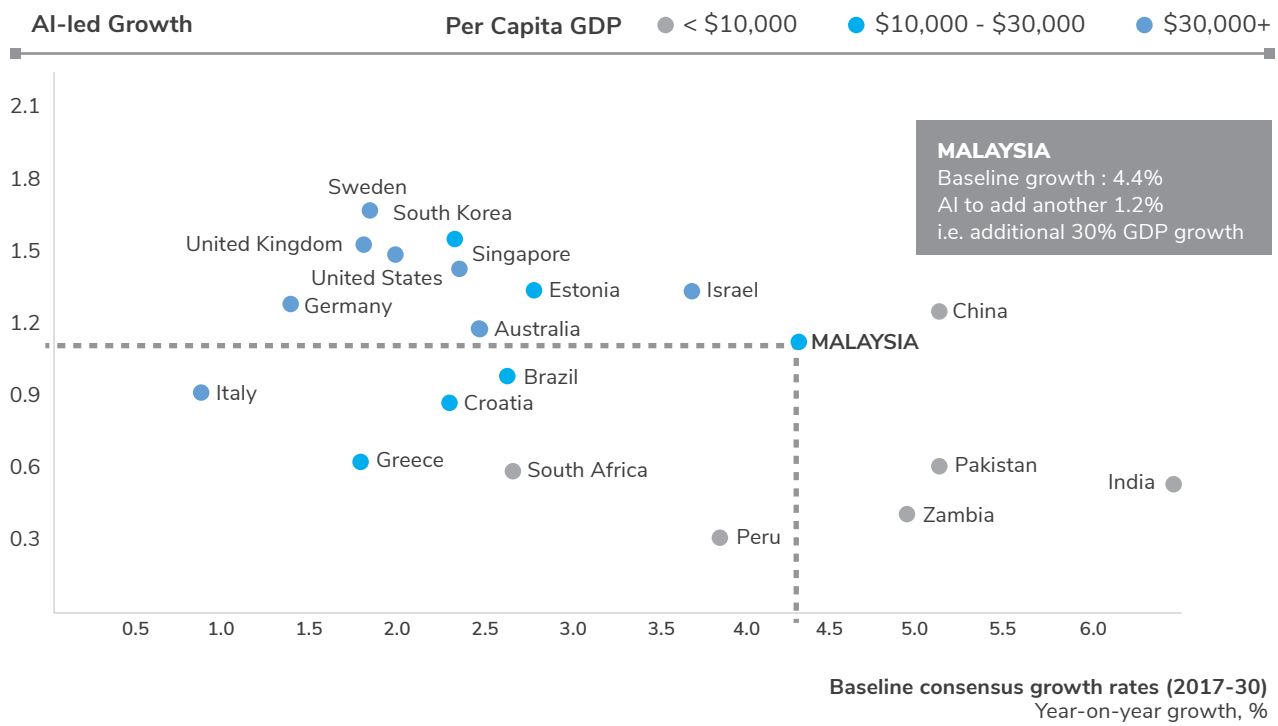
Several vital strategic initiatives could be considered in ensuring a robust AI ecosystem in Malaysia and encouraging strong AI adoption at the firm level :

i. **Implementing National AI Strategy :** Malaysia has developed a detailed AI roadmap that includes fostering a vibrant AI ecosystem and substantial investments in AI research and infrastructure. Successful implementation of the policy ensures Malaysia's shift towards a high-tech economy.

ii. **Education and Skill Development :** It is crucial to ensure the workforce is prepared for the jobs of tomorrow. Malaysia should invest in science, technology, engineering, and mathematics (STEM) education, skill enhancement programmes, and continuous learning to keep pace with the demands of an AI-driven economy.

iii. **Government Support and Incentives :** The Malaysian government's active role in promoting AI through incentives for tech companies and startups is crucial in nurturing a conducive environment for innovation.

Figure 21 : A Simulation of AI-Led Potential Growth for Malaysia



Source : Malaysia National A.I Roadmap 2021-2025

MPC'S INITIATIVES TO BOOST PRODUCTIVITY THROUGH AI ADOPTION

100++
participating companies

- A collaboration program accelerates digital technology adoption, emphasizing AI-based machine vision for enhanced productivity
- The hands-on, experiential learning program empower participants in producing Proof-of-Concept

Impact of the programme

- Enhanced operational efficiency
- Provide environmental impact and sustainability
- Improve informed decision-making

Malaysia Productivity Corporation (MPC) has launched several initiatives to enhance productivity by leveraging AI technologies. These initiatives focus on digitalising small and medium-sized enterprises (SMEs).

i. A.I.A.S Programme :
The Artificial Intelligence for SMEs: Proof-of-Concept Projects was designed to integrate AI into the daily operations of SMEs, facilitating digital transformation with a focus on practical, real-world applications of technology.

ii. Plugfest 2.0 :
The AI-Based Machine Vision System focused on accelerating industry adoption of AI-enhanced machine vision systems. The programme included workshops and hands-on sessions to help companies understand and implement AI-driven vision systems in their operations, which were crucial for quality control, automation, and efficiency improvements.

iii. The A.I for Business :
The programme simplifies AI understanding, empowering the workforce to create solutions with accessible tools and integrate AI projects to boost productivity in collaboration with Intel. The programme facilitates technology matching and nurtures local solution providers, solidifying commitment to holistic innovation and industry growth. Pilot projects are ongoing involving the aerospace, automotive, construction, logistics, and pharmaceutical industries.

High participating rate in these programmes demonstrate a robust interest and commitment to digital transformation in the industry. The programmes enhanced operational efficiency, encouraged sustainability practices, and improved decision-making.

CHAPTER 4

Shifting Towards Industry-Driven Skilled Workforce

Talent

PRODUCTIVITY EQUALS PROFITABILITY FOR BUSINESSES

During the Labour Day national celebration on 1 May 2024, the Prime Minister highlighted productivity as the source of businesses' profitability, and workers are the source of productivity.

Workers are productivity drivers in businesses, catalysing product and service delivery and operational and process efficiency. As a result, this leads to profitability. Efficiency gains are the ability of firms to increase productivity by either producing more output using the same amount of input or producing the same amount of output using fewer inputs.

The increase in efficiency results in a decrease in costs per unit, which directly enhances profitability by reducing operational expenses.

Enhanced efficiency liberates resources, which can be redirected towards the enterprise to seize untapped markets, allocate funds for research and development, or enhance infrastructure. This possibility for expansion further amplifies profitability and competitiveness. Higher business profitability means higher income for the government in terms of tax collection.

The relationship between worker productivity and business profitability is mutually beneficial and interdependent. As firms experience increased profitability, they are able to allocate resources towards higher wages, offer better incentives and benefits, provide more extensive training programmes, and enhance working conditions. The intertwining dependency among workers, productivity, wage growth, and economic development strengthens the nation-building agenda.

A SKILLED WORKFORCE ENHANCES PRODUCTIVITY

A highly efficient and skilled workforce creates exceptional products or services that distinguish themselves in the market. The distinction results in elevated revenue, enhanced consumer loyalty, and amplified market dominance and profitability. The right skills and expertise enable workers to perform tasks and procedures efficiently. **Workforce competence and skills directly correlate with greater production levels.**

With skilled employees, tasks are expedited, and operational efficiency is enhanced, resulting in shorter production cycles, reduced waste, and lower business costs. Work quality is linked to higher skill levels. Skilled employees in various industries consistently meet high standards, reducing errors and defects and enhancing the quality of products or services, which is crucial for ensuring customer satisfaction and loyalty. Employees who excel at identifying enhancement opportunities within processes and products are skilled at devising innovative solutions that substantially boost productivity. They can cultivate operational strategies that are more efficient and long-lasting. Skilled employees efficiently incorporate technological advancements, streamlining workflows and minimising manual errors.

A workforce with the necessary skills significantly reduces training demands, saving time and resources. In addition, they can train their colleagues and share the most effective methods for increased productivity. Skilled workers deeply understand how their work fits into the organisation, allowing them to make strategic decisions that align with corporate objectives. A skilled workforce gives businesses a significant competitive advantage. Companies with highly skilled employees can deliver exceptional products, innovate more efficiently, and quickly adapt to changes in the market and consumer demands.

According to Bank Negara's Economic and Monetary Review 2023, the number of employed high-skilled workers in Malaysia rose by 6.6 per cent from 2.05 million persons to 2.19 million persons between the 2019 fourth quarter and 2023 fourth quarter, implying a higher demand for high-skilled workers post-pandemic. The report added that the share of high-skilled workers in employment increased since the pandemic from an average of 24.3 per cent between 2017 and 2019 to 24.9 per cent between 2021 and 2023. In 2022, high-skilled jobs were at 29.6 per cent share of Malaysia's total employment. The Mid-Term Review of the Twelfth Plan targets skilled jobs at 35 per cent share of total employment by 2025, with nearly 5.7 million persons employed in high-skilled jobs.

Malaysia's education system and talent development programmes should be tailored to the target set. **While the targeted quantity will position Malaysia as a high-income economy, as aspired to in the MADANI Economy framework, the quality of employees is another facet needing imperative attention—that employees' skills, knowledge, and expertise match the needs of the industry.**

MALAYSIA'S HUMAN DEVELOPMENT PERFORMANCE CAN IMPROVE FURTHER

The Human Development Index (HDI) assesses a country's overall human development based on health, education, and standard of living. Human Development Report (HDR) 2023/2024 ranked Malaysia at 63rd among 193 countries and territories, an increase from 68th position in HDR 2021/2022. The report classifies Malaysia in a very high human development category.

In terms of HDI value, Malaysia scored 0.81, which was above the world average of 0.74. Malaysia ranked ahead of several ASEAN counterparts, such as Thailand, Indonesia, and Vietnam. However, as the nation shifts towards a high-income economy, Malaysia can improve to approximate advanced countries such as Singapore and Germany.

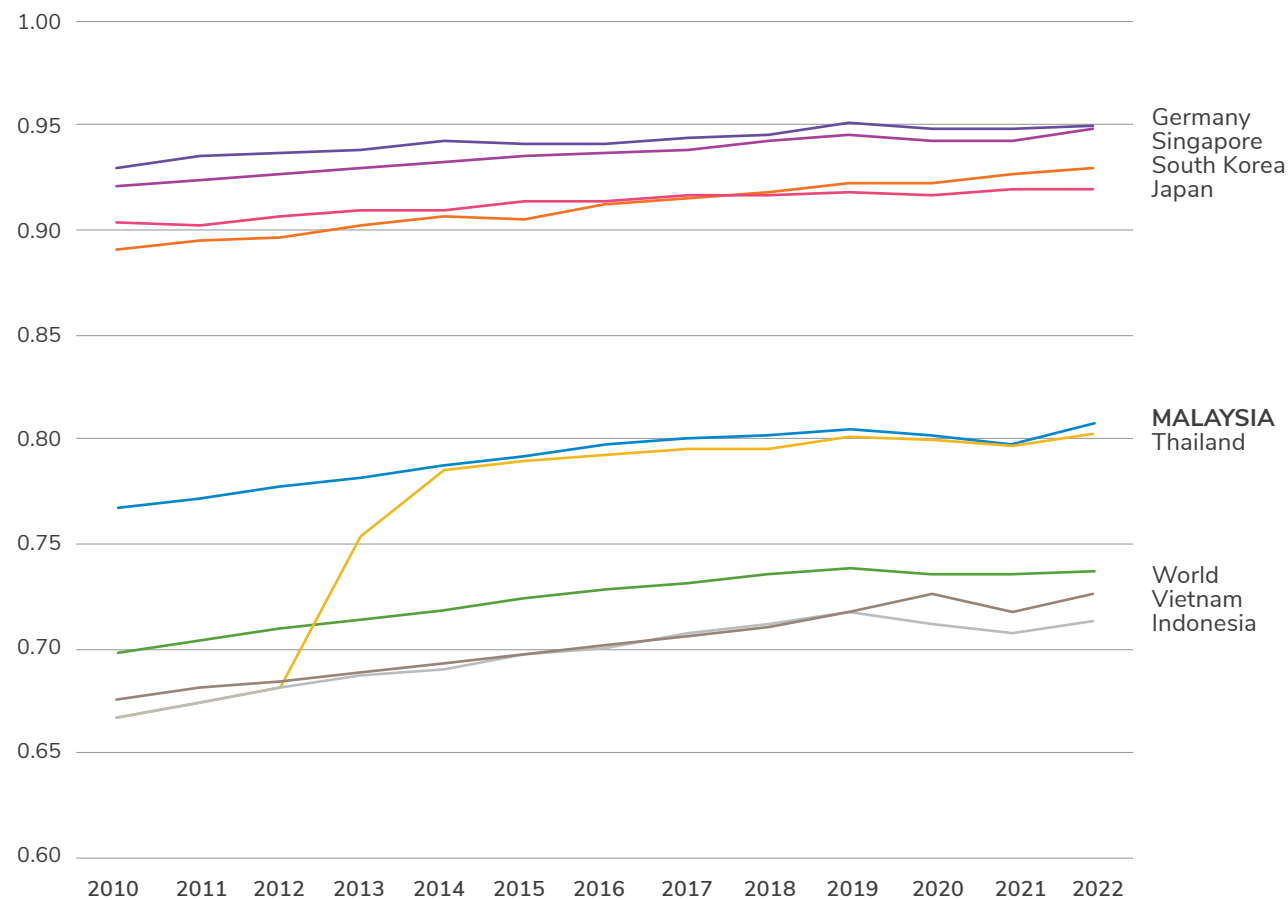
The Mean Years of Schooling is an HDI indicator that determines a country's performance in education. It defines the average number of completed years of education of a country's population aged 25 years and older, excluding years spent repeating individual grades. UNESCO Institute for Statistics (UIS) explained that Mean Years of Schooling denotes a country's population's level of skills and competencies, determining the quantity and quality of its human capital. Higher Mean Years of Schooling indicates higher skill levels in the population based on the fundamental concept that education is critical in skill development. **The Mean Years of Schooling indicator is a valuable proxy for gauging a country's educational achievement and, by extension, its workforce readiness, talent development, and the skills of its workers.**

Figure 22 : Malaysia's Ranking in Human Development Index (HDI) in Comparison to Selected Countries, 2021 – 2022

Country	2021 Rank	2022 Rank
Malaysia	**68**	**63**
Singapore	10	9
Germany	7	7
South Korea	20	19
Japan	22	24
Thailand	69	66
Indonesia	113	112
Vietnam	108	107

Source : Human Development Report (HDR) 2023/2024

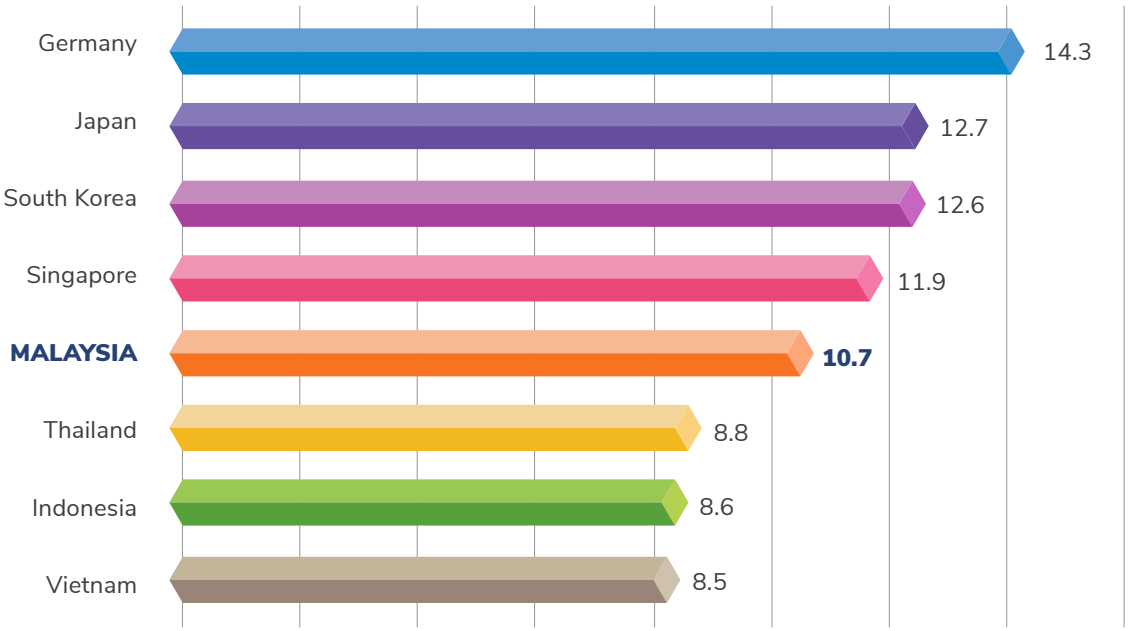
Figure 23 : Malaysia's Human Development Index (Value) in Comparison to Selected Countries, 2010 – 2022 (n = 193)



Source : Human Development Report (HDR) 2023/2024

Malaysia's Mean Years of Schooling are constant at 10.7 years, lower than those of highly productive countries such as Japan (12.7), South Korea (12.6), Singapore (11.9), and Germany (14.3). Malaysia aims for 12.7 Mean Years of Schooling by 2030, aligning with its target of 35 per cent skilled workers.

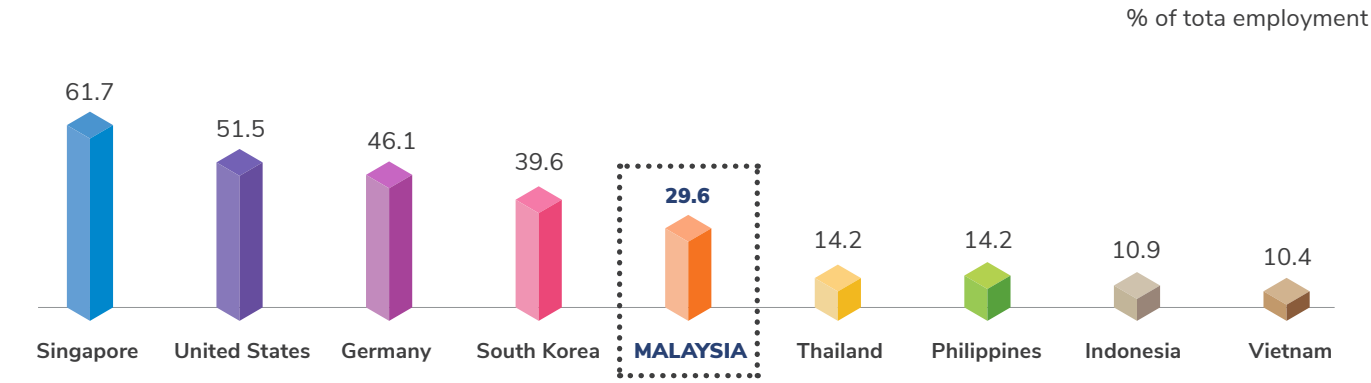
Figure 24 : Malaysia's Mean Years of Schooling in Comparison to Selected Countries, 2022



Source : Human Development Report (HDR) 2023/2024

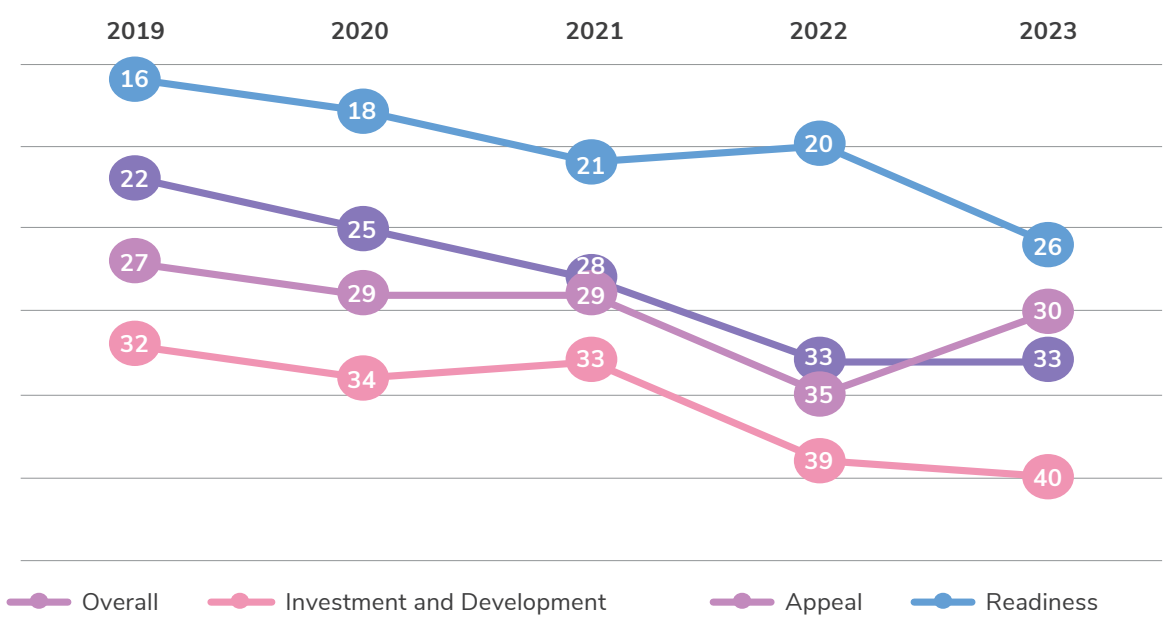
Countries with higher Mean Years of Schooling tend to have higher productivity levels and be more competitive as they have more skilled workers. More years spent in education help develop critical thinking skills, enabling understanding and following complex instructions, learning new technologies, solving problems more efficiently, and building positive social cohesion. The higher the average number of years individuals have spent in education, the more likely they have acquired a diverse and complex set of skills. This directly impacts workforce quality, as higher skill levels generally translate into higher productivity. More skilled individuals can complete tasks more efficiently, solve problems more effectively, and contribute to innovation more readily.

Figure 25 : Malaysia's Share of Skilled Workers in Comparison to Selected Countries, 2022



Source : Bank Negara's Economic and Monetary Review 2023

Figure 26 : Malaysia's World Talent Ranking, 2023 (n = 64)



Source : IMD World Talent Ranking 2023

In the Institute for Management Development (IMD)'s World Talent Ranking (WTR) 2023, Malaysia retains its 33rd position from 64 economies. The countries that top the list have well-developed economic systems. Switzerland, Luxembourg, and Iceland are in first, second, and third place, respectively. Their dominance in talent competitiveness results from achieving a balance between the development of local talent, the attraction of overseas talent, and their retention. **Our talent competitiveness has declined, as seen in WTR trends from 2019 to 2023.**

In Asia-Pacific, Malaysia ranked sixth in global talent competitiveness, ahead of South Korea, China, Japan, Thailand, Indonesia, and India, with Singapore occupying the topmost place. Malaysia is first among 24 economies with a GDP per capita of less than $20,000. WTR measures global talent competitiveness based on three factors: Investment and Development, Appeal, and Readiness. Only the Appeal factor recorded an improvement in 2023, increasing by five spots to 30. For the Readiness factor, which measures the availability of skills and competencies in the talent pool, we ranked 26th, declining by six places compared to last year. Our neighbour, Singapore, is in the first position.

Several indicators of talent competitiveness under the Readiness factor show that Malaysia is average among 64 economies. The Skilled Labour indicator ranks 31st, indicating a perception that Malaysia's workforce is not fully available and ready to meet the demands of a highly competitive economy. The University Education indicator ranks 39, performing below average among 64 economies, which implies a mismatch between graduates' skills and the economy's demand.

Figure 27 : Malaysia's Ranking in WTR Selected Indicators

Selected WTR Readiness Indicator		2023 Rank
Skilled labour	is readily available	31
Finance skills	are readily available	31
Primary and secondary education	meets the needs of a competitive economy	33
University education	meets the needs of a competitive economy	39

Source : IMD World Talent Ranking 2023

SKILLS MISMATCHES DISTORT MALAYSIA'S WORKFORCE

The workforce in Malaysia is currently facing the primary challenge of a "skill trap", which refers to a mismatch between the skills possessed by workers and those demanded by employers.

This misalignment leads to several unfavourable consequences, such as underutilising skills, the uneconomical use of human resources, a decline in worker motivation, low wages, and a reduced drive for employees to pursue further training or better job prospects.

The skill trap can occur in two main ways: workers have an excess of skills compared to what their jobs demand or their valuable skills are not acknowledged or utilised effectively by employers. The underutilisation of skills hampers individuals' personal and professional growth and hinders an economy's overall productivity. Employees who succumb to this pitfall are more prone to underappreciation and demoralisation, resulting in job dissatisfaction, a lack of commitment during work hours, and low productivity.

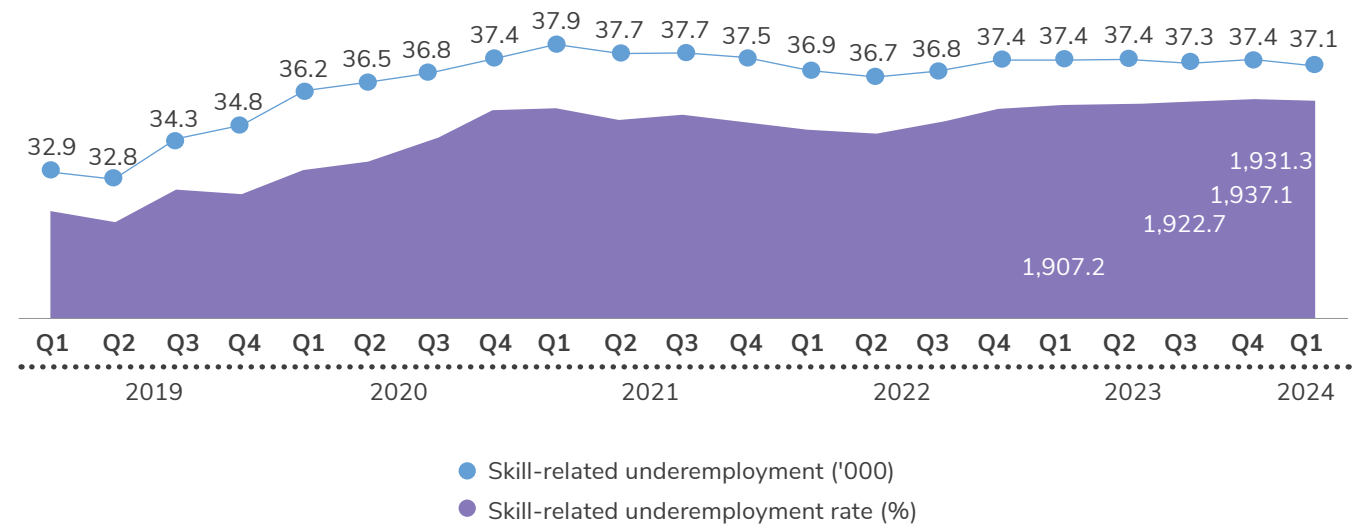
The skill trap has substantial consequences, affecting individuals and the overall economy. Economic underperformance occurs when workers' skills are not fully utilised, negatively affecting national productivity. Businesses cannot achieve optimal performance because they cannot fully exploit their workforce's potential. Individuals lacking formal credentials but possessing valuable informal or non-formal education face obstacles in progressing their careers or transitioning to positions where their skills can be more efficiently utilised. When employees perceive that their efforts are not sufficiently acknowledged or compensated, they lack the drive to further education or augment their skill sets.

The predominant factor contributing to the existing skill trap in Malaysia is the supply-driven nature of the workforce. The country's educational and training systems primarily aim to generate a substantial quantity of graduates domestically. In a talent supply-driven approach, education and training systems produce graduates based on predefined curricula rather than the specific needs of industries. While the model effectively generates a steady flow of educated individuals, it can lead to a significant skills mismatch, underemployment, and challenges in meeting the dynamic needs of a rapidly evolving economy. Graduates often realise that the job market is already saturated and unable to accommodate all of them or that their specific skills do not align with employers' demands.

The discrepancy between the skills taught in educational institutions and those required in the workplace is the main reason for the surplus of graduates who are either underemployed or unemployed. Industries such as technology and creative industries may be experiencing rapid changes requiring specific and up-to-date skills, which are not adequately addressed in the current educational curriculum.

The World Bank's Malaysia's Economic Monitor highlighted that skill-related underemployment, denoting the share of tertiary-educated workers in semi-skilled or low-skilled jobs, remains high, with a mismatch between the supply and demand of tertiary-educated workers. Malaysia's skill-related underemployment in 2023 was higher than the pre-pandemic level in 2019.

Figure 28 : Malaysia's Skill-Related Underemployment, Q1 2019 – Q1 2024



Source : Department of Statistics, Malaysia (DOSM)

Another notable factor aggravating the skill trap is the lack of recognition for non-formal education. Non-formal education is the term used to describe learning that occurs outside of traditional academic settings or formal education systems. Non-formal education is institutionalised, intentional and planned by education providers. It is considered an addition, alternative, or complementary to formal education within the process of lifelong learning. It encompasses various forms of learning, such as industry-specific training, online courses, and workplace-based learning. Through these channels, individuals often receive highly pertinent and specialised skills sought after in the market.

The formal education system and employers may fail to recognise or appreciate these types of learning, even though they are pertinent and can enhance productivity, employability, and career advancement. A lack of comprehensive data collection and quality assurance, standardisation, or equivalency mechanisms that allow these skills to be recognised at the same level as formally acquired qualifications may be the reason for the absence of recognition of non-formal education. This may have also contributed to Malaysia's stagnated performance in Mean Years of Schooling.

BEST PRACTICE : EDUCATION ATTAINMENT IN THE UNITED KINGDOM

In capturing the education attainment in the United Kingdom, education and training are classified into four aspects:

QUALIFICATIONS

- Qualifications related to work
- Qualifications from government scheme
- Qualifications gained in your leisure time

APPRENTICESHIPS

- Formal apprenticeships
- Job title of apprenticeships
- Type of Industry

ON/OFF JOB TRAINING

- Type of training (e.g. on the job training only, training away from job or both).
- Site training
- Time spent training

LEARNING ACTIVITIES IN THE LAST THREE MONTHS

- Any other taught classes for work or personal interest
- Duration of learning activities

Depending on educational recognition systems, various qualification types are captured in the United Kingdom. Some examples of the accreditation bodies in the United Kingdom are the United Kingdom Accreditation Service (UKAS), Ofqual, Qualifications Wales, the Council for the Curriculum Examinations and Assessment, the Scottish Qualifications Authority, the British Accreditation Council (BAC), the British Council (BC), and the Accreditation Body for Language Services (ABLS).

SECTOR SKILLS BODIES BRIDGE TALENT DEMAND AND SUPPLY GAP

The International Labour Organisation (ILO) has developed a comprehensive guide to establishing and operating industry-led Sector Skills Bodies (SSBs), organisations or councils focusing on specific industries or sectors. **SSBs bring together critical stakeholders in the labour market, including employers and employees, academicians, policymakers, and training providers, to address skill gaps, improve training, and enhance workforce productivity.**

Establishing SSBs can bridge the talent demand and supply gap, minimise the skill trap, and align education and skills development programmes to industry needs.

Malaysia can draw inspiration from successful international models like the United Kingdom's SSBs to effectively address the skill trap and cultivate a workforce that meets the market's demands. Malaysia could replicate this success by incorporating structured frameworks and strategies for comprehensive workforce development.

Establishing SSBs in Malaysia may consider the following aspects:

1. Establishment and Organisation :
An ideal SSB would consist of industry leaders, employers, industry associations, business chambers, educational institutions, and government agencies working together to drive progress. The involvement of multiple stakeholders ensures that the body thoroughly understands each sector's needs and can address them effectively. A funding model combining government support and industry contributions could be considered for long-term viability and securing employers' dedication to SSBs.

2. Functionality and Core Activities :
An SSB's functions and core activities may include conducting skills audits and labour market analysis and collecting and analysing data on employment trends. The body could ensure quality assurance and certification of programmes, promoting inclusivity and accessibility to enhance training opportunities for all groups. As a bridge between the government's accreditation body and the industry, SSBs could facilitate communication among all stakeholders to align programme implementation to the country's economic objectives. SSBs could offer policy advice to the government to ensure a strong workforce for economic development.

3. Recognition of Non-Formal Education :
SSBs could pave the way for recognising non-formal education and training programmes by ensuring the inclusion of sector-specific skills development programmes as part of life-long learning. Work-based skills development programmes conducted by the industry could be accredited and certified, enabling workers to pursue skills enhancement to fit the market demand. Establishing SSBs leads to the recognition of non-formal education, which may increase the population's Mean Years of Schooling.

4. Implementing a pilot and scale approach :
The initial stage of establishing an SSB could start with industries with promising growth opportunities and evident skill shortages, such as the manufacturing and services sectors, digital technology or renewable energy industries. Once successful pilots are completed, and adequate data is collected, SSBs can be expanded to other sectors and industries by applying the best practices and lessons learned.

Establishing SSBs offers a crucial opportunity for policymakers to reform the labour market and reshape the skill-based education and training landscape, aligning them with industry requirements and promoting a more competitive economy. Through industry leaders' active participation in developing and updating skill-based standards and qualifications, SSBs guarantee that training and talent development

programmes are up-to-date and adaptable to market demands. This alignment improves employability, decreases unemployment rates, and fosters a more adaptable labour market.

An immediate and measurable effect of SSBs is the improvement of workforce productivity. When employees have a firm grasp of the skills needed for their positions, they can perform tasks more efficiently and effectively. SSBs also promote the integration of cutting-edge practices and technologies into training programmes. Ongoing training content updates guarantee that employees know the most recent industry standards and advancements. A more efficient workforce increases output, improves the quality of goods and services, and reduces costs and use of resources.

SSB establishment may have a significant impact on driving wage growth. As workers develop skills as required by the labour market, their worth to employers grows, often leading to increased compensation to attract and retain highly skilled individuals. SSBs could also provide structured career pathways that offer clear routes for professional growth. This systematic approach inspires employees to enhance their skills and guarantees long-term salary progression consistently. Higher wages are crucial in driving consumer spending, which fuels economic growth and sets off a cycle of positive outcomes that benefit the entire economy.

Malaysia must cultivate a skilled and adaptable workforce. **As the country navigates the complexities of a rapidly evolving economy, it falls upon policymakers, industry leaders, educators, and individuals alike to take decisive action.** All stakeholders should commit to fostering a culture of lifelong learning, where skills development is not just a prerogative but a shared responsibility. Malaysia can bridge the gap between talent supply and demand, unlock the full potential of its workforce, and propel the country towards sustainable growth and prosperity. It is the time for collaborative efforts and bold initiatives to shape Malaysia's workforce's future, one skilled worker at a time.

PROGRESSIVE WAGE MODEL (PWM)

The Progressive Wage Model (PWM) in Malaysia is scheduled to commence with a trial phase in June 2024. The announcement was made by YB Rafizi Ramli, the Minister of Economy. The pilot programme would encompass 1,000 firms whose employees earn salaries ranging from RM1,500 to RM4,999.

The objective is to address the issue of inadequate salaries and enhance efficiency in several industries, with a specific focus on micro, small, and medium companies (MSMEs). The policy will be subject to evaluation during the pilot phase before its full-scale implementation.

Implementing PWM in Malaysia would strengthen wage progression and promote the continuous development of employees' skills and competencies. Wage increments would be tied to acquiring new skills and productivity performance. Employees would be incentivised to pursue continuous learning and professional development to progress in their careers and earn higher wages.

The progressive Wage Model (PWM) was introduced in 2012 by the Singapore government, in collaboration with unions and employers, to raise the wages of lower-wage workers. The PWM aims to achieve sustainable wage increases through skills upgrading, productivity improvement, career advancement, and wage progression. It covers workers at all levels, from lower-wage workers to professionals, managers, and executives. The PWM sets clear wage standards and career progression pathways for workers in specific sectors. These standards are based on research on wage levels and job requirements, recommending minimum wages and skills training programmes. For example, in the cleaning sector, the PWM has three levels: Basic, Skilled, and Specialist, with corresponding minimum wages based on training and experience. PWM has effectively raised wages for lower-wage workers while maintaining their livelihoods. It provides clear career pathways tied to wage increases, training, and productivity improvements - this benefits workers, employers, and service buyers, leading to improved service standards and quality.

THE FIRST COHORT OF THE *AKADEMI DALAM INDUSTRI* (ADI) PROGRAMME GRADUATED WITH SIJIL KEMAHIRAN MALAYSIA

The graduation ceremony for the first cohort of the *Akademi Dalam industri* (ADI) initiative was inspirational. 94 local youths, brimming with enthusiasm and determination, stood tall as they received their Level 2 *Sijil Kemahiran Malaysia (SKM)* certificates. The atmosphere was electric, charged with a palpable sense of achievement and potential.

Officiated by YB Senator Tengku Datuk Seri Utama Zafrul Tengku Abdul Aziz, Minister of Investment, Trade, and Industry, the event marked a significant milestone in Malaysia's journey towards a demand-driven workforce. It was a moment of celebration, not just for the graduates, but for the entire nation, as we witnessed firsthand the transformative power of skills development.

As the applause echoed through the halls, it served as a reminder of the impact that initiatives like ADI can have in shaping the future of our workforce and economy.

The work-based learning (WBL) approach through the industry-led ADI is an innovative solution to the issues of skill mismatch, shortage of high-skilled local workers, and high dependency on low-skilled foreign workers in the industry. A proposed framework for opening skill-based educational pathways is being developed. Recognition is achieved through a final competency assessment that considers knowledge, skills, and behaviour. Implementing WBL through ADI is seen as a way to increase the skilled workforce that meets labour market demands and enhances the educational and professional landscape.

With over 15,000 youths registered and nearly 2,000 companies backing the initiative, the momentum is undeniable. ADI is not just about certificates; it is about empowerment, opportunity, and a brighter future for Malaysia. This is the beginning of a journey towards a more skilled, prosperous nation. The future looks promising, and the best is yet to come.

More information about the *Akademi Dalam Industri* can be found at
https://www.aii.gov.my/

ENHANCING WORKFORCE SKILLS THROUGH SECTOR SKILLS BODIES (SSBS) IN THE UNITED KINGDOM

The United Kingdom has strategically established Sector Skills Bodies (SSBs) to enhance workforce capabilities and drive productivity across various industries. These independent, industry-led organisations play a pivotal role in bridging the gap between industry needs and educational outcomes.

The journey of SSBs in the UK reflects an evolving landscape. From the levy-based Industrial Training Boards of the 1960s, covering 50 per cent of the workforce, to a more commercially funded network of SSBs in recent years, the evolution of SSBs reflects changing funding models and government involvement.

SSBs work closely with employers and trade unions to improve productivity, business and public service performance. They focus on reducing skills gaps and enhancing learning supply through apprenticeships, higher education, and National Occupational Standards (NOS).

Best practices for establishing and sustaining successful SSBs can be derived from the UK's experience. Clear sector boundaries and significant employer engagement are essential. SSBs can be structured around Standard Industrial Classification (SIC) codes and should represent sectors employing a substantial portion of the workforce.

Strong, committed employer boards with real authority to shape and drive performance are crucial. These boards should include industry leaders who can provide strategic direction and ensure the SSBs remain aligned with industry needs. Effective industry leadership is vital for the success of SSBs. These leaders must operate at arm's length from the government to maintain independence and credibility.

Another critical aspect is the importance of industry co-financing. SSBs should be partially funded by the industries they serve to ensure a sense of ownership and value. Co-financing fosters accountability and incentivises employers to actively participate in the development and implementation of training programmes.

Innovation is another key factor. SSBs should continuously seek innovative solutions to industry skills challenges, beyond merely setting standards and providing labour market intelligence. Encouraging a culture of innovation ensures that SSBs remain relevant and effective in a rapidly changing economic landscape.

Finally, it is also important to define clear success metrics and allow sufficient time and space for SSBs to achieve their goals. Early wins in addressing real industry skills problems can build momentum and credibility.

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