



## Productivity Report 2020

Agro-Food



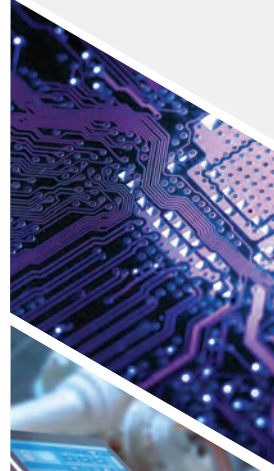
Chemicals &  
Chemical Products



Retail and  
Food &  
Beverage



Electrical &  
Electronics



# RESILIENCE THROUGH PRODUCTIVITY

Digital



Machinery &  
Equipment



Tourism



Private  
Healthcare



Professional  
Services





## Resilience Through Productivity

Malaysia is priming itself to become an advanced economy and to share the resultant prosperity in an inclusive way. Achieving this goal requires fundamental improvements to productivity as the foundation to steer the nation towards greater resilience and an accelerated growth trajectory. Thus, the Malaysia Productivity Corporation (MPC) has been tasked with this responsibility. As the Delivery Management Office (DMO) for the Malaysia Productivity Blueprint (MPB), we continuously engage with all industries to unlock productivity gains across Malaysia's economy.

With the implementation of sector-specific best practices across Nine Priority Nexus and mitigation measures to overcome challenges, we are confident Malaysia will make the productivity leap and benefit from economic and labour resilience. As we look to the future, however, focus must be given to economic adjustments and radical steps need to be taken to ensure the success of the MPB as we embrace a "new normal", following the setbacks caused by the Covid-19 pandemic.

Resilience, as a concept, and especially in the current socio-economic context of Covid-19 and the unprecedented effects it has had on the global economy, is quickly gaining ground. Therefore, the focus on productivity will need to be pivoted to how a business or an organisation can build resilience at all levels, as this would be the best insurance against future disruptions.

The implementation of productivity improvements will however need to be revisited and recalibrated and the world, in which countries are at different stages of movement lockdowns, will need new strategies that create longer-lasting and more resilient societies and economies.

In Malaysia, it is clear that better productivity will lead to prosperity for the rakyat. It is thus beholden on all our stakeholders to seize opportunities in the form of new technology or knowledge in order to improve productivity to create resilience. The building of resilient organisations will enable flexibility in its operations, while still delivering results, in a world that will continue to be overwhelmed by volatility, complexity and ambiguity.

# CONTENTS

## 01

**MESSAGE FROM THE SENIOR MINISTER** << PG 2

## 02

**CHAIRMAN'S STATEMENT** << PG 3

## 03

**PRODUCTIVITY IN CONTEXT** << PG 4

## 04

**NATIONAL PRODUCTIVITY PERFORMANCE** << PG 6 - 20

Malaysia's Productivity Landscape	7
Malaysia's Productivity Performance	10
Main Sectors Labour Productivity Performance	14

## 05

**A CLOSER LOOK AT SECTORAL PERFORMANCE** << PG 21 - 117

9 Priority Subsectors	22-117
-----------------------	--------

## 06

**OUTLOOK 2020 - ENHANCING FLEXIBILITY AND ADAPTABILITY IS KEY** << PG 118 - 119

## 07

**ABOUT MALAYSIA PRODUCTIVITY CORPORATION** << PG 120 - 139

Malaysia Productivity Corporation's Role	121
Board of Directors	122
Management Team	123
Subsector Productivity Nexus	124-137
Productivity Report 2020 Editorial Team	138
MPC Regional Offices	139

## MESSAGE FROM THE SENIOR MINISTER

### NEW ECONOMIC THINKING, NEW NORMAL

Malaysia's productivity journey continues to take centre stage as the nation pushes on to realise its aspirations of becoming an advanced economy built on a vision of shared prosperity. Clearly, there remains much to be done in the area of productivity and I am heartened by the efforts of all stakeholders who are actively pursuing productivity gains across our entire economy. I remain hopeful that we will achieve our goals and unlock the productivity leap that the country needs.

Nevertheless, the Covid-19 pandemic has unleashed a tsunami of epic proportions changing the socioeconomic landscape and forcing economies to undergo a total recall of conventional tools and standards and to recalibrate plans, expectations and forecasts. The outbreak has drastically disrupted economic growth and will significantly change the way business is conducted in the future. The impact has also jolted many companies into action, with the New Normal quickly demonstrating that agility and sustainable productivity are mandatory for any business to survive.

In this regard, adopting new economic thinking in this New Normal warrants also adopting digital technology holistically and across the board. This will no longer be a matter of choice but one of utmost necessity in order to serve an economy transformed by new rules of socialising, health protocols and gradual globalisation. Digitalisation will not only



assist companies to move up the high technology value chain but drive greater productivity and promote better connectivity with customers and employees, while helping to better future proof their businesses.

Going forward, I am confident that the country's resilience and resolve will help us navigate the challenges and enable us to advance together to be a more productive nation that thrives on shared prosperity for all.

A stylized, handwritten signature in black ink, consisting of a large, sweeping 'M' followed by a horizontal line and a small flourish.

**YB DATO' SERI MOHAMED AZMIN ALI**

Senior Minister

Minister of International Trade & Industry

# CHAIRMAN'S STATEMENT

## DOING OUR PART TO SAFEGUARD ECONOMIC RESILIENCE

Malaysia recorded labour productivity growth of 2.1 percent in 2019, reporting similar levels seen in 2018. Across the various sectors, services and manufacturing showed the most consistent performance throughout the year, which is also indicative of its importance to the Malaysian economy.

In 2019, MPC remained focused on executing its mandate as the Delivery Management Office of the initiatives under the Malaysia Productivity Blueprint (MPB). Across the nine identified sectors, or Nexus, we have continued to facilitate informative workshops as well as meetings with stakeholders to ensure that problems can be solved and planned initiatives are able to get off the ground. I am proud to report that we are making encouraging progress across the board.

These initiatives are important to Malaysia's productivity journey, as they are essentially the crucial pieces of the puzzle that will enable

a productivity leap. In aspiring to be an advanced economy, it is imperative that focused attention is given to improving the moving parts that can unlock incremental gains. While challenges exist in certain sectors, namely because of structural or legacy issues, this should not detract us from the overall goal of elevating the country's productivity.

Moving forward, the effects of the Covid-19 pandemic will continue to persist but we believe that Malaysian businesses have the right mindset and are well-positioned to capitalise on the opportunities presented. We have already witnessed a significant number of businesses quickly adapting by moving their businesses online or using technology to reach their customers, thus embracing the 'new normal'.

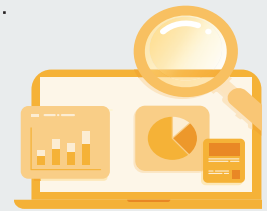
On MPC's part, we will continue to facilitate the identification of productivity bottlenecks and subsequent problem solving that will give the country a productivity boost.



**CHUA TIAN CHANG**

Chairman  
Malaysia Productivity  
Corporation

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# PRODUCTIVITY IN CONTEXT



# PRODUCTIVITY IN CONTEXT

The Malaysia Productivity Corporation (MPC) is the government mandated body that facilitates productivity growth by promoting close collaboration between public and private sectors, developing human capital and organisational excellence, nurturing innovation, creativity and competitiveness for the benefit of the economy. The MPC further supports productivity growth by sharing research on best practices and promoting Good Regulatory Practices to reduce unnecessary burdens on business.

One of the MPC's more recent roles is to act as the DMO that coordinates and monitors efforts to drive productivity growth in nine priority subsectors, or Nexus, identified by the Malaysia Productivity Blueprint (MPB).

The Productivity Report 2020 is thus an annual publication that provides a snapshot of Malaysia's productivity growth and efforts to improve productivity. The Report will also benchmark the country's performance against the region and the world, and also considers current events and trends that may directly impact productivity growth. The Report also details the activities and initiatives that each Nexus have undertaken throughout the year, and the challenges they face, to meet the objectives set out by the MPB.

The theme for this year's report, "Resilience Through Productivity", is particularly apt as it resonates not only with what MPC has been trying to promote, but also because resilience is certainly required to face the difficult times brought about by the impact of the Covid-19 outbreak. With some areas of the economy especially affected by social distancing guidelines, efforts to improve productivity have paused considering the downturn in business and demand. On the other hand, this crisis has also accelerated

the pace of businesses deploying innovation and technology, both important enablers of productivity growth, to reshape or rebuild their business to be more resilient for an uncertain future.

## WORKING TOGETHER TO UNLOCK GROWTH

As the Report will highlight, driving productivity growth requires the concerted and focused effort of all stakeholders. From the people working in industry at every level contributing to the economy, across to their partners in the public sector who need to play a strong role in facilitating business in all scenarios. With a strong partnership aligned to achieving the same goals, reforms and restructuring of the present ecosystems can be attained via the unrelenting advocacy for policy quality and regulatory improvements to enable Malaysia to make the productivity leap.

An example of this ongoing collaboration resulted in Malaysia improving its rank to 12th from 15th amongst 190 economies in the World Bank's Doing Business 2020 Report. The Doing Business Report advocates quality regulations and the implementation of reforms to improve efficiency. With the strong support of the recently restructured Special Task Force to Facilitate Business (PEMUDAH), there are plans for even more initiatives to enhance competitiveness, improve productivity and resolve regulatory burdens.

In closing, Malaysia's productivity growth trajectory remains promising, but it is a never-ending journey of improvement that requires time, commitment and determination. The MPC continues to be dedicated to this challenging task and is confident that we, as a country, can move forward together united by this common goal.

# NATIONAL PRODUCTIVITY PERFORMANCE

- Malaysia's Productivity Landscape
- Malaysia's Productivity Performance
- Main Sectors Labour Productivity Performance

# NATIONAL PRODUCTIVITY PERFORMANCE



## MALAYSIA'S PRODUCTIVITY LANDSCAPE

Malaysia has risen from a developing, commodities-driven economy in the 1970s to a upper middle-income economy in the 1990s. In expanding into more technical sectors of economic growth such as manufacturing, however, it has had to adjust to an entirely new spectrum of dynamics to achieve and maintain its competitive advantages. Key among these is Productivity.

Productivity has long been the go-to reference for a country or sector's efficient use of resources and potential. Malaysia has benchmarked its productivity levels against both international standards as well as individual countries, as key growth sectors were also identified to expand upon, guided by comprehensive 5-year national development plans known simply as "Malaysia Plans" (MP).

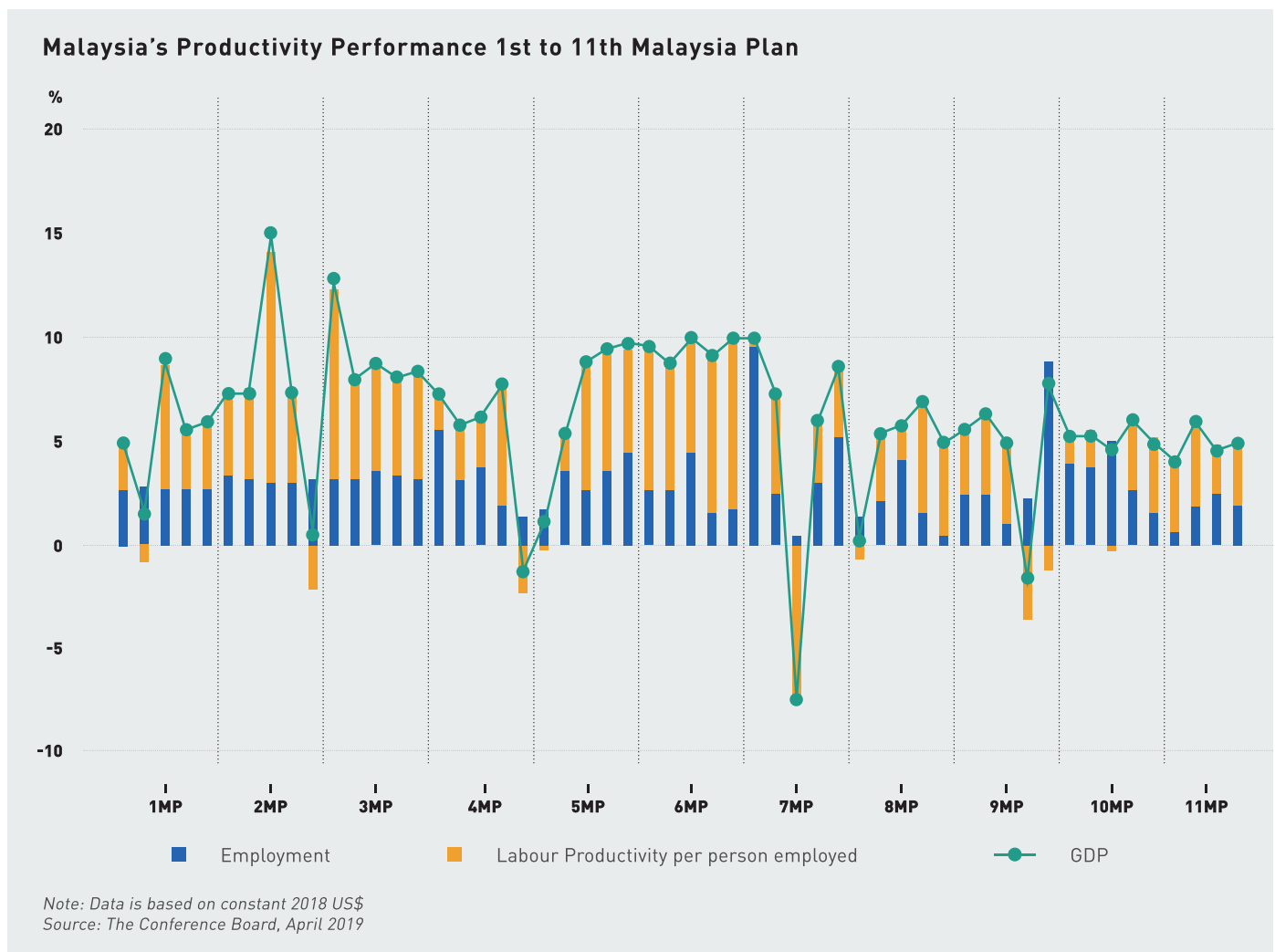
While the country has enjoyed reasonably good economic growth, averaging real Gross Domestic Product (GDP) growth of 6.2 percent per annum from 1966-2019, it has seen its productivity growth erode over recent years, which is of concern from a competitive standpoint. This is also incongruent with the thinking that higher productivity growth should be attained following Malaysia's transition to a predominantly capital driven economy compared to a labour driven one.

Some of the reasons why this has occurred, according to Bank Negara Malaysia, include:

- Low level of capital stock. Capital stock per capita is an essential factor to improving labour productivity as it contributes to more advanced infrastructure and machinery, and Malaysia lags significantly in this area compared to developed economies
- Malaysia's reliance on cheap foreign labour, which has prevented companies from investing in advanced machinery and equipment that will improve productivity
- A high concentration of capital stock in Malaysia's public sector, whereas capital stock is far more concentrated in the private sector in developed countries, indicating that the private sector is the main engine of growth and productivity for developed countries
- General decline in quality investments and lack of economic complexity which are both important factors that drive innovation and labour productivity

Unlocking the potential of productivity has been identified as one of the game changers in the Eleventh Malaysia Plan, 2016-2020 and the Malaysia Productivity Blueprint was launched in 2017 to drive the national productivity agenda. The Malaysia Productivity Corporation (MPC), as the Delivery Management Office (DMO) has been entrusted with identifying, guiding and driving a more strategic and holistic approach to uplift national productivity across all sectors. It has seen marked improvements in all key indicators, and continues to make significant strides towards achieving its targets.

For example, with steady productivity growth, Malaysia has seen significant growth in terms of its external trade, both in terms of total trade and its balance of trade. From 2015 to 2019, total trade expanded by 25 percent, while balance of trade improved by almost 50 percent.



The challenge now, therefore, at the tail-end of the 11MP, is to establish Malaysia's current position in various sectors, and determine the areas where the biggest gains or multipliers can be achieved, in order to achieve optimal synergies and drive growth in sectors deemed crucial to the country's long-term well-being.

The effective collection and, crucially, harnessing of data will be key in identifying and holistically implementing initiatives under the MPB. The MPC will thus be advancing the productivity improvement agenda through nine identified Productivity Nexus (SPN) which will lead the country to achieving sustainable, long-term productivity gains. Broadly speaking, this will be guided by five key strategic thrusts and a multitude of wide-ranging initiatives that reduces regulatory burden, leverages technology and raises the skill levels of our workers.

Amidst all this, it would be remiss to not acknowledge the unparalleled developments rippling across the world over the last six months, due to the Covid-19 outbreak.

## 5 Key Strategic Thrusts under the Malaysia Productivity Blueprint

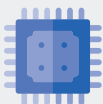
1



### Building Workforce of the Future

Restructuring workforce by raising the number of high-skilled workers, tightening entry of low-skilled workers, and meeting demands of the future economy.

2



### Driving Digitalisation and Innovation

Strengthening the readiness of enterprises to effectively adopt and exploit the technology and digital advantage (such as 4th Industrial Revolution).

3



### Making Industry Accountable for Productivity

Reducing reliance on non-critical subsidies, linking financial assistance and liberalisation efforts to productivity outcomes, and strengthening industry positioning in higher value and segments of the value chain.

4



### Forging a Robust Ecosystem

Addressing regulatory constraints and developing a robust accountability system to ensure effective implementation of regulatory reviews.

5



### Securing a Strong Implementation Mechanism

Institutionalise a strong coordination and governance model to secure implementation certainty across government, sector, and enterprise levels.

Source: Malaysia Productivity Blueprint (MPB)

The final picture that will appear of the year 2020 will be very much of recoveries, relapses and re-allocation of resources. Countries and trade alliances will be forced to reconstitute the global supply chain - not strictly according to competitive advantages, but also according to the human and financial resources available at the time.

It is therefore imperative that as we study the following data, to keep in mind the dynamic and ever-changing nature of global forces today. This makes it even more imperative that Malaysia continues to drive these initiatives deliberately and consistently, in order to be in the best position possible when the global economy finds its new equilibrium. The MPC fully intends to be at the heart of these efforts, as the nation transitions to the 12th MP and beyond.

### MALAYSIA'S PRODUCTIVITY PERFORMANCE - ECONOMIC AND PRODUCTIVITY

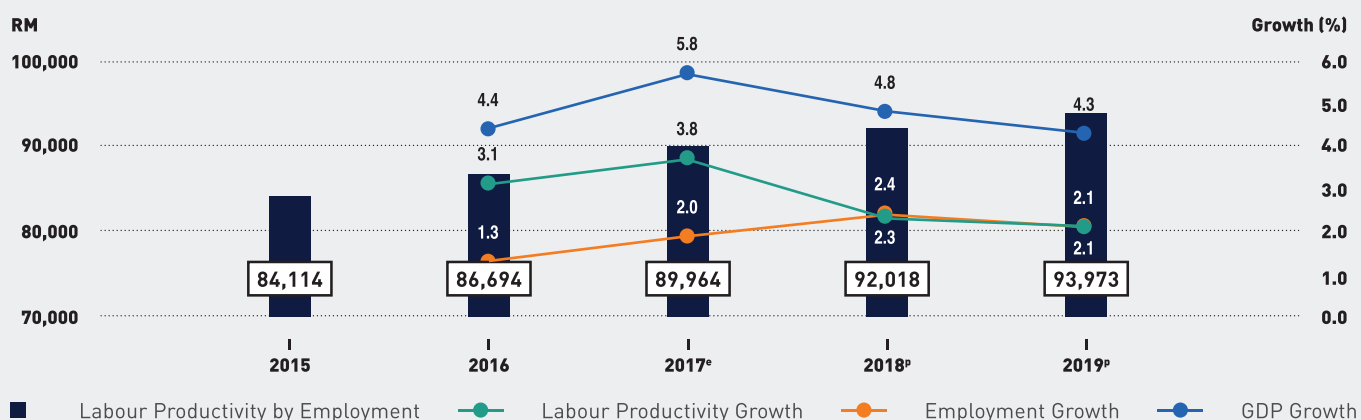
Malaysia's economy grew steadily in 2019 at 4.3 percent, lower than the 4.7 percent forecast as a result of lower commodity outputs and a larger fall in exports attributed to the trade war between China and the United States. The moderation in growth in 2019 compared to the 4.8 percent recorded in 2018 illustrated some of the headwinds the Malaysia economy faced. Quarterly growth in 2019 ranged from 3.6 percent to 4.8 percent.

Bank Negara Malaysia anticipates a challenging 2020. The steep fall in oil prices precipitated by the stand-off between Saudi Arabia and Russia and the global shutdown of borders to contain the Covid-19 pandemic means that, tourism and oil & gas, both Malaysia's traditionally strong contributors to GDP has been significantly affected. The uncertainty over the timeframe to restart economies worldwide means supply and demand chains globally faces a significant recalibration.

Meanwhile, Malaysia's labour productivity performance has maintained steady growth over recent years, although the pace of growth has moderated slightly. In recent years, labour productivity by added value per employment, expanded by 2.1 percent in 2019 to RM93,973 as compared to RM92,018 in 2018. In terms of labour productivity by value added per hour, growth was 2.2 percent in 2019 compared to 3.4 percent in 2018.

Productivity growth per hour grew strongly in the first three quarters (Q1: 2.5%, Q2: 2.3% and Q3: 2.6%) before coming in significantly lower at 1.4 percent in the fourth quarter, as both domestic and international pressures began to be felt.

**Malaysia's Labour Productivity Performance (GDP per employment) 2015-2019**



Note: <sup>e</sup> – estimated

<sup>p</sup> – preliminary

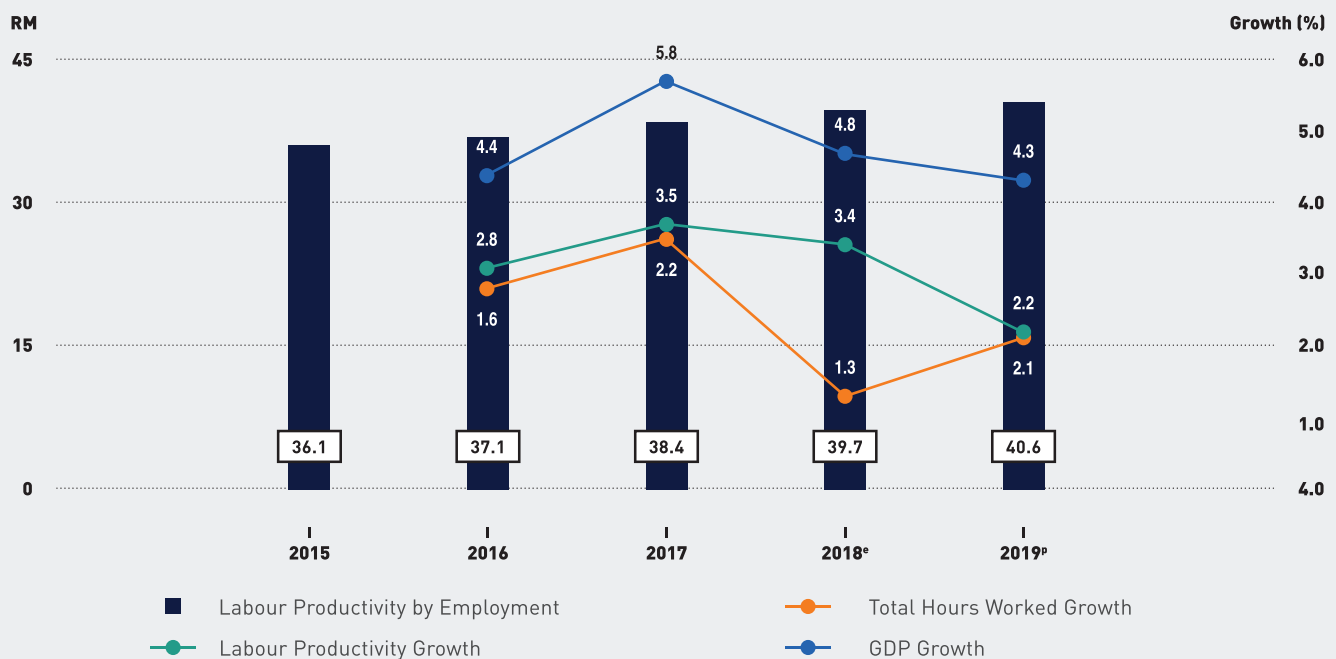
Data is based on constant 2015 prices

Source: Department of Statistics, Malaysia

A similar pattern was seen in productivity growth by employment, registering 2.3 percent (Q1), 2.6 percent (Q2) and 2.3 percent (Q3) before falling to 1.4 percent in Q4. Factors such as the continuing brain drain, lag in technology adoption and general malaise in business confidence weighed the economy down, as the uncertainties from a long-drawn Brexit, trade war between China and the U.S. and Malaysia's own trade issues with India began to tell.

In Q1 2020, there were early indications of distress in the labour market due to the Covid-19 pandemic with labour productivity by value added per employment declining by 0.8 percent (Q4 2019: 1.4%). However, labour productivity by value added per hour worked increased by 2.1 percent (Q4 2019: 1.4%), although this was because the decline in hours worked was larger than the moderation in output.

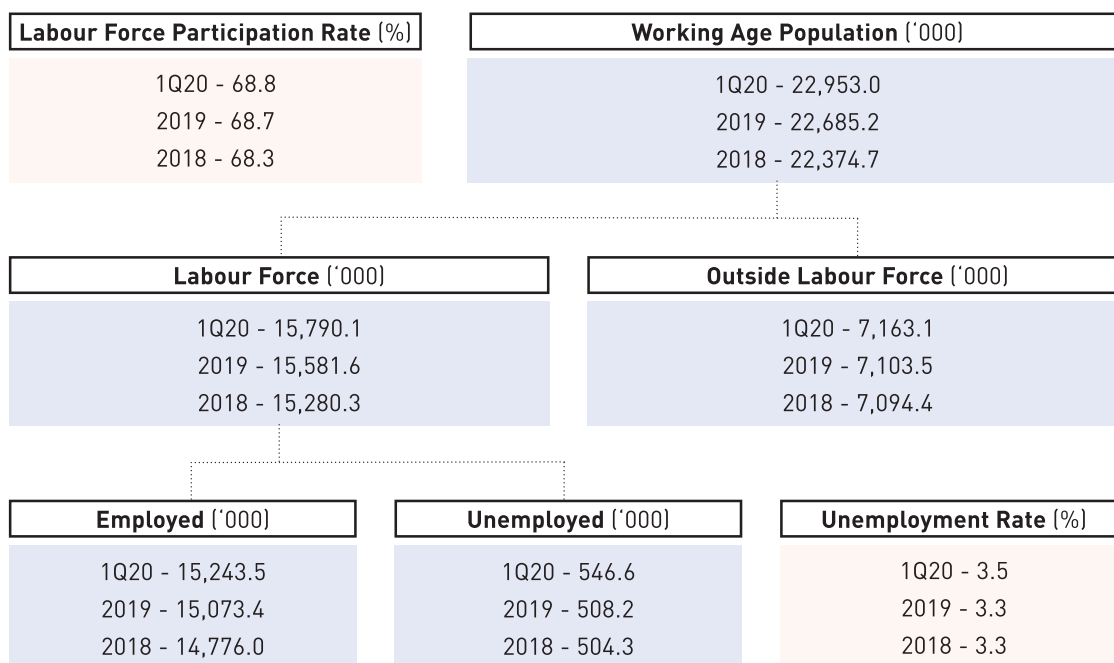
**Malaysia's Labour Productivity Performance (GDP per Total Hours Worked), 2015-2019**



Note: <sup>e</sup> – estimated  
<sup>p</sup> – preliminary  
 Data is based on constant 2015 prices  
 Source: Department of Statistics, Malaysia

## LABOUR FORCE

The labour force in Malaysia increased 2 percent to nearly 15.6 million persons in 2019 (2018: 15.3 million) while the unemployment rate remained steady at 3.3 percent. In Q1 2020, the unemployment rate increased to 3.5 percent reflecting the impact caused by the Covid-19 pandemic as the Malaysian government implemented a Movement Control Order (MCO), and shutdown businesses to stem the outbreak. As an absolute number however, labour force increased slightly by 1.7 percent million year-on-year in Q1 2020, although the quarter-on-quarter growth was much slower at 0.1 percent year-on-year.



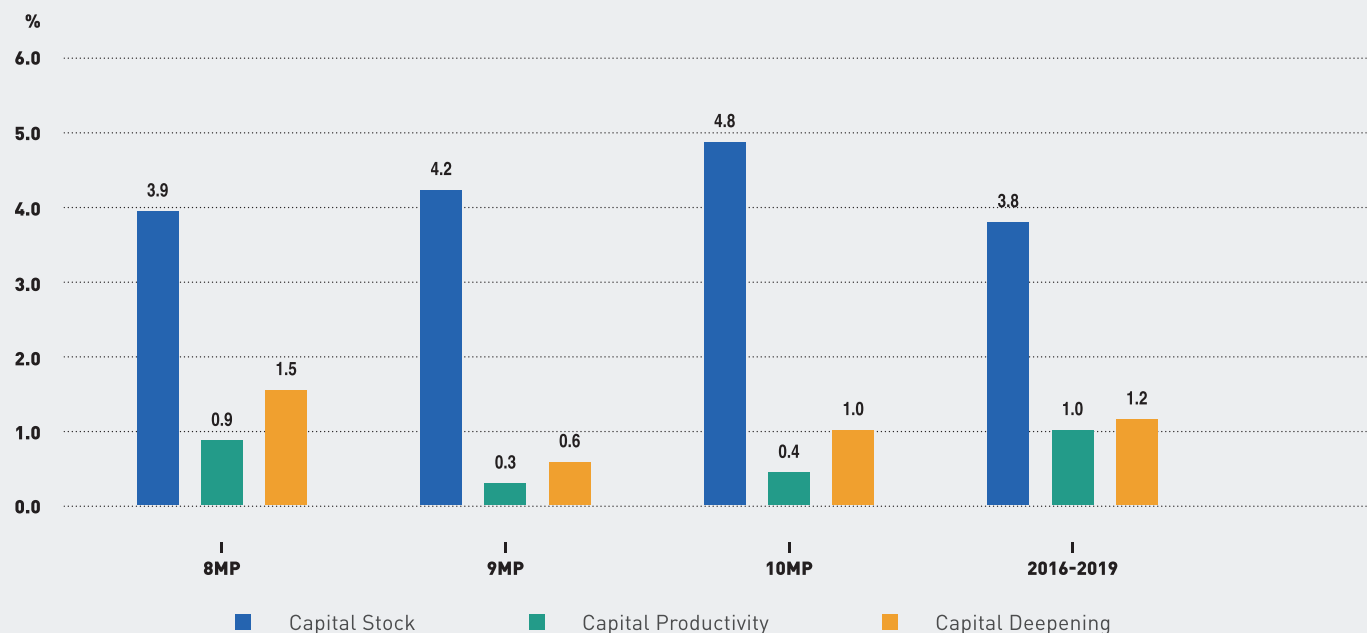
Source: Department of Statistics, Malaysia

## CAPITAL DEEPENING

Long-term productivity growth is reliant on technological advancement as firms look for a competitive edge. Investments into physical capital by either acquiring it or developing it in-house, will drive productivity provided that they are properly utilised to improve worker efficiency and create higher value-added products and services. In this context, capital investments into information and communication technology (ICT) and machinery and equipment (M&E) assets are able to increase labour productivity.

Over the period 2016-2019, Malaysia's growth in capital productivity increased marginally at 1.0 percent, while growth in capital stock recorded slower growth at 3.8 percent compared to the 4.8 percent recorded in the previous period (10MP:2010-2015). The lower average growth in capital productivity compared to capital stock over the past 20 years indicates that investments were focused on quantity rather than on quality assets, such as M&E and other assets.

**Capital Stock, Capital Deepening and Capital Productivity**



*Note: Capital Productivity and Capital Deepening are computed by Malaysia Productivity Corporation (MPC)  
Source: Department of Statistics, Malaysia*

## MAIN SECTORS LABOUR PRODUCTIVITY PERFORMANCE

Malaysia's five main sectors generally improved labour productivity through 2019 with the mining and quarrying sector recording a slight contraction, mirroring the difficulty faced by the oil and gas industry during a volatile year for oil prices. The construction sector remains the least productive at RM45,293 in terms of value add per employment, and indicates the sector's high reliance on low-skilled labour.

	AGRICULTURE	MINING AND QUARRYING	MANUFACTURING	CONSTRUCTION	SERVICES
AVERAGE GROWTH OVER 2016-2019	0.8%	-0.9%	2.6%	4.5%	3.5%
TARGET 11MP (2016-2020)	3.60%	1.10%	2.60%	9.60%	4.10%
11MP TARGET REVISED	1.50%	0.10%	3.80%	3.00%	3.40%

Source: Department of Statistics, Malaysia, Mid-Term Review Eleventh Malaysia Plan

1



## Agriculture

In 2019, Agriculture's labour productivity by value added per hour worked increased 0.3 percent (2018: 0.6%) while labour productivity by value added per employment posted growth of 0.4 percent to RM54,212 (2018: -0.2%). In Q1 2020, the sector's productivity declined with both labour productivity by hour and value add recording year-on-year declines of 7.1 percent and 8.9 percent, respectively.

2



## Mining and Quarrying

In 2019, labour productivity by value added per hour for Mining and Quarrying contracted by 1.7 percent (2018: 3.3%) while labour productivity by value added per employment declined 1.6 percent to RM1.34 million (2018: 4.0%). In Q1 2020, the sector saw labour productivity by hours worked rebound 3.8 percent (Q4 2019: -1.1%) while labour productivity by value added per employment recorded a small decline of 0.4 percent (Q4 2019: -4.0%).

3



## Manufacturing

The manufacturing sector saw labour productivity by value added per hour grew 2.5 percent in 2019 (2018: 3.3%) while labour productivity by value added per employment increased by 1.7 percent to RM123,896 (2018: 2.4%). In Q1 2020, labour productivity by value added per hour continued its upward trajectory with growth at 2.2 percent (Q4 2019: 1.2%) although value added per employment declined 0.2 percent (Q4 2019: 0.8%).

4



## Construction

In 2019, Construction sector's labour productivity by value added per hour worked increased 3.5 percent (2018: 3.8%) while labour productivity by value added per employment grew 3.3 percent to RM45,293 (2018: 3.4%). In Q1 2020, labour productivity by hours worked fell by 1.6 percent in Q1 2020 (Q4 2019: 4.3%) and labour productivity by value added per employment for this sector also declined 5.3 percent (Q4 2019: 3.2%).

5



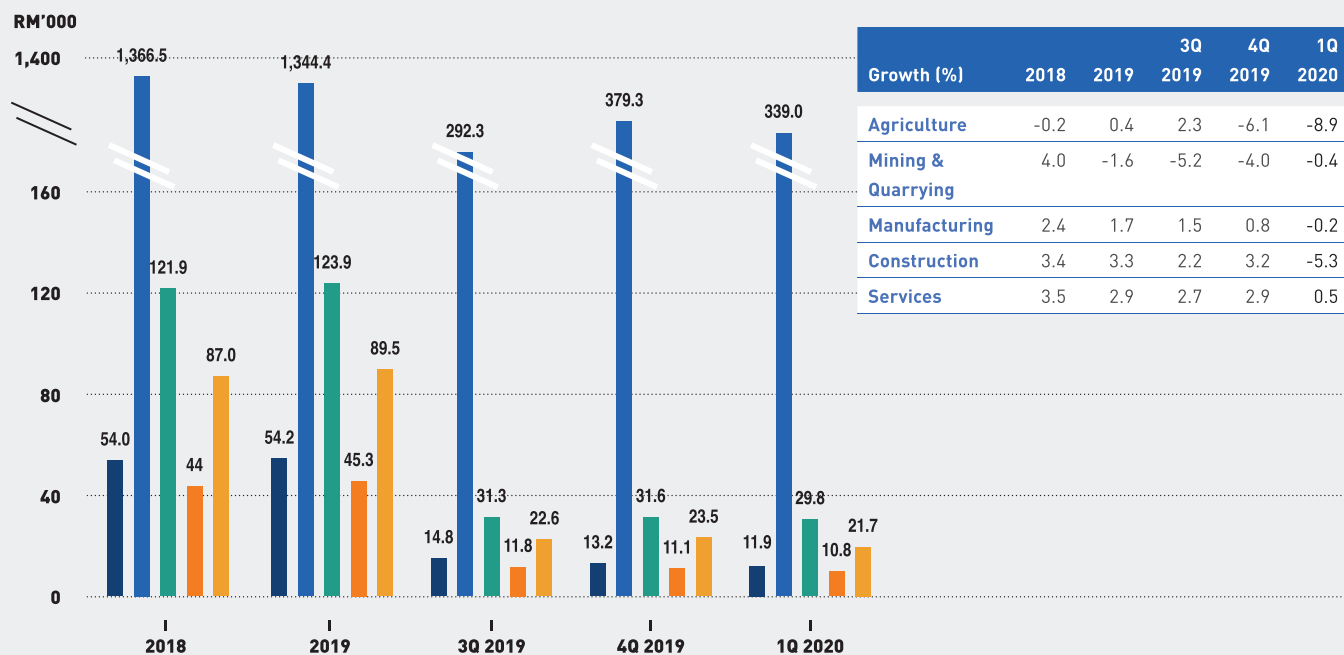
## Services

For the year 2019, the Services sector's labour productivity by value added per hour worked moderated to 2.7 percent (2018: 5.0%) while labour productivity by value added per employment grew 2.9 percent to RM89,513 (2018: 3.5%) In Q1 2020, the growth of labour productivity value added per hour worked increased by 3.7 percent (Q4 2019: 2.6%). Meanwhile, labour productivity by value added to employment grew at a slower rate of 0.5 percent (Q4 2019: 2.9%).

## Labour Productivity by Hours Worked of Malaysia's Major Economic Sectors, 2018-Q1 2020



## Labour Productivity by Employment of Malaysia's Major Economic Sectors, 2018-Q1 2020



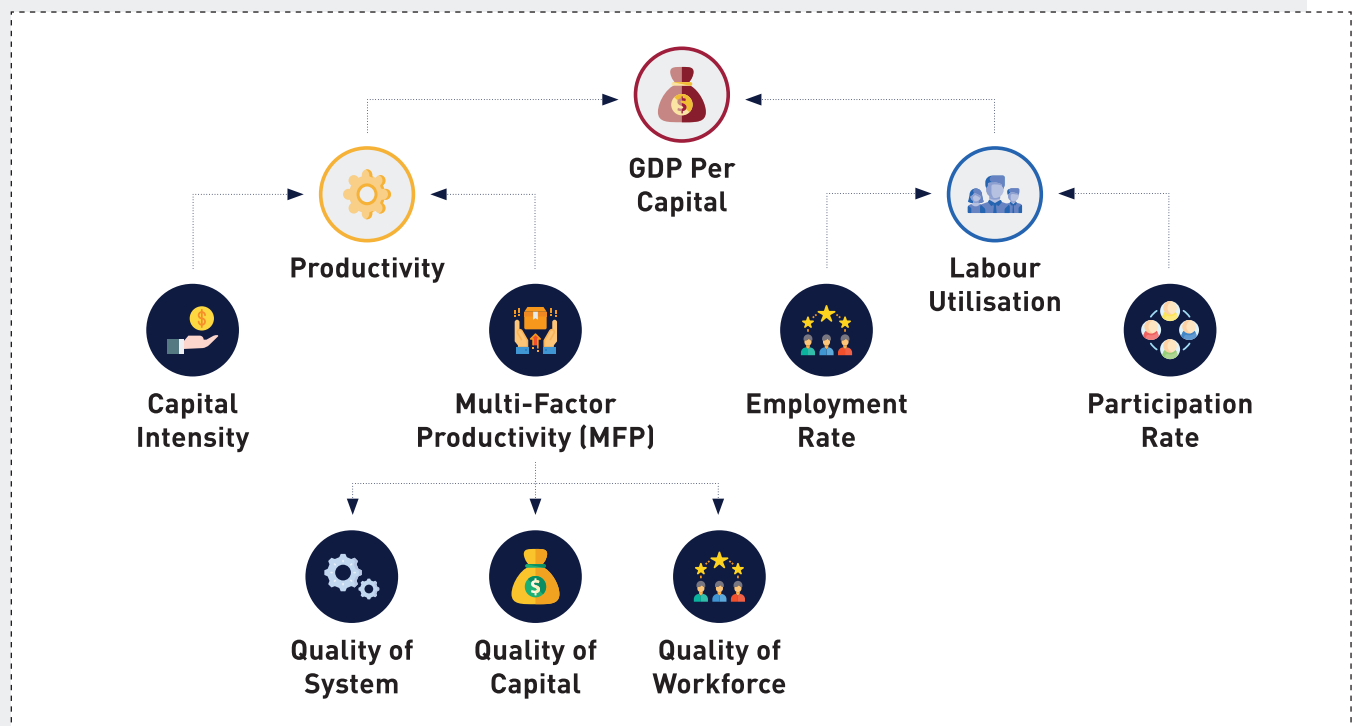
■ Agriculture ■ Mining & Quarrying ■ Manufacturing ■ Construction ■ Services

Source: Department of Statistics, Malaysia

## DETERMINANTS OF LABOUR PRODUCTIVITY

Malaysia's economic development and growth are determined by changes in our employment and labour productivity growth. Labour productivity growth means that more value added to products and services which will create more income for distribution. Labour productivity growth is affected by a composite of factors, namely multi-factor productivity (MFP) growth and capital intensity. MFP brings about technological dynamism while capital intensity refers to the utilisation of capital within the workforce. Investments on capital alone will not reflect higher productivity but must rather be complemented with efficient managerial practices and work procedures, advanced machineries and technology and skilled labour. These two factors will measure improvements in the qualitative aspects of labour and capital inputs.

### Drivers of GDP Per Capita Growth



Quality of life, measured through GDP per capita growth, can be decomposed into changes in productivity and employment. The changes in employment, which is labour utilisation of labour force participation in the country, depends on the activity rate of the working-age population either by reducing unemployment or by bringing more people into the labour market.

Changes in productivity depend on several factors such as the quantitative expansion of physical capital per worker or capital intensity and changes in productivity within sectors or MFP. The growth in MFP is a result of efficient utilisation of new machineries and innovative technology, quality of workforce and quality of system that allow more output with the same amount of input used.

The growth in productivity can also be attributed to structural changes due to allocation of jobs across sectors. This can be seen when workers move from low to high productivity sectors such as in the case of employment shift from agriculture to either manufacturing or services sector.

## MULTI-FACTOR PRODUCTIVITY (MFP)

MFP is a measure of efficiency in the utilisation of inputs. Better quality inputs directly result in the generation of greater output especially when inputs are utilised effectively and efficiently. Higher contribution of MFP in relation to economic growth will lead to a higher standard of living.

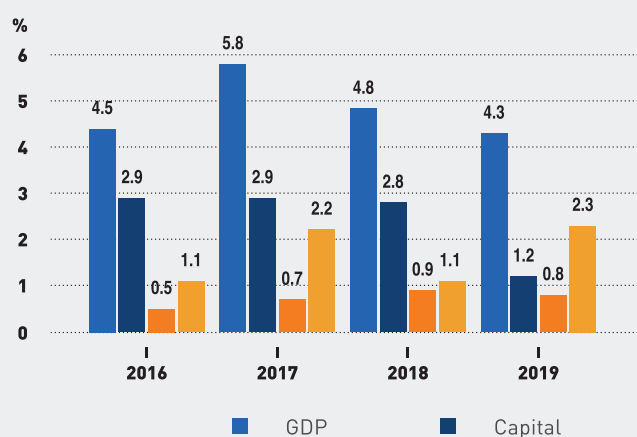
For most of this past decade, Malaysia's economic growth was generally supported by labour growth, although in recent years this has been overtaken by both capital and MFP. In 2018, Capital grew by 2.8 percent and contributed to 58 percent of GDP, while MFP contributed

24 percent. This then switched in 2019 with MFP contributing 54 percent and Capital declining to a contribution of 28 percent. Labour growth contribution meanwhile remained static at 18 percent.

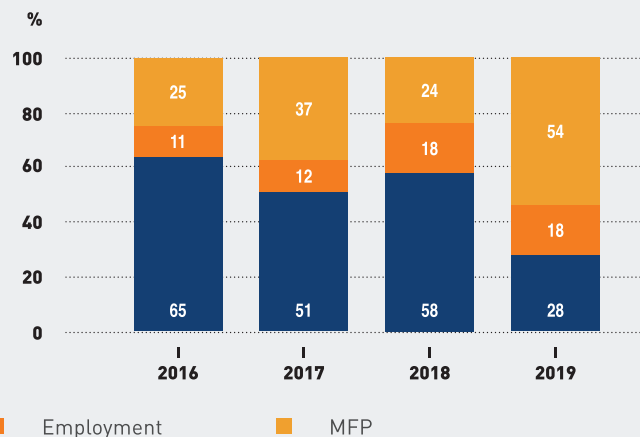
With this performance, it is clear that MFP is likely to contribute more to Malaysia's GDP growth relative to the labour and capital growth. Investments must continue to increase the use of technology for productivity gains, better organisational management, human capital development and business friendly regulations.

### Contribution and Growth of Capital, Labour and MFP to GDP, 2016-2019

#### Growth



#### Contribution to GDP

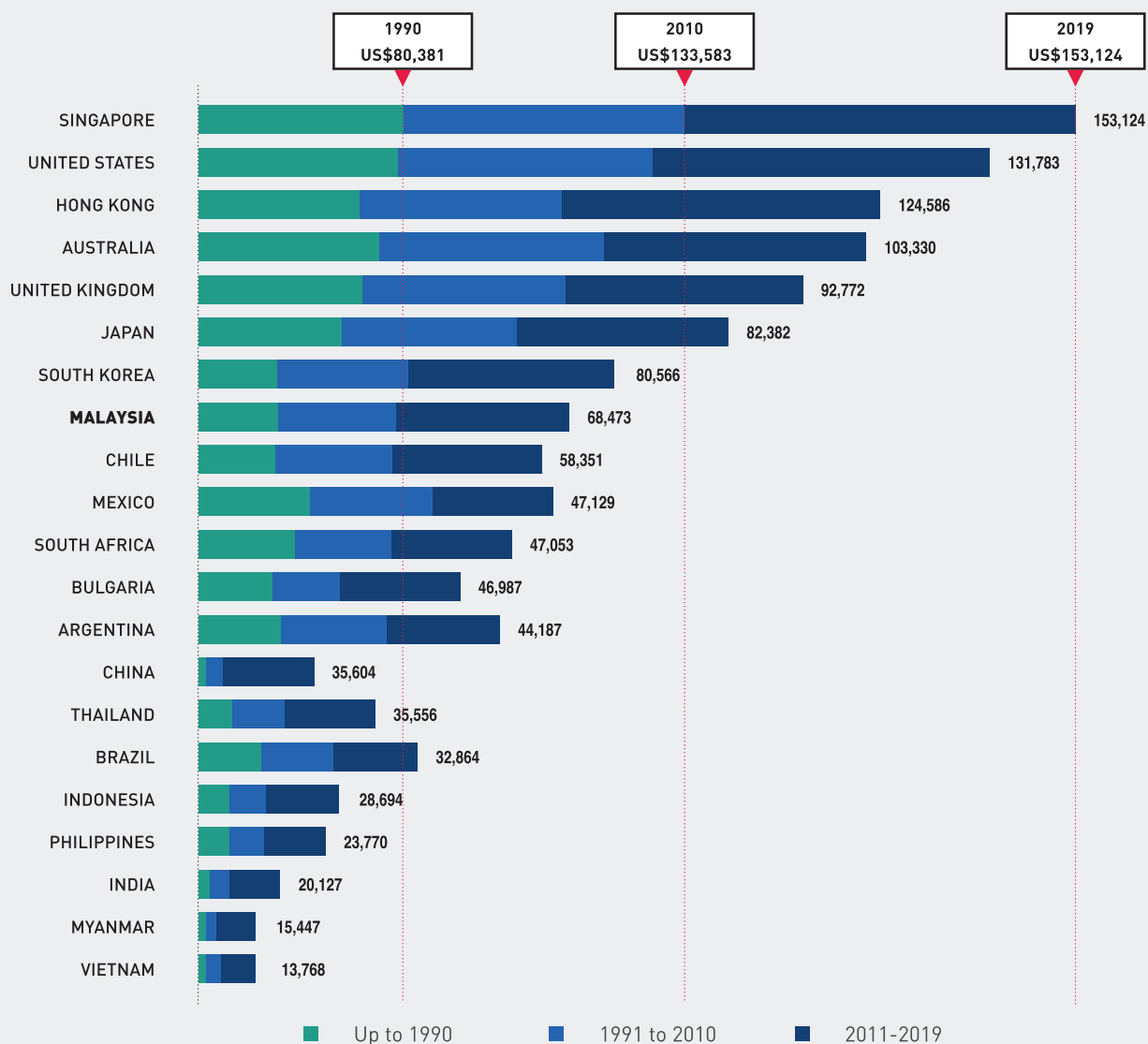


Computed: Malaysia Productivity Corporation (MPC)

## MALAYSIA'S LABOUR PRODUCTIVITY PERFORMANCE AGAINST OTHER COUNTRIES

Amongst developed countries, Singapore continues to hold the highest labour productivity per person employed at USD153,124 with United States coming in second. Malaysia recorded productivity of USD68,473 ahead of selected Asian countries, such as Thailand, Indonesia, China and Vietnam. Although Malaysia's productivity levels is better than most emerging economies, there is still a significant amount of improvement needed to close the gap with more developed economies, the closest of which are South Korea and Japan. Concurrently, the rapid and consistent pace of productivity growth of China, due to its economic transformation, and Vietnam, which continues to invest heavily in education, are to be noted and it is important that Malaysia continues to maintain its edge in this context.

### Closing the Gap and Challenging the Productivity Frontier



Note: Data is based on constant 2018 US\$  
Source: The Conference Board (TCB), April 2019

## ENABLING LARGER AND BROADER INITIATIVES

Amidst the growing global momentum of the Fourth Industrial Revolution - specifically Industry 4.0 – Malaysia has decided to adjust its approach accordingly. The Ministry of International Trade and Industry will be driving this through its Industry4WRD plan for the manufacturing sector, while the Economic Planning Unit looks into the Fourth Industrial Revolution in general. As outlined by the World Economic Forum, Malaysia is well-positioned to benefit from the adoption of Industry 4.0 practices.

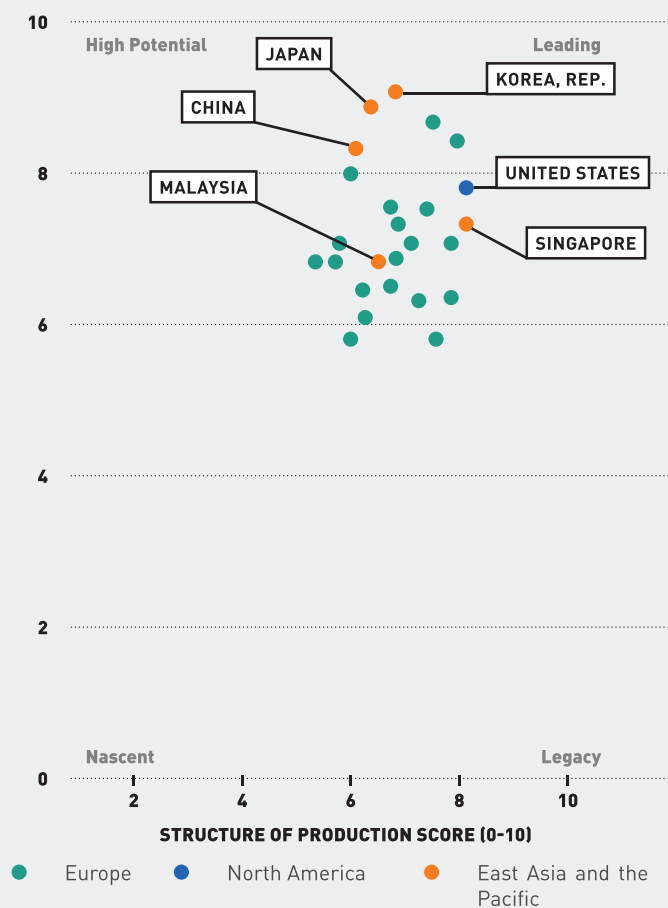
### International Projection of Growth Potential Through Adoption vs. Non-Adoption of Industry 4.0

#### Readiness for the Future of Production Assessment Results 2018

Malaysia is one of 25 countries identified by the World Economic Forum as being in the best position to benefit from the changing nature of production due to the onset of the Fourth Industrial Revolution. This was based on Drivers of Production and Structure of Production:

		1.		2.	
Region	Country	Score	Rank	Score	Rank
Leading Countries					
●	Austria	6.79	18	7.46	9
●	Belgium	6.80	17	6.51	24
●	Canada	7.54	7	5.81	33
●	China	6.14	25	8.25	5
●	Czech Republic	6.01	26	7.94	6
●	Denmark	7.20	10	6.29	27
●	Estonia	6.00	27	5.75	34
●	Finland	7.16	11	7.00	14
●	France	6.89	14	6.87	18
●	Germany	7.56	6	8.68	3
●	Ireland	6.85	15	7.34	10
●	Israel	6.24	23	6.43	25
●	Italy	5.90	30	6.99	15
●	Japan	6.82	16	8.99	1
●	Korea, Rep.	6.51	21	8.85	2
●	Malaysia	6.51	22	6.81	20
●	Netherlands	7.75	5	6.32	26
●	Poland	5.83	31	6.83	19
●	Singapore	7.96	2	7.28	11
●	Slovenia	5.71	32	6.80	21
●	Spain	6.23	24	6.05	29
●	Sweden	7.40	9	7.46	8
●	Switzerland	7.92	3	8.39	4
●	United Kingdom	7.84	4	7.05	13
●	United States	8.16	1	7.78	7

#### DRIVERS OF PRODUCTION SCORE (0-10)



#### 1. Drivers of Production

Technology & Innovation  
Human Capital  
Global Trade & Investment  
Institutional Framework  
Sustainable Resources  
Demand Environment

#### 2. Structure of Production

Complexity  
Scale

## 9 Priority Subsectors

# A CLOSER LOOK AT SECTORAL PERFORMANCE – 9 PRIORITY SUBSECTORS

## SECTORAL OVERVIEW

Continuing from what has been described about the state of Malaysia's economic and productivity landscape, the MPC believes that there is certainly enough evidence to not only urgently broadcast what we need to do, but to also find every way possible to bolster our existing efforts. Every single stakeholder must treat productivity improvement as an urgent mission of national importance, as it will determine how competitive our country is, and consequently, how prosperous the nation can be.

Through the nine subsectors as identified under the MPB in 2017, and with the help of the committees assigned to drive productivity initiatives in their respective Productivity Nexus, the MPC has learnt plenty about the challenges that need to be overcome. It must also be noted that these nine subsectors only paint one portion of the country's entire productivity story.

However, as will be described in this chapter – while there are many commonalities in terms of difficulties, there is no silver bullet that can be applied through all the subsectors to address the outstanding issues. Every approach taken by each Productivity Nexus is, in most instances, unique, but all with a singular goal in mind, which is to make their respective industries more productive, adaptable and sustainable.

What is clear however is that the productivity of these subsectors is intimately linked to the productivity of the public sector. Every industry relies on having a flexible, robust but yet fair business and legal ecosystem in which to function, and hence it is crucial to ensure that both public and private sectors are fully aligned to ensure that they work in unison in this context.

Expectations of a level playing field, with responsive and adaptive legal and business frameworks will only continue to rise as organisations try to eke out more and more productivity gains. In our observations and through the case studies discussed in this chapter, it would appear that reducing regulatory burden, optimising talent needs and advancing technological investments are the three key areas that truly unlock significant productivity gains.

However, the MPC is also cognisant of the effect that the Covid-19 outbreak has had on the world and Malaysia's economy. It will be some time before business returns to normal, but there is compelling evidence that productivity initiatives, especially in the area of digital technology, has helped some businesses weather this storm. It is MPC's aim to convince more businesses to look into adopting and incorporating new ways of doing business to improve their resilience, productivity and overall well-being.

### Productivity Nexus

-  ▶ Chemicals and Chemical Products
-  ▶ Electrical and Electronics Products
-  ▶ Machinery & Equipment
-  ▶ Private Healthcare
-  ▶ Professional Services
-  ▶ Tourism
-  ▶ Digital
-  ▶ Retail and Food & Beverage
-  ▶ Agro-Food

# CHEMICALS & CHEMICAL PRODUCTS



## CHEMICALS & CHEMICAL PRODUCTS

### THE LANDSCAPE

**IN 2019, THE CHEMICALS AND CHEMICAL PRODUCTS SECTOR, WHICH ALSO INCLUDES PHARMACEUTICALS, CONTRIBUTED ABOUT 2.4 PERCENT TO MALAYSIA'S GDP. THE SUBSECTOR, WHICH COMPRISES ONLY BASIC CHEMICALS, OTHER CHEMICALS AND MAN-MADE FIBRES. IT IS THE MOST PRODUCTIVE AMONGST THE NINE SUBSECTORS BUT HAS SEEN DECLINING PRODUCTIVITY GROWTH RATES IN RECENT YEARS.**

Malaysia's chemical sector emerged as a direct result of the country's move towards rapid industrialisation in the late 1980s, following the deliberate direction to by the government to scale back on products like tin and rubber that were the main drivers of the economy. Many large chemical plants were built to support the rapid development of manufacturing industries, which helped to transform the economic landscape.

Over the years, the chemical sector has evolved into an important component of the economy given the wide-ranging number of industries it supports. The industry also has notable depth given the specialties that are required by some of these industries. As a mature industry, the chemicals sector has consistently ranked in the top five in terms of export products, accounting for about 6 percent of the nation's exports in 2018 and 2019.



Labour Productivity by  
Total Hours Worked  
increased

**0.3%**

in 2019



Labour Productivity by  
Employment decreased to

**RM288,441**

in 2019 from

**RM294,621**

in 2018

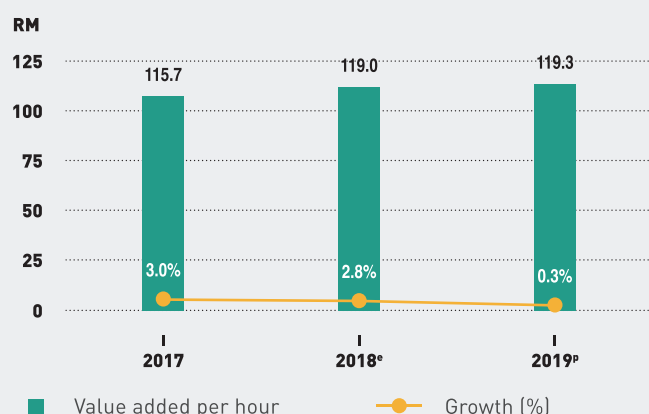


## LABOUR PRODUCTIVITY

In terms of productivity growth, this subsector recorded almost RM300 thousand per person employed, making it the second most productive amongst the nine subsectors. After solid productivity growth of 3.7 percent in 2017, it has now contracted by 2.1 percent in 2019.

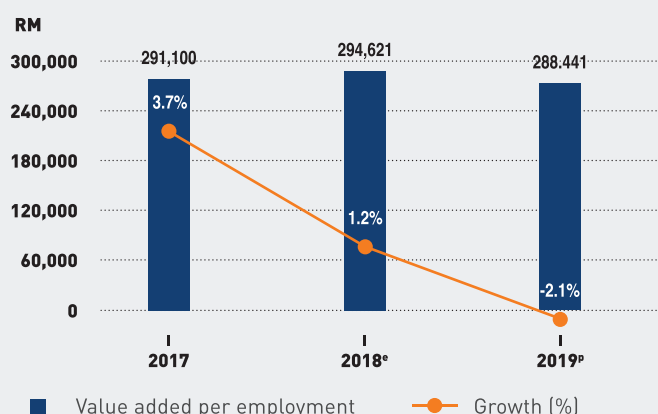
### Chemicals & Chemical Products Subsector Productivity Performance

Value Added Per Hour & Percentage Change



Note : e – estimated  
: p – preliminary  
: Data is based on constant 2015 prices  
Source : Department of Statistics, Malaysia

Value Added Per Employment & Percentage Change



## CHALLENGES AND RECOMMENDATIONS

Similar to other sectors, the fragmented nature of the country's economy with its numerous SMEs also poses a challenge to push through top-down policies into this subsector. Almost 80 percent of chemical companies operate at the lower end of the value-add spectrum and indicates the lost opportunities from potentially higher margins in the specialty chemicals segment. Coupled with an inherent complexity due to the linkages of the sector to almost every industry in the economy, there is a need for closer collaboration between government and industry in order to make effective progress. The subsector has seen the growth rate declining largely due to:

- Limited presence in high value add segments
- Insufficient talent
- Inability of SMEs to adapt to technological changes
- SMEs unequipped to effectively expand internationally

From a strategic perspective, the Chemicals and Chemical Products Nexus (CCPN) chose to approach the challenges and drive improvements to productivity through the key themes of Safety, SMEs and manpower. While this was the most practical way of doing things, we are still faced with difficulties, such as the lack of interest from some industry players, and a mismatch in the government's understanding about the complexity and requirements of the industry.

For example, in the context of safety, there should be very little avenue for consensus building as it involves the lives and livelihoods of the community. In this instance, any responsible initiative that strives to promote safety should ideally be accompanied with a government directive to comply, in order to ensure maximum compliance by industry players. The CCPN is also of the view that while productivity will be improved, it will not happen overnight, and that much more needs to be done to lay the foundations to ensure sustainable productivity growth.

## SECTOR INITIATIVES

The CCPN facilitated sector-specific initiatives and activities to increase the value-add and productivity levels of the subsector. Through these actions, SMEs will be better equipped to transition towards high value-added components. Among the highlights were the Responsible Care programmes which empowers chemical companies to take the lead with regards to safety issues. To boost the industry further, the CCPN kickstarted the planning for the SME Global programme that seeks to boost international expansion for Malaysian companies, as well as facilitated discussions about higher value-add products.



### **Initiative** C1: Establish Chemical Centre of Excellence

#### **Business Concern**

Low response to public concerns about manufacture, transport, use and disposal of chemicals.

#### **Programme (2019-2020)**

- **Responsible Care Programme (RC) in collaboration with Chemical Industries Council of Malaysia (CICM)**

#### **Impact to Sector**

6 Certified Responsible Care Signatories

#### **Business Concern**

Lack of awareness on chemical risk in the event of incidents in their operations and legislation and penalties governing occupational safety and health, continuous improvement of health, safety and environmental performance

#### **Programme (2019-2020)**

- **Chemical Safety for Productivity Improvement (CSPI) Awareness Roadshow**

#### **Impact to Sector**

Improved awareness about how chemical safety can improve productivity

#### **Business Concern**

Safety of Road Transport Operations of Chemical Products (including all Dangerous Goods Cargo)

#### **Programme (2019-2020)**

- **Development of e-Roads, an Integrated & Centralised National Database System for Dangerous Goods Driver & Vehicles, as a mandatory Chemical Industries National platform**

#### **Impact to Sector**

Improvement to overall safety in the transportation of chemicals

#### **Business Concern**

Best Practice

#### **Programme (2019-2020)**

- **Engagement with various industry under chemical subsector to document best practices about chemical safety and success stories in collaboration with Best Practice Resource Centre (BPRC) MPC**

#### **Impact to Sector**

Improvement to overall safety in the chemicals industry



**Initiative** C2: Deepen collaboration between industry players and educational institutions in offering chemical courses

### Business Concern

-

#### Programme (2019-2020)

- **Development of customised upskilling programme focusing on Process Engineering specialisation**

#### Impact to Sector

Availability of higher-skilled workers in the chemical industry

### Business Concern

Lack of information about experts who can assist the industry in R&D

#### Programmes (2019-2020)

- **Registry Of R&D Researchers for value added products for local / private universities & technical institutes offering chemical engineering, chemistry & process engineering**
- **Repository of subject matter experts, including researchers in the field of chemicals and chemical engineering**

#### Impact to Sector

Chemical companies will have better access to information on experts providing research and development (R&D)

### Business Concern

Unstructured Internship programme provided by Employer

#### Programme (2019-2020)

- **Developing an Internship Guide for employers (Chemical & Process Industries)**

#### Impact to Sector

Internship students will be well trained by employers through the adoption of the Internship Guidelines



**Initiative** C3: Provide technical, digital and management support to enhance SME capabilities

### Business Concern

Low technology adoption by chemical SMEs

#### Programmes (2019-2020)

- **Industry 4WRD Readiness Assessment Programme on 50 chemical companies**
- **SIRIM-FRAUNHOFER Intervention Programme**

#### Impact to Sector

Adoption of new technologies for product development and production process by chemical companies



**Initiative** C4: Enable SMEs to move towards high value add components in the chemical value chain

### Business Concern

Lack of knowledge on addressing company's challenges and mitigation action to overcome issues.

### Programme (2019-2020)

- **Research study to identify competitive space, address barriers, roadblocks, and future trends in the Chemicals and Chemical Products subsector by Institute of Bioproduct Development (IBD) UTM**

### Impact to Sector

Improvement to chemical company's knowledge on how to overcome industry challenges

### Business Concern

Low penetration in value added segment by chemical companies

### Programme (2019-2020)

- **New technology and establishment of Centre of Excellent (COE) that will accelerate introduction of bio-based Polyhydroxyalkanoates (PHA) using vegetable oil (palm oil) as an alternative to petroleum-based PE**

### Impact to Sector

Improving value-add of the chemicals industry

### Business Concern

Lack of awareness about bio-based plastic by chemical companies

### Programme (2019-2020)

- **Engagement programme on development of the SME Bioplastics Industry in Malaysia**

### Impact to Sector

Adoption of new product range by chemical SMEs

### Business Concern

Lack of understanding on pandemic preparedness and the importance

### Programme (2019-2020)

- **Engagement workshop and strategic paper on the development of the vaccine industry to address Malaysia's preparedness for pandemics**

### Impact to Sector

Better preparedness for a pandemic

### Business Concern

Lack of engagement between industry, learning institutions and related government agencies

### Programme (2019-2020)

- **Industrial engagement day in collaboration with Institute of Bioproduct Development (IBD) on bioproducts segment**

### Impact to Sector

Sharing of experience in advanced technologies



**Initiative** C5: Provide support to high potential SMEs to expand internationally

**Business Concern**

Low penetration in international markets due to weak products, lack of export knowledge etc.

**Programmes (2019-2020)**

- **SME-X 4.0 Export Programme (Coaching and Mentoring) for 30 chemical SMEs**
- **Customised Export facilitation for 3 chemical SMEs**

**Impact to Sector**

More visibility of Malaysian companies in the international chemicals industry



**MOVING AHEAD**

As we move into 2020, it is clear that all initiatives that were mapped or planned will likely continue but will have no effect on productivity gains. Many businesses had to stop their operations due to the Covid-19 outbreak which affected their raw material supply from China. The CCPN is however confident that these initiatives will help the businesses be better prepared once the recovery is underway.

**BEST PRACTICES****PETRONAS CHEMICALS OLEOFINS SDN BHD**

PETRONAS Chemicals Oleofins is a subsidiary of PETRONAS Chemicals Group Berhad and was incorporated in 1998. It is one of the market leaders in the supply of raw materials for industrial applications and performance chemicals in Malaysia, such as feedstock for polyethylene, ethylene oxide, ethylene glycol and butanol.

In 2016, the company decided to identify ways to reduce operational costs and improve efficiency through a Team Excellence initiative. Following an assessment, it found three problems that were costing

the company about RM9.6 million per annum. The most significant involved the long duration of time needed to start up an important system (System 22) to produce one of its key products.

The company analysed the problem, identified the issues and determined the best course of action. Following the implementation of the solutions, the start-up duration for System 22 was reduced significantly to 36 hours from 60 hours. With the reduction in start-up time, the Overall Equipment Efficiency ratio increased to 91 percent, profit improved and there were no longer any customer complaints.

Source: <http://bond.mpc.gov.my>

**DSA DYNAMICS (M) SDN BHD**

DSA Dynamics (M) Sdn Bhd was established in 2003. Located in Terengganu, the company manufactures plastic goods such as canisters, drip caps, irrigation bottles and plastic utensils used to store medicine. Despite a small operation with only 25 staff, the company sought to improve its business further by reducing defect rates and production cycle times.

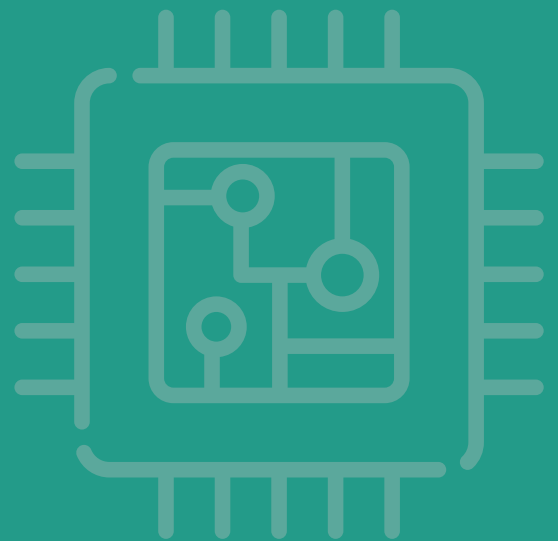
The company implemented an 8-month long Lean project to improve efficiency and eliminate wastage. The company found that there were long waiting times before a product was processed and very high defect

rates due to impurities that managed to find its way into the product. Following the identification of the exact issues that needed to be fixed, the team began making improvements to their operations using the Lean process to guide them.

Following the implementation of 12 improvements, the company saw the defect rate reducing to 28.3 percent from 93 percent. Lead time for the production of canisters was also halved through the method of reducing the distance a worker needed to move. In addition, the improvements helped the company reduce the cost of raw materials by 42 percent.

Source: <http://bond.mpc.gov.my>

# ELECTRICAL & ELECTRONICS



## ELECTRICAL & ELECTRONICS

### THE LANDSCAPE

**IN 2019, THE ELECTRICAL & ELECTRONICS SUBSECTOR CONTRIBUTED 5.6 PERCENT TO GDP, EXTENDING ITS STREAK OF CONSISTENT ECONOMIC PERFORMANCE OVER THE PAST FIVE YEARS. PRODUCTIVITY GAINS ARE HOWEVER SLOWING AND IS A CAUSE FOR CONCERN CONSIDERING THE SUBSECTOR'S IMPORTANCE TO OUR EXPORT ECONOMY.**

Malaysia's Electrical & Electronics (E&E) sector was practically non-existent in the early years, as Malaysia's manufacturing industry after Independence was still fully focused on the processing of tin ore and rubber – an inheritance from the British colonial era. The Government's move to start producing more consumer goods such as soaps, footwear, processed foods and clothing in the late '60s to wean the country off imports and reduce the outflow of funds saw a shift to light industries.

But it was only in 1969 when the first concrete step was taken, when Penang established the country's first Free Trade Zone designed to attract foreign direct investment. Eight companies from all over the world, including Intel, put their faith in Malaysia. Soon, similar projects in Selangor and Malacca followed and within the decade, the facilities had grown to include state of the art global testing facilities. Growing mechanisation and precision tooling saw the MNCs reaching out to local suppliers, giving the local industrial SME sector a major boost and driving wages, productivity and investments across the '80s.

The growth of the semiconductor industry in the 1990s saw Malaysia's industrial capabilities take a giant leap forward, as the companies began developing talent organically, investing in local engineers and SMEs.

By 2013, E&E accounted for 32.9 percent of Malaysia's total exports, with some 47 percent of that from the semiconductor subsector. It housed more than 50 MNCs including Intel, AMD and Texas Instruments, and local champions such as Silterra, Unisem, Inari and Globetronics began claiming its stake in the global scene. As of 2019, the subsector contributes 37.8 percent of the country's total exports valued at RM986.4 billion.

The move into renewable energy had also started to bear fruit, with Malaysia coming in third behind only China and the EU, in terms of production of photovoltaic equipment. The country's manufacturing industry as a whole has managed to migrate further up the value chain, as regional competitors with cheaper costs began attracting the FDI formerly invested in Malaysia.

Labour Productivity by Total Hours Worked increased

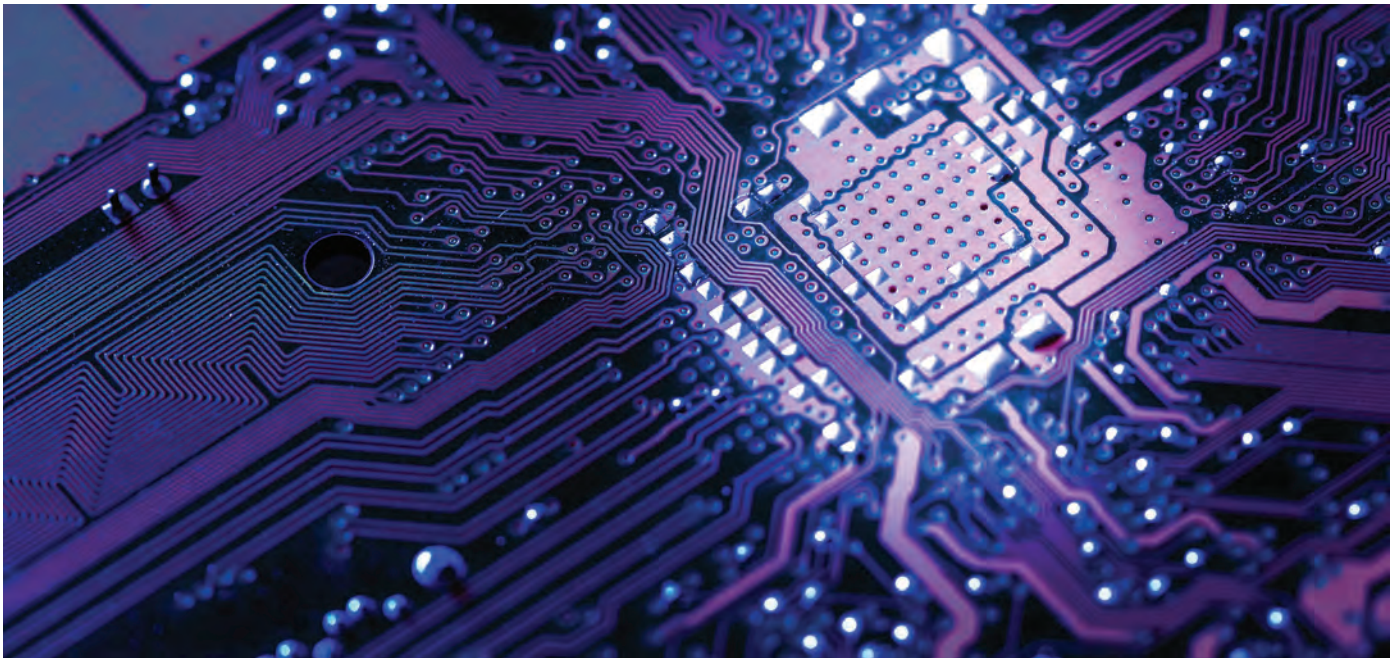
**3.4%**  
in 2019



Labour Productivity by Employment increased to

**RM173,673**  
in 2019 from  
**RM170,217**  
in 2018





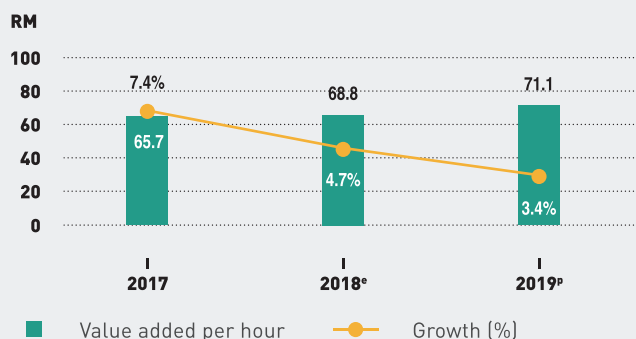
## LABOUR PRODUCTIVITY

The subsector's productivity gains, however, although positive, have remained on the downward trajectory and it has been this way for several years, mainly as a result of three factors: a shortage of highly skilled labour, a lack of Design & Development centres and limited access to new markets.

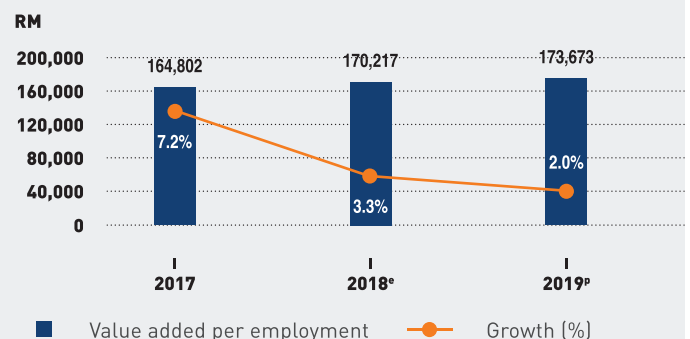
It is for these reasons the E&E Productivity Nexus was set up, which has since then focused on increasing the sector's capabilities in a three-pronged approach, encompassing; the workforce, eco-systems and the industry's structure.

### Electrical & Electronics Products Subsector Productivity Performance

Value Added Per Hour Worked & Percentage Change



Value Added Per Employment & Percentage Change



Note : e – estimated  
: p – preliminary  
: Data is based on constant 2015 prices  
Source: Department of Statistics, Malaysia

## CHALLENGES AND RECOMMENDATIONS

The challenges the sector faces are significant, and driven by almost exclusively external trends, including:

- The drive for artificial intelligence, big data, robotics and automation
- Innovation to Zero e.g. zero-waste, zero emissions, zero defects, zero security breaches etc.
- LEAN practices including fab-less, factory-less and factory-in-factory, and
- The digital lifestyle and economy, which encompasses all modes of e-commerce and payments, autonomous vehicles, increasingly connected wearables etc.

All have relatively high barriers to entry and investment, while disrupting ongoing developments and the industry's blue and white-collar jobs as a whole. The sector must work harder to take advantage of these megatrends which are driving new growth in the E&E sector all over the world.

The competition in the global space is also increasingly intense, as illustrated below:

### Competitors are moving faster with deep pockets

#### G7 shifting to E7

##### ▶ Economic Power Shift

**G7**



**E7**

- |           |         |             |          |
|-----------|---------|-------------|----------|
| • Canada  | • Japan | • Brazil    | • Mexico |
| • France  | • UK    | • China     | • Russia |
| • Germany | • US    | • India     | • Turkey |
| • Italy   |         | • Indonesia |          |



#### Germany's Industry 4.0

- ▶ > 300 companies from 159 trade associations are active



#### China's Made in China 2025 programme

- ▶ E&E domestic content 40% (2020) and 70% (2025)
- ▶ US\$50 billion budget allocated



#### M&A wave continues, everyone is competing

- ▶ Singapore's ASTAR is spending more than S\$220M on Industry R&D
- ▶ Vietnam E&E export growth CAGR 29% (2000~2014)
- ▶ Austria investing €2B for MEMs development



Source: Electrical & Electronics Productivity Nexus, MPC

The challenge for the country therefore, is to ensure a holistic development of the E&E value chain over and above the more general aspects of manufacturing i.e. to include higher value add areas such as R&D, product development and design customisation, services and marketing, to capitalise on areas where we are already strong such as build to design, the manufacturing process and production.

## SECTOR INITIATIVES



**Initiative** E1. Strengthen collaboration between industry, government and universities to ensure supply of industry-ready engineers

**Business  
Concern**

Shortage of industry ready human capital especially in high value-added activities

**Programmes**

- Develop Post Finishing School (PSF) Programme for IC Design
- Develop Structured Industry Apprenticeship Programme (SIAP)

**Impact to Sector**

- Greater employability opportunities with industry ready graduates
- Increased number of IC design engineers



**Initiative** E2. Up-skill workers to prioritise innovative thinking to foster productive culture

**Business  
Concern**

Most SMEs not able to afford training or upskilling of their employees

**Programme**

- Development of talents for employment

**Impact to Sector**

Increased number of existing workforce trained under the new financing model



**Initiative** E3. Accelerate collaboration and strengthen knowledge sharing between industry players, through Centre of Excellence

**Business  
Concern**

Lack of awareness on Industry 4.0

**Programmes**

- Collaborating with industry players to develop a robust Design and Development ecosystem
- Nurturing and incubating I4.0 Activities
- Strengthening SME Development to develop local champions

**Impact to Sector**

Higher rate of adoption of Industry 4.0 technology by industry



**Initiative** E4. Promote higher value add activities, including Research, Development and Design and produce complex products

**Business  
Concern**

- Limited focus on high-value activities, such as product development and design
- SMEs need help in promoting them to the world

**Programmes**

- **MIDA's incentive process enhancement**
- **Maximise value from E&E Directory, emphasising SMEs agenda**
- **National policy paper on testing capability for E&E chapter, comparative advantage from competency, price and funding perspective**

**Impact to Sector**

Value of new investment attracted under E&E ecosystem promotion



**Initiative** E5. Enforce minimal guaranteed service levels for utilities and infrastructure in key industrial zones

**Business  
Concern**

The focus of this study is on regulations imposed on the cross-border trade that impacts importation of E&E input raw materials and exporting of E&E semi or finished products

**Programme**

- **High technology within Industrial Zone**

**Impact to Sector**

A national best practice on import-export materials for E&E



## MOVING AHEAD

With the recent Covid-19 pandemic proving a major disruption to some of Malaysia's traditionally biggest contributors to GDP, such as Oil & Gas and Tourism, the onus is on E&E to step up significantly to drive Malaysia through this difficult period. As one of the immediate priorities under the MPB, the E&E Productivity Nexus will work closely and tirelessly with all stakeholders to ensure the country's recovery in the shortest possible time, in line with the Government's Shared Prosperity Vision of 2030.

In 2020, we will continue with specific action items that build on 2019's initiatives. Our ultimate aim is to move up the manufacturing value chain, focus on state-of-the-art manufacturing and technologies and bolster the support and marketing functions of the industry. Some of these activities had actually begun in 2019 and will be continued into 2020.

### Enhance Higher Value-Added Activities

1. Enhance 'Mechanical Engineering' product development capabilities, especially among SMEs
2. Finalise Structured Industry Apprenticeship Programme, and complete handover to MOE
3. Make legal entity win business for local IC companies
4. Develop partnership with NCIA to drive Test Engineering & Development capabilities
5. Nurture a complete ecosystem to support Embedded Software and Solutioning
6. MIDA's incentive enhancement in promoting a wider scope of E&E related activities

### Nurture Talent Development

1. Upskilling yet-to-be-employed engineering graduates
2. Localise 'Advanced I4.0' training programme
3. SME Leadership Development programmes
4. Develop and conduct Global and Regional Leadership Programmes
5. Provide 'Basic' and 'Advanced' training to local M&E engineers doing design and development work
6. (a) Monitoring the impact of technicians training programmes by GC members  
(b) Monitoring the impact of Post School Finishing (PSF) programme for IC designers to the companies

**Creating  
Value  
Towards  
Industry 4.0  
Ecosystem**

1. Plugfest 1.0 IIoT proliferation nation-wide
2. Pilot first PLUGFEST 2.0 (AI-based Machine Vision)
3. Partner with strategic Regional Technology Centres to create value towards industry
4. Organise Industry 4.0 events (Regional Conference & Hackathon)
5. Organise IoT Convention

**Strengthen  
SME  
Development**

1. Preparing SMEs towards Public Listing exercise. Using the SME development waterfall model, hand-holding short-listed SMEs
2. Nurture local I4.0 SME solution providers to create an ecosystem to assist local companies (with local product suites)
3. Create a peer learning platform to provide advisory services to shift SMEs' mind-set; break-through performance to capture growth opportunities
4. Establish a Virtual Market Place to promote Malaysian E&E suppliers to overseas companies
5. "E&E Manufacturing Innovation Center (E&E-MIC)". To provide strategic guidance to "E&E-MIC" management to drive SMEs development

## BEST PRACTICES

### K-ONE TECHNOLOGY BERHAD

K-One Technology Berhad is an export-oriented technology solutions provider with more than 95 percent of its sales derived from Europe and the US. It is driven by two key businesses:

- OEM/ODM of Internet of Things (IoT) devices, healthcare/ medical devices, consumer electronic lifestyle products, automotive aggregates, security/surveillance gadgets, industrial products and mobile phone accessories
- Provision of cloud computing services

The company's approach to productivity is not just about increasing output but also effective resource management that optimises workforce utilisation, reduction of production cycle times without compromising product quality, and the efficient use of raw materials to prevent wastage.

As a precursor to the implementation of Industry 4.0, K-One started off with the introduction of the Lean initiative to the production floor. This involved introducing the

concept of cells, with each cell specialising in one particular task to improve output and reduce downtime in the event of a breakdown. The implementation of Lean allowed K-One to reduce operation costs by 20 percent and improved product cycle time by 10 percent.

Following this, K-One stepped into the Industry 4.0 revolution by integrating the elements of the Internet of Things (IoT), cloud computing and big data analysis. A mobile application was developed and with the integration of sensors into the cell's work processes, allowed management to view real-time performance data of each cell. The mobile application also reduced the administration cost of having to file voluminous amounts of information manually.

This manner of IoT implementation was very effective with Overall Equipment Effectiveness rising to 90 percent from 80 percent. It has also taken the company closer to transitioning to an autonomous manufacturing factory.

Source: <http://bond.mpc.gov.my/>

**BEST PRACTICES****PENTAMASTER CORPORATION BERHAD**

Established in 1991, Pentamaster Corporation Bhd provides testing solutions to semiconductor and manufacturing industries across the globe. Pentamaster has specific, state-of-the-art testing solutions machines to test the functions of the components, as well as semi-finished goods at various manufacturing stages. It also provides integrated systems, comprising electronic hardware (i.e. testing machines), firmware and software, to perform various tests on electrical and electronic end products.

Pentamaster requires real-time data to ensure the smooth production of its products, even after completion. As such, the company's engineers have developed the software to retrieve the data required at each business workflow by leveraging on cloud computing technology. With the use of these Industry 4.0 elements, management can also gain insights to optimise operational, tactical, and strategic planning and execution across the supply chain.

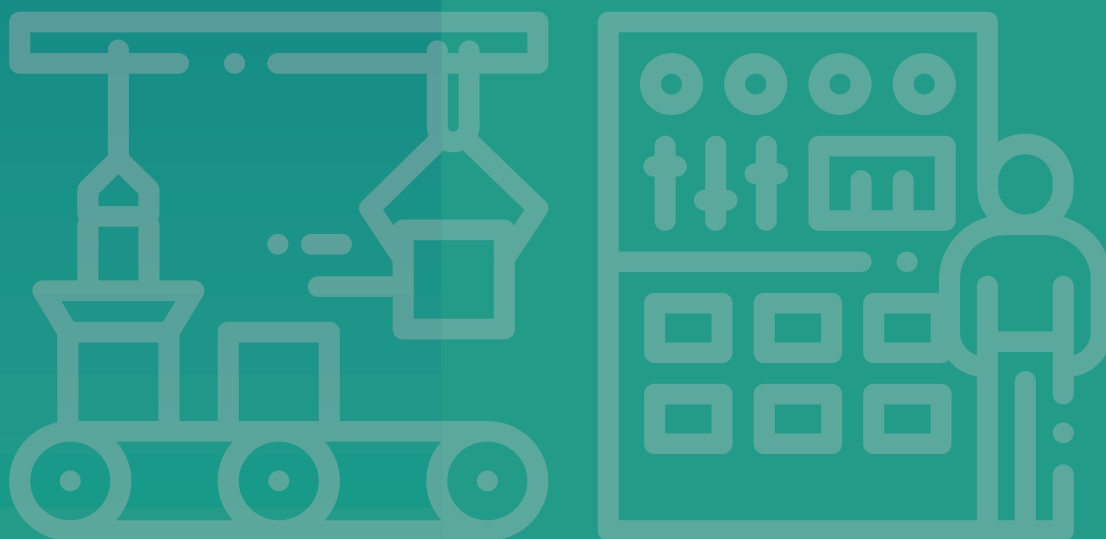
Pentamaster also employs autonomous robotics in the quality inspection process which can help achieve the target of zero defects, while enhancing the skills of the workers who are now manoeuvring the robots instead of conducting manual inspections. This real-time data can also be forwarded to customers to keep them updated about their orders and quality status, therefore instilling confidence and promoting return sales.

The impact of these enhancements has resulted in improvements across the board:

- Productivity increment of 5 percent
- Total machine downtime reducing by 40 percent
- Technical professional skills improved by 35 percent
- Cost for inventory registered a reduction of 20 percent
- Maintenance fell 10 percent
- Cost for quality reduced by 15 percent

Source: [bond.mpc.gov.my](http://bond.mpc.gov.my)

# MACHINERY & EQUIPMENT



## MACHINERY & EQUIPMENT

### THE LANDSCAPE

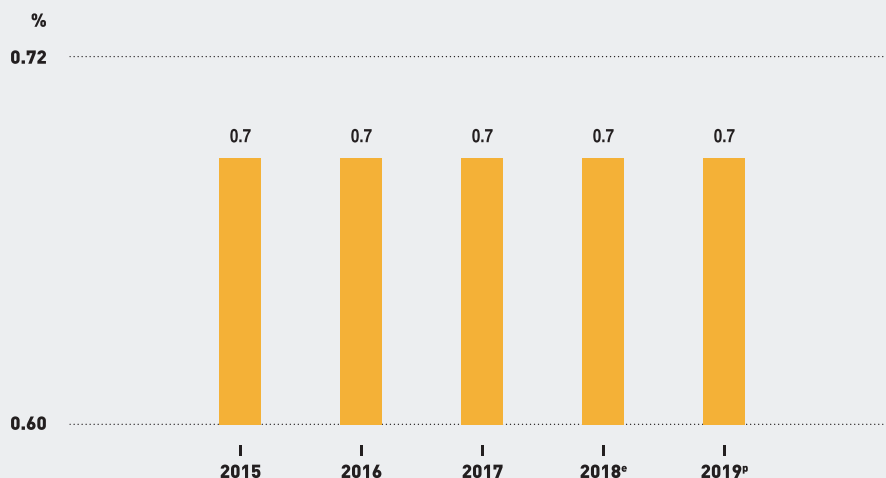
**THE MACHINERY & EQUIPMENT SUBSECTOR CONTRIBUTED 0.71 PERCENT TO MALAYSIA'S GDP IN 2019, REFLECTING A STEADY AND CONSISTENT PERFORMANCE OVER THE PAST FIVE YEARS. IT HAS SEEN FLUCTUATING PRODUCTIVITY GROWTH AND REMAINS WELL-POSITIONED TO BENEFIT FROM ADVANCEMENTS IN TECHNOLOGY.**

Malaysia's Machinery & Equipment (M&E) subsector is an important component of the economy, straddling the primary, manufacturing and services sectors. This subsector is strategically important to the advancement of the economy, as unlocking productivity gains here will definitely have a positive knock-on effect to all the sectors it supports.

Over the years, the M&E subsector has developed its own robust ecosystem, with the creation of

other smaller sub-specialties by innovative companies, taking advantage of the opportunities offered by larger manufacturers who have set up their bases in Malaysia. According to the Malaysian Investment Development Authority (MIDA), from 1980 until 2018, more than RM25 billion worth of investments have been realised, which has generated more than 110,000 jobs. This sector has also seen steady growth of exports over the years, most recently recording RM41 billion worth of exports in 2019.

**Machinery & Equipment Subsector Contribution to GDP 2015-2019**



Note : e – estimated  
 : p – preliminary  
 : Data is based on constant 2015 prices  
 Source: Department of Statistics, Malaysia

Labour Productivity by Total Hours Worked contracted

**0.1%**  
in 2019



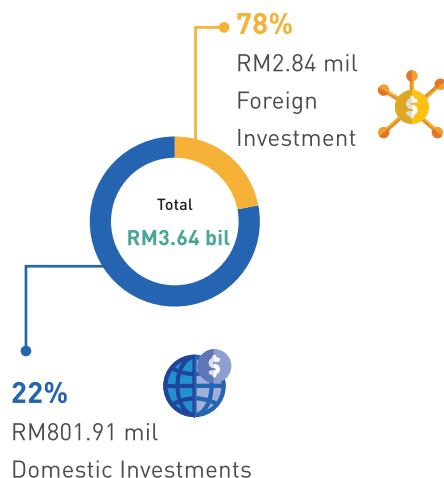
Labour Productivity by Employment decreased to

**RM81,482**  
in 2019 from  
**RM83,129**  
in 2018



## Investments in Projects Approved in M&amp;E Industry by Subsector for 2019

## Domestic vs. Foreign Investments



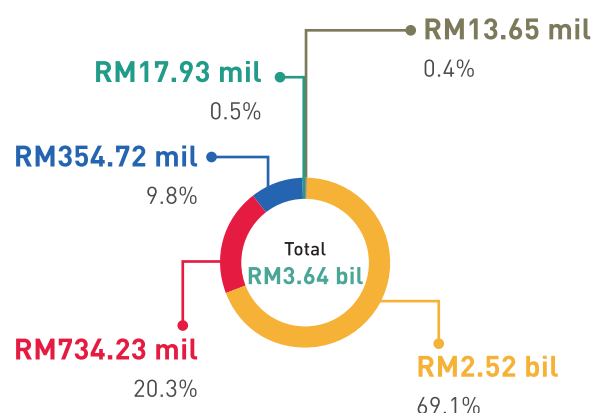
**99**  
Approved  
Projects



**3,894**  
Job  
Opportunities



## Approved Investments by Subsector



- Specialised M&E
- General Industrial M&E
- M&E Modules or Industrial Parts/Components
- Power Generating M&E
- Metalworking M&E & Machine Tools and Maintenance, Upgrading or Reconditioning of M&E

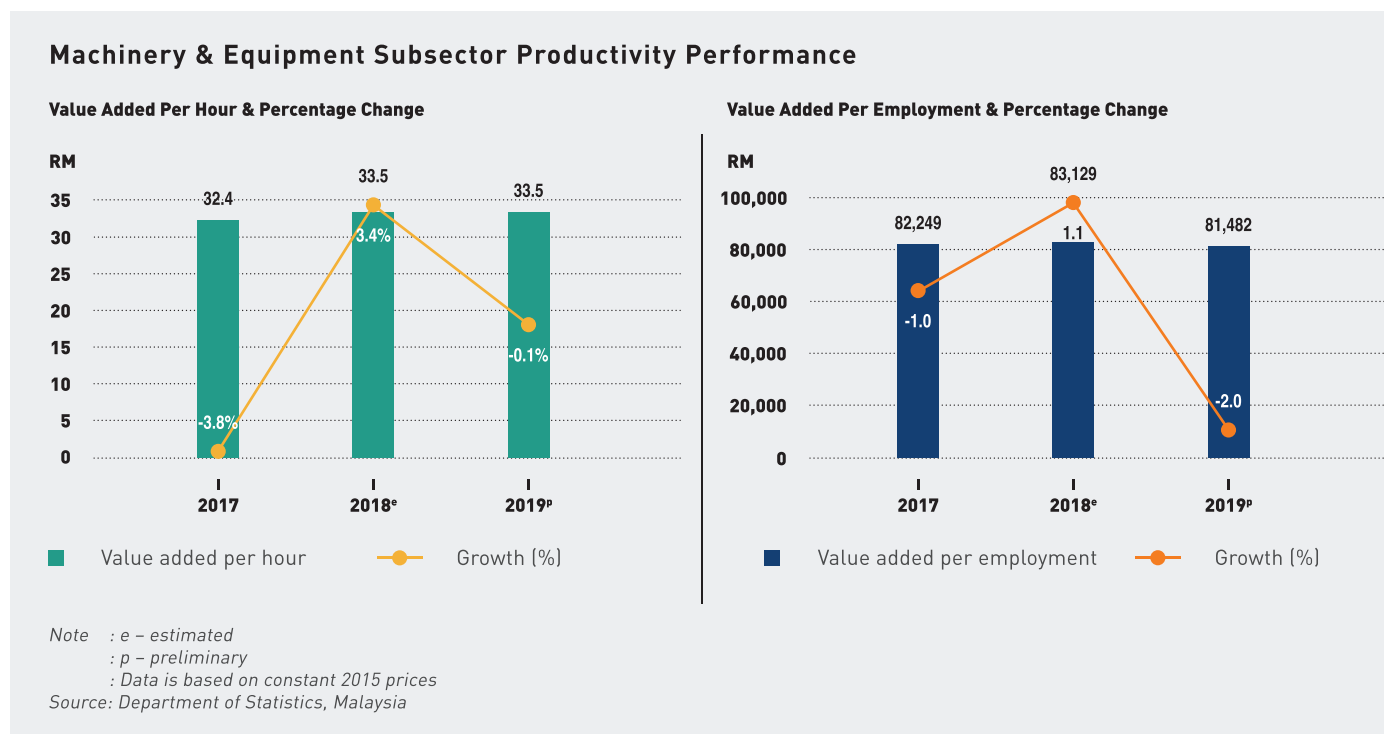
Source: Machinery & Equipment Productivity Nexus, MPC

There are now more than 1,400 companies in various sub-specialities such as, industrial parts/components, metalworking, machine tools, semiconductors and power generation. A vast majority of these companies are small-medium enterprises who mainly produce smaller batches on project-basis, providing customised solutions for bigger manufacturers. As a typically labour-intensive subsector, it is therefore in a prime position to incorporate more automation and innovation to drive productivity.



## LABOUR PRODUCTIVITY

In 2019, the M&E subsector productivity growth contracted by 2.0 percent as compared to growth of 1.1 percent in 2018. It is the third lowest out of the nine subsectors in terms of value added per employment, indicating the dire position it is in, as well as its potential to make significant productivity gains.



## CHALLENGES AND RECOMMENDATIONS

In moving this sector forward, the Machinery & Equipment Productivity Nexus (MEPN) has identified some of the challenges as well as the steps needed to overcome the structural issues that has longed held back significant productivity gains. By collaborating with all relevant stakeholders who are motivated by the common objective of driving productivity to benefit the country, achieving the impossible becomes possible.

Thus, through the MEPN's research, it has been revealed that:

- Many SMEs are largely risk averse and would prefer to stick to conventional business management practices. The mindset is one of survival first while productivity gains are secondary and can be compensated by having more low-skilled workers
- Many SMEs do not understand the scope of productivity, and have little awareness about the incentives available for transforming their businesses
- Regulatory burdens continue to lead to unnecessary delays and added cost to business
- Talent mismatch between what the industry requires compared to what education institutions are producing

Most of these issues are of great concern to MEPN and should be of greater concern to the stakeholders and agencies that are involved in the management of this subsector. These very factors are holding back productivity gains while our ASEAN counterparts continue to gain ground, sometimes benefiting from the return of foreign labour that Malaysia has trained. There is also concern that as a whole, Malaysia is not investing enough in advanced equipment or innovation to keep pace with the competition.

According to Bank Negara Malaysia, as countries become more developed, investments should shift to advanced machinery and equipment. For Malaysia, the average share of capital stock in machinery and equipment is lower than that of benchmark economies. Even when compared to other emerging markets such as Thailand and Brazil, Malaysia's lower share of M&E is apparent, despite these countries having a lower overall capital stock per capita. One of the factors that explains Malaysia's lower share of M&E is the availability of cheap foreign labour, which has resulted in firms employing more labour instead of investing in new technology to expand production.

## Economic, Monetary and Financial Developments in 2019

It is therefore clear that urgent action is needed change mindsets to raise the subsector's productivity levels. By increasing automation and adopting new innovation and technology, SMEs will require fewer workers to produce the same output, coupled with better quality control and fewer defects. The workers which remain will consequently gain new skills and higher income.

To address the issue of regulatory burden, the MEPN will be identifying the significant pain points that require urgent streamlining in order to ensure a level playing field for our industries as they continue to take on competitors in the region. Some of the issues we will look at include the issuance of temporary permits to overseas mobile cranes affecting the local market; too many safety cards issued by regulators; and SIRIM's Certificate of Approval (COA) process for steel products.

## SECTOR INITIATIVES

The MEPN has been very active in the past year, driving initiatives to address the challenges that have been identified. Our efforts are intended to forge closer relationships between industry and government to enable smoother, more comprehensive and quicker resolution of the challenges we face. Some of the initiatives referenced in these charts are discussed in further detail below:



**Initiative** M1: Set up partnership between government and industry association to up-skill existing employees

### Business Concerns

- Firms report constant vacancies for skilled production workers.
- Brain drain of skilled Malaysians.
- Graduates lack technical skills and require longer training time (+6 months)
- Mismatch between curriculum and industry needs leading to higher training cost.

### Programmes

- **Facilitated a number of initiatives that involved TVET educational institutions, industry stakeholders and training, to improve overall skill levels of industry talent.**

### Impact to Sector

- Improvement to the skill levels of existing talent, and better alignment between industry requirements and the talent that is produced.



**Initiative** M2: Set up centres of excellence (COE) for skilled professionals to share industry expertise and develop new technologies

**Business  
Concerns**

- Heavy reliance on low-skilled labour, limiting ability to adopt technology and automation
- MNCs rarely source their inputs from domestic firms due to quality of local manufacturers and lack of product availability.

**Programmes**

- **Establishment of M&E's COEs and COE Framework Report**
- **Productivity Enhancement Programme using self-diagnosis productivity measurement tools (ezBE and ePGM)**

**Impact to Sector**

- Increased number of industry players aware about I4.0.
- Increased number of industry players knowledgeable about productivity.



**Initiative** M3: Set up more product testing facilities to ensure standards are met

**Business  
Concerns**

- Current standards for local and imported products are lower than international standards for export products leading to lower investment on quality assurance and improvements.

**Programme**

- **Review Report on Industry Standards and Regulations**

**Impact to Sector**

Industry players will better understand existing gaps, as well as how to work toward closing these gaps.



**Initiative** M4: Update domestic product standards to be on par with international standards and enforce compliance

**Business  
Concern**

- Current standards for local and imported products are lower than international standards for export products leading to lower investment on quality assurance and improvements.

**Programmes**

- **Development of M&E Repository with 500 M&E and Engineering Supporting Services (ESS) high potential companies in the database**
- **Publication of Malaysian System Integrators Directory**
- **Streamlining process through Reduced Unnecessary Regulatory Burdens (RURB)**
  - Examples include:
    - > Temporary Import Permit for Mobile Crane
    - > Safety Passport Issued by Regulators
    - > Certificate of Approval for Imported Steel Products

**Impact to Sector**

- Easy access to the right information about M&E and Engineering Services providers.
- Helps Malaysian SMEs to find the right partners for Industry 4.0 implementation.
- Ease of doing business for industry players due to the improvement in regulations.



## BEST PRACTICES

**PACKAGING SALES AND SERVICE (M) SDN BHD**

Established in 1979, Packaging Sales and Service (M) Sdn. Bhd. (PSS) started out as a machine trading company, especially small packaging machinery. By 1997, PSS developed itself into Malaysia's leading machine manufacturer that offers automation and packaging solution for all types of packaging industries.

The company has come a long way and now provides complete turnkey solutions that covers the end-to-end process for its customers' packaging lines. In order to keep pace with competition and improve efficiency and effectiveness, the company has fully embraced I4.0, moving it further up the value chain.

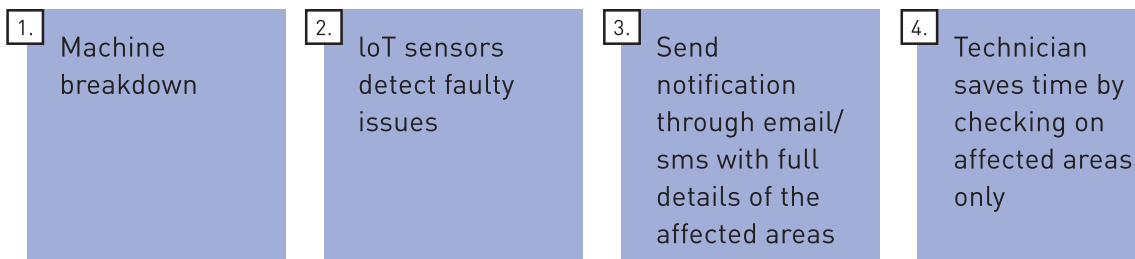
With I4.0, PSS was able to combine elements of automation and the Internet of Things (IoT) into its packaging lines to enhance its packing and tracking system, as well as to improve the monitoring of the equipment itself. The new technologies enabled precise diagnostics reports of potential machine errors, transmitted via email or SMS, helping them to immediately identify the problem. Repairs would also be restricted to only the affected area which means improved machine uptime as problems would

no longer have to be found through manual inspections. This therefore resulted in better overall equipment effectiveness.

Taking it a step further, PSS integrated augmented reality technology into its monitoring systems, allowing remote troubleshooting and the ability to guide clients to perform highly technical maintenance procedures. The investments into these areas continue and PSS has even introduced basic Artificial Intelligence to enable some level of automatic corrections that would mimic human interventions. PSS has sent its engineers for training to better understand IoT components and spends a minimum of 1 percent of its annual revenue for training and 3 percent for research and development.

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Repairs would also be restricted to only the affected area which means improved machine uptime as problems would no longer have to be found through manual inspections. This therefore **resulted in better overall equipment effectiveness.**



## BEST PRACTICES

### TXMR SDN BHD

TXMR Sdn Bhd, established in 2010, is a company that assists its clients in process automation. Its client's needs are generally unique and TXMR caters to this by building the required machinery and solutions from the ground up. Apart from improving productivity, some of their solutions introduce robots to eliminate the dangerous, dirty and difficult aspects from a worker's job.

TXMR has thus introduced several solutions to complement its client's needs:

- Integrated Robotic System (IRS) which has the ability to operate an entire factory via the integration of multiple robotic systems
- Integrated Conveyor Automation System (ICAS) handles vital processes in Warehouse and Inventory Management System
- Material Handling Equipment (MHE) facilitates heavy material lifting process with minimum effort
- Integrated Vision System (IVS) has the ability to examine product defects such as scratches or dirt. It is also able to perform dimensional measurements, inspections for missing or different product and barcode inspection
- Cyber-Physical Management System (CPMS) features I4.0 elements and is able to predict errors in any process within the manufacturing line

TXMR has been able to produce advanced machines like these because of its skilled workers, and continues to pay close attention to ensuring its engineers are kept abreast of the latest skills by sending them to countries like Japan and Germany for training. The company also collaborates with multinational companies on comparative studies to explore new knowledge for existing solutions.

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TXMR has been able **to produce advanced machines** like these because of its skilled workers, and **continues to pay close attention to ensuring its engineers are kept abreast of the latest skills by sending them to countries** like Japan and Germany for training.

Source: <http://bond.mpc.gov.my/>

**BEST PRACTICES****UWC HOLDINGS SDN BHD**

UWC Holdings Sdn Bhd was established in 1990 as a trading company and has since grown into one of the biggest precision sheet metal fabrication manufacturers in the northern region of Malaysia, with 750 employees and annual revenue of approximately RM140 million. It provides one-stop solutions for high-tech multinational corporations through its value-added assembly services.

In the realm of productivity, UWC has recognised the importance of training and research and development (R&D). It spends RM500,000 a year for training programmes, and has between 15-20 professionals in the R&D department constantly churning out new products. Employees are also sent on 4-week training programmes to familiarise themselves with I4.0.

One of the significant outcomes of its recognition of the importance of innovation was after the company sent 30 employees to the US and Canada for a nine-month training stint. Upon their return, they came up with a product known as the Diffusion Pump. The pump is used to create a vacuum environment

in medical research laboratories. As a result of this innovation, UWC was the only producer in Malaysia, and later became one of only three producers across the world that was certified by the US Food and Drug Administration.

UWC has also adopted the Kaizen approach to boost employee performance and stimulate innovation and creativity. Some of the suggestions by employees have improved productivity. In order to ensure a sustainable flow of talent, UWC has also taken a great interest in talent development. It has introduced a special programme for graduates in the field of mechanical and mechatronics engineering, and set up an Education Centre in Politeknik Seberang Perai to train the locals and help reduce talent mismatch.

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**As a result of this innovation, UWC was the only producer in Malaysia, and later became one of only three producers across the world that was certified by the US Food and Drug Administration.**

Source: <http://bond.mpc.gov.my/>

# PRIVATE HEALTHCARE



## PRIVATE HEALTHCARE

### THE LANDSCAPE

**THE PRIVATE HEALTHCARE SUBSECTOR IS CRITICAL TO THE PROPER FUNCTIONING OF THE ECONOMY, AND CONTRIBUTED 0.7 PERCENT TO THE COUNTRY'S GDP IN 2019. ITS ECONOMIC CONTRIBUTION IN THE PAST FIVE YEARS HAS BEEN CONSISTENT WHILE PRODUCTIVITY GROWTH RATES HAVE BEEN SMALL BUT STABLE.**

Malaysia's healthcare system consists of two distinct tiers: a state-owned system providing universal healthcare for the rakyat, which operates alongside a thriving a private sector that also serves patients from overseas, as part of the Government's push to develop medical tourism as part of the country's offerings.

The public healthcare system formed the backbone of the country's climb from a developing country in the 1960s to the almost developed status it enjoys now. However, despite the former's strong track record and numerous achievements, Malaysia's ageing population, coupled with higher life expectancies and the growth of lifestyle diseases such as diabetes and high blood pressure has affected the Government's ability to deliver consistent, affordable and effective care to the people. Problems such as long waiting times, overcrowding at public hospitals and a shortage of doctors and nurses are compounded by rising costs of medicine worldwide.

Thus, patients have had to look to private healthcare to obtain critical and often life-saving medical services. In recent times, public sector healthcare workers, especially specialists, have joined the private healthcare sector. Government budgetary constraints meant that salaries for specialists have not kept pace with their private counterparts who stand to earn at least two to three times more depending on the specialty. As of 2018, there were 240 private hospitals compared to 144 public hospitals in Malaysia.

To ensure the capacity of private hospitals remain at an optimum level, the country has looked to medical tourism which has delivered outstanding results. Malaysia recorded about 1.2 million international healthcare tourists in 2018 with a total of RM1.5 billion in hospital receipts, contributing RM6.4 billion to GDP.

Labour Productivity by  
Total Hours Worked  
increased

**2.7%**  
in 2019

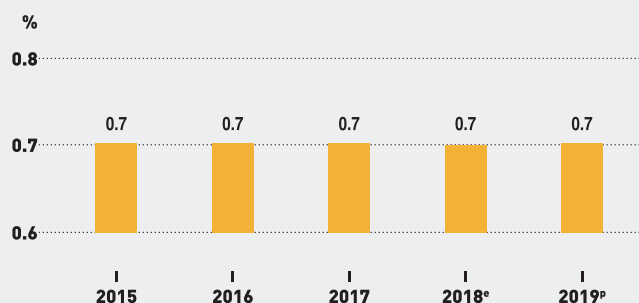


Labour Productivity by  
Employment increased to

**RM64,329**  
in 2019 from  
**RM63,052**  
in 2018



### Private Healthcare Subsector Contribution to GDP 2015-2019



Note : e – estimated  
: p – preliminary  
: Data is based on constant 2015 prices  
Source: Department of Statistics, Malaysia

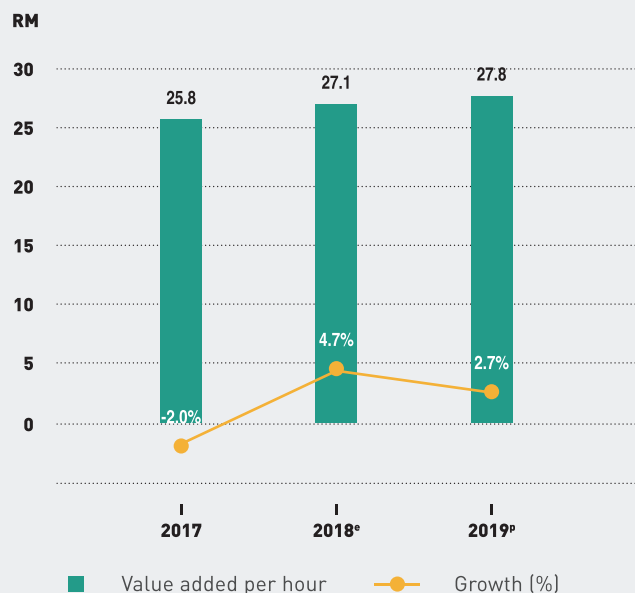
While results of the 10th MP from 2010 to 2015 showed improvements across the board, with the doctor to population ratio decreasing from 1:791 in 2012 to 1:671 in 2015, it is clear that more is needed, and to that end the MPC has placed Private Healthcare as one of the nine priority subsectors to be developed.

### LABOUR PRODUCTIVITY

In line with the Government's aim to drive comprehensive growth without unduly relying on Government investments, efforts to develop the subsector will flow through two main channels i.e. policies and productivity. Productivity-wise the subsector experienced small but firm gains of 2.8 percent and 2.0 percent in 2018 and 2019 respectively, after a difficult 2017 which saw its productivity contract by 0.2 percent.

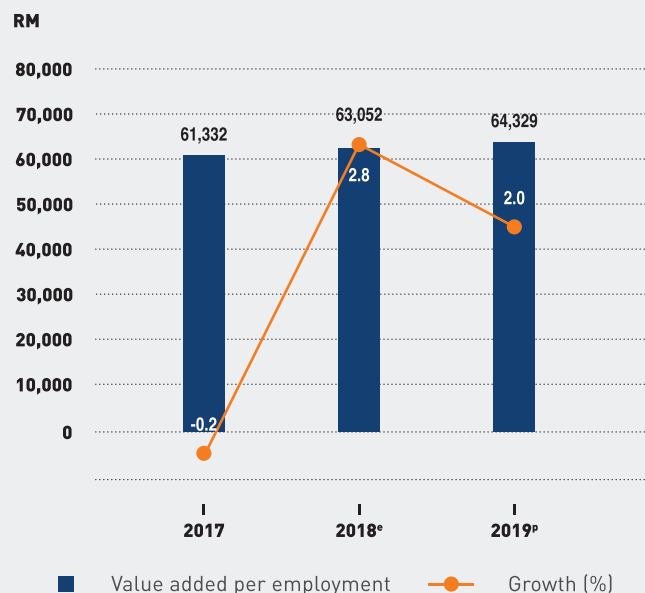
### Private Healthcare Subsector Productivity Performance

#### Value Added Per Hour & Percentage Change



Note : e – estimated  
: p – preliminary  
: Data is based on constant 2015 prices  
Source: Department of Statistics, Malaysia

#### Value Added Per Employment & Percentage Change






## CHALLENGES AND RECOMMENDATIONS

One of the key thrusts to restructure the private healthcare eco-system, for example, has been an emphasis on incentivising private investment in the nation's healthcare. In terms of policies, the Government in 2017 made the groundbreaking decision to waive the mandated 30 percent ownership to be held by Bumiputeras for foreign investments, to address concerns from potential investors who

deemed such caveats counterproductive. In addition, private healthcare facilities also receive tax incentives, depending on their areas of expertise e.g. services, manufacturing or R&D.

On the back of this the Private Healthcare Priority Nexus identified three key challenges within the sector, and the specific remedies to work towards.

### Issues and Recommendations

	Issues	Recommendations
 <b>Workforce</b>	Shortage of specialists and skilled nurses	<ul style="list-style-type: none"> <li>▶ Review policies to ease foreign skilled healthcare professionals work in the subsector</li> <li>▶ Strengthen coordination between medical schools and industry to ensure supply/demand match of professions</li> </ul>
 <b>Industry Structure</b>	Limited regulatory governance for third party administrators (TPAs) and managed care organisations (MCOs)	<ul style="list-style-type: none"> <li>▶ Set up networks to provide high-quality coordinated patient care to reduce medical errors and improve patient quality care</li> <li>▶ Develop and rollout national database to facilitate patient transfer between public and private healthcare providers</li> </ul>
 <b>Business Environment</b>	High regulatory burden	<ul style="list-style-type: none"> <li>▶ Streamline regulations and ensure robust implementation of regulatory reforms</li> </ul>

## SECTOR INITIATIVES

In the meantime, some initiatives by the Government to encourage private-public sector collaboration is already underway. The framework to establish a resource sharing initiative, for example, to expand the availability of scarce medical expertise and equipment and reduce patient waiting times and consultancy fees across the country has been established. Steps have also been taken to reduce the regulatory burden across the subsector. Other specific initiatives that have begun or have been completed and further elaboration are discussed below:



**Initiative** PH1.1 Reducing unnecessary policies to ease foreign medical specialist to work in Malaysia

### Business Concerns

- There is an insufficient number of specialist doctors to meet Malaysia's medical needs. The postgraduate programme has limited capability in producing the yearly graduates to satisfy the current demand for specialist.
- There is a critical need to address the issue of shortage of specialist. Hiring foreign specialists is believed to be one practical option to overcome the situation.

### Programme

- **Review policies to ease foreign skilled healthcare professionals working in the Subsector**

### Impact to Sector

- Increased accessibility to specialised services that are unavailable in Malaysia
- Increased knowledge transfer



**Initiative** PH2.1 Accelerate increase of specialist doctors and nurses in high demand areas

### Business Concerns

- Limited sharing of industry data between industry players including government ministries and agencies, associations, private hospitals etc.
- Private hospitals utilising internal data for decision making on performance improvement

### Programmes

- **Design of National Training Programme – National Curriculum**
- **Identify the training needs of specialists (doctors and nurses) for Malaysia for the next 10 years (until 2030)**

### Impact to Sector

- The projected number of specialist doctors and nurses and the gap compared to current numbers in the system
- Increase in number of specialist doctors and nurses
- Develop the talent pipeline of specialist doctors and nurses for the nation



**Initiative** PH2.2 Identify and enable selected private hospitals to be specialty training centers in high demand areas

### Business Concerns

- Collected data is not published or shared between public and private sector impeding the identification of specialist area with the shortage.
- Misalignment between demand and supply as education institutes (universities, colleges and training centres) are not sufficiently producing graduates and specialists based on industry demand. As a result, there could be oversupply in some fields while other areas experience shortages.

### Programme

- **Propose a coordinating body for the training needs of the national health workforce**

### Impact to Sector

- Increase private hospital sponsorship rate
- Coordinated decisions by each ministry to meet the needs of the national health workforce (private and public)
- Greater collaboration between public and private sector in meeting the needs of the national healthcare workforce



**Initiative** PH3.1 Sharing of underutilised medical technology resources by developing a resource utilisation model (Public Private Partnership)

### Business Concerns

- Overutilised MOH equipment.
- Total Cost of Ownership vs. Buying Service.
- Need to identify mechanism and business model.
- Need to improve patient satisfaction and productivity by reducing waiting time.

### Programmes

- **A series of engagements with industries and related government agencies through RTD / Townhall / Workshop**
- **A study on developing a Framework on Private and Public Healthcare Resource Sharing Services & Equipment (PPP)**

### Impact to Sector

- Patients receive faster healthcare services
- Reduced workload for public hospitals, thus reduced waiting times



**Initiative** PH4.1 Enable sharing of patients records across public and private healthcare facilities via Health Information Exchange (HIE)

### Business Concerns

- The transfer and exchange of patient records is challenged by the lack of an electronic referral network, interrupting continuity of care.
- Regulatory block.
- High capital investment on systems especially for smaller hospitals.

### Programmes

- Outreach events
- Publish and circulate integration profile for HIE
- Standardisation of data formats for EMR
- Pilot project
- Nationwide rollout and referral network

### Impact to Sector

- Efficient EMR data sharing between hospitals thus facilitate fast decision making by doctors and reduced duplicative checking for the patients



**Initiative** PH4.2 Encourage Online submission by all private hospitals to Malaysian Health Data Warehouse (myHDW) to utilise data analytics capabilities of the system

### Business Concerns

- Low submission.
- Low responses to the survey on usage of myHDW.
- Need to demonstrate value of myHDW to private hospitals.
- CEO's awareness on myHDW and reporting to PIK.
- Discrepancy of data between online and manual submission.

### Programmes

- Conducting a target Outreach Event
- Conduct session with CEOs of private hospitals
- A quick survey on the Implementation of Malaysian Health Data Warehouse (MyHDW), Sistem Maklumat Rawatan Pelanggan (SMRP) 2.0 & Patient Registry Information System (PRIS)

### Impact to Sector

- MoH can make better plans with the quality data in the MyHDW
- The private hospital has access to MyHDW for own analysis, reports, benchmarks, KPIs
- The comprehensive analysis of nationwide data allows for more informed policy and strategy decisions at the district, state, and national levels



- Initiatives** PH5.1 Reducing unnecessary Regulatory Burdens on Private Hospitals: Renewal of license to operate and provide  
PH5.2 Reducing Unnecessary Regulatory Burdens on Private Hospitals: Setting Up a New Private Hospital  
PH5.3 Develop a guideline for hospital facility extension/renovation

#### **Business Concerns**

- Manual documents required for license renewals every 2 years.
- Changes in regulations are sometimes not clearly communicated.
- 800 days to get all required approvals to construct a private hospital.

#### **Programmes**

- **Stakeholder engagement and coordination between CKAPS and local councils for zoning and pre-establishment approvals**
- **Harmonisation of technical requirements between CKAPS and technical agencies (PBT, BOMBA)**
- **Series of Dealing with Construction Permits (DCP) training programme for private hospitals**
- **Development of:**
  - Handbook on Setting Up of Private Hospitals in Malaysia: Submission Process & Harmonisation of Technical Requirements;
  - Handbook on Requirements and Procedures Under Act 586;
  - “Prosedur Permohonan Pembaharuan Lesen bagi Hospital Swasta”
  - “Garis Panduan Keperluan Mengemukakan Permohonan Borang 1 bagi Peluasan/Pengubahan yang Extensive Hospital Swasta”

#### **Impact to Sector**

- Investors can build new hospitals faster



- Initiative** PH5.4 Develop a self-regulation framework for private hospital advertisements

#### **Business Concern**

- Regulatory limitations on dissemination of testimonials and information about health practitioners and health facilities limits new business opportunities

#### **Programmes**

- **A series of workshops on developing self-regulation Framework for Private Hospital Advertisements**
- **A study on developing a self-regulation Framework for Private Hospital Advertisements**

#### **Impact to Sector**

- Increase in the number of patients from abroad
- Enhance decision-making process of prospective patients



- **Encouraging resource sharing through private-public sector collaboration**

Overall, 11 private hospitals and 211 private clinics participated in the study to ascertain the optimal prices, structure and eco-system for a resource sharing system, which is expected to be adopted soon.

Part of this study also polled respondents on their receptiveness to going to a private hospital for follow up treatment if recommended to do so by their specialist – to which 85 percent of more than 1,600 respondents agreed that they would.

The success of this particular model is also reliant on working out an appropriate funding mechanism that would see the government subsidising costs through the purchase of the required services from the private hospitals. This is especially important for segments of society that are unable to afford private sector charges. This approach would also reduce the capital expenditure burden of the government in having to purchase more equipment given that there is excess capacity in the private sector.

- **Reducing regulatory burden**

To address regulatory issues faced by the industry, the Ministry of Health launched new handbooks in July 2019, while more than 800 professionals and hospital operators have been trained on compliance to the Private Healthcare Facilities & Services Act 1998.

The handbooks addressed the difficulties faced by businesses in obtaining the required approvals to construct a private hospital. From the 800 days required to obtain approvals, the handbooks have managed to reduce this to 200 days. Related to improving the regulatory aspect of the system, PHPN has also convinced authorities to allow the construction of hospital buildings with more than 12-storeys. The requirement for hospitals that want to construct such buildings is to have a robust disaster management plan in place.

When the MCO is lifted, PHPN will resume its roadshows to other states in Malaysia to share with stakeholders there about these new developments that have largely benefited the larger urban centres at this juncture.

Lastly, PHPN is also in discussions with the relevant authorities to pursue self-regulation for the publishing of patient testimonials, especially in the context of driving medical tourism. Given the positive impact this sector has on the economy, and for Malaysia to remain competitive in this sector against its regional peers, this is certainly an issue that PHPN will continue to champion.



## **MOVING AHEAD**

The recent Covid-19 pandemic has highlighted both the value and ways that both the private and public healthcare sectors can achieve synergies. Initiatives by the Private Healthcare Productivity Nexus (PHPN) were well underway before the MCO and will resume once the MCO is lifted. The PHPN looks forward to driving these initiatives aggressively as the country regains its feet, and fulfil the Government's vision for Shared Prosperity by the year 2030.

## BEST PRACTICES

### THOMSON HOSPITAL KOTA DAMANSARA

To improve overall productivity of the hospital, Thomson Hospital Kota Damansara (THKD) has taken a meticulous approach over the years to identify issues and solve them using quantitative and qualitative data. Special taskforce teams were assembled to address each issue that typically involved the work process for some aspect of customer service. Some of the initiatives are described below:

PROBLEMS	SOLUTIONS	IMPACTS
<ul style="list-style-type: none"> <li>▶ Long waiting time for admission eventhough patient has medical insurance</li> <li>▶ Overlapping documents being printed from different counters</li> <li>▶ Blood samples were being rejected due to hemolysis (breakdown of red blood cells)</li> <li>▶ Patients seeking more information on the spot about medication</li> </ul>	<ul style="list-style-type: none"> <li>▶ Streamlined the admission process to lock funds from patients' credit card in absence of the Guarantee Letter from the insurance company, and to obtain the letter when it is ready</li> <li>▶ Provide individual printer for each counter</li> <li>▶ Provide intensive training to staff to enable proficient blood taking</li> <li>Reduced the size of the specimen tube to reduce shaking during transportation</li> <li>Developed padding in-house for the hospitals pneumatic tube system to reduce vibrations during transportation</li> <li>▶ Established a Drug Information Centre to centralise information dissemination to patients</li> </ul>	<ul style="list-style-type: none"> <li>▶ Shorter waiting time</li> <li>Faster treatment for patients in critical condition</li> <li>▶ Reduced admission counter lead time</li> <li>▶ Decreased number of rejected blood samples and indirectly improved quality of service as customers would no longer be approached to re-draw blood</li> <li>▶ Increased efficiency of main pharmacy as they are no longer inundated by patient queries, subsequently reducing medication errors</li> </ul>

## BEST PRACTICES

**KPJ JOHOR**

KPJ Johor utilised the Team Excellence method to improve rehabilitation services offered to customers with a focus on reducing their risk of falls and dependency on staff. Following comprehensive research and investigations, the hospital decided to focus specifically on stroke patients with the main objective of adjusting their walking motion in order to prevent falls.

Under the TE project, further analysis was carried out to identify the actual causes of a fall. Following this, the team identified the materials and structure of the motion support tool needed to prevent falls for stroke patients. Named EzzyGAIT, the invention has helped stroke patients in their recovery with 65 percent of patients now able to move independently. As the tool also frees up staff time, it has increased productivity as more patients can now be seen

overall. The number of treated patients and outpatients both increased, while the average duration of stay for stroke patients reduced, following the introduction of EzzyGAIT. These improvements have also led to an increase in total revenue and has been very impactful for the hospital in terms of return on investment considering that one EzzyGAIT unit only costs RM135 to produce.

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**As the tool also frees up staff time, it has increased productivity as more patients can now be seen overall. The number of treated patients and outpatients both increased, while the average duration of stay for stroke patients reduced, following the introduction of EzzyGAIT.**

Source: <http://bond.mpc.gov.my/>

# PROFESSIONAL SERVICES



## PROFESSIONAL SERVICES

### THE LANDSCAPE

**THE PROFESSIONAL SERVICES SUBSECTOR PLAYS A CRITICAL ROLE IN THE MALAYSIAN ECONOMY, INJECTING HIGH VALUE-ADD TO VIRTUALLY EVERY INDUSTRY. IT CONTINUES TO RECORD THE HIGHEST PRODUCTIVITY GROWTH RATES AMONGST ALL THE NINE SUBSECTORS, INDICATIVE OF THE LATENT POTENTIAL THAT NEEDS TO BE CATALYSED. THIS FRATERNITY COMPRISES LAWYERS, ACCOUNTANTS, ARCHITECTS, ENGINEERS, ADVERTISING PROFESSIONALS AND PROFESSIONAL CONSULTANTS. EACH OF THEM AN IMPORTANT PART IN BUILDING AND POWERING THE NATION'S ECONOMIC GROWTH.**

While the subsector is highly differentiated in terms of the variety of services offered, commonalities exist in the context of the individual skills and knowledge required, as well as the constant management of voluminous amounts of information. As a result, this subsector is able to command premium fees which generally translates into higher salaries and profit margins. Thus, any incremental improvement in productivity will reflect in more significant multiplier effects that will positively impact the economy.



Labour Productivity by  
Total Hours Worked  
increased

**5.9%**  
in 2019



Labour Productivity by  
Employment increased to

**RM86,686**  
in 2019 from  
**RM81,759**  
in 2018

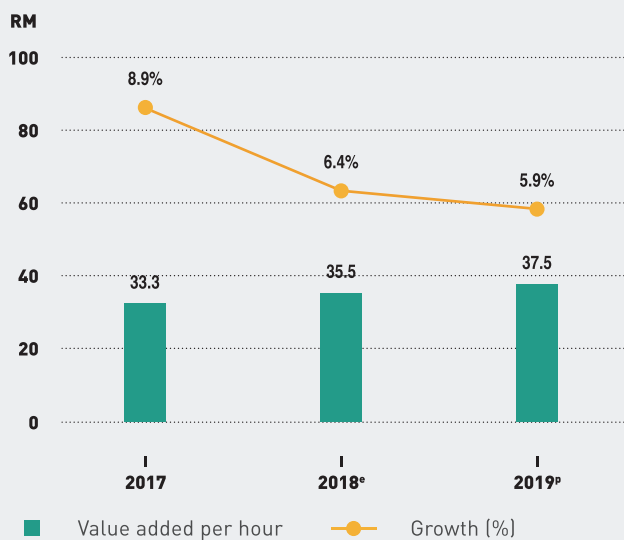


## LABOUR PRODUCTIVITY

Over the last few years, the professional services subsector average productivity growth has exceeded the eight other subsectors under the Malaysian Productivity Blueprint (MPB). While this has been encouraging, the subsector's productivity still remains behind the best-in-class average and some of our ASEAN counterparts. Building new momentum is therefore one of the main goals of the Professional Services Productivity Nexus (PSPN).

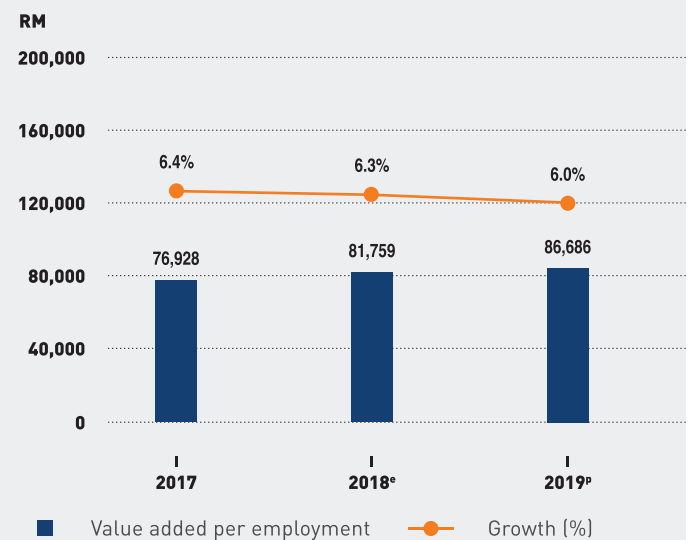
### Professional Services Subsector Productivity Performance

#### Value Added Per Hour & Percentage Change



Note : e – estimated  
: p – preliminary  
: Data is based on constant 2015 prices  
Source: Department of Statistics, Malaysia

#### Value Added Per Employment & Percentage Change



One of the ways the professional services subsector can make significant headway in the area of productivity is to rapidly adopt new technology and innovation to increase efficiency and improve use of time. Given that most professional services bill clients based on time spent, implementing technology to be more productive would potentially increase overall revenue over the long term.

The urgency to adopt technology is clear given its potential to disrupt entire industries as seen in some parts of the gig economy through the likes of ride-hailing and accommodation solutions. The Covid-19 pandemic has also reinforced the need for businesses to think of new ways to serve their customers, especially in the context of being able to function remotely, as social distancing rules are expected to be in place for the foreseeable future.

## CHALLENGES AND RECOMMENDATIONS

The PSPN has been geared towards addressing challenges faced by industry, such as disjointed competency readiness for industry; low adoption of ICT especially amongst smaller firms and sole practitioners; poor branding of Malaysian industry expertise; and fragmented ecosystem. Some of the other issues include:

### **Shortage of professionals**

- Lower compensation in Malaysia when compared to other developed economies
- Graduates lack key skills, such as lower proficiency in English and grasp of core industry principles
- Syllabus sometimes too theoretical, with poor emphasis on English and practical skills

### **Low adoption of ICT especially amongst smaller firms and sole practitioners**

- Lack of understanding of ICT tools
- Perception that investment can only be recouped in the longer term

### **Majority of companies lack scale to bid for large projects and to make human capital and/or operational investments**

- Industry highly fragmented with 96% made up of SMEs
- Some industries have not been fully liberalised

### **Inconsistent and contradictory regulations**

- Contradictory regulations, such as Local Government Act 1976: different chapters detail out different regulations for renewal of licenses in states

These issues have generally been tackled through broad strategic initiatives that were launched in the MPB in 2017. PSPN has engaged with various stakeholders from the private and public sector in implementing the productivity initiatives outlined and has been strongly supported by all the six fraternities in activities and projects.

## SECTOR INITIATIVES

Activities held in 2019 consisted of productivity talks and followed through with our various strategic initiatives under the MPB. There were also specific engagements with various levels of government to highlight ways to improve certain regulations. The PSPN also visited Singapore twice to learn more about its implementation of Building Information Modelling, as well as how it administers its management consultant ecosystem.



**Initiative** PS1 Provide input to colleges and universities to ensure curriculum and training are industry-relevant

### Business Concerns

- Government to limit the appointment of foreign architects in local projects.
- Introduce a policy to give priority to local architects to participate in Malaysian owned projects both locally and internationally.
- Increase Malaysian architecture firms' competitiveness through the re-architecture of the existing architecture education system.
- Mismatch between industry and academia in Architectural Fraternity.
  - The industry players perceived that the technical competency of the graduates in construction and authority regulations is low and not meeting industry expectations. For example, graduates are not adequately equipped with the latest skills such as Building Information Modelling (BIM) and Industrialised Building System (IBS). Therefore, the graduates are weak in applying the knowledge from other subjects into their designs, resulting in less creative and innovative design outcomes. On the other hand, the Architecture Academia contended that there are unreasonable expectations placed by professional architects on graduate architects, and there is insufficient collaboration with the industry.

### Programmes

- **Dialogues within the industry and with various government representatives were held throughout the year to discuss the challenges in producing the right talent**

#### **PS1.2: Structured Industrial Apprenticeship Programme (SIAP)**

### Impact to Sector

- More feasible and realistic plans on how to overcome this issue, which will be incorporated into discussions for the 12th Malaysia Plan
- An improvement in the number of architecture graduates that are industry relevant



**Initiative** PS2 Encourage adoption of technology solutions, such as to track progress digitally rather than on paper

### Business Concern

- Competency of Small and Medium Practitioners (SMPs).

### Programmes

#### Project:

**PS2.1: Enhancing Small and Medium Practitioners (SMP) practices for Accountancy fraternity**

### Impact to Sector

Improvement to the efficiency, effectiveness and productivity of Accountancy SMEs

### Business Concern

- The roles and traditional construction methodology in construction industry are not meeting the demands and advancement of current the modern era.

### Programmes

#### Project:

**PS2.2: Formation of Integrated Digital Delivery-Industrial Knowledge Group (IDD-IKG)**

**To promote BIM adoption as digital transformation effort towards I4.0**

- Refinement of national policies in all aspects from academic, legislation, international trades down to construction supply chain is to be accelerated in order to capitalise on benefits of implementation of Level 2 BIM smart digital technologies and becoming competitive players in the global market.

#### Project:

**PS2.2.1: Malaysia Premium Publishers Marketplace (MPPM) as the Standard for Malaysian Advertising**

### Impact to Sector

Exposure of the construction industry to digitisation which will improve overall work processes and efficiency

Increased use of self-serve ad platforms which would increase productivity, reduce cost and boost brand safety

### Business Concern

- To increase rate of technology adoption within Legal fraternity.

### Programme

#### Project:

**PS2.3: Enhancing adoption of technology in Legal fraternity**

### Impact to Sector

Improvements in productivity for those in the legal fraternity as they would be able to move onto higher value-add tasks



**Initiative** PS3 Form cross-country professional services consortiums to increase capability to compete abroad

### Business Concern

- To create global Malaysian Professional Services brand to compete abroad.

### Programme

#### Project:

**PS3.1: Creating Global Malaysian “Professional Services Brand” through promotional activities**

### Impact to Sector

Higher volume of work originating from overseas or from foreign companies intending to invest in Malaysia



**Business Concern** • To develop market research survey for Advertising fraternity

### Programme

#### Project:

**PS3.2: Market study on Malaysian Advertising sector**

### Impact to Sector

Measurement of advertising sector’s capabilities that will be used for further improvement

### Business Concern

- To unify advertising associations under one umbrella council.

### Programme

#### Project:

**PS3.3: Unifying advertising associations under one umbrella council**

### Impact to Sector

Organised structure for the industry



**Initiative** PS4 Encourage adoption of operational metrics and performance-linked KPIs by professional services firms

**Business  
Concern**

- Accounting firms are faced with dynamic customer expectations and rapid evolution of digital technology which requires them to enhance capacity building, especially for the smaller accounting firms.

**Programme**

**Project:**

**PS4.1.1: Workshop on Operational Metrics and Performance-Linked KPI**

**To embark on a benchmarking project with the small and medium practitioners (SMPs) of Audit Firms.**

**Impact to Sector**

Industry players benefited from the Operational Metrics and Performance-linked KPIs that were developed



**Initiative** PS5 Address regulatory inconsistency and constraints to enable the setup of alternative business models that are in line with global trends

**Business  
Concern**

- To resolve cross-cutting issues for PSPN development.

**Programme**

**Project:**

**PS5.1: Reducing Unnecessary Regulatory Burdens (RURB) amongst Professional Services fraternities**

**Impact to Sector**

Ease of doing business for Professional Services Providers

## Business Concerns

- Limitation on firm's shareholding which hinders potential for domestic firms to grow in size and increase their productivity.
- Currently, only 30% shareholding for non-engineers is allowed while the remaining 70% must be owned by professional engineers with practicing certificate.

## Programmes

### Project:

**The PSPN Engineering Fraternity proposed to amend the Regulation of Registration of Engineers Act (REA) allowing shareholding by the public of up to 100% to tap finance for capitalisation.**

### Project:

**PS5.1.2: Developing Management Consultancy Guideline**

## Impact to Sector

The removal of this restriction in shareholding by non-professionals will allow full capitalisation of local firms, which will enable them to grow bigger and become international players.

More structured and organised management consultant sector in Malaysia



## MOVING AHEAD

Moving forward, there is a need to strengthen the capabilities of professional services associations, in terms of research, providing real time industry insights, industry database and expertise.

For the industry as a whole, the Covid-19 outbreak has had a significant effect and may lead to some consolidation in certain fraternities as demand for professional services is likely to be muted in the

short term. The looming economic recession is also expected to lead to an overall reduced demand for services. Companies that have embraced digitalisation or quickly pivoted to offering new and related services are likely to have fared better. While the outlook remains uncertain now, an eventual recovery is expected and there is no better time to implement productivity growth initiatives that will aid this recovery.

## BEST PRACTICES

### PLYTEC

Ply Tec Formwork System Industries Sdn Bhd (PLYTEC) was incorporated in 2012 and specialises in advanced shoring and formwork system for engineering works. PLYTEC offers various services including feasibility study, system selection, system design, training and supervision of their products.

One of the key technologies that PLYTEC introduced to the construction industry was the Green Formwork System (GFS) which has helped construction companies significantly improve productivity while reducing operational costs. The GFS essentially replaces the traditional method of timber or plywood being used as concrete forms for piling works. This method creates a lot of waste as the timber would be disposed once construction is complete.

The GFS introduces a reusable formwork made of bamboo plywood that can be reused up to 50 times, for both horizontal and vertical purposes. It also leads to a drastic reduction in rubbish and debris, and also minimises the manpower required at the construction site.

#### **Capitalising on Green Formwork System for Better Cost Efficiency**

- Downsizing human resource and disposable raw material
- Providing better alternative for construction cost due to the reusable panels
- Decreasing rubbish or debris generation in sites up to 80%
- Shortened the construction cycle from seven days to five days

Source: <http://bond.mpc.gov.my/>

# TOURISM



## TOURISM

### THE LANDSCAPE

**TOURISM HAS CONTRIBUTED IMMENSELY TO MALAYSIA'S ECONOMY BOTH DIRECTLY AND INDIRECTLY. IN TERMS OF DIRECT CONTRIBUTION, IT HAS RECORDED STEADY GROWTH AND CONTRIBUTED IN THE RANGE OF 6.5 PERCENT TO MALAYSIA'S GDP. IT HAS ALSO PERFORMED WELL IN TERMS OF PRODUCTIVITY GROWTH, ALTHOUGH PRODUCTIVITY LEVELS COULD BE IMPROVED FURTHER.**

Tourism in Malaysia was very much an ad-hoc enterprise, until the Government decided to take on neighbouring tourist havens such as Singapore and Bangkok, and launched the very first Visit Malaysia Year campaign in 1990. Themed "Fascinating Malaysia. Year of Festivals" it was a resounding success, recording 7.4 million tourist arrivals compared to 4.8 million the year before.

From 1990 to 2005, arrivals increased from 7.4 million to 16.7 million tourists a year, with tourist receipts increasing from USD1.7 billion to USD8.4 billion per year. By then, Tourism was officially the country's second largest earner of foreign currency, behind only the manufacturing and semiconductor industry. The sector, which comprises accommodation, travel agents, sports and activities, recreation, libraries and creative arts was contributing between the low to mid-teens in terms of percentage contribution to Malaysia's GDP.



Labour Productivity by  
Total Hours Worked  
increased

**4.9%**

in 2019



Labour Productivity by  
Employment increased to

**RM73,764**

in 2019 from

**RM70,026**

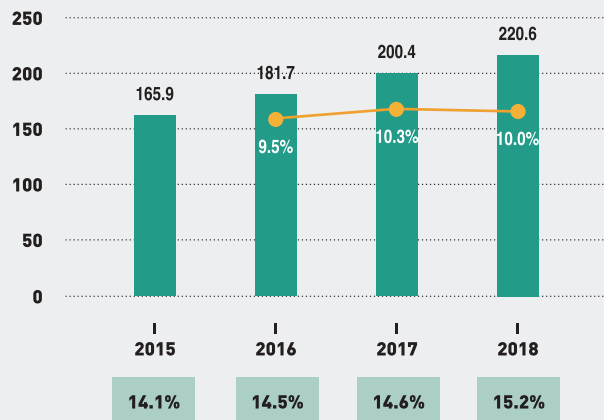
in 2018



## GVATI And TDGDP - Value, Annual Percentage Change and Percentage Share

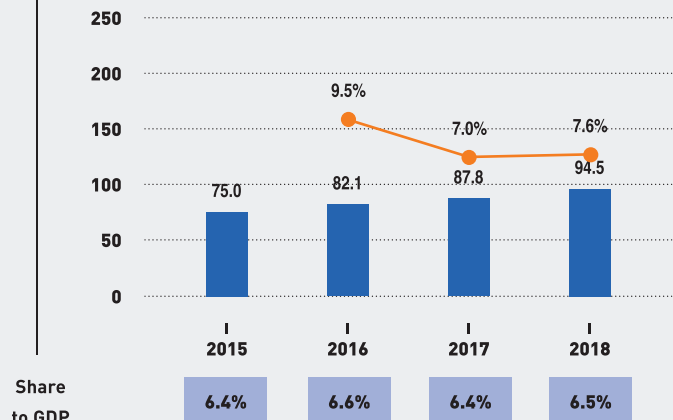
## GVATI

RM Billion



## TDGDP

RM Billion



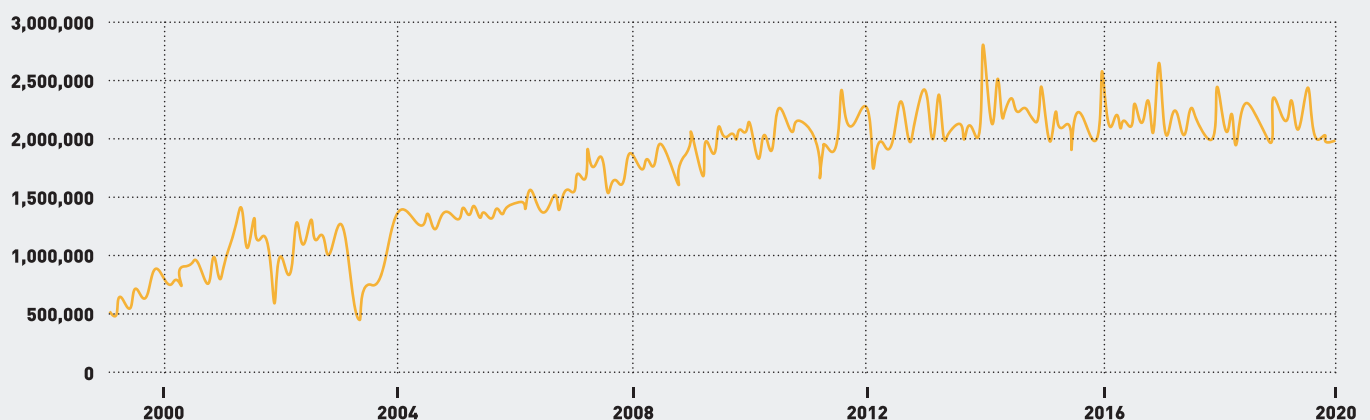
\*GVATI – Gross Value Added of Tourism Industries refers to the total gross value added of all establishments belonging to the tourism industry

\*TDGDP – Tourism Direct Gross Domestic Product is the sum of the part of gross value added generated by the tourism industry and other industries of the economy that directly serve visitors.

Geopolitical developments in the early 2000's played a large part in the sector's growth. Incidents such as the attack on the US on September 11 and the resulting instability in the Middle East drove tourists to Asia, and saw arrivals in Malaysia soar. By 2005 arrivals from the Middle East had quadrupled compared to just four years earlier.

Global events such as the 2007 subprime mortgage crisis that stretched through the decade also meant a weaker Ringgit, coupled with the arrival of budget airlines such as Malaysia's own Air Asia, Singapore's Tiger Airways and Indonesia's Lion Air saw this growth trajectory continue, peaking in 2014 with 27.4 million arrivals, with regional visitors making up 74.3 percent of all arrivals.

## Tourist Arrivals 1999-2019



Source: Department of Statistics, Malaysia

The trend plateaued after 2014 however, with arrivals staying consistently between 20 million to 25 million arrivals. The highest point after 2014 was 2016, when Malaysia received 26.8 million arrivals, registering a negligible 0.1 percent growth in tourist receipts. There was a significant rise in Chinese tourist arrivals during this time. However, this was unable to offset the loss in tourist spend from Middle East visitors who had less access to this region following major airlines' decision to decrease flights due to the instability in the Middle East.

Malaysia's tourist arrivals in 2018 and 2019 fell short of the Tourism Ministry's targets for the eighth and ninth year running, recording 25.8 million tourist arrivals in 2018 and 26.1 million in 2019 respectively. Against its peers, Malaysia bucked the regional trend in 2019, as the 1.0 percent increase in arrivals was achieved as the rest of ASEAN registered a contraction of 1.3 percent, and West Asia an even bigger drop of 2.1 percent compared to the year before.

However, tourist arrivals are expected to fall sharply against the targeted 30 million arrivals in 2020 following the onset of the Covid-19 pandemic that has severely impacted the industry. Hotels and tourist attractions

were shut for a period of six weeks, leading to layoffs and some hotels shutting down operations permanently. Airlines have also bled record losses and the recovery scenario does not look much better. The World Tourism Organization has modelled some scenarios for the international tourism industry and concluded that up to 100 to 120 million direct tourism jobs are at risk, with a 22 percent decrease in tourist arrivals in the first quarter of 2020.

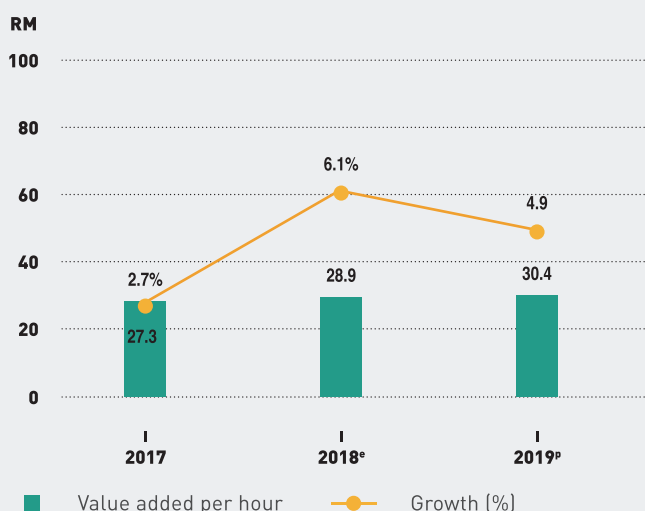
With negative growth rates almost a certainty for Malaysia's tourism sector in 2020, hard work and patience will be needed to lift the entire industry. The recovery process is also fraught with uncertainties as social distancing measures are expected to continue for the long term, thus limiting the available space and consequently the earning capability for any hotel, airline or tourist attraction.

## LABOUR PRODUCTIVITY

Tourism has shown consistently higher productivity gains between 2017-2019 amongst the nine sectors prioritised by the MPB, with its 5.0 percent compounded annual growth rate coming second to Professional Services.

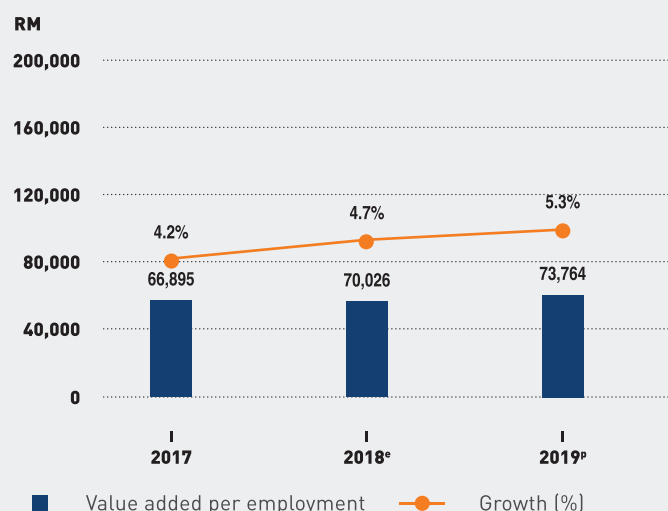
### Tourism Subsector Productivity Performance

#### Value Added Per Hour & Percentage Change



Note : e – estimated  
: p – preliminary  
: Data is based on constant 2015 prices  
Source : Department of Statistics, Malaysia

#### Value Added Per Employment & Percentage Change

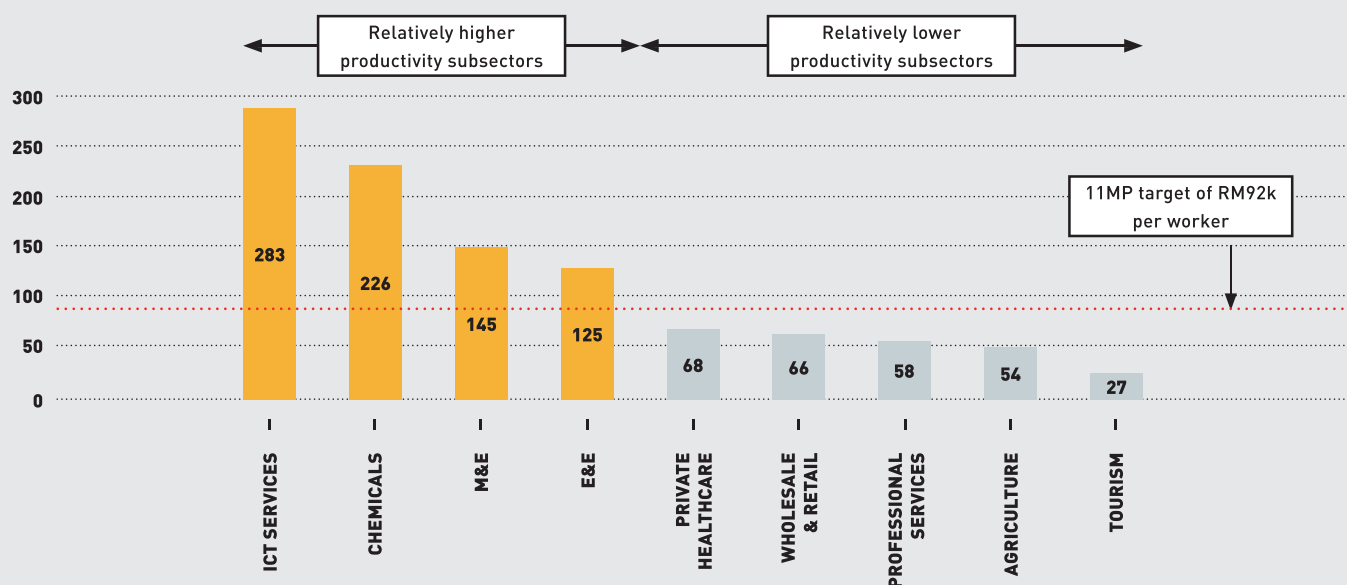


## CHALLENGES AND RECOMMENDATIONS

Having said that, challenges remain because according to the Malaysia Productivity Blueprint (MPB), workers in the Tourism sector, which exclude F&B Services, were the least productive in terms of absolute numbers. Malaysia also lags the best-in-class average by five times.

### Breakdown of Productivity by Subsectors Compared to 11MP Productivity Targets (2015)

Labour Productivity (RM'000/worker)



#### Notes:

Subsectors that meet 11MP overall RM92k per worker target are considered as relatively higher productivity subsectors.

1. ICT Services exclude ICT related manufacturing as already included as part of E&E.

2. Other Manufacturing includes food processing, beverages, tobacco products, textile, leather products, wood products, paper products, refined petroleum products, non-metallic and metallic products.

3. Food & Beverage Services is included in Tourism.

4. Other Services comprise of domestic household services, social work activities and non-governmental bodies.

5. Indexed based on Malaysia = 100.

Source: Department of Statistics, Malaysia

Much of what affects the tourism industry is not new but requires the intervention of both the industry and the government. While the government has always had the best intentions in promoting Malaysia to the world and spent significant resources to achieve this, much more can be done to improve the ecosystem and the situation on the ground.

From the industry perspective, the regulatory landscape has not kept pace with the evolving nature of tourism. The different types of tourism available in Malaysia

has expanded to include medical tourism, education tourism, adventure and eco-tourism, heritage tourism and agro-tourism. These new subsectors of tourism, which are certainly important elements of the tourism spectrum, should be integrated into the wider umbrella of tourism regulations to facilitate better collaboration and effectiveness of policies. Both industry and government need to work together to achieve this in order to fully unlock the potential inherent in Malaysia's tourism industry.

From the worker perspective, there is a need to further upskill our workers as the workforce lacks overall English proficiency. The F&B Services component of the Tourism sector contributes the lowest productivity levels but the highest value-add, clearly indicating that there are opportunities to make improvements in this area.

## SECTOR INITIATIVES

The Tourism Productivity Nexus (TPN) has conducted programmes across Malaysia in 2019, to bring the sector closer to one that works in unison. This included aligning the sector's marketing strategies to more strategically lucrative and sustainable segments, leveraging on digital marketing platforms to repackage and rebrand existing products around the world. We have also focused on ensuring there is a less of a mismatch between the talent that is produced and what is required by industry, while also inviting the industry to comment on how regulations can be further refined and improved.

All the efforts described below were designed specifically to guide the roles of the public and private sectors in spurring productivity growth across the country. Products such as the Inbound Tourism Exchange (InTEx) – an online platform designed to facilitate B2B communications between travel agents and tourism products – have matured into use, as did Inbound Business Exchange (IBEx) designed to streamline marketing and networking within the industry.

Shared knowledge was a common theme, with a myriad of products such as IDex, ITB Playbook and Inbound Tourism Bootcamp (ITB) created to allow experienced industry specialists to share best practices and marketing tools across a wider spectrum of industry players. To cap it all, a new industry-level certification – the Malaysia Tourism Excellence (MaTEx) business accreditation programme – now provides recognition and support to quality tourism products and services. In all, more than 500 industry players were developed into world class players on the new digital platform in preparation for the 'Visit Malaysia Year 2020'.



**Initiative** T1. Establish a certification / accreditation programme for tourist sites to boost tourist volume and improve services delivery

### Business Concern

- Poor service quality
- There are no industry standards for the tourism industry

### Programmes

- **Improving service quality of tourism products and travel agents through standards and certifications – Malaysia Tourism Excellence (MaTEx)**
- **Developed the first batch of five drafts of standards for travel agents, adventure tourism, tourist site/product, event management company and event venue.**

### Impact to Sector

Industry players benefited from an increase in tourist arrivals due to the confidence in certified services



**Initiative** T3. Product owners to review pricing system of sites

### Business Concern

The need to provide knowledge and develop skills for tourism product owners and regulators on how to review pricing by using good regulatory practices.

### Programmes

- **Review Tourism User Fee (TUF) through Good Regulatory Practice (GRP)**
- **Using GRP as a tool to review TUF of tourism sites in selected states. Steps undertaken are:**
  1. **Modelling tourism site baseline activities and pricing**
  2. **Developing new revenue streams**
  3. **Applying 7 steps of RIA practices to determine an informed and best solution (revenue streams)**

### Impact to Sector

Improved income for the nation due to more visitor numbers because of reasonable pricing and additional revenue streams.



**Initiative** T4. Review industry standards & regulations

### Business Concern

The phenomenon of the home sharing economy has raised concerns for related parties which are mainly about safety and security, high maintenance upkeep, commercial activities operating in residential areas, potential loss of revenue from many unregistered operators, competition between STA operators and budget hotel operators.

### Programme

- **Develop regulatory framework for short-term accommodation (STA) which includes guidelines for five areas:**
  - i. **Registration**
  - ii. **Nuisance Control**
  - iii. **Tax Collection**
  - iv. **Fire Safety**
  - v. **Length of Stay**

### Impact to Sector

A more level playing field for traditional hotel operators.



#### **Initiative** T4. Review industry standards & regulations

##### **Business Concerns**

- Delay in Immigration Department processing time for border clearance for China tourists at Singapore-Malaysia Second Link.
- To increase visibility of Miri as a destination of choice among Chinese Tourists and Chinese Foreign Workers via Brunei.
- Review process for tourism transportation pertaining to its legal definition and scope of service.

##### **Programmes**

- **Creating & maintaining a world class customer experience for Chinese tourists entering Malaysia by bus at Sultan Abu Bakar Complex (KSAB) Second Link and also using Tebrau Shuttle Service (KTMB) as an alternative route**
- **Strategic analysis and recommendation to encourage Brunei Chinese Tourists and Chinese foreign workers in Brunei to visit Miri**
- **Study on enhancing Tourism transportation**

##### **Impact to Sector**

More Chinese tourists visiting Malaysia and Miri.



#### **Initiative** T5. Align marketing strategy on targeted tourist segments

##### **Business Concern**

East Coast (Kelantan, Terengganu, Pahang and Johor) needs to be integrated to create more unique tourism products and to increase visibility of East Coast Malaysia through integrated marketing strategy.

##### **Programme**

- **East Coast Tourism Corridor (ECTC) to integrate tourism products, services and marketing strategy among Johor, Pahang, Terengganu and Kelantan based on nature, culture and heritage**

##### **Impact to Sector**

Increase in visitors to Malaysia's East Coast states.



## Initiative T5. Align marketing strategy on targeted tourist segments

### Business Concerns

- Malaysian tourism sites/ product operators are not equipped to receive tourists, lack of marketing strategy and not integrated.
- Missing link between travel agencies/tour operators with tourism site/ product operators.
- No guidelines for industry players to create unique ideas and activities at their site/ product.

### Programmes

- **Inbound Tourism Bootcamp (ITB) increases marketing capability of tourism players through experience-based tourism packages as well as through the embracing of digital tourism**
- **Inbound Destination Expert (IDEx) empowers local travel agents with in-depth information of targeted destinations**
- **ITB Playbook which outlines guidelines and references for inbound tourism players**

### Impact to Sector

Improved cooperation between travel agencies/ tour operators and tourism site/ product operators, leading to increase in tourist arrivals.

### Business Concerns

- Most tourists are focused on Langkawi and not Kedah mainland, which has a huge variety of tourism sites and products.
- Malaysia's Northern Region has huge potential to attract more tourists from Southern Thailand.
- Leverage VoA at Sg Tujoh CIQ to promote Miri as destination of choice among visitors and tourist coming via Brunei.
- To showcase best practices in Malaysia's tourism industry as references to all.

### Programmes

- **Kedah Visitor Directory 2020 "Gah Kedah" lists tourism products for all eleven (11) districts in Kedah**
- **Showcasing Tourism Products (STP) to 30 travel agents from Thailand and Business Exchange in Perlis**
- **Showcasing Tourism Products (STP) and Business Exchange in Miri, Sarawak with counterparts in Brunei**
- **Showcasing Malaysia's Tourism Heroes through a coffee table book on their best practices**

### Impact to Sector

Improvement in tourist arrivals from Thailand and Brunei.



## MOVING AHEAD

While the sector's performance will be affected by Covid-19, we know that the training and preparations conducted to increase the sector's productivity now stands it in good stead to take advantage of any recovery within the global industry. The focus on digitalisation and aligning of product marketing and deliveries to achieve sustainable, long term growth dovetails perfectly with the Government's vision to achieve Shared Prosperity by the year 2030, and bodes well for the industry at large.

In April 2020, TPN held a Virtual Summit, as a forum for industry players to interact with government representatives and key tourism players to discuss the challenges and the way forward in the context of the Covid-19 disruption. With more than 1,000 attendees, this summit also discussed ways to strategise the industry's comeback. Other initiatives in the pipeline for 2020 are listed below:



**Initiative** T1. Strengthen collaboration between industry and academia to match industry needs

### Business Concerns

- The role of travel agents (TAs) as travel advisory services has become obsolete since being taken over by online travel booking.
- Malaysia needs more professional conference organisers (PCO) and Destination Management Companies (DMC) to drive Business Tourism or MICE (Meeting, Incentive, Convention, Exhibition).
- TAs can fill the gap in MICE segment as PCO or DMC.

### Programme

- **Upskilling Travel Agents to PCO and DMC**

### Impact to Sector

Improvement to the MICE segment of the country's tourism industry.



**Initiative** T2. Establish a certification / accreditation programme for tourist sites to boost tourist volume and improve services delivery

### Business Concerns

- To improve service delivery of tourism related companies.
- To improve trust and confidence from visitors / tourists that will increase revenue / sales of companies.

### Programme

- **Improving service quality through MaTEx Certification**
  - 5 standards have been reviewed and ready for new application
  - Preparation module for ToT & scheduling for ToT
  - Developing training module for online recording
  - Revise criteria to include health and social elements due to Covid-19

### Impact to Sector

200 companies certified with MaTEx.

**Initiative** T5. Align marketing strategy on targeted tourist segments**Business  
Concerns**

- Tourism industry is the worst affected by Covid-19 outbreak as travelling, event and tourism related activities come to a complete standstill.
- There is a need to provide alternative means to generate activities and income for the industry.

**Programmes**

- **Business sharing session - TPN Knowledge Enhancement Webinar Series (TPN KEWS)**
- **Business advisory - TPN Virtual Advisory Clinic (T-VAC)**
- **Business mentoring - My Virtual Experience (MyVXp)**

**Impact to Sector**

Increase in sales and visibility of the products.

**Business  
Concerns**

- Capacity building for MaTEx certified companies under Adventure Tourism (AT) – as an emerging industry worldwide.
- To document best practices from leading industry players.
- To disseminate information and best practices that can be adapted by industry players.

**Programmes**

- **Establishment of a Framework and an Industry Working Group for the Adventure Tourism Frontier (ATF)**
- **Showcasing Malaysia's Tourism Heroes (SMTH) 2.0**

**Impact to Sector**

Birth of a new and emerging industry in the tourism landscape.

30 companies identified for best practices from MaTEx and successful ITB companies.

## BEST PRACTICES

**LANGKAWI TOURISM ACADEMY**

The Langkawi Tourism Academy (LTA), established in 2007, is an important educational institution that supports Langkawi's strong tourism sector. Since starting, it has graduated 1,300 students in various disciplines such as hotel management, culinary arts, food & beverage services and recreational tourism. More than 3,000 locals have also benefited from the various skills training courses under the Academy's lifelong learning programme.

The aim of the Academy is to produce fit-to-work graduates to satisfy the manpower needs of the industry, thus helping to reduce mismatch of talent. Backed by a well-coordinated industry-based practical training and supported by excellent infrastructure, the Academy offers transformative training programmes that are benchmarked against international standards and practices. The development of the curriculum was done in collaboration with Taylor's University which provided consultation and advisory services.

One of the key features of LTA's courses is the close relationship with the industry, via an agreement which provides for externships and internships for the Academy's students at participating hotels, resorts or restaurants. When students graduate, it is thus common for these establishments to offer employment as they have had the opportunity to observe and work with them.

Coupled with the Academy's lifelong learning programme, and efforts to drive community-based tourism, the LTA has done a significant amount to support the tourism ecosystem in Langkawi, and to raise the productivity levels of the tourism industry.

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One of the key features of LTA's courses is **the close relationship with the industry, via an agreement which provides** for externships and internships for the Academy's students at participating hotels, resorts or restaurants.

Source: <http://bond.mpc.gov.my/>

**BEST PRACTICES****UNIVERSAL HOLIDAYS**

Universal Holidays Travel & Tourism Sdn. Bhd. (UH) is a wholly owned Malaysian entity that was established in 2010 and started its operations focused on In-Bound Tourism, particularly from the Middle East, North Africa and the Indian subcontinent.

The core activities of UH is to provide ancillary travel-related products consisting of hotels, furnished serviced apartments, transfers, guided sightseeing tours and packages at very competitive prices to customers around the world. Staffed by 25 people, UH also serves corporate customers in the area of Meetings, Incentives, Conferencing and Exhibitions.

To improve efficiency and productivity, a dedicated Account Manager is responsible for attending to a client's needs, requirements and language. UH also provides 24-hour customer service to consumers that is managed by four permanent team players.

Early on, the company leveraged on technology to stay ahead and to increase productivity further. In 2011, UH developed its own in-house platform what would allow the business to run seamlessly, enabling direct linkages with travel agents and other travel partners such as hotels. For example, the platform successfully connected to all the available products from the Genting Group, which helped give its travel agents real-time and quicker access to such information.

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**To improve efficiency and productivity, a dedicated Account Manager is responsible for attending to a client's needs, requirements and language. UH also provides 24-hour customer service to consumers that is managed by four permanent team players.**

Source: <http://bond.mpc.gov.my/>

**DIGITAL**



## DIGITAL

### THE LANDSCAPE

**THE DIGITAL SUBSECTOR, AS DEFINED UNDER THE INFORMATION AND COMMUNICATION SEGMENT OF THE ECONOMY, HAS CONSISTENTLY CONTRIBUTED MORE THAN 5 PERCENT ON AVERAGE TO GDP, ALMOST REACHING 6 PERCENT IN 2019. IT IS ALSO THE TOP PERFORMING SUBSECTOR IN TERMS OF PRODUCTIVITY LEVELS, ALTHOUGH IT HAS RECORDED FLUCTUATING RATES OF PRODUCTIVITY GROWTH.**

For Malaysia to make its next big productivity leap, it is patently clear that the key lies in ensuring every single sector of the economy embraces digital technology. The benefits from implementing digitalisation in work processes, incorporating technology and allowing innovation to flourish cannot be understated. It is therefore beholden on each and every stakeholder involved in driving the country's productivity to put the digital agenda at the very top of their to-do list. Getting this right will enable exponential productivity gains.

In Malaysia's context, there is a vast landscape of businesses that can immediately benefit, but efforts remain fragmented due to the way the economy is organised, with slightly more than 98 percent of businesses being small-medium enterprises. This makes it challenging to implement top-down policies, especially in driving what can be a capital-intensive exercise to digitalise operations. Given the numerous stakeholders and the equally numerous interests that need to be catered to, it is no surprise that the pace and level of digital or ICT adoption varies greatly across the country.



Labour Productivity by  
Total Hours Worked  
increased

**2.1%**

in 2019



Labour Productivity by  
Employment increased to

**RM357,846**

in 2019 from

**RM354,450**

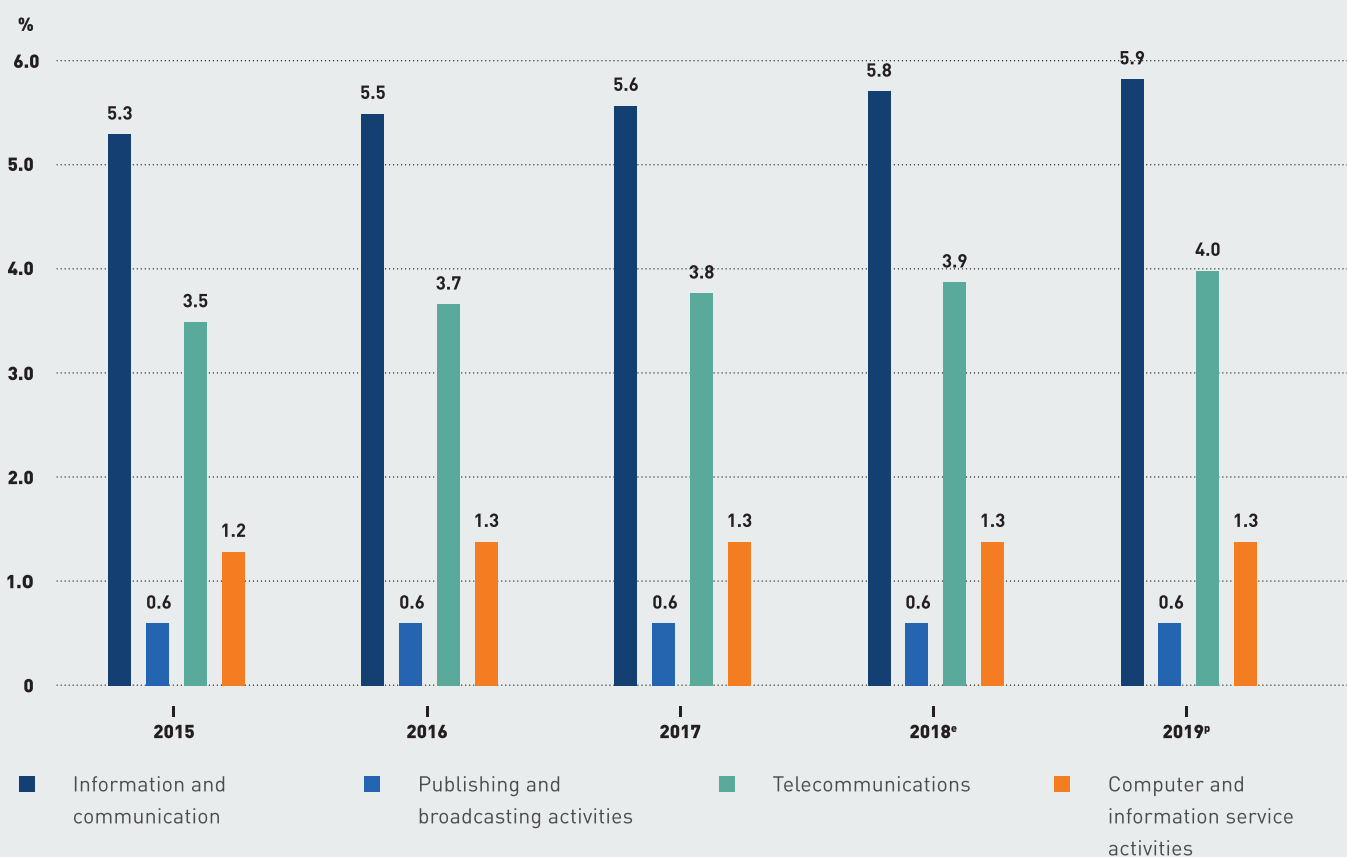
in 2018



As it stands, it is heartening to note that the digital economy, as of 2018, already contributes 18.5 percent to Malaysia's GDP, indicating the potential for even stronger contributions moving forward. In addition to this, according to a survey in 2019 carried

out by Workday, a HR and financial management software company, 58 percent of business leaders in Malaysia are already seeing returns on their digital transformation initiatives.

**Digital Subsector Contribution to GDP 2015-2019**

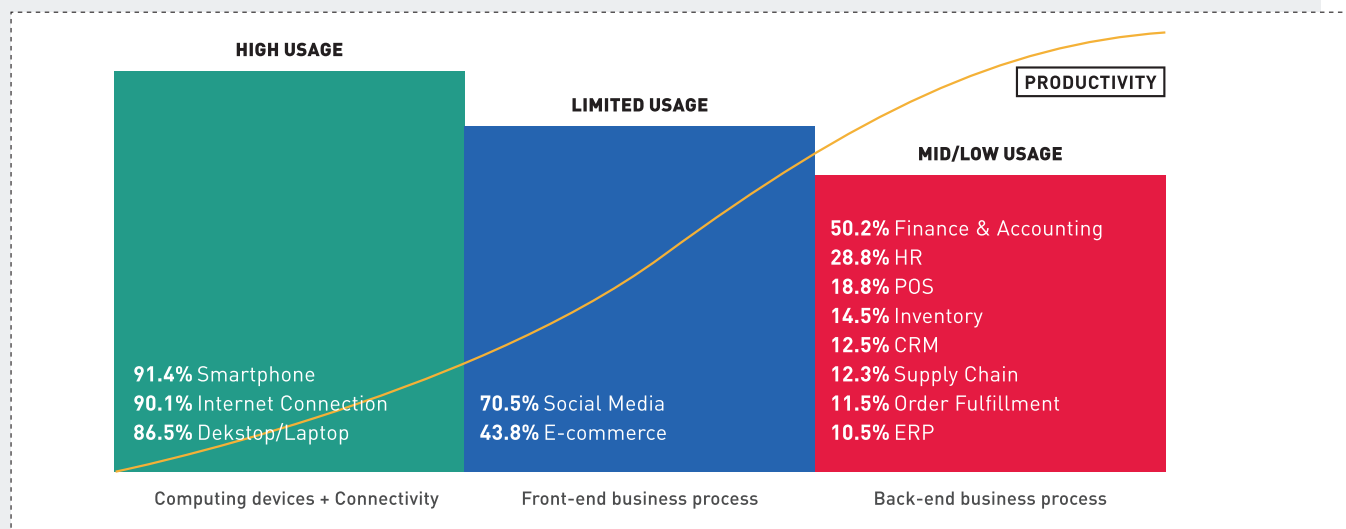


Note : e – estimated  
: p – preliminary  
: Data is based on constant 2015 prices  
Source : Department of Statistics, Malaysia

However, according to the SME Corporation Malaysia, only 32 percent of all SMEs have instituted some form of digitalisation – with the majority using basic ICT technology such as smartphones, Internet connections and computers. However, the same survey found that there were very few SMEs which

had converted back-end processes to some form of software or digital automation, where the greatest gains in productivity can be found. SMEs that utilise such data management services were able to increase their productivity by up to 60 percent.

### ICT Tools or System Usage (%)



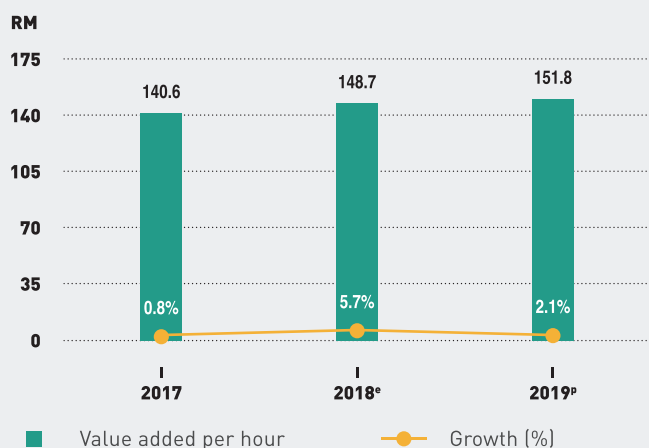
Source: Digitalisation Survey of SMEs in 2018, SME Corp, Malaysia & Huawei Technologies (M) Sdn Bhd

## LABOUR PRODUCTIVITY

Productivity-wise the sector has experienced fluctuating gains since 2017, but remains the highest ranked out of the nine subsectors in terms of value added per employment.

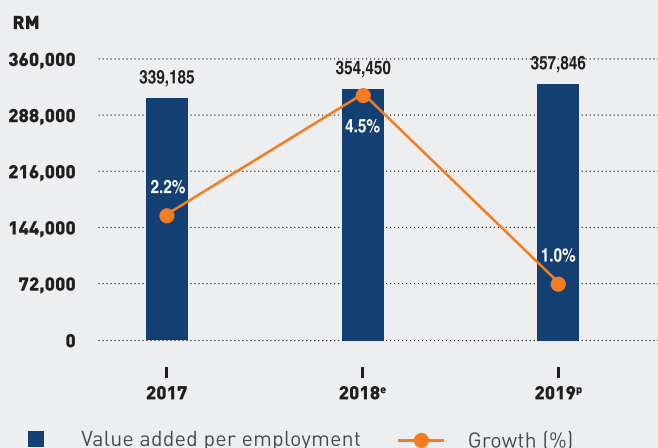
### Digital Subsector Productivity Performance

#### Value Added Per Hour & Percentage Change



Note : e – estimated  
: p – preliminary  
: Data is based on constant 2015 prices  
Source: Department of Statistics, Malaysia

#### Value Added Per Employment & Percentage Change



## CHALLENGES AND RECOMMENDATIONS

To drive progress in a multi-agency and multi-stakeholder environment will require dedication and focus to ensure success. The Digital Productivity Nexus fully understands this and is committed to the goal of making digital and ICT adoption as pervasive as possible.

The Malaysian government, in its various policy initiatives, has definitely helped to support this process. Under the Malaysian Productivity Blueprint, we are guided by the Driving Digitalisation & Innovation strategic thrust while the manufacturing sector is guided by the Ministry of International Trade and Industry's Industry4WRD policy. This policy was launched in 2018 in response to the Fourth Industrial Revolution and will drive the digital transformation of manufacturing and related services sectors in Malaysia. It is envisioned that increasing productivity in the manufacturing sector by 30 percent would lead to an increase of 54 percent in absolute contribution to GDP.

In terms of infrastructure, the move towards 5G has already started and this will greatly improve the likelihood for companies to hasten their digital transformation process, as slow or intermittent connections will no longer be a major deterrent. These policies and initiatives are further aligned to the Future Economy Guiding Principle 7 under the Shared Prosperity Vision 2030 policy document, which has increasing the number of innovations produced by Malaysia as one of its aims.

Given these developments, the landscape moving forward is promising. The recent Covid-19 pandemic has also sped up the digital transformation process of many companies that can no longer do business conventionally. Businesses are now busy adapting to the new normal that demands for innovative ways to deliver services and products in a world where social distancing rules are expected to persist for the long-term.

There, however, remains other challenges to improving productivity which are largely structural in nature. These include a regulatory environment that can stifle innovation as well as a mismatch in the workforce that is not fully understood. Thus, the Nexus' activities going forward will be looking into these issues and gaps to support and enable innovation to flourish. The Go B.I.G with Digital will be our guiding strategy as we undertake our activities, calling on us to always look at the positive when promoting the Digital Agenda.

### Go B.I.G with Digital

#### B – Catalyse Breakthrough

- Exponential productivity
- From 10x up to 100x improvement

#### I – Strengthen Integrity

- Transparent
- Objective
- Consistent
- Trustworthy

#### G – Promoting Good

- Abundance
- Uplifting
- Supportive
- Enabling better life

#### ICT

- I – Adoption of I4.0
- C – Stronger Connectivity
- T – Innovation Technology

## SECTOR INITIATIVES

In 2019, the Digital Productivity Nexus has continued to facilitate workshops that informed industry players about incentives available to businesses for ICT usage and digital transformation efforts. The Nexus is also deeply concerned, amongst others, that such efforts by government agencies is not wasted and carried out in a structured and organised manner to ensure efficient utilisation. Our strategic initiatives are outlined below, followed by further details on how we have addressed ongoing business concerns:



**Initiative** ICT1. Raise awareness on the availability of incentives ensure proper utilisation and adoption of ICT

### Business Concern

Business and Government leaders

**Issues** Lack of awareness on available incentives to ensure proper utilisation and adoption of ICT

### Programmes (2019-2020)

- **Industry Day Programme - Awareness on incentives and programmes related to ICT adoption**
- **Go B.I.G with Digital awareness programme**
  - (a) through video promotion
  - (b) series of webinars

### Impact to Sector

- To impact 1 million businesses and government leaders (directors, CEO's and Senior Management) about digital adoption awareness.



**Initiative** ICT2. Centralised and coordinated efforts between relevant agencies to ensure proper utilisation of initiatives and programmes.

### Business Concerns

Digital & Tech Companies  
Scope of advisory:

- 1) Strategic Positioning
- 2) Financial Consultation
- 3) Legal and Regulatory Support
- 4) Business Operation
- 5) Business Development and Marketing Solutions
- 6) Technical Solutions

**Issues** Agencies all run separate programmes to provide training and drive ICT adoption  
No centralised agency to drive ICT adoption efforts

### Programmes (2019-2020)

- **Digital Victory – Virtual Business Clinic to assist digital & technology based businesses in rebuilding their companies, in the event of a catastrophe**

### Impact to Sector

Quicker recovery for businesses affected by unforeseen events.



**Initiative** ICT3. Strengthen collaboration between industry and academia to reduce mismatch of supply and demand of workforce

**Business  
Concern**

Industries and Institutes of  
Higher Learning

**Issues** The supply gap of employability amongst ICT graduates and shortage of experienced ICT professionals.

**Programmes (2019-2020)**

- **Industrial Skill Framework for Digital Technology**
- **Top level common reference for digital framework between industry and academia**

**Impact to Sector**

The digital framework would give a clearly defined and sustainable career pathway for future development of ICT and digital competencies in order to reduce the mismatch between industry and academia.



**Initiative** ICT4. Expanding and upgrading broadband infrastructure

**Business  
Concern**

MCMC, Telcos, Local  
Government, State  
Government

**Issues** Connectivity is perceived to be of lower speed and quality than neighbouring countries. Among ASEAN countries, Malaysia is ranked 5<sup>th</sup> in terms of mobile broadband average download speed after Singapore, Laos, Vietnam and Thailand. Meanwhile, fixed broadband average download speed in Malaysia is behind Singapore and Thailand.

There are challenges faced by the telecommunications industry. Processing permits takes a long time. At the same time, telcos are committed to ensure stable connectivity and continuously strive to provide better communications infrastructure.

**Programme (2019-2020)**

- **Digital Infrastructure Competitiveness Index (DICI) is a yardstick for state policy makers to assess quality of regulations and reduce unnecessary regulatory burden faced by the telecommunications industry**

**Impact to Sector**

Faster and stable broadband will ensure more business activity and improve Malaysia's attractiveness as an investment destination.



## MOVING AHEAD

In 2020, the Digital Productivity Nexus has planned to make a sustained push to increase awareness about the benefits of digital adoption. We will also be persuading all public sector entities to proactively initiate a self-review to improve standards, rules and regulations that deter innovation or the adoption of ICT. Our aim in this context is to only retain the rules that add value and do not add cost or time.

The other important initiative we will look at in 2020 is the Digital Workforce Framework. This framework will essentially create a central and constantly updated reference point for the skills required in the ICT industry to reduce the mismatch between the talent that is being produced now compared to what will be needed in the future.

## BEST PRACTICES

### PERSADA DIGITAL SDN BHD

Persada Digital Sdn Bhd is a Multimedia Super Corridor (MSC) company established in 2004 offering the development of Information Technology (IT) systems including Internet-based Solutions, Application Development, System Integration, Networking System and Maintenance Support Services. In its line of business, the company has to ensure repairs are performed in a timely manner and that maintenance and repair works are carried out accurately.

Upholding these standards are not only important for productivity, but also to reduce operational costs as customers have the contractual right to penalise the company for delays in repairs. As such, the company implemented the Lean Management system to streamline both the repair and complaints resolution process.

For the complaints resolution process, the company changed the workflow to allow customers to give direct feedback. This enabled precise and comprehensive information to be relayed, given that some of the issues could sometimes be very complex. An on-site engineer is then assigned to the premises and will provide the correct loan units while repair works are carried out.

As a result of the Lean implementation, there was a reduction in total complaints of almost 30 percent as follow-up complaints occurred less frequently due to more precise information being given at the initial stage. There was also a reduction of total penalties from 14 to two with regards to fewer delays in repair works.

Source: <http://bond.mpc.gov.my/>

**BEST PRACTICES****ENLINEA SDN BHD**

Enlinea Sdn Bhd started out in 2015 with a website to assist couples to plan their weddings by connecting them with the right vendors for the services they need at wedding.com.my. Following the positive reception to the website, the company decided to expand into a different website to serve the needs of parenthood, specifically mothers, at motherhood.com.my.

Enlinea's impact on the digital economy has been clear, with 5,000 vendors in their database promoting the full suite of wedding services to a customer base of over 200,000 users. Leveraging on this, the transition to motherhood.com.my was easier and with over 500,000 members now, it has become a strong community that supports each other along the parenting journey as well as being a solid revenue earner through the sales of related products.

The company cements this sense of community with its customers and vendors further by organising an annual sales event for baby products that in 2017 was able to attract up to 40,000 attendees. Enlinea also ensures its staff keeps abreast with the latest digital technologies by sending them for training, allocating up to 5 percent of its revenue for this purpose. The training enables staff to learn copywriting skills specifically for the e-commerce industry, as well as the best ways to spend their advertising budget.

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**The company cements this sense of community with its customers and vendors further by organising an annual sales event for baby products that in 2017 was able to attract up to 40,000 attendees.**

Source: <http://bond.mpc.gov.my/>

# RETAIL AND FOOD & BEVERAGE (F&B)



## RETAIL AND FOOD & BEVERAGE (F&B)

### THE LANDSCAPE

**THE RETAIL AND F&B SECTOR IS AN IMPORTANT COMPONENT OF MALAYSIA'S ECONOMY, CONTRIBUTING 10.5 PERCENT TO THE COUNTRY'S GDP IN 2019. IT HAS CHARTED STEADY ECONOMIC GROWTH IN THE PAST FIVE YEARS, ALTHOUGH IT HAS SEEN A DECLINING PACE IN PRODUCTIVITY GROWTH RATES, UNDERSCORING THE URGENCY NEEDED TO DRIVE PRODUCTIVITY IMPROVEMENTS.**

The face of Malaysia's retail trade sector has undergone a number of transformations over the past four decades, bringing it to the vibrant landscape it is today that has seen the mushrooming of shopping malls and rapid growth of e-commerce. Consumers are now spoiled for choice, while retailers are locked in a tough battle against slim margins and rising costs.

In the 1980s, retail was mostly conducted by small shop owners in standalone shop lots while groceries were traded at wet markets. This quickly changed in the early 1990s with the proliferation of hypermarkets and subsequently in the early 2000s, shopping malls, as consumers sought the convenience of a one-stop centre for all the goods they needed. Malaysia's retail trade sector growth exploded in lockstep with this, with sales value of the sector increasing fourfold

between 2005 (RM100 billion) and 2016 (RM400 billion).

While the advancement of technology in the last decade has brought the added convenience of shopping for merchandise and food online, it also now places the retail industry at a crossroad. For established retailers, balancing between driving growth of a physical presence while pursuing growth in the online space is difficult, and can either make or break the retailer, as they try to compete with others who may have started their business with no physical legacies.

The retail trade sector is also closely linked to a vibrant Tourism sector, with foreign arrivals contributing significantly to retail and F&B receipts. This coupled with the growth of the franchise business model in the last ten years and the relatively higher value merchandising prevalent in urban malls today, has meant a significant win-win for both interrelated sectors.

In 2019, retail trade recorded a solid showing with an average 8.5 percent quarterly growth, while e-commerce continued to go from strength to strength, with an average annual growth rate of 9.5 percent in the business to consumer segment. This has added value and led to the subsequent growth of the digital economy, one of the key focus sectors under Malaysia's Shared Prosperity Vision 2030. Contribution to GDP has also been steady for both retail and F&B over the past five years.

Labour Productivity by Total Hours Worked increased

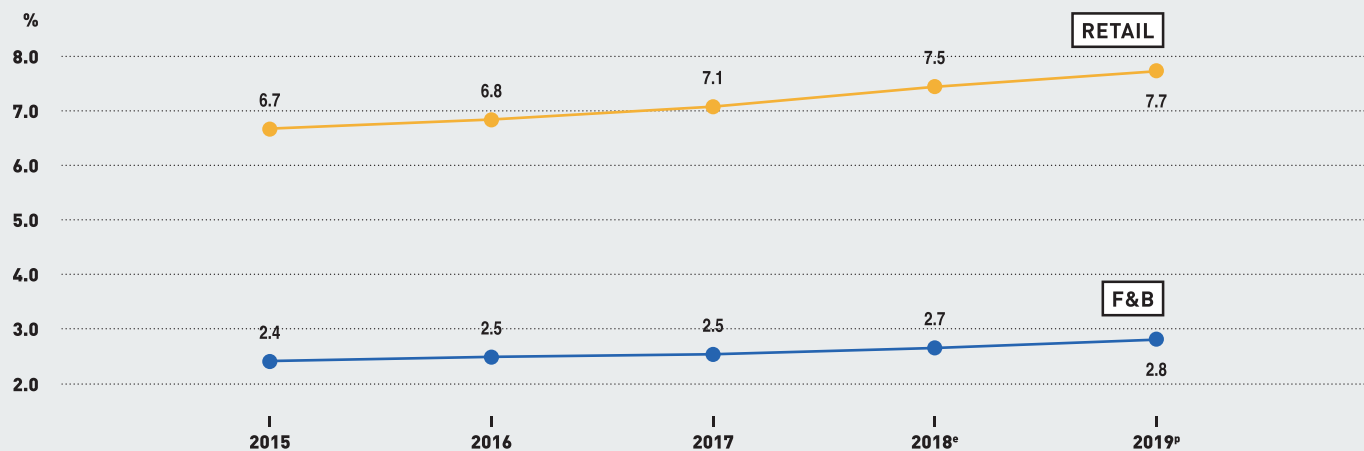
**3.6%**  
in 2019



Labour Productivity by Employment increased to

**RM47,763**  
in 2019 from  
**RM46,309**  
in 2018



**Retail and F&B Subsector Contribution to GDP 2015-2019**

Note : e – estimated  
: p – preliminary  
: Data is based on constant 2015 prices  
Source: Department of Statistics, Malaysia

Consumers' growing familiarity with online platforms and the rapid growth of private delivery services meant grocery retailers and F&B platforms enjoyed record online revenues, which could very well be the catalyst in terms of how the sector goes about to rebuild their revenue base. This dovetails nicely with the MPC's continuing efforts to enhance the sector's digital presence and knowledge.

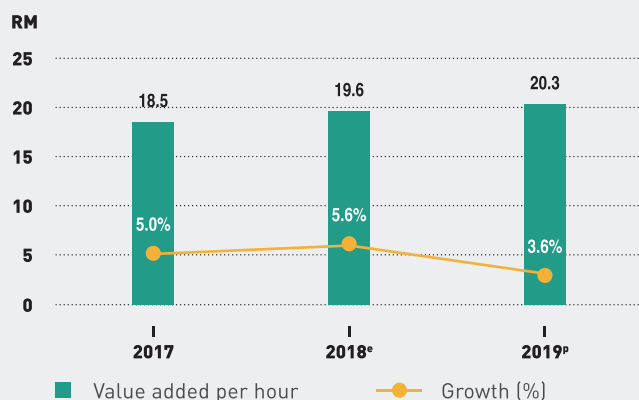
**LABOUR PRODUCTIVITY**

The sector's productivity by both hours and employment has been consistently high, coming in third out of the nine priority subsectors behind only Professional Services and Tourism. MPC's focus in the sector has therefore been four-fold: to support the digitalisation of high potential small-medium enterprises (SMEs); to promote the sharing economy; to strengthen competencies and to assist their expansion overseas.



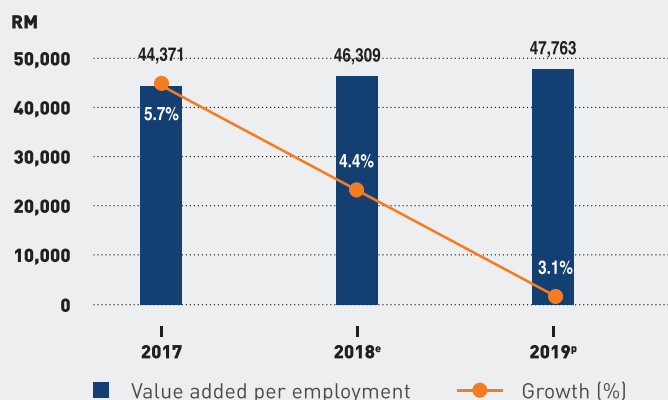
## Retail and F&B Subsector Productivity Performance

Value Added Per Hour & Percentage Change



Note : e – estimated  
: p – preliminary  
: Data is based on constant 2015 prices  
Source : Department of Statistics, Malaysia

Value Added Per Employment & Percentage Change



## CHALLENGES AND RECOMMENDATIONS

Appreciating the magnitude of the challenges facing the industry, the Malaysian Government instituted the Malaysia Productivity Blueprint in 2011 to help drive a holistic, comprehensive overhaul of the ecosystem, which would enable it to benchmark itself to the industry's best practices, and take advantage of the opportunities brought about by the advent of technology and digitisation.

Key among the challenges identified were:

- The large mismatch in productivity between the subsector's SMEs and larger players
- A high reliance on low-skill and low-wage earners
- Low adoption of technology across the value chain, and
- Rare use of ready tools to track operational efficiency

The Productivity Nexus' strategy of roping in champions from the industry itself to drive the improvements mean that it is not all abstract policies, as MPC seeks to achieve the most out of every channel it creates. These include creating synergies between not just the vocational and academic world supplying human capital to the industry but feedback to ministries as well, in order to extend the "ease of doing business" benchmark to the supply side as well.

It is an on-going process both for its complexity and the dynamic nature of the changes, with key considerations being the careful investment in human and financial capital. It involves comprehensive discussions and education to bridge cultural, generational and information divides endemic to the Malaysian landscape.

## SECTOR INITIATIVES

The Retail and F&B Productivity Nexus' strategic initiatives are intended to strengthen competencies and leverage on technology as well as new trends to help Retail and F&B participants improve their productivity. Every one of the four initiatives planned by the Retail and F&B Nexus are geared toward creating the requisite awareness, participation and subsequent momentum for independent growth across the board while building long-term, organic digital capabilities.

Activities that took place in 2019, as well as planned activities for 2020 under the four initiatives are discussed below. Some of the initiatives included a drive to increase the adoption of e-wallets across the retail spectrum, as opposed to just a specific tier of retailers, and the implementation of a Service Excellence Programme designed to benchmark Malaysian retailers against their own peers, creating a self-sustaining cycle of realistic targets and achievements.



**Initiative** R1: Provide support to high potential SMEs for digitalisation of business operations and build e-Commerce capabilities

### Business Concerns

- Lower rate of technology adoption
- Limited investment in technology
- Unable to catch-up with the latest technology such as IoT, VR, Big Data etc
- Too many e-Commerce platforms with different fees charges

### Programmes

- **Programme on New Retail Digital Transformation Solution was organised by RFBPN in collaboration with Senheng Electric (KL) Sdn Bhd**
- **Technology & Digitalisation immersion programme at Ali Baba's Business School, China**
- **Webinar sessions on Digital Transformation Programmes focusing on Digital Marketing, Delivery using Digital Platforms, eMarketplace, eWallet and ePayment**

### Impact to Sector

Readiness of enterprises in adoption of technology and digitalisation.



**Initiative** R2: Promote opportunities for sharing economy

### Business Concerns

- Many industry players are not aware about the availability of various sharing economy platforms that can assist and support industry.
- To incentivise and build a third delivery platform. Government should provide incentives to build a third delivery platform after Grab Food and Food Panda, to reduce the chances of monopolistic practices.

### Programmes

- **Best practice cases of Retail and F&B Enterprise. Publication of 17 best practices case study**
- **A lead workshop, Leveraging Enterprises with Digital Disruptors was organised by RFBPN, a collaboration project with MDEC. Objectives of the workshop are namely to share innovative sharing economy solutions and services that help to address the growing industry needs and requirements in the Digital Economy era**
- **A study on Sharing Economy in Retail and F&B Subsector was successfully completed in 2019. Objectives of the study is to assess and analyse the retail and F&B industry players requirements, to adopt the Sharing Economy which will support and promote sustainability, social cohesion and a robust retail and F&B subsector**
- **FIM 2020: Sharing Economy Platforms Pitching Sessions with Retail and F&B Players**
- **Webinar sessions on sharing economy platform**

### Impact to Sector

Robust digital economy in place.


**Initiative** R3: Strengthen Retail and F&B competencies

**Business  
Concerns**

- High dependency on low-skill and low-wage workers
- Locals perceive jobs in the Retail and F&B industry as unglamorous and a job of last resort
- Barrier to enter the industry as an employee is low because of the high turnover, especially among the local workforce.

**Programmes**

- **Development of a Guidebook on Talent Development Programmes to recruit, retain and improve the quality of existing human capital for Retail and F&B Subsector**
- **Certification of F&B Workforce with Sijil Kemahiran Malaysia Level 3 (SKM)**
- **Adoption of Guidebook on Career Pathway for Retail and F&B Subsector**
- **Career talks at Polytechnic and College Community**

**Impact to Sector**

Professionalisation of Retail and F&B workforce.


**Initiative** R4: Provide assistance to Retail and F&B players to grow internationally

**Business  
Concerns**

- Limited local brands are able to penetrate international markets.
- Regulatory burden in foreign countries hinder expansion of Malaysian Retail and F&B brands.
- Besides the franchise system, a majority of Malaysian Retail and F&B businesses have not established operating systems which hinders business expansion.

**Programmes**

- **A series of workshops on developing an Exporters' Microsite was organised by Retail and F&B Productivity Nexus (RFBPN) in collaboration with Malaysia External Trade Development Corporation (MATRADE)**
- **Development of an assessment tool "Going International Readiness Evaluation (GIRe)" to be used by industry associations when they plan to organise trade mission and business matching with international buyers or partners for their members. The assessment tools will help to indicate whether the enterprise is ready or not to venture into the international market**
- **Reducing Unnecessary Regulatory Burden (RURB) for F&B Industry**

**Impact to Sector**

Malaysian brands established in international markets.



## MOVING AHEAD

The pandemic that emerged in early 2020 necessitated the implementation of the nationwide Movement Control Order (MCO) on 18th March. While the closure has severely affected the retail sector, it also shone a light into the opportunities that can arise from a more focused approach to online retailing. Hence while a large majority of the programmes scheduled by the MPC were duly interrupted, it has also justified a great deal of MPC's push for increased adoption of technology, be it from the retail, payment or labour skills perspective.

While the longer lasting effects of this outbreak is yet to be fully understood, it is clear that many businesses have been forced to now acquire sales online, which may again lead to another transformation of the retail sector which is trying its best to adapt to the new normal.

As the Ministry of International Trade and Industry's own document of Industry 4.0 has laid out, "New technologies are disrupting and fostering a technology-based model of production. Barriers of adoption have come down with key Industry 4.0 technologies maturing and costs declining. Application of technologies to improve efficiency and product quality is becoming the new normal, requiring Malaysian... firms to innovate and invest in new technologies to remain competitive."

These changes may affect both the productivity rates as measured by hour and employment and the sector's capital outlays and spending requirements; the MPC continues to assess and develop the sector's initiatives in line with the Malaysian Productivity Blueprint, in close cooperation with its stakeholders.

**BEST PRACTICES****FARMASI FAJR**

Farmasi Fajr Sdn Bhd, established in 2004 is a SME located in Terengganu supplying pharmaceuticals and disposable items for both retail and wholesale purposes. The challenge this company set for itself was to find ways to raise productivity to increase revenue and to improve its bookkeeping processes. With only seven employees, Farmasi Fajr found that the Lean Management system would be the best method to achieve these objectives.

**WHAT THEY DID AND HOW IT HELPED**

In 2016, the company implemented the Lean system to improve its wholesale sales and distribution process as well as the preparation of its sales and financial statements. Over a period of eight months, standard operating procedures were introduced, changes were made to the company's workflow and technology was deployed where it would make the greatest impact. Apart from increasing effectiveness, the improvements also eliminated wastage.

The implementation of the Lean Management system saw retail sales increasing by almost 10 percent and wholesale revenue jumping by 36 percent. Besides the improvement in revenue, the company's inventory was now well-organised and customers were better served. In terms of its bookkeeping process, there was a slight improvement in time taken to produce the report as well as a reduction in mistakes.

Source: <http://bond.mpc.gov.my/>

## BEST PRACTICES

### **SECRET RECIPE**

This restaurant household name has been around since 1977, and is now represented by 320 outlets nationwide with 80 more international outlets, all operating through a franchise model. With more than 2,000 employees, Secret Recipe found that it has had to constantly find ways to improve productivity as the business expanded.



### **EMBRACING TECHNOLOGY AND DIGITALISATION**

Some of the steps taken by Secret Recipe included embracing technology and digitalisation, carrying out research and development, introducing standard operating procedures and adapting to the local business environment in its international locations.

- Leveraging research to stay ahead – Secret Recipe set up its own R&D team to incorporate the latest food and drink trends into its menu.
- Using technology to be more efficient – automated and digitalised many processes throughout its operations. This included its point of sales systems, production machinery and inventory management.
- Adapting to engage with customers effectively – quickly adapting to the correct platforms to connect with customers. This included setting up engaging social media accounts, leveraging on third-party delivery services and mobile e-wallets.
- Centralising business operations – centralised kitchens were set up across the nation to provide cooking ingredients with consistent quality.
- Localising recipes and business practices – while Secret Recipe maintains strict control over food quality and raw materials, the company is supportive of franchisees, helping to export certain ingredients to places with limited resources. Secret Recipe also allows franchisees to customise their menu offerings based on local taste profiles and preferences.

**BEST PRACTICES****SITI KHADIJAH**

SKA ensured it **kept up with demand and consumer preferences by setting up a research and development team**, together with a systematic approach in the production area. Standard Operating Procedures were **implemented in the tailoring process**, while parts of the production line were also automated to increase efficiency.

Established in 2009, Siti Khadijah Apparel (SKA) is the leading brand in women's prayer outfits (telekung) in Malaysia. Telekung is worn by Muslim women when performing their prayers and is widely used among Malaysian women due to its deep-rooted association with Malay culture. With 28 outlets in Malaysia and two outlets in Indonesia, the company quickly realised that innovation, technology and skills training was a must for productivity to keep pace with the scaling up of the business.

**CAREFULLY PLANNED, SYSTEMATIC APPROACH**

SKA ensured it kept up with demand and consumer preferences by setting up a research and development team, together with a systematic approach in the production area. Standard Operating Procedures were implemented in the tailoring process, while parts of the production line were also automated to increase efficiency. The R&D team meanwhile tackled the challenge of ensuring that the telekung fit the face of its wearer comfortably while also incorporating contemporary designs.

The company has also taken a strong approach to marketing its product, starting with mass-audience television shows and now moving towards digital marketing platforms. It also has plans to develop its own app in the future. To ensure the sustainability and productivity of the business and the wider industry, SKA established Srikandi, a tailoring college which provides opportunities for anyone to learn tailoring in a formal setting.

# AGRO-FOOD



## AGRO-FOOD

### THE LANDSCAPE

**IN 2019, AGRICULTURE CONTRIBUTED TO 7.1 PERCENT OF MALAYSIA'S GDP, OR RM101.5 BILLION, AFTER RECORDING ANNUAL GROWTH OF 2.0 PERCENT FOLLOWING A NUMBER OF YEARS OF STAGNATION. IT EMPLOYED 1.87 MILLION PEOPLE IN 2019 AND OCCUPIES ALMOST A QUARTER OF MALAYSIA'S ARABLE LAND.**

Malaysia's Agriculture sector, of which agro-food is an important part of, has a long history as part of the nation's economy. As the main engine of growth in the 1970s, it contributed almost 30 percent to GDP, before steadily declining on the back of the country's transformation into an industrial powerhouse in the 1990s, and falling further as we moved further up the value chain.



Labour Productivity by  
Total Hours Worked  
increased

**1.6%**

in 2019



Labour Productivity by  
Employment increased to

**RM92,380**

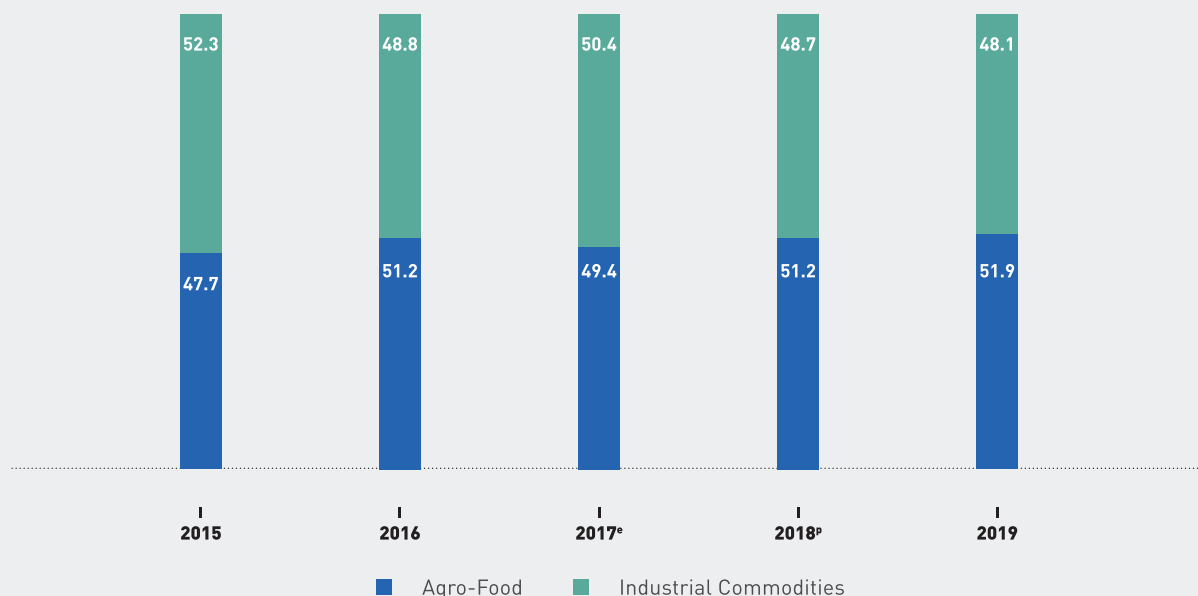
in 2019 from

**RM90,230**

in 2018



### % Share to Agriculture Added Value

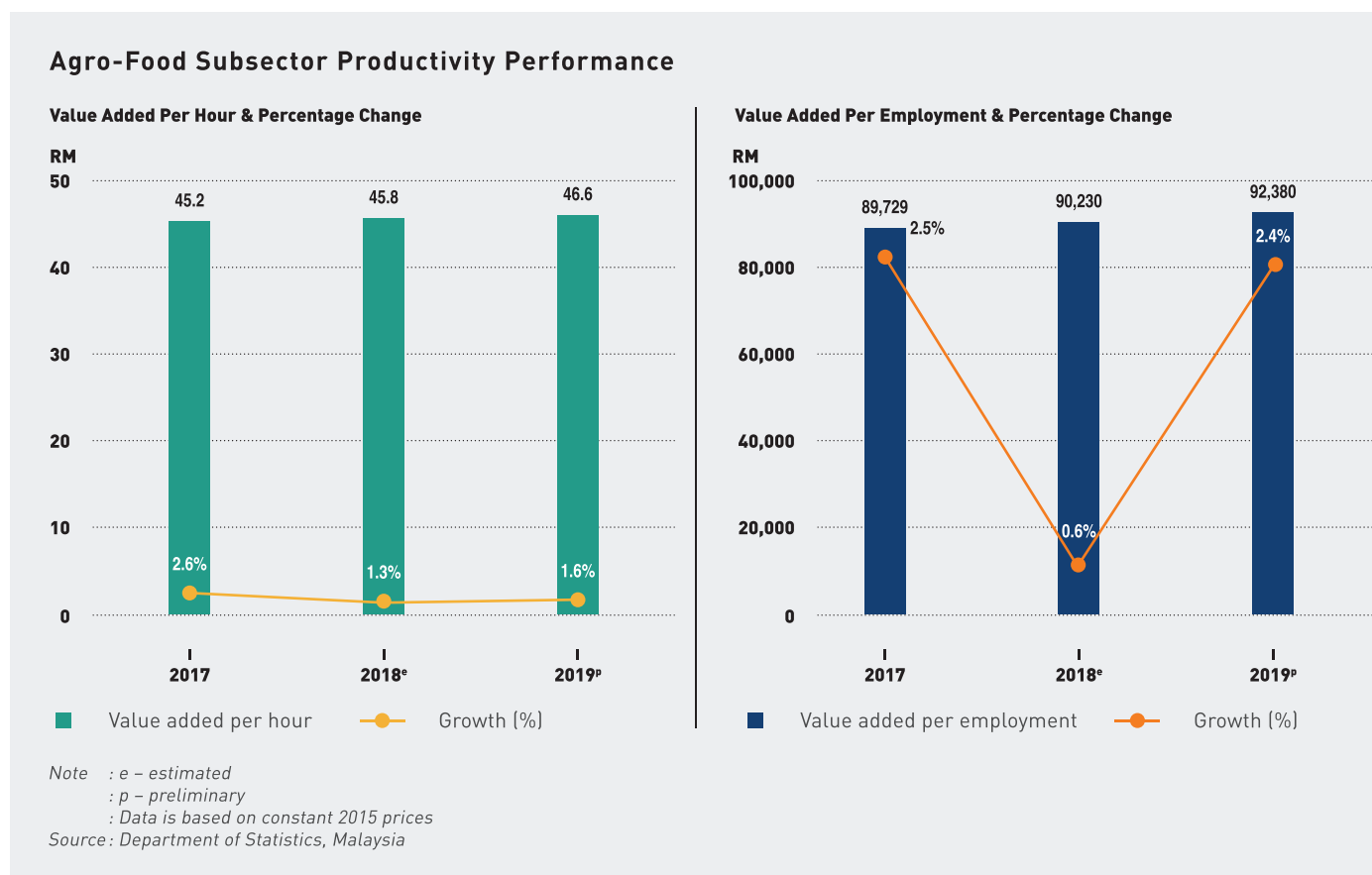


Note : e – estimated  
: p – preliminary  
: Data is based on constant 2015 prices  
Source : Department of Statistics Malaysia

The agriculture sector contributed 7.1% of Malaysia's GDP worth of RM101.5 billion in 2019. Of the total, the agro-food subsector accounted for 48.1% and the balance of 51.9% was from the industrial commodity subsector. In terms of growth, the agriculture sector increased to 2.0% due to the higher growth of output by 3.6% in agro-food.

## LABOUR PRODUCTIVITY

In 2019, the Agriculture subsector's productivity by value added per hours worked grew 0.3 percent, while Agro-food grew 1.6 percent, Agriculture's labour productivity by value added per employment also grew 0.4 percent while agro-food grew 2.4 percent.



## CHALLENGES AND RECOMMENDATIONS

In recent times, and beyond palm oil, the country has been focused on bolstering its food security which is still insufficient in many areas. For example, as of 2018 we only produce 71 percent of the rice needed to be self-sufficient and yields remain low compared to other countries. According to the World Bank Malaysia's agricultural productivity is less than half of high-income country averages.

Thus, to grow the sector to improve the country's food security and also make it a livelihood that more farmers would consider staying in for the long term, there is an urgent need to improve productivity by accelerating the use of technology and innovation. There is also further pressure given our rising population that makes the improving productivity an area that should be given top priority.

The challenges that face the sector are very real. Key among them are:

- A highly fragmented value chain, with little emphasis placed on value-added activities
- A high number of small-scale farmers with low productivity levels
- Inconsistent standards and quality of production, and
- Extremely low and slow adoption of modern technology and techniques

Three external issues that stood to impede the sector's growth were also identified, for which more direct recommendations were made to address them with local stakeholders.

### Issues and Recommendations

1. Land			
Issues	Security of land tenure to encourage investments	Availability of migrant labour	Weak upstream to stimulate downstream development
	States to grant longer tenure	Policy certainty	Investments in downstream to develop upstream

Source: Agro-Food Productivity Nexus, MPC

## SECTOR INITIATIVES

To this end, six primary areas were identified for bringing the sector up to speed with the latest techniques and best practices. These were subsequently implemented by the Agro-food Productivity Nexus, as illustrated below:

### The Six Main Initiatives

National Thrust	Sectoral Initiatives
Industry Structure	Facilitate better matching along the supply chain by linking downstream demand to upstream supply
Industry Structure	Embed robust contract-farming model across the subsector
Eco-system	Push for enforcement and adoption of relevant standards and practices to strengthen end-to-end value chain
Technology	Boost awareness and adoption of technological upgrades and modern farming techniques
Workforce	Establish industry-led collaboration with educational institutions
Industry Structure	Encourage agro-food players to move into high value add products and markets

Source: Agro-Food Productivity Nexus, MPC

The six core initiatives within the Agro-food subsector therefore are designed to overcome these four key challenges:

- the disconnect/blind spots along the national agricultural value chain, which discourages investment in higher value-add undertakings;
- the generally low levels of productivity prevalent within the small shareholders, which make up a significant portion of the stakeholders;
- the low quality and standards of current production values - in addition to the gap between real-world applications and theoretical research by Malaysian institutions of higher learning; and
- the slow acceptance and adoption of technology which could readily elevate the industry as a whole.

## SECTOR INITIATIVES

Plans to build on the above in 2020 e.g. going “live” and increasing awareness and adoption across the country are already in motion, with all six strategic platforms converging on a seventh, namely creating a circular economy that will be funded by a new systemic approach to obtaining funding from financial institutions.

<b>A1. Agro-food Information Toolbox on Live</b>
<b>A2. Strengthening of Cluster Farm by Using New Approach of Contract Farming</b>
<b>A3. Consumer Awareness on myGAP New Certification by 3<sup>rd</sup> Party</b>
<b>A4. Advance Warning System (AWS) Geographic Information System (GIS)</b>
<b>A5. Innovation Playground Programme for Graduates</b>
<b>A6. Malaysia Nexus Export Strategic Team (NEST)</b>

Source: Agro-Food Productivity Nexus, Malaysia Productivity Corporation (MPC)

In 2019, a string of activities were held which implemented some of the recommendations that would address business concerns to improve the subsector's productivity. As illustrated below:



**Initiative** A1. Facilitate better matching along the supply chain by linking downstream demand and upstream supply

### Business Concern

Users need to access relevant, accurate and practical information; anytime, real-time, anywhere, to create new opportunities.

### Programme (2019-2020)

- **Development of Knowledge Sharing Platform:**
  - i. **Agrofood Information Toolbox**
  - ii. **Forum**

Purpose: To reduce gap within the agrofood value chain. This platform will ensure that agrofood producers are up-to-date demand for produce and are able to cater to these demands. This platform is structured to facilitate ease of access, locating and use of information and knowledge by users along the value chain.

### Impact to Sector

Able to reduce import bill of raw materials produced locally and increase balance of trade of Malaysia.



**Initiative** A2. Embed robust contract-farming model across the subsector

### Business Concerns

- Improved market access and margins for smallholders by securing demand through contracts with established and reliable Agro-food players.
- Improve quality of produce as smallholders need to comply to requirements of large corporation.

### Programmes (2019-2020)

- **Guidelines for Sustainable Contract Farming was developed in 2019 based on the information gathered through a baseline study conducted in collaboration with FAMA on 130 farmers and buyers from Pulau Penang, Selangor, Negeri Sembilan, Melaka, Johor, Pahang and Kelantan on their current status as contract farmers.**
- **Dairy cattle satellite farmers capacity development programme with 12 farmers in 2019.**  
To ensure livestock farmers are able to continue to produce fresh milk that meets the minimum specifications set by manufacturers, which will secure profits and a guaranteed market from leading companies
- **Cluster Farms (2020) – New Model of Contract Farming**
  - i. **Development of Cluster SOP**
  - ii. **Development of Mindset Change Cluster Programme**

Purpose: To promote cluster farms among small players to ensure improved market access and effective transfer of knowledge

### Impact to Sector

Improve quality of produce and ensuring consistent supply.

Achievement: Milk production increase by 30%. Mortality rate decrease by 50%.

Better quality of produce and better income for farmers. Ensure consistent supply for buyers, markets and consumers.



**Initiative** A3. Push for enforcement and adoption of relevant standards and practices to strengthen end-to-end value chain

**Business  
Concern**

Examine the existing food quality certification scheme, MyGAP and GMP, to identify its functional role in implementing food quality standards, and make recommendations to bolster the scheme.

**Programmes (2019-2020)**

- **Promotional tools for farmers and manufacturer to adopt to myGAP and GMP certification. (2019)**
  - i. **Awareness video on myGAP for farmers in collaboration with Department of Agriculture (DOA). The video has been used by the extension officers in promoting myGAP with farmers**
  - ii. **Aspirational video on Good Manufacturing Practices (GMP)**
- **myGAP Certification Project for J\*FlsH Cluster Farms & Enterprises with 15 farmers. To help farmers develop and implement good practices on their farms as specified by myGAP standard**
- **Productivity enhancement in poultry (broiler) production with 20 poultry farmers**

This project is to demonstrate that Good Animal Husbandry Practices (GAHP) can improve farm performance with improved productivity, product quality and financial performance.

**Impact to Sector**

Increase farmers awareness on myGAP. The number of farmers certified with myGAP increased by 58% to 1121 (2019) from 710 (2018).

Increase market access by 10%

Feed Conversion Ratio up by 12%

Average Weight up by 5%

Livability up by 8%

Performance Index up by 34%



**Initiative** A4. Boost awareness and adoption of technological upgrades and modern farming techniques

**Business  
Concern**

Users do not ask the correct questions about what resources they want in modern technologies (wrong diagnostics).

**Programmes (2019-2020)**

- **Developing the Model for Technology Adoption and Upgrades (Panel of Experts, Moderator/Chatbot) for user access and interaction with the moderator / Chatbot in 2019 in collaboration with MMU**
- **Build a Compendium of Technology for tools, equipment and services in collaboration with MMU, industry associations. (2020)**
- **Develop a technology adoption template for the implementation of technology (IOT) tools in the farms. A total of 15 farmers in Cameron Highland participated in this project in 2019**

**Impact to Sector**

Easy access to information about modern farming techniques and technology by all stakeholders along the value chain.

The adoption of IOTs on farms that link digital information on weather, soil conditions and crop health has increased yield by 20% and reduced labour work and errors by 20%. Overall productivity and sustainability increased by 10%.



**Initiative** A5. Establish industry-led collaboration with educational institutions

### Business Concern

To reduce the mismatch between talent required by the industry players against what is being supplied by educational institutions.

### Programmes (2019-2020)

- **Customised student programme**
  - i. **Industry Induction Internship Programme was held in October 2019 in collaboration with Universiti Putra Malaysia, Bintulu Campus, MMU, DOA, Mardi and Croplife**
  - ii. **Innovation PlayGround (IPG) is an on-going project in 2020 in collaboration with TAR UC and 9 companies**

### Impact to Sector

Bringing the industry experience to campus to educate students on the industry needs.

Equipped the future workforce with Digital & social entrepreneurship skills.



**Initiative** A6. Encourage agrofood players to move into high value add products and markets.

### Business Concern

Market intelligence to move into higher added value products and markets need to be developed and provided to industry players.

### Programmes (2019-2020)

- **Development of Malaysia NEST (Nexus Export Strategic Team) approach in 2020 is to identify opportunities for strategic partnership between foreign companies and local producers**

### Impact to Sector

Reducing Unnecessary Regulatory Burdens that will allow seamless operations. This would result in manageable cost of doing business.

Already, there are success stories to be built upon: the case of the Zamri Agrofarm discussed below is a prime example of how a holistic and long-term growth trajectory can be created when all the different initiatives come together.



MOU and MOA Signing Ceremony between Tunku Abdul Rahman University College (TAR UC) and Malaysia Productivity Corporation (MPC).



Progress updates on development of Agro-gate Toolbox to Deputy Vice-Chancellor of Universiti Putra Malaysia (UPM), Prof Dr Zulkifli bin Idrus.

## MOVING AHEAD

Plans for the year 2020 include increasing the public and private sector's representation in the Agro-food Nexus Governing Committee; adding the six – namely Perlis, Kedah, Perak, Terengganu, Sabah & Sarawak – remaining states into the farm clusters and contract farming programme; launching the Advanced Warning System (AWS) and Geographic Information System (GIS) to facilitate more effective management, assistance and disaster relief when necessary.

Programmes to increase consumer awareness, increase enforcement of standards and practices and broaching new ways of obtaining credit from facilitating banks will also be implemented throughout the year, as we look to catalyse change on numerous fronts.

Even before the current difficulties brought about by the almost global lockdown, 2020 was already proving to be a challenge for Malaysia's Agriculture sector, with international trade issues such as the oil palm industry's discussions with India, Brexit and the general lack of confidence among Malaysian investors weighing heavily on the sector's ability to attract funding for growth. Growth was petering out, and the sector's consistently good productivity gains could only go so far to offset the sector's systemic shortcomings.

These initiatives and changes are therefore proving both timely and crucial and will play a huge role in transforming the Agro-food subsector into a world-class, high-tech and top performing component of the Malaysian Economy in line with the Government's Shared Prosperity Vision 2030 that has identified smart and high-value agriculture as a key economic growth activity.

## BEST PRACTICES

### ZAMRI AGROFARM

After receiving its MyGAP (Good Agricultural Practices) certification in 2014, Zamri Agrofarm was able to pursue both the local and export markets aggressively, with the certification vouching for the safety and authenticity of its products.

Noting the sector's export potential as well as the shortfall in practicable knowledge and standards, Zamri Agrofarm then invested in three key areas to capitalise on each of these:

First, rather than strictly producing the highly valued durians, it went into producing cloned seeds for the upstream producers and worked towards earning the Department of Agriculture (DoA) tags issued under the Seed Certification Scheme. These tags serve to certify that its cloned seeds are both legitimate and of the prescribed standards, lending credibility and confidence in Zamri Agrofarm's products.

Second, it developed its own Standard Operating Procedure (SoP) for each phase of the durian's production, to help lower the saplings' mortality rate and increase chances of successful grafting, indirectly vouching for the quality of his knowledge and products. It continued on this path by collaborating with the Temerloh branch of the Open University Malaysia (OUM) to conduct Musang King bud-grafting and cultivation maintenance workshops. In all, some 200 participants have been certified by Zamri Agrofarm, with 20 of them going on to become commercial producers of Musang King.

Finally, to assure demand for its own produce, the farm signed contract farming agreements with five other farms, ensuring continuity along the value chain.

By extending its expertise and income stream further upstream i.e. by producing the seeds used by farmers, fulfilling the need for a robust SoP and providing the education platform to embed it in future practitioners, it was able to carve a niche of its own, and diversify its income stream via a less competitive area of development.

Source: <http://bond.mpc.gov.my>

# OUTLOOK 2020

Enhancing Flexibility and Adaptability is Key



# OUTLOOK 2020

## ENHANCING FLEXIBILITY AND ADAPTABILITY IS KEY

**AS MALAYSIA AND THE REST OF THE WORLD GRAPPLES WITH HOW TO ADDRESS THE LONG-TERM EFFECTS OF THE ONGOING COVID-19 PANDEMIC, IT IS CLEAR THAT THE ECONOMIC OUTLOOK GOING FORWARD REMAINS BLEAK. WITH INDUSTRIES REQUIRED TO STOP WORK FOR AN EXTENDED PERIOD OF TIME DURING 2020 AS A RESULT OF THE MOVEMENT CONTROL ORDER TO STEM THE OUTBREAK, COUPLED WITH A SLOW AND STAGGERED REOPENING OF THE ECONOMY, ANY POTENTIAL RECOVERY WILL NOT BE A RAPID ONE.**

Given this scenario, the Malaysian economy is expected to contract by as much as 2 percent this year, according to Bank Negara Malaysia's (BNM) assessment released at the end of March 2020. To support the economy during this challenging time, BNM slashed the Overnight Policy Rate to 2 percent, the lowest it has been in a decade. The government has also introduced multiple stimulus packages in February, March and April totalling RM280 billion, intended to prop up the economy, businesses and workers.

A further stimulus package, which added an additional RM35 billion across all sectors of the economy, was announced in June 2020 and is more targeted at supporting a recovery in the economy. From a productivity perspective, the reduction in economic growth and productivity reflects less economic activity and demand, as industries are not yet able to operate at 'normal' levels where productivity gains are more apparent. For example, the tourism and hospitality industry, which has been hardest hit, will need to operate at half their capacity for the foreseeable future due to social distancing rules, thus severely limiting their earnings. The manufacturing sector's recovery to pre-Covid production levels is also expected to be slow, considering the impact on supply chains the world over, dampened business sentiment and less consumer demand.

Therefore, to look forward in the context of a post-Covid world implies looking to the year 2021 and beyond. Following the economic contraction in 2020, the International Monetary Fund expects Malaysia and the region to rebound strongly through their respective recoveries. Malaysia is expected to record GDP growth of 9 percent in 2021, and together with the rest of the Asean-5 region which includes Indonesia, Thailand, Philippines and Vietnam, is expected to record combined GDP growth of 7.8 percent. Industries and their leaders will be using 2020 to consolidate and implement steps to enhance flexibility and adaptability, in order to be well-prepared for the recovery and to incorporate resilience for the future. Some of these steps would involve efforts to improve productivity, such as adopting new technology, automation and digitalisation.

While it is clear that business can no longer be as usual, these unusual times also serves as a good opportunity for businesses and policy makers to work together. The government plays an integral role in setting policies and incentives, while also administering the laws, business frameworks, education and healthcare which all have a direct impact on productivity outcomes. Thus, the urgency for both parties to become highly adaptive and agile in order to rapidly transform the way our nation approaches this new normal is imperative to help mitigate the current economic disruption.

In the context of the productivity of the public sector, where the ratio of government expenditure to GDP was 19.8 percent in 2018, the measurement of its productivity should be carried out and broadcasted in tandem. Benchmarking our competitiveness against others as a nation, or in terms of how competitive certain sectors are against their peers can keep us on our toes and help us examine how best to boost productivity in the public sector.

In closing, the MPC is confident that the focus on driving productivity will continue despite the challenges ahead. With the support of the government and all our stakeholders, we will continue to play our role to facilitate the long-term goal of transforming Malaysia into an advanced economy.

Malaysia Productivity Corporation's Role  
Board of Directors  
Management Team  
Subsector Productivity Nexus  
Productivity Report 2020 Editorial Team  
MPC Regional Offices

Malaysia Productivity Corporation's Role  
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# MALAYSIA PRODUCTIVITY CORPORATION'S ROLE



## VISION

**THE LEADING ORGANISATION IN PRODUCTIVITY ENHANCEMENT FOR GLOBAL COMPETITIVENESS AND INNOVATION.**



## MISSION

**TO DELIVER HIGH IMPACT SERVICES TOWARDS ACHIEVING PERFORMANCE EXCELLENCE THROUGH INNOVATION FOR THE BETTERMENT OF LIFE.**

## OBJECTIVES

- Providing value added information on productivity, quality, competitiveness, and best practices through research, activities and databases
- Developing human capital and organisational excellence for building a knowledge-based society through training, systems development and best practices
- Conducting review and regulation and promoting Good Regulatory Practice to create a more competitive business environment
- Nurturing innovative and creative culture for productivity and competitiveness through partnership programmes

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Chemical Industries Council of Malaysia  
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## SUBSECTOR PRODUCTIVITY NEXUS

### CHEMICALS & CHEMICAL PRODUCTS

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▶ **Thomas Woo Seow Keat**

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### ELECTRICAL & ELECTRONICS

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## SUBSECTOR PRODUCTIVITY NEXUS

### MACHINERY & EQUIPMENT

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**Productivity Nexus**  
 Machinery & Engineering Industries  
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▶ **Sangaran Narayanan**  
 Machinery and Engineering Industries  
 Federation (MEIF)

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## SUBSECTOR PRODUCTIVITY NEXUS

### MACHINERY & EQUIPMENT

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- ▶ **Norhaizam Mohammad**  
KPJ Healthcare Berhad
- ▶ **Dr. Mohd Ridzwan Shahari**  
Ministry of Health (MOH)
- ▶ **Dr. Ahmad Razid bin Salleh**  
Ministry of Health (MOH)

## SUBSECTOR PRODUCTIVITY NEXUS

### PROFESSIONAL SERVICES

#### PRIVATE SECTOR

- ▶ **Ts. Choo Kok Beng**  
**Champion - Professional Services**  
**Productivity Nexus**  
Malaysian Service Providers Confederation (MSPC)
- ▶ **Ar. Mustapha Kamal Zulkarnain**  
Malaysian Institute of Architects (PAM)
- ▶ **Shaifulbahrim Mohd Saleh**  
Malaysian Inc.
- ▶ **Ir. Lai Sze Ching**  
The Institution of Engineers Malaysia (IEM)
- ▶ **Ir. Dr. Tan Yean Chin**  
The Institution of Engineers, Malaysia (IEM)
- ▶ **Yang Kian Lock**  
Building Materials Distributors Association of Malaysia (BMDAM)

#### GOVERNMENT SECTOR

- ▶ **Muhamad Bin Idris**  
Economic Planning Unit (EPU)
- ▶ **Mohd Zahid Abdullah**  
Ministry of International Trade and Industry
- ▶ **Rusiah Mohamed**  
Malaysia External Trade Development Corporation (MATRADE)
- ▶ **Roeslina Abbas**  
Malaysia Investment Development Authority (MIDA)
- ▶ **Lawrence Tan Koon Peng**  
Malaysian Institute of Accountants (MIA)

## SUBSECTOR PRODUCTIVITY NEXUS

### TOURISM

#### PRIVATE SECTOR

- ▶ **Uzaidi Udanis**  
**Champion - Tourism Productivity Nexus**  
Malaysian Inbound Tourism Association
- ▶ **Chong Jing Kong**  
Caravan & Camping Industries Association  
Malaysia
- ▶ **John Lee Yoon Hui**  
Malaysian Inbound Tourism Association  
(MITA)
- ▶ **YBhg. Datuk R. Doraisingam Pillai**  
Lotus Malaysia
- ▶ **Adj. Prof. Anthony Wong**  
Group Managing Director
- ▶ **Mohamad Khairi b. Mohamad @ Alwi**  
National Industry Expert, Adventure Tourism
- ▶ **Idroose Tambarin**  
Malaysia Skate Federation (MySkate)
- ▶ **Ahmad Nadzri Ismail**  
Malaysia Agro-Tourism Association
- ▶ **Emmy Suraya Hussein**  
Malaysia Budget Hotel Association (MyBHA)

#### GOVERNMENT SECTOR

- ▶ **Emelia Tay Ling Imm**  
Economic Planning Unit
- ▶ **Mohd Daud Mohd Arif**  
Ministry of Tourism, Arts and Culture  
Malaysia (MOTAC)
- ▶ **Mohd Sufirdaus Suliman**  
Ministry of Tourism, Arts and Culture  
Malaysia (MOTAC)
- ▶ **Mohd Nasir Kushairi**  
Tourism Malaysia
- ▶ **Thavamani Krishnan**  
Ministry of International Trade and Industry  
(MITI)
- ▶ **Sharifah Najwa Syed Abu Bakar**  
SME Corporation Malaysia

## SUBSECTOR PRODUCTIVITY NEXUS

### DIGITAL

#### PRIVATE SECTOR

- ▶ **Dato' Wei Chuan Beng**  
**Champion - Digital Productivity Nexus**  
Malaysia-China Business Council
- ▶ **Danny Lee Cheng Heung**  
The National Tech Association of Malaysia (PIKOM)
- ▶ **Prof. Dr. Ahmad Zaki bin Abu Bakar**  
Malaysian National Computer Confederation (MNCC)
- ▶ **Emelia Matrahah**  
MIMOS Berhad
- ▶ **Dato' Ir Soam Heng Choon**  
Real Estate & Housing Developers' Association Malaysia (REHDA)
- ▶ **Rohizam Yusoff**  
Standard Online Tourism Architecture
- ▶ **Jacob Lee**  
Federation of Malaysian Manufacturers (FMM)
- ▶ **Dr. Helena Eian Yeut Lan**  
Federation of Malaysian Manufacturers (FMM)
- ▶ **Wong Seng Yee**  
Flower Business Organisation, Cameron Highlands
- ▶ **Lim Sai Seong**  
QAV Test Technologies (KL) Sdn. Bhd.
- ▶ **K. M. Chua**  
Bistanika Sdn. Bhd.
- ▶ **Shaifubahrim Saleh**  
Malaysia Service Provider Confederation (MSPC)
- ▶ **Dr. Thirunavukarasu Rajoo**  
Malaysian Medical Association (MMA)

## SUBSECTOR PRODUCTIVITY NEXUS

### DIGITAL

#### GOVERNMENT SECTOR

▶ **Ir. Dr. Siti Hamisah Binti Tapsir**  
Ministry of Energy, Science, Technology,  
Environment and Climate Change (MESTECC)

▶ **Dr. Nagulendran A/L Kangayatkarasu**  
Ministry of Energy, Science, Technology,  
Environment and Climate Change (MESTECC)

▶ **Ahmad Norhad Zahari**  
Ministry of Communication and Multimedia

▶ **Datin Anna Amalina Imam Baweh**  
Ministry of Communication and Multimedia

▶ **Lung Sai Mei**  
Economic Planning Unit (EPU)

▶ **Paarteeben A/L Subramaniam**  
Economic Planning Unit (EPU)

▶ **Dato' Ng Wan Peng**  
Malaysia Digital Economy Corporation (MDEC)

▶ **Muhundhan Kamaradullai**  
Malaysia Digital Economy Corporation (MDEC)

▶ **Jaffri Ibrahim**  
Collaborative Research in Engineering,  
Science & Technology (CREST)

▶ **Subashini Krishnan**  
Collaborative Research in Engineering,  
Science & Technology (CREST)

▶ **Marweena Manan**  
Ministry of International Trade Industry (MITI)

▶ **Neila Aldrina Shuhaime**  
Ministry of International Trade Industry (MITI)

▶ **Noor Azmi Mat Said**  
SME Corporation Malaysia

## SUBSECTOR PRODUCTIVITY NEXUS

### DIGITAL

#### GOVERNMENT SECTOR

- |  |  |
|--|--|
| ▶ <b>Nor Hidayaty Mohd. Nor</b><br>SME Corporation Malaysia                              | ▶ <b>Tengku Nural Tengku Asri</b><br>Malaysia External Trade Development Corporation (MATRADE) |
| ▶ <b>Dr. Ahmad Parveez Hj Ghulam Kadir</b><br>Malaysian Palm Oil Board (MPOB)            | ▶ <b>Nazliyah Mohd Ali</b><br>Talent Corporation Malaysia Berhad                               |
| ▶ <b>Ruba'ah Binti Masri</b><br>Malaysian Palm Oil Board (MPOB)                          | ▶ <b>Ardi Gunsuh</b><br>Talent Corporation Malaysia Berhad                                     |
| ▶ <b>Jamaliah Jamaludin</b><br>Malaysia External Trade Development Corporation (MATRADE) |  |

## SUBSECTOR PRODUCTIVITY NEXUS

### RETAIL AND F&B

#### PRIVATE SECTOR

- ▶ **Deric Yeo Chin Lee**  
Champion - Retail and F&B Productivity Nexus  
Revenue Valley Sdn. Bhd.
- ▶ **Kamal Kumar Kamdar**  
Kamdar Sdn. Bhd.
- ▶ **Dato' Ringo Kaw**  
Restaurant Atmosphere 360, Menara KL
- ▶ **Tan Sri Zainul Azman**  
Managing Director, Dimensi Eksklusif (M) Sdn. Bhd.
- ▶ **Valerie Choo Yolce Shiem**  
Malaysia Retail-Chain Association (MRCA)
- ▶ **Lim Kim Heng (KH Lim)**  
Senheng Electric Sdn. Bhd.
- ▶ **Dawn Liew**  
Kopitiam Asia Pacific Sdn. Bhd.
- ▶ **Datuk Wira (Dr.) Hj. Ameer Ali bin Mydin**  
Mydin Mohamed Holdings Sdn. Bhd.,  
Council Member of Bumiputera Retailers Organisation
- ▶ **Datuk Radzali Hassan**  
Malaysia Franchise Association

#### GOVERNMENT SECTOR

- ▶ **Rony Ambrose Gobilee**  
Human Resource Development Fund (HRDF)
- ▶ **Datin Siti Norayu Hj. Waluyob**  
Ministry of Domestic Trade and Consumer Affairs
- ▶ **Emelia Tan Ling Imm**  
Economic Planning Unit (EPU)
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Malaysia External Trade Development Corporation (MATRADE)
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Economic Planning Unit (EPU)

## SUBSECTOR PRODUCTIVITY NEXUS

### AGRO-FOOD

#### PRIVATE SECTOR

- ▶ **Dr. Nungsari Ahmad Radhi**  
**Champion - Agro-food Productivity Nexus**  
Malaysian Aviation Commission (MAVCOM)
- ▶ **Chay Ee Mong**  
Cameron Highlands Vegetable Growers Association (PPSM)
- ▶ **Wong Seng Yee**  
Cameron Highlands Vegetable Growers Association (PPSM)
- ▶ **Edmond Chow**  
Kuala Lumpur and Selangor Fruit Farmers' Association (KLSFFA)
- ▶ **Azmi Zainal**  
The Holstein Milk Company
- ▶ **Dr. Yap Teow Chong**  
Federation of Livestocks Farmers Association of Malaysia (FLFAM)
- ▶ **Ng Yih Chen**  
Malaysian Aquaculture Development Association (MADA)

#### GOVERNMENT SECTOR

- ▶ **Aszmy Mahmood Yusof Bin Mohamed**  
Economic Planning Unit (EPU)
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