PRODUCTIVITY REPORT
2021

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The report's tagline exudes the overall scenario of productivity growth in 2021 after recording the worst plunge in a decade last year.

"Rebound" within the context of the current productivity growth connotes the ability for labour productivity to bounce back from 2020's position to a better place.

"Rebound" is always fast and intense to overcome negativities. Actions in rebound phase are swift, sharp, and speedy.

Within the context of this report, rebound productivity can be achieved by exerting the potentials of the key productivity drivers – talent, technology, business environment, incentives, and productivity mindset.

Boosting Productivity : Reset, Reform and Rebound

Message from the Senior Minister

2020 was a year like no other. The COVID-19 pandemic has caused unprecedented health and economic crisis which has affected the lives and livelihoods of the rakyat. Last year also saw a huge decline in productivity growth by -5.5%, due to the jarring disruptions caused by the COVID-19 pandemic.

We have striven to overcome the various obstacles by setting in motion opportunities that have changed the trajectory of our lives for the better. Bank Negara, in its first quarter performance report published in May 2021, has forecasted that Malaysia's economy is to remain on track to achieve the projected growth of 6% to 7.5% in 2021. This denotes a rebound in labour and capital productivity being underpinned by broad based economic recovery across most sectors.

While 2020 saw the execution of brave but necessary measures to flatten the curve of infections, the Government, armed with valuable virological data, implemented more prudent measures in 2021 to curb the virus from spreading exponentially pivoted on the overarching objective to protect the lives of the rakyat and to simultaneously ensure the revival of the country's economic growth.

The outlook is positive for Malaysia, underpinned by the National COVID-19 Immunisation Programme, which is progressing well to reach as many citizens as possible and as quickly as possible.

The Government has also launched and implemented several stimulus packages to ease the burden of the business community and the rakyat in general. Incentives and programmes are implemented to address issues on employment, loss of revenue, and business environment. Great attention will continue to be given to digitalisation and technology adoption as tools to accelerate economic recovery. With these synergistic efforts in place, there is certainly an air of optimism for 2021 to be an inflection point for both holistic health and economic recovery.

Dato' Seri Mohamed Azmin bin Ali
Senior Minister
Ministry of International Trade and Industry

Director General's Statement

MPC remains steadfast in delivering the mandate – driving the productivity of the nation, this time, it navigates faster, swifter, and sharper.

Dato' Abdul Latif Haji Abu Seman
Director General
Malaysia Poductivity Corporation (MPC)

Malaysia's productivity recorded a decline in 2020, the worst in ten years. The contraction was inevitable. In managing the drop, Malaysia Productivity Corporation (MPC) has driven the productivity of the nation at a speed faster than ever.

MPC was quick to adapt to the challenges brought by the pandemic. Notable adoption of digital technology since March 2020 has ensured MPC to remain functional and stay productive. More than 500 virtual sessions comprising webinars, coordinations, and consultations were conducted up-to-date. The sessions have benefitted the industry players and government officials alike. Nine Productivity Nexus have been shifting gears to the maximum to connect the respective business community to the relevant parties in addressing the barriers and challenges due to the pandemic. Efforts in regulatory reforms and reliefs bear fruit when several ministries and government agencies began to relax some policies and regulations to ease the burden felt by the industry players. MPC's initiatives continue, and they adapt to the changing condition of the country, as uncertainties have become more predictable. Proactive instead of reactive measures can be designed and executed more timely and efficiently.

In the wake of national productivity and economic performance, 2021's Productivity Report evolves. The focus is not to dwell on the past but to align with the future. Malaysia Productivity Blueprint's strategic thrusts are the key drivers to reignite productivity growth for the projected rebound. Implementable recommendations in the areas of talent, technology, incentive, business environment, and productivity mindset are put forward to face the current and expected challenges in productivity growth.

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Executive Summary

The Malaysia Productivity Corporation (MPC) is an agency under the Ministry of International Trade and Industry (MITI) mandated to facilitate productivity growth of the nation across various sectors both in the public and private establishments. The mandate is realised through Malaysia Productivity Blueprint (MPB).

MPB highlighted challenges in five (5) core areas namely human capital, technology and innovation, incentive structure, business environment, and productivity mindset across sectors which impacted the country's productivity growth. The challenges in these five (5) core areas have been compounded by the worst economic crisis in a decade due to the COVID-19 pandemic. Issues were already looming pre-pandemic mainly attributed by disruptive technology and rapid globalisation. Repercussions from the COVID-19 crisis call for a more comprehensive look into the issues and barriers impeding productivity, progress, and performance to reassess the situation as business is no longer as usual. It calls for strategic actions to mitigate the new normal in preparing for what is to come, the post-pandemic next normal. MPC is steadfast in delivering the mandate to reignite productivity, the key driver for economic growth, to flame the nation's revival, recovery, and transformation towards a high-income nation.

Productivity Report 2021 takes a different approach from the previous editions. While reports in the previous years focused on annual productivity performance, 2021 report dives directly into the main challenges in MPB's core areas and proposes recommendations to address the issues. The focus of Productivity Report 2021 is the near future and beyond, and on the steps to be taken collaboratively by various parties to rise from the impacts of the pandemic after productivity contracted by 5.5% in 2020.

"Incentivizing job creation, investments in growing sectors and promoting the upskilling and reskilling of workers should be expanded to enable new post-pandemic growth"

Malaysia Economic Monitor, December 2020,
World Bank Group

The report assesses the current state of productivity from various angles, identifies the tribulations within the economic sphere, and proposes solutions to manage them.

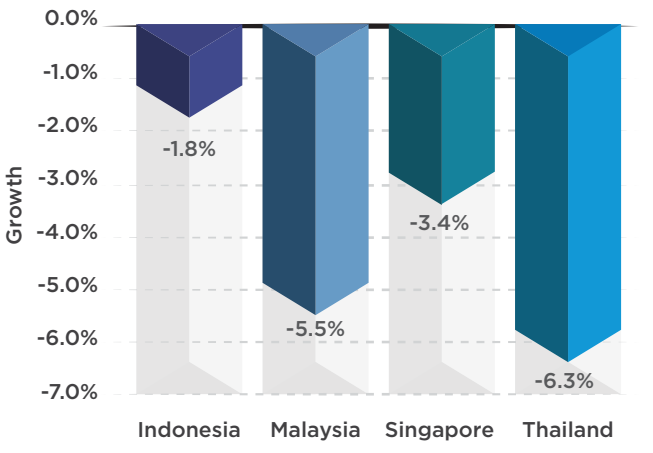
In Chapter 1, reskilling and upskilling programmes are deliberated as one of the means to accelerate productivity growth. Chapter 2 elaborates on digital technology as an effective tool to maintain, if not to uplift productivity. Specific reference to reforming subsidy to increase investments into the country is elaborated in Chapter 3 on incentives. Subsequent chapter highlights the emphasis to strengthen business environment by managing industries' regulatory concerns to enable a more conducive business climate. Chapter 5 introduces Behavioural Insights approach and application to influence attitude and mindset towards productivity.

Successful implementation of the recommendations may boost Malaysia's economic revival. Alongside the commendation from this report, is a mobilisation of government's resources in various stimulus packages towards the end goal of heightened economic growth. The ongoing nationwide vaccination is a crucial catalyst towards the goal and efficient execution of the plan is expected to further accelerate the pace of Malaysia's economic recovery.

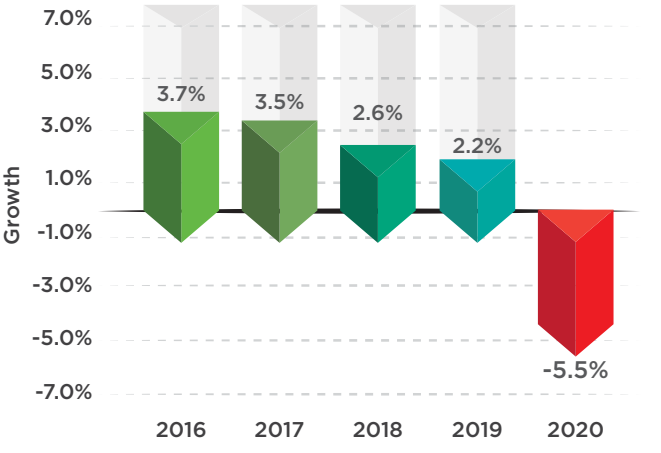
This is not the only list, but the report provides what it takes to be done in concerted efforts to move from lockdown to rebound. A concerted effort by all parties, the public and private sectors, individuals and enterprises, young and old, are needed to rise above challenges and bring Malaysia to the new heights.

Key Highlights

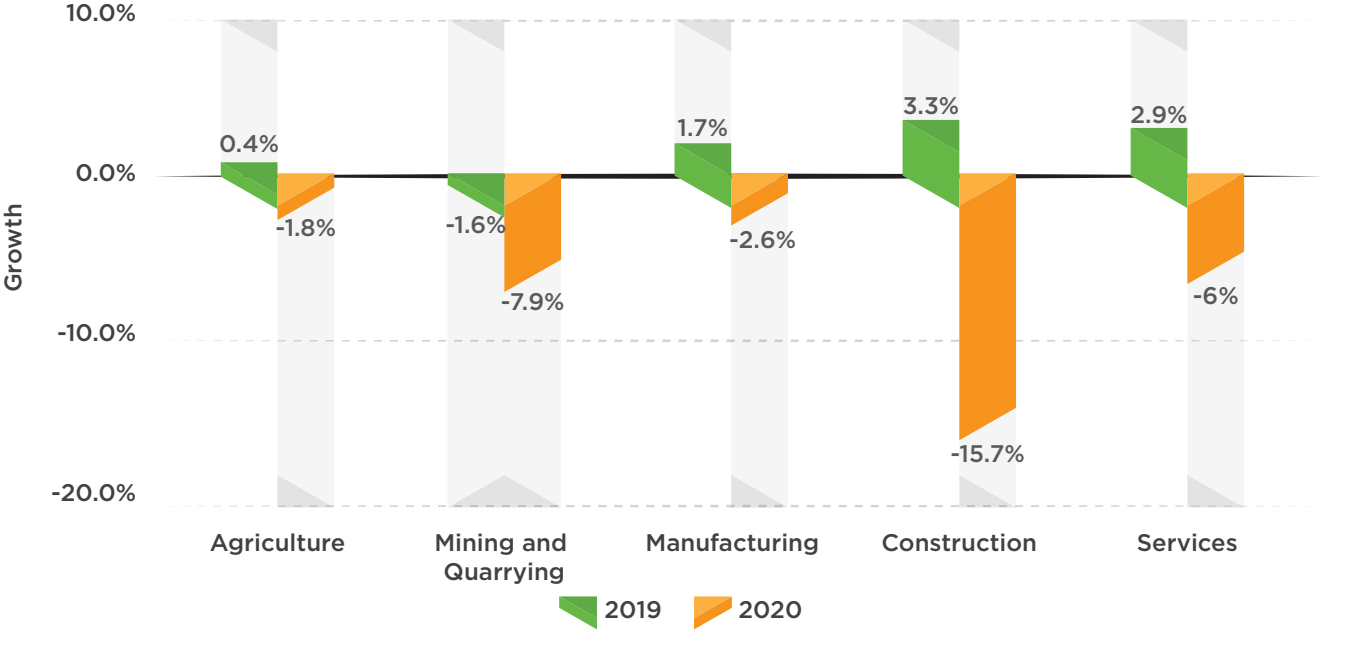
Malaysia's Productivity Performance in 2020 in Comparison to the Neighbouring Countries

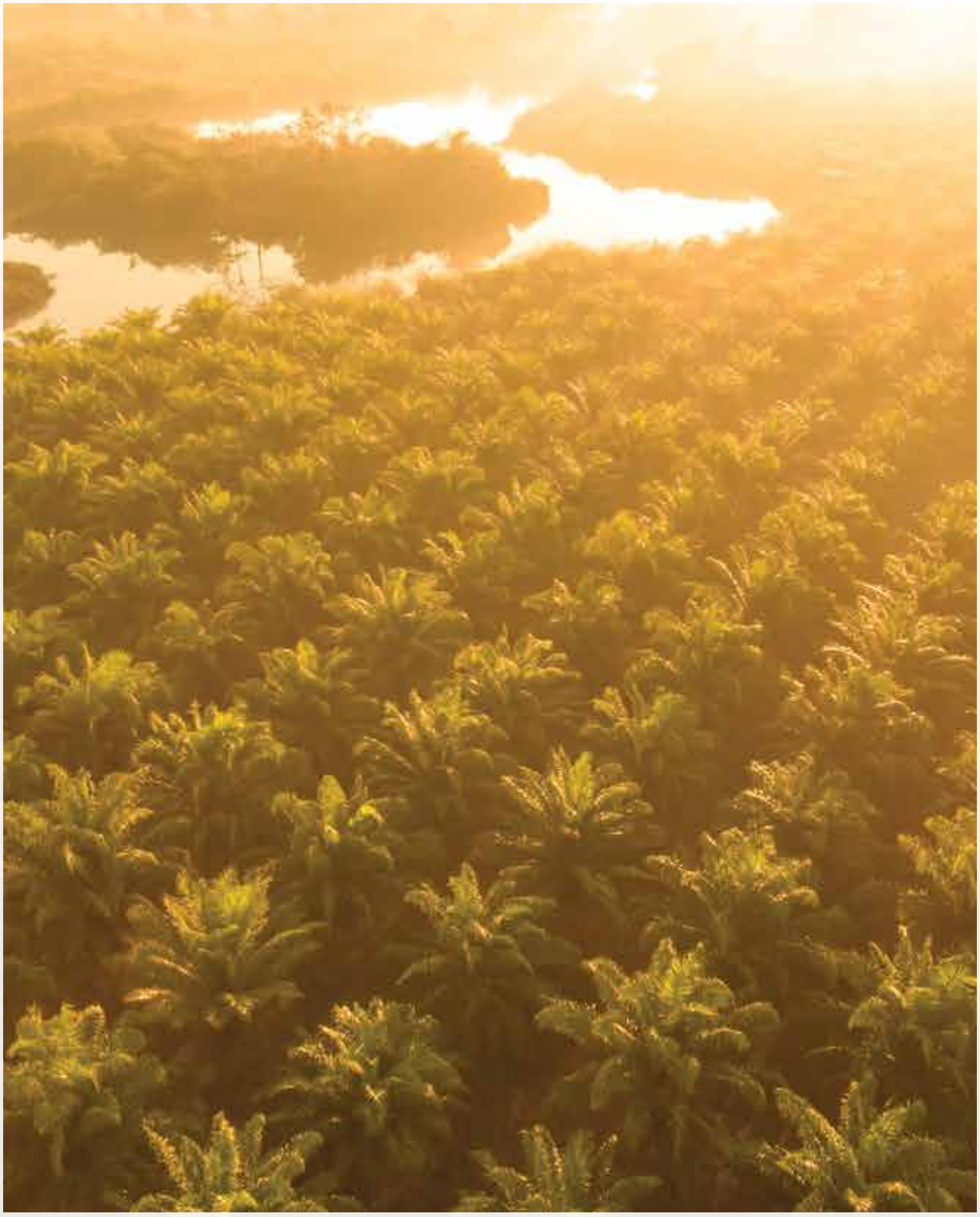


Malaysia's Productivity Performance, 2016-2020



Labour Productivity Growth of the Main economic Sectors 2019 - 2020





PART 1

NATIONAL PRODUCTIVITY PERFORMANCE

"Malaysia's economy is expected to return to growth in 2021"
World Bank, December 2020

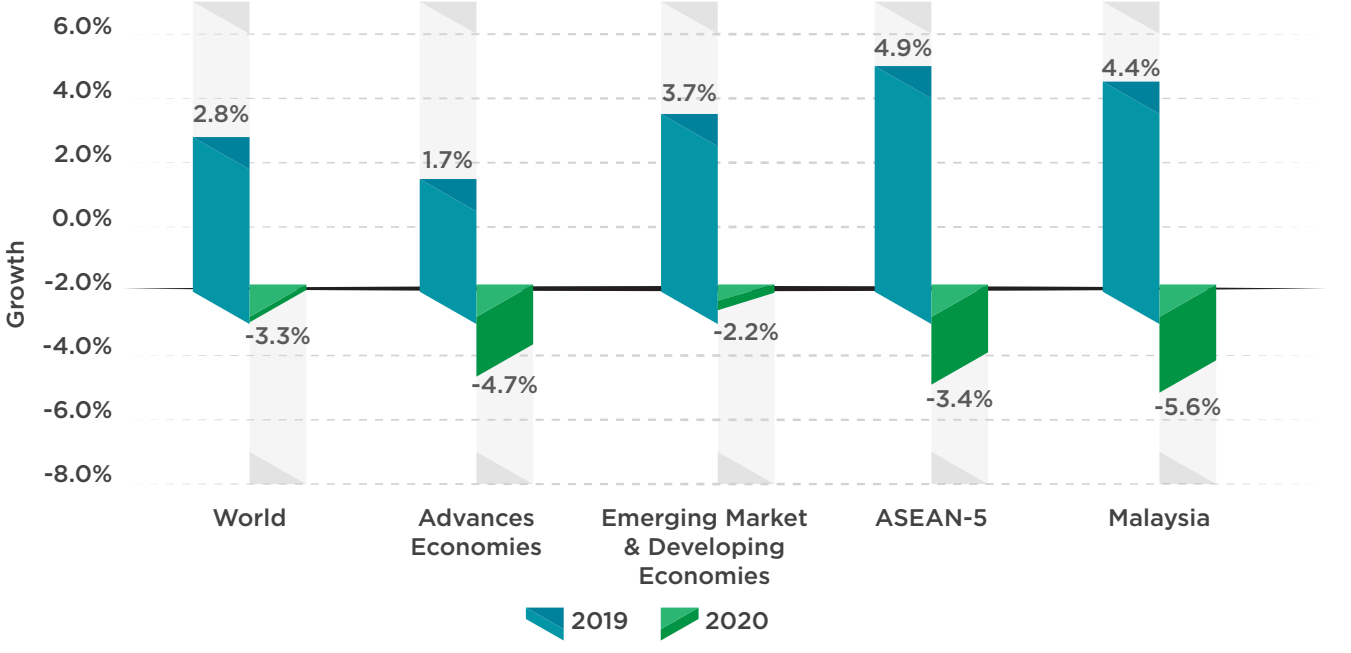
COVID-19 PANDEMIC AND GLOBAL PRODUCTIVITY

2020 was the year of global economic downturn. The COVID-19 pandemic and its repercussions have spread throughout the world in 2020, causing the unprecedented crisis. Global inter-connectivity which leads to faster mobility of trade, goods, and people, has also scattered the virus quicker than the world could imagine.

The pandemic causes two major crisis – health and economy. The increasing rate of infection and deaths by COVID-19 has been the foremost concern globally, and the most effective solution to flatten the curve for COVID-19 i.e. to restrict movements of goods and people or impose a total lockdown has caused the economic activities in many countries to be almost at a standstill. The impact was seen in the contraction in economic growth and productivity, globally and domestically.

In 2020, the International Monetary Fund (IMF) Economic Outlook predicted that the world's Gross Domestic Product (GDP) would contract by -3.3% (Figure 1). Many economies recorded a sharp downturn in the first half of 2020. Most countries especially the advanced economies began to recover sooner than expected in the second half of 2020 after lockdowns were lifted, with stronger recovery in the third quarter of 2020.

Figure 1: Global Percentage Change in GDP, 2019 - 2020

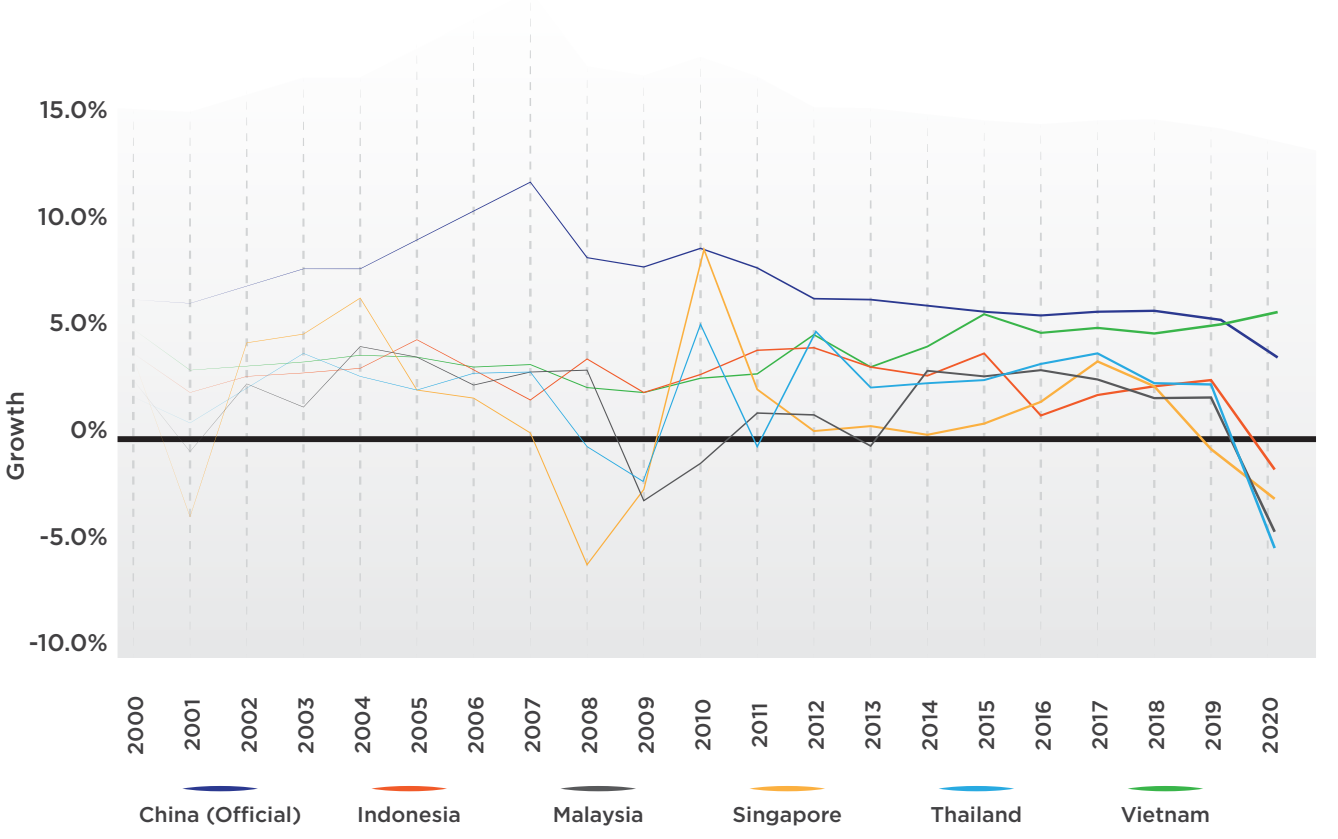


Note: ASEAN 5- Indonesia, Malaysia, Philippines, Thailand, and Vietnam.
Source: Economic Outlook, April 2021, IMF

Labour productivity, or the output per hour, has been tremendously affected by the pandemic, edging some countries into economic recession. Most economies experienced contraction in labour productivity during the first half of 2020. Many showed recovery in the second half. However, the recovery was unable to cushion the overall contraction for the whole year (Figure 2). The overall contraction in global labour productivity was cited as among the worse in more than a decade.

Further analysis indicates that most of the selected countries in Figure 2 experienced lowest productivity growth in 2020 compared to productivity growth during global financial crisis in 2009.

Figure 2: Productivity Growth of Selected Countries, 2000 – 2020



Source: The Conference Board, The Economy Database as at April 2021

MALAYSIA'S PRODUCTIVITY PERFORMANCE

An open economy like Malaysia is visible to the global scenario, and likewise affected by its changes. Over the past decade, Malaysia's economy was buffeted by a series of shocks which undermined productivity growth. COVID-19 pandemic is the latest jolt which has impacted Malaysia's economic performance negatively. These shocks have compounded the erosion caused by an undercurrent of weakening fundamental drivers of productivity growth. The evidence was in the contraction of Malaysia's labour productivity by -5.5% to RM89,025 per person employed in 2020. The contraction was the first since the 2009 global financial crisis and the lowest in ten years.

The performance in labour productivity is driven by two factors, namely capital intensity and Multifactor Productivity (MFP).

Estimated by the productive capital to labour ratio, capital intensity of Malaysia in 2020 recorded 1.9% (Figure 4). The positive performance was contributed by the growth in the country's capital stock, where the country managed to sustain its performance despite challenges from the pandemic and investors taking cautious measure in investing. However, the pandemic affected the capital productivity of the country, which experienced contraction of -8.1%. With restriction in most of the economic activities, the industry could not fully utilise its capital.

Figure 3: Malaysia's Productivity Growth, 2001 - 2020

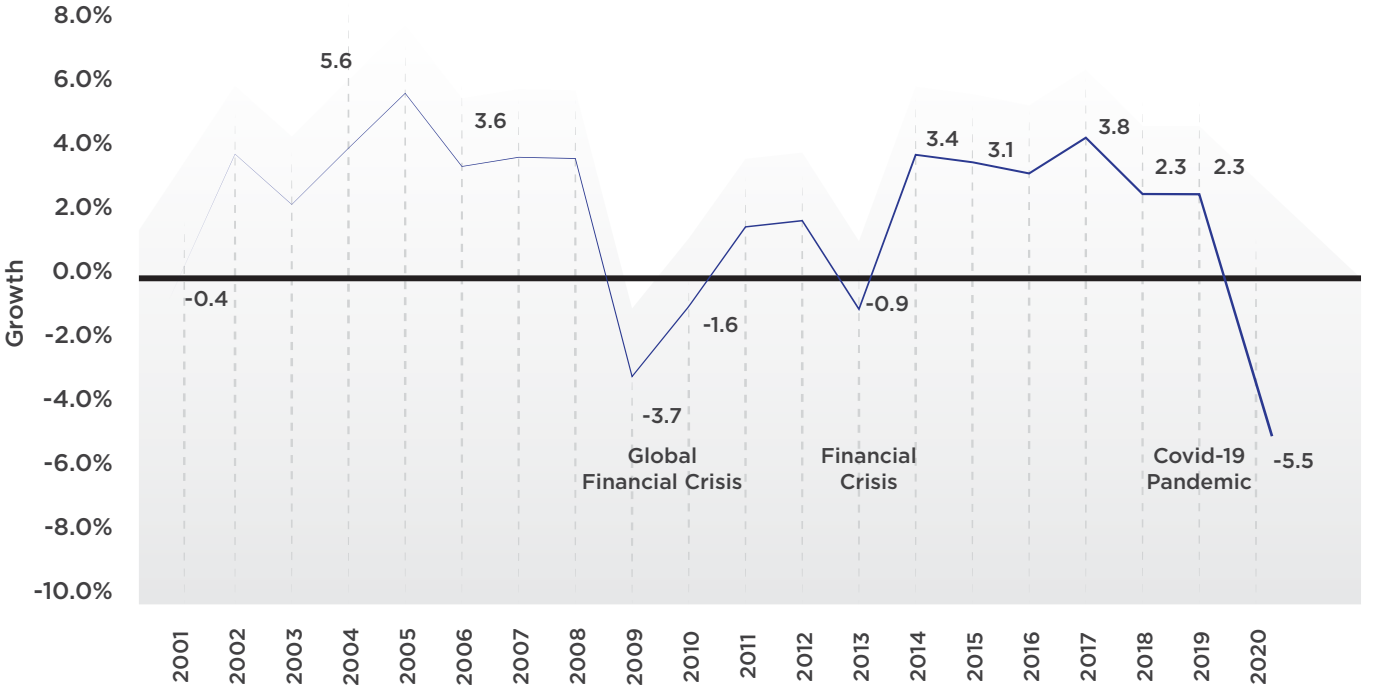
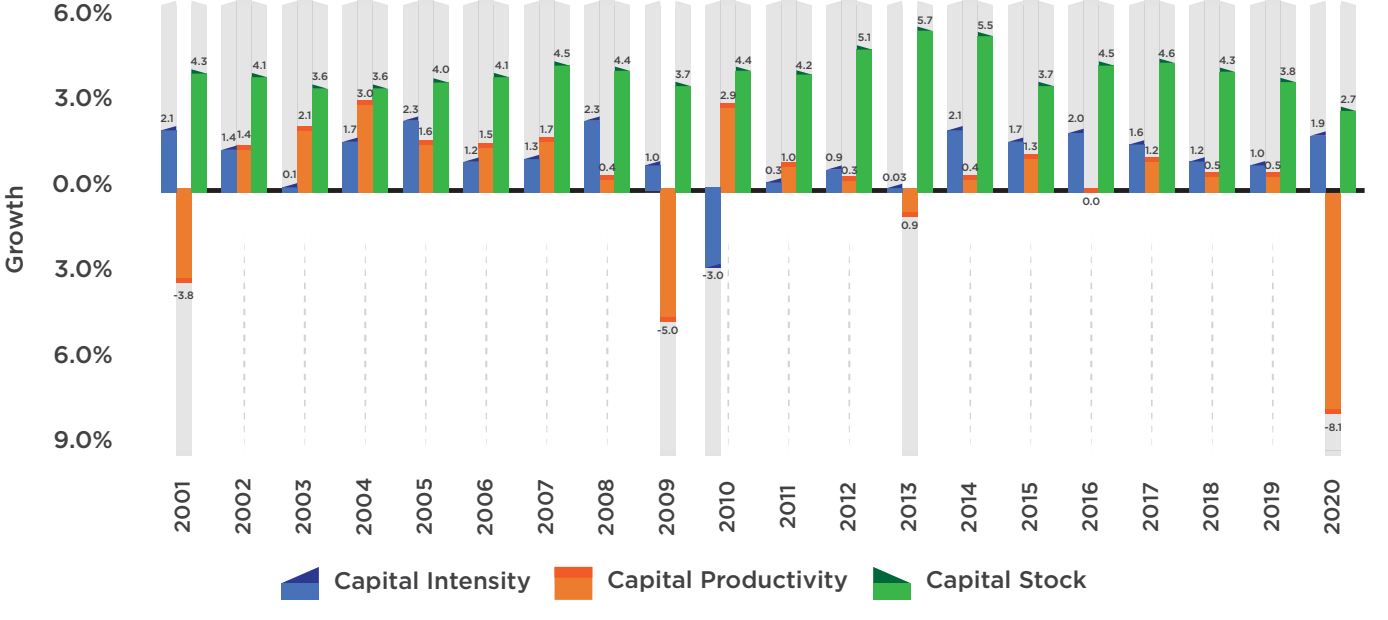


Figure 4: Capital Intensity, Capital Productivity and Capital Stock, 2001 – 2020



Note: Capital Productivity and Capital Intensity was computed by MPC
Source: Department of Statistics Malaysia

MFP is a measure of efficiency in the utilisation of inputs. Malaysia's MFP performance experienced contraction at -7.3% in 2020 and on average at between 2016-2020, -0.3% as the performance in 2020 pulled down the average five-year performance (Table 1). To enhance MFP, Malaysia needs to increase the utilisation of its productive assets and improve the quality of its workforce. In the period of 2016-2020, non-ICT capital grew faster than ICT capital and the quantity of labour grew faster than the quality of labour. Firms and individuals need to engage in increased entrepreneurship and be involved in more innovative activities. They should also leverage on innovation taking place elsewhere by accessing new ideas and new markets abroad.

Table 1 : Growth of MFP, Labour, Capital and GDP, 2016-2020

	Growth (%)					
	2016	2017	2018	2019	2020	2016-2020
MFP	1.1	2.2	1.3	1.2	-7.3	-0.3
Labour	1.3	1.9	2.4	2.1	-0.2	1.5
Quantity of Labour	1.0	1.5	2.0	1.5	-0.2	1.2
Quality of Labour	0.3	0.4	0.4	0.6	0.0	0.3
Capital	2.0	1.7	1.1	1.0	1.9	1.5
ICT	0.3	0.3	0.1	0.1	0.4	0.3
Non-ICT	1.6	1.4	1.0	0.9	1.5	1.3
GDP	4.4	5.8	4.8	4.4	-5.6	2.7

Source: The Conference Board, Total Economy Database as at July 2020

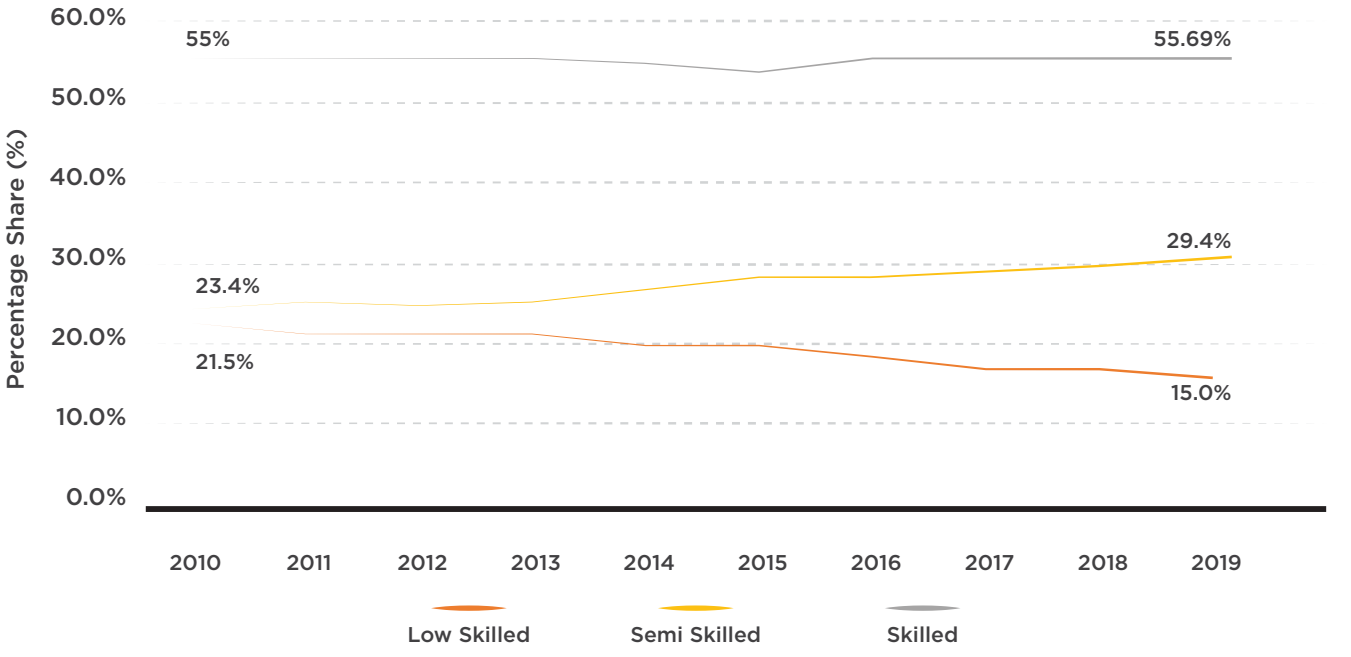
In terms of labour productivity which captures how output growth relates to labour market growth, a decrease of -0.2% in person employed over the years resulted in a contraction of -5.6% in Gross Domestic Products (GDP).

Total employees contracted to 15.10 million (2019: 15.13 million). Despite experiencing a contraction, the labour market registered total number of jobs at 8.5 million and the highest jobs were in the service sector with 4.4 million jobs and followed by manufacturing sector with 2.3 million jobs. This was the evidence of economic recovery towards the end of 2020. In addition, the jobs were mostly in the semi-skilled positions with 5.3 million jobs, followed by skilled positions with 2.1 million jobs.

Observing Malaysia's labour market from 2010 to 2019, there was a move from low-skilled to semi-skilled and skilled workers, as the percentage share of low-skilled workers decreased from 21.5% in 2010 to 15.0% in 2019 (Figure 5). Skilled workers increased by 6.0% throughout the period from 23.4% in 2010 to 29.4% in 2019. This indicates that efforts and initiatives by the Government in increasing the skills of our workers is showing results. Nevertheless, Malaysia needs to play an active and proactive role to improve the quality of its human capital in facing the future growth and increasing demand for various high-skills from internal industries. Although Malaysia is experiencing an increase in the working age population, labour shortages in certain segments seem to have disrupted the country's labour market.

It is not a problem of demand and supply or a gap in the number of workers rather the problem is the shortage of the right skills to work in the era of new normal economy, globalization, modernity and corporate. Thus, there is a need for greater participation from the industry to ensure a viable local skilled workforce through skills upgrading programmes, job-related trainings and reskilling to develop Malaysia's future human capital.

Figure 5: Share of Low skilled, Semi-skilled and Skilled Workers to Total Employment, 2010-2019



Computed by Malaysia Productivity Corporation
Source: Department of Statistics, Malaysia

PRODUCTIVITY PERFORMANCE OF THE MAIN ECONOMIC SECTORS

The productivity performance of the main economic sectors is another major contributor to the national labour productivity. In 2020, all five main economic sectors – agriculture, mining and quarrying, manufacturing, construction, and services; registered contraction. The construction sector recorded the biggest decline by -15.7%, being one of the factors which dragged the overall national productivity performance (Table 2). The sector's contraction in its added value by -19.4% was the effect of the restriction in activities during the Movement Control Order (MCO) and rescheduled activities due to quarantined employees with positive COVID-19.

The manufacturing sector registered negative productivity growth by -2.6% in 2020. However, the sector indicated recovery in the third quarter by 3.7% and fourth quarter by 3.2%. The positive growth was contributed by the global demand on semiconductor for remote working and expansion of the country's export of electrical and electronic medical equipment by 13.8%.

The overall performance of other main economic sectors recorded contraction, namely agriculture at -1.8%, mining and quarrying at -8.5% and services at -6.0%. The poor performance was mainly due to the restrictions in the movement of goods and people in the effort to flatten the curve of COVID-19 infection. On the positive note, the effect was not severely critical as majority of the subsectors in these sectors were essential business activities and produced basic necessities such as food and fuel.

Table 2 : Labour Productivity Growth of Main Economic Sector, 2019-2020

Sector	2019 (%)	2020 (%)
Agriculture	0.3	-1.8
Mining & Quarrying	-0.2	-8.5
Manufacturing	1.7	-2.6
Construction	3.6	-15.7
Services	2.9	-6.0

Source: Department of Statistics, Malaysia (DOSM)

2021 PRODUCTIVITY OUTLOOK

2021 promises recovery as the country moves from lockdowns to rebound. Inevitably, the COVID-19 pandemic has caused a huge impact on economic activities worldwide. Countries globally have reacted with strategies and policies towards recovery. Alongside these and the emergence of COVID-19 vaccines, it is forecasted that the world economy will pave a smooth recovery journey in 2021.

The World Bank projected Malaysia's economy to grow by 4.5% in 2021 against the resurgence of high number of positive COVID-19 cases in the country, which led to MCO 3.0 nationwide. The government's commitment in expediting the implementation of the national vaccination plan and imposing stricter enforcement of COVID-19 standard operating procedure may place Malaysia on the right track for economic recovery in fourth quarter of 2021.

Malaysia's positive trajectory for recovery is forecasted to be contributed by the expansion of productivity performance by between 2% to 3% this year, as confidence, consumption, and trade gradually improve, supported by the ongoing vaccination plan.

Government initiatives to mitigate the impact of the pandemic continue to be implemented and introduced to ease the burden of the rakyat and business community. Stimulus packages such as Program Strategik Memperkasa Rakyat dan Ekonomi (PEMERKASA), Bantuan Perlindungan Ekonomi dan Rakyat Malaysia (PERMAI) and the vaccination campaign have commenced in the first quarter of 2021 to jumpstart the economy. The introduction of Malaysia Digital Economy Blueprint (MyDigital) is expected to catalyse the country's economic recovery through the application and adoption of digital technology, driving Malaysia on the apt course towards becoming a high-income nation. MyDigital aspires that by the end of the decade, Malaysia will become a high value-added economy and net exporter of home-grown technologies and digital solutions.

Malaysia's recovery journey can be escalated by focusing on the five key drivers for productivity growth as envisioned and detailed in Malaysia Productivity Blueprint (MPB). Talent, Technology, Incentive, Business Environment, and Productivity Mindset are the key drivers to boost productivity amidst the felt impact of the pandemic. A deep dive into these key drivers given the present global and domestic economic environment and critical issues and challenges at hand, paves a clearer path for implementable solutions and recommendations which in the end will have a direct impact on the country. Quick wins and long-term solutions based on the key driver can be formulated to accelerate economic growth faster, better, and sooner.

Part 2 discusses the key drivers for productivity growth and details the core recommendations and solutions in addressing issues and challenges while Malaysia is on the road of economic recovery.

PART 2

BOOSTING PRODUCTIVITY - KEY DRIVERS

CHAPTER 1

Talent

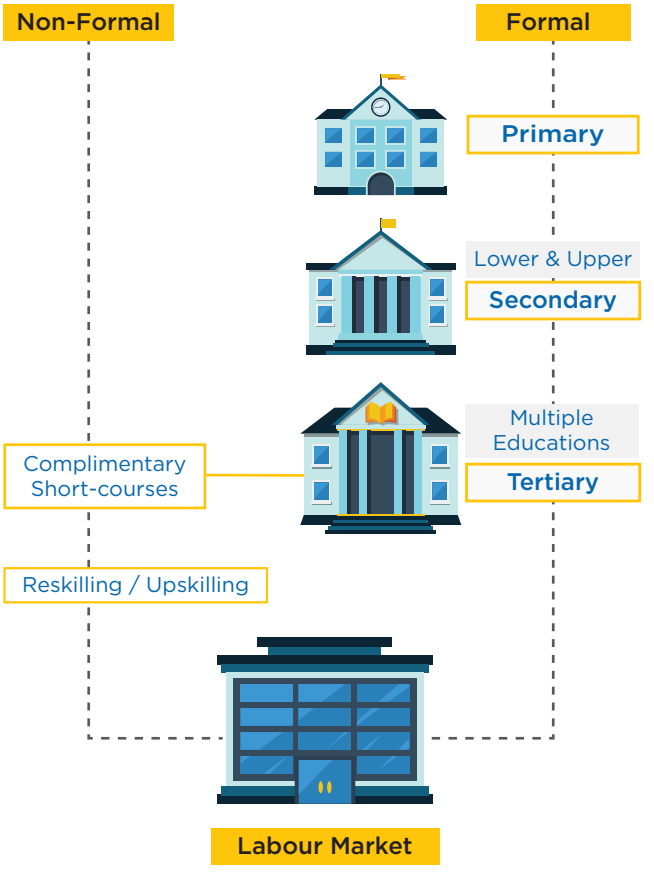
Accelerating Productivity through Reskilling and Upskilling

RESKILLING AND UPSKILLING FOR PRODUCTIVITY

Human capital is defined as knowledge, skills, competencies, and attributes embodied in individuals that facilitate the creation of personal, social, and economic well-being. Reskilling and upskilling are components in human capital development which assist workforce to enhance productivity and employability.

Reskilling and upskilling are parts of human capital development. Human capital development of a country is measured and classified according to the International Standard Classification of Education (ISCED) under the UNESCO Institute for Statistics (UIS). Classification by ISCED covers formal and non-formal education programmes offered at any stage of a person's life (Figure 6). Qualifications recognised by the relevant national education authorities are used for the purpose of measuring educational attainment of a country.

Figure 6 : Education Landscape towards Labour Market



Formal education is institutionalised, intentional and planned through public organisations and recognised private bodies, and-in its totality constitutes the formal education system of a country. Formal education is recognised by the relevant national education or equivalent authorities, e.g., any other institutions in cooperation with the national or sub-national education authorities .

Meanwhile, non-formal education is institutionalised, intentional and planned by an education provider. The defining characteristic of non-formal education is that it is an addition, alternative and/or complement to formal education within the process of lifelong learning of individuals. It includes short courses which aim to reskill and upskill the current and future workforce of the country.

Reskilling and upskilling, broadly termed as "trainings", are becoming increasingly important and competitive assets within firms. Reskilling can be defined as an employee acquires a new set of skills while upskilling involves an employee enhances his or her abilities within the same job profile. Both reskilling and upskilling allow employees to remain as productive members of the workforce.

A firm's employee training is perceived as one of the most essential measures to gain, sustain, and increase productivity. Training is also used as a 'sorting device' for employers to determine which employee should be promoted1 . It is a necessity when the workforce is not adequately qualified and firms are forced to retrain workers internally to avoid high labour turnover costs and shortage of skilled workers2 . Skilled workers are crucial to facilitate innovation and technology adoption as well as promote the upgrading of activities to unlock the potential of productivity and business growth. According to OECD, improving basic skills among Malaysia's population, with all youth reaching basic skill level by 2030, would contribute to a 0.71 percentage points increase in long-run economic growth3 .

Reskilling and upskilling triggers the virtuous work cycle for increased productivity. A good job or "decent work", as it is known in the international development community, encompasses a broad concept. A "good job" can be defined as a post that is safe, paid fairly, reasonably secure, reasonably motivating, and leverages the human skills of the worker, thus delivering higher levels of productivity (Figure 7).

If policymakers and organisations accept the narrative that upskilling and reskilling lead to meaningful work or "a good job", upskilling and reskilling have the potential to trigger a virtuous circle as when there is an increased level of skills, it leads to a better job, and a better job fosters development of skills.

Figure 7 : The Virtuous Work Circle

Closing the skills gap
across regions and industries

Higher skilled workforce
better suited for a knowledge economy

Employees have an increased
sense of agency and well-being

Workers have a better understanding of their rights,
increased participation in collective bargaining and wider political activities

Positive workforce engagement
with increased willingness to learn and self-develop

Better and more inclusive employer
training opportunities for a stable workforce

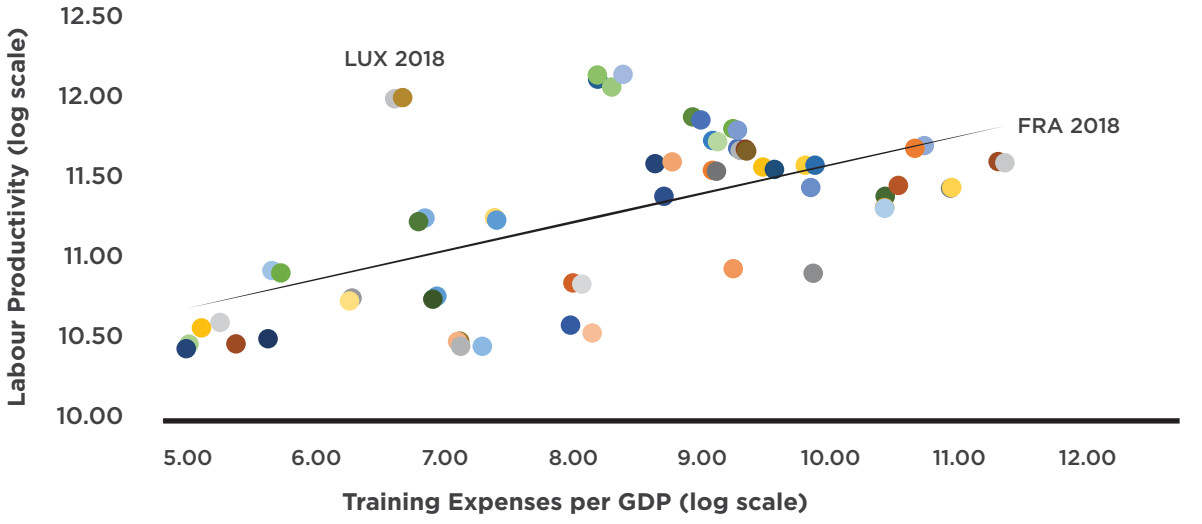
Stronger collaboration between actors
to foster continous improvement and new approaches of training

Creation of new training to support
the development of new sectors

Past literature has shown a strong correlation between training and labour productivity. Figure 8 indicates a positive association between labour productivity and training expenditure for OECD countries. The overall trend shows that the higher the training expenditure per GDP, the higher the country's labour productivity.

1. de Koning, 1994
2. Zwick and Schro¨der, 2001
3. OECD, 2019

Figure 8 : Labour Productivity and Training Expenditure for OECD Countries, 2017-2018



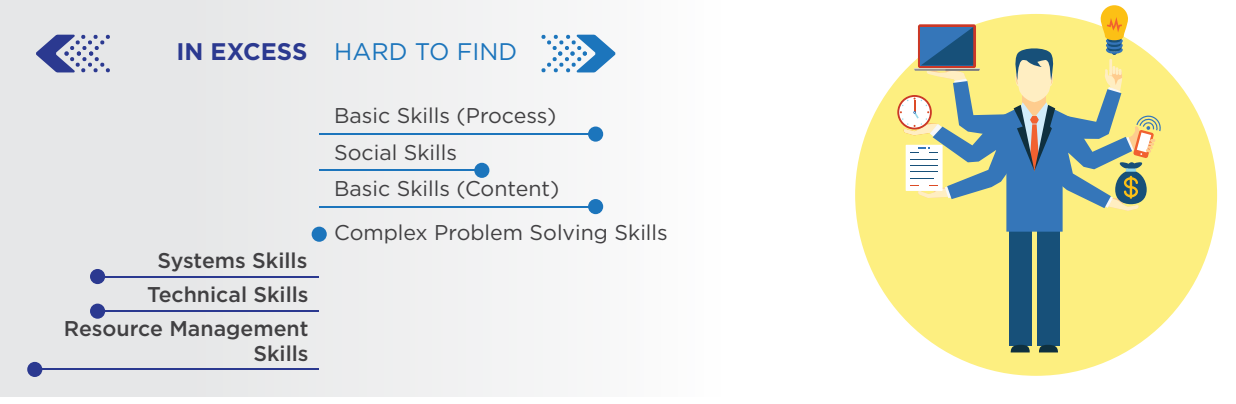
Sources:
1. Labour productivity are estimated by using data World Development Indicator database
2. Training expenses for are collected from the Penn World Tables in Data-Planet Statistical Dataset

Various countries have different orientations towards reskilling and upskilling programmes, depending on their growth and development targets. Development of an integrated reskilling and upskilling system, and promotion of market-driven programmes are the main focus areas by many countries in chartering their reskilling and upskilling strategic directions. Major economies such as France, Italy, the United Kingdom, and the United States strategise their reskilling and upskilling programmes to be market driven. The programmes among others capture in-demand skills, talent retention, job transition, long-term skills gap, adult reskilling, and IT skills. Countries such as South Korea, Canada, China, and Brazil focus on the development of integrated reskilling and upskilling system. The emphasis among others is on lifelong learning system, future skills for the workforce, and entrepreneurial talent.

RESKILLING AND UPSKILLING IN MALAYSIA'S CONTEXT

Understanding the current scenario of employment skills, ability, and knowledge in Malaysia is a prerequisite in determining the direction for reskilling and upskilling programmes. The job market is constantly evolving alongside the advancement of technology. As such, technology driven careers are becoming more popular and in-demand. Determining which skill sets are the most in-demand triggers continuous improvement to remain productive. Figure 9a-9c illustrate the current skills, ability, and knowledge in Malaysia.

Figure 9a : Current Skills in Malaysia, 2020



Source: OECD Skills for Jobs, 2020

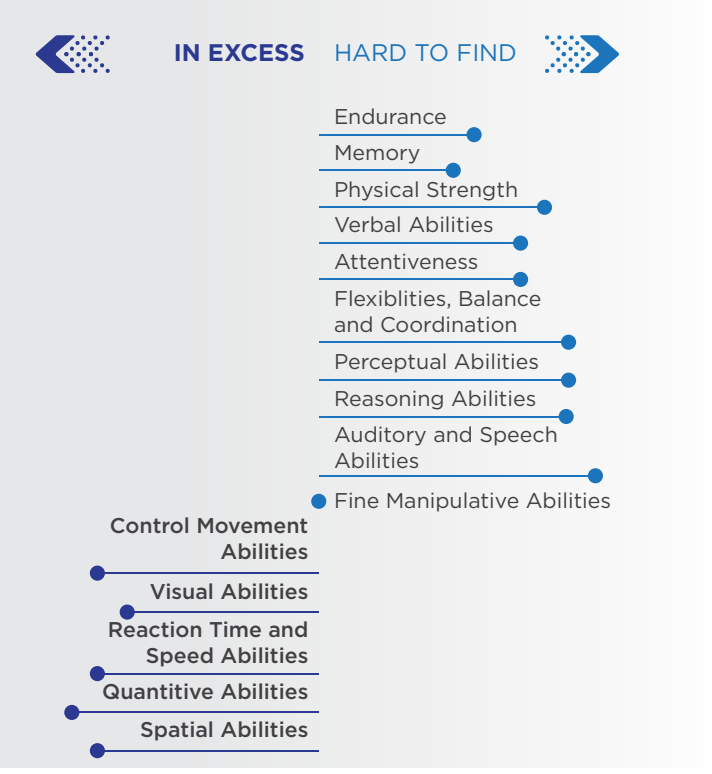
According to OECD, resource management skills and technical know-how were in excess in Malaysia in 2020, while basic skills in terms of process and content, as well as soft skills were more difficult to find among employees.

Figure 9b : Current Knowledge in Malaysia, 2020

Source: OECD Skills for Jobs, 2020

In the aspect of knowledge for jobs, excess was prevalent in engineering and technology, business and management, and law and public safety. Areas related to education and training, arts and humanity and health services were lacking among employees.

Figure 9c : Current Abilities in Malaysia, 2020



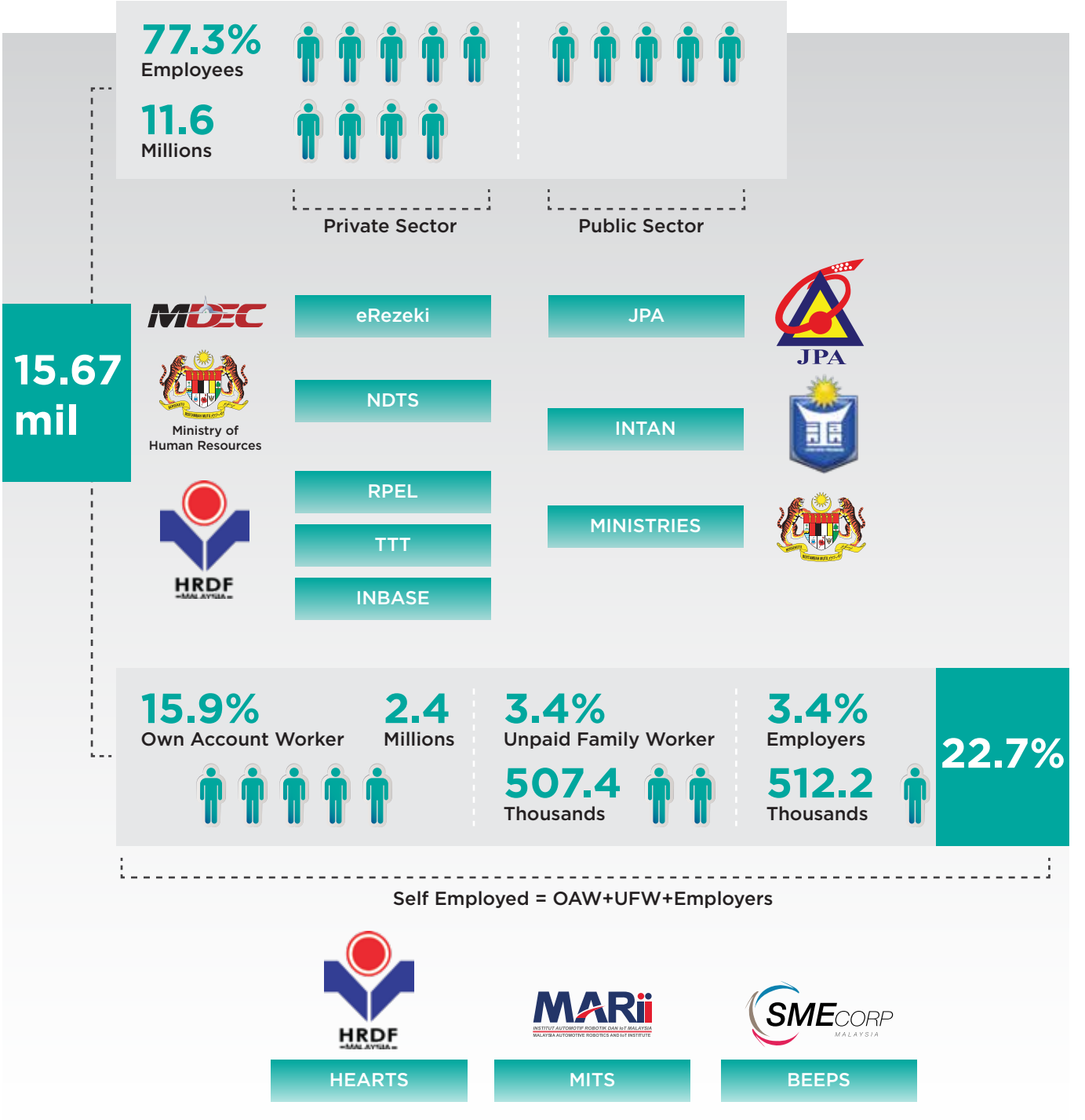
Source: OECD Skills for Jobs, 2020

In terms of the abilities, Malaysia recorded more employees with spatial, quantitative, and reactive abilities, while employees with endurance, memory, physical strength and verbal abilities were hard to find.

The OECD Skills for Jobs web tool which details the skill, ability, and knowledge requirement respective of occupations can be used to develop content for training programmes. More training programmes are needed to enhance skills which are scarce in employees.

The upskilling and reskilling programmes in Malaysia can be fragmented according to the relevant labour force. Data captured in Figure 10 summarises the classification of programmes according to the public sector, private sector, and self-employed. The training programmes have specific learning outcomes to facilitate the targeted groups. The learning outcomes are mapped with occupations to enhance specific skills and employability.

Figure 10 : Labour Force Snapshot



Source: Labour Force Survey (LFS), 2020, Department of Statistics, Malaysia (DOSM)

POST-PANDEMIC SCENARIO FOR UPSKILLING AND RESKILLING PROGRAMMES

The impact of COVID-19 on employment has led the Government to roll out initiatives and programmes on reskilling and upskilling. The effort provides opportunities to affected individuals, companies, and mainly the vulnerable groups. Notably the most affected groups are the micro and SME workers, women, school leavers and graduates, gig workers, self-employed, the unemployed, and low-skilled workers. The pandemic unleashed the immediate need for the vulnerable groups to be acquainted with a multitude of skills, competencies, and knowledge to ease their burden. The training programmes offered are more techno-savvy, dynamic, and updated to match the future skills and abilities which lead to future job opportunities, career development, and possible shift in professions.

The pandemic has set forth the critical areas for reskilling and upskilling to support the demand of the future workforce post-COVID-19 pandemic. The disruptive impact of technology and digitalisation, induced by the pandemic, calls for employees to upskill and reskill themselves to survive the transition and transformation in the workforce. The World Economic Forum (WEF) Future of Jobs 2020 survey revealed that the growing demand was in roles related to big data, digitalisation, and robotics for professions such as data analyst, data scientist, artificial intelligence expert, machine learning specialist, robotic engineers, software and application developers, and digital transformation specialist.

Job roles such as process automation specialist, information security analysts and Internet of Things (IoT) specialist newly emerge in rising demand from employers. The demand represents the growth of robotics as well as the revival of cybersecurity threats. The demand also indicates roles which are being displaced by new technologies such as data entry clerk, administrative and executive secretaries, accounting clerk, bookkeeping and payroll clerk, accountant and auditors, assembly and factory workers, as well as business services and administrative managers.

Table 3 : Top 10 Jobs Roles in Increasing and Decreasing Demand for the Future

Increasing Demand
Data Analysts and Scientists
AI and Machine Learning Specialists
Big Data Specialists
Digital Marketing and Strategy Specialists
Process Automation Specialists
Business Development Professionals
Digital Transformation Specialists
Information Security Analysts
Software and Applications Developers
Internet of Things Specialists

Decreasing Demand
Data Entry Clerks
Administrative and Executive Secretaries
Accounting, Bookkeeping and Payroll Clerks
Digital Marketing and Strategy Specialists
Accountants and Auditors
Assembly and Factory Workers
Business Managers Services and Administration
Client Information and Customer Service Workers
General and Operations Managers
Mechanics and Machinery Repairers
Material-Recording Clerks and Stock-Keeping

Source: World Economic Forum Report, 2020

Such job destruction is counter-balanced by job creation in the 'jobs of tomorrow'. Over the coming decade, newly developed jobs will be the wholly new occupations, or current occupations experiencing major transformations in terms of their skills requirements. WEF's Jobs of Tomorrow 2020 report indicated that the willingness of multinational businesses to exploit the growth potential of new technology adoption would be hampered by skills shortages.

Transition towards the "jobs of tomorrow" indicates the emergence of future job creation in the areas of big data and artificial intelligence, product development, and cloud computing. Some job clusters of tomorrow remain more closed and tend to recruit staff with specific skill sets.

Table 4 : Top 10 Skills in Increasing and Decreasing Demand for the Future

Increasing Demand
Analytical thinking and innovation
Active learning and learning strategies
Complex problem-solving
Critical thinking and analysis
Creativity, originality and initiative
Leadership and social influence
Technology use, monitoring and control
Technology design and programming
Resilience, stress tolerance and flexibility
Reasoning, problem-solving and ideation

Decreasing Demand
Manual dexterity, endurance and precision
Memory, verbal, auditory and spatial abilities
Management of financial, material resources
Technology installation and maintenance
Reading, writing, math and active listening
Management of personnel
Quality control and safety awareness
Coordination and time management
General and Operations Managers
Visual, auditory and speech abilities
Technology use, monitoring and control

Source: World Economic Forum Report, 2020

Alongside the creation of the "jobs of tomorrow", the demand for new skill sets arises. Table 4 illustrates the top skills that employers view as prominent in the future. The formal upskilling is more focused on technology and design skills, while emotional intelligence skills are less frequently targeted. Digital skills such as technology design and programming, and system analysis and evaluation are on the rise. 'Human' skills such as creativity, originality, critical thinking and analysis, and leadership are not expected to be automated in the near future, hence the demand remains. Among the top declining skills are physical skills such as manual dexterity, endurance and precision, which may soon be replaced by robots or robotic support systems. Several mental skills are also in the decline, such as memory, visual, auditory and speech abilities, as well as quality control and safety awareness, which are expected to be provided by artificial intelligence, machine learning and smart (voice-controlled) support systems.

The demand for the skill sets in the post-pandemic scenario can be categorised as specific technical skills needed by growth sectors for expansion and progress, sectors facing challenges and adjustments created the pandemic, and sectors undergoing structural change in adjusting to new profiles. The demand is also in for technical skills which are in the rise globally and transferable across many sectors and occupations. Core employability skills, such as critical thinking, communication, foundation skills of literacy and numeracy, and resilience skills for example stress resistance, work-life balance, digital detox, time management, flexibility and adaptability remain in demand and useful across all sectors and occupations. Any skills development intervention responding to the COVID-19 crisis should target skills in these categories.

CHALLENGES FOR THE WORKFORCE OF THE FUTURE

CHALLENGES

Demands in digital talents

Skills mismatches

Demands in high-skill jobs

The challenges posed by the COVID-19 pandemic have reaffirmed the need to move beyond providing basic access to education and health. There is a need to shift into active labour market policies and business practices which integrate education and health with mid-career training opportunities, match the needs of the labour market, and provide the safety net for workforce disruption. The need for improved and consolidated reskilling and upskilling programmes is imperative to mitigate the challenges within the contemporary and future dynamism of the workforce.

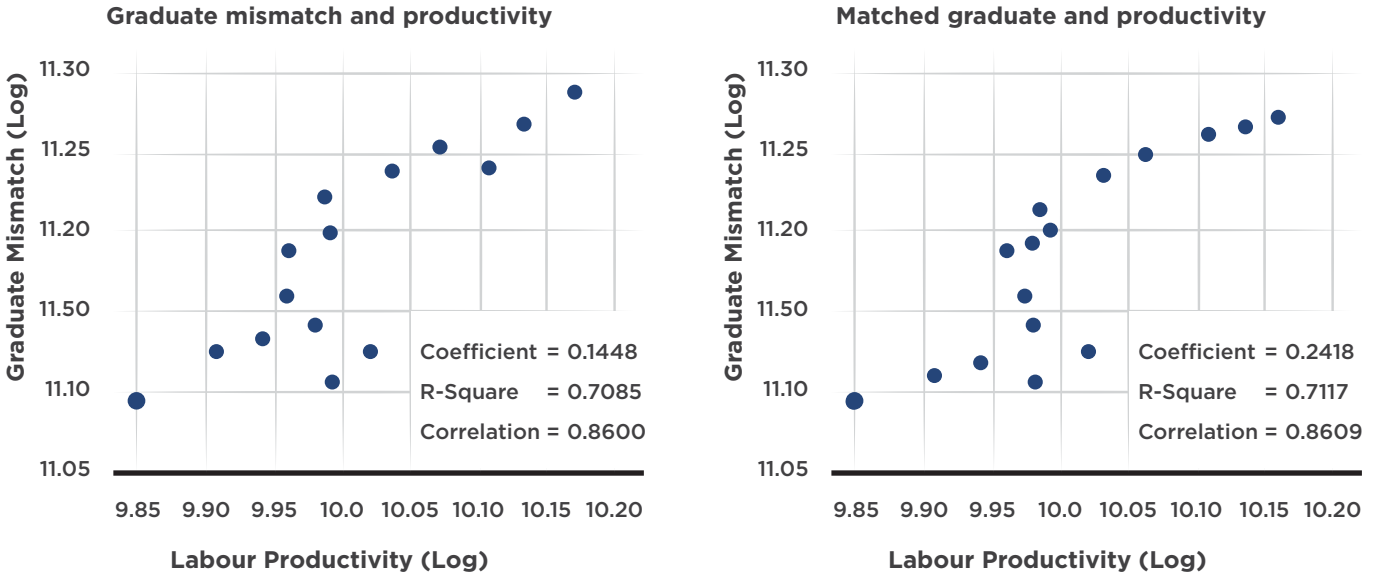
Skills mismatch has been a challenge in talent demand and supply which may affect the future workforce and subsequently productivity growth. It exists when there is a gap between the skills required to perform on-the-job tasks and the actual skills of individuals assigned to execute the tasks. Young generation leaves school without acquiring basic literacy and numeracy skills, making them unable to compete in the job market, acquire new skills, and realize their full potential. Reskilling and upskilling programmes offer the opportunities to reduce the incidences of qualification mismatch particularly for the case of graduate mismatch[4] .

Graduate mismatch becomes the prioritised issue as the size of graduates to total employment increases larger than the growth of total employment, expanding at 6.1% per annum. On the other hand, the number of jobs created for graduates is limited, which explains the increased size of graduate mismatch. The share of graduates in non-graduate jobs increases from 17.9% in 2006 to 25.2% in 2018[5] . The size of graduate mismatch increased during the COVID-19 crisis as current job offerings are available mostly for the non-graduate occupations[6] .

Skills mismatch affects the labour productivity. A worker is unable to maximise his or her talent and skills because the assigned job does not require the associated talent and skills, thus limiting his or her productivity growth. The impact of mismatched and matched graduates on productivity is illustrated in Figure 11. Labour productivity is lower for mismatch graduates. The estimated coefficients for the mismatched and matched graduates are 0.16 and 0.26, respectively.

4. In the context employment, the term 'mismatch' refers to workers who are over-skilled/over-educated or under-skilled/ undereducated (Handel et al., 2016)
5. Data extracted from the Labour Force Survey (DOSM, various years) are used to run the analyses
6. SOCSO, 2020

Figure 11 : Productivity and Graduate Mismatch



The unprecedented impact of COVID-19 pandemic and disruptive technology further escalate skills mismatch leading to skills imbalance in the workforce. Analysts propose that technological disruption and IR4.0 will lead to shrinking opportunities in the aggregate and the emergence of new job opportunities, and the current stark mismatch will be more prevalent.

In a larger context, global workforce is already facing alarming skills mismatches, with a high vacancy rate in technical jobs throughout the world. The drive towards productivity growth by leveraging technology suffers from this mismatch. In the industrialised economies, most of the current workforce was educated between 1970 and 2000 when the internet, technological tools, and robotics were in their infancy.

Technological transition and the impact of COVID-19 lead to skills shortage in automation, digitisation, and artificial intelligence. Rapid technological change and digital transformation imply changes in skills demand and training needs. As many as 375 workers or approximately 14% of the global workforce may need to shift occupational categories as technology disrupts the workforce by means of digitisation, automation, and artificial intelligence[7] . The scenario creates a void in supply as employees are not equipped enough to face the fast-paced transition. New entrants with relevant skills sets have become among firms' top priority. As digitisation, AI, and automation are among the biggest enablers for productivity growth, the only way to capture their potentials is by having the right people and process. To capture the opportunities, many companies across the private sector reorientate their strategic direction, that there is a need to futureproof their workforce and make them more attractive to prospective job candidates and better talents.

Many reskilling and upskilling programmes are skewed towards low-skilled jobs. Current reskilling and upskilling programmes are still focusing on competencies for low-skilled jobs which may not match employees' qualification, job opportunities or promotion, and skills expansion. Many organisations offer programmes to lower to middle management personnel for the purpose of retaining workers. Programmes offered do not match the skills needed for the emerging jobs. Talent and human capital development require focused effort to revitalise training system across various age and experience, emphasising on the new skills, knowledge, and competencies needed for the future.

7. https://www.mckinsey.com/featured-insights/future-of-work/retraining-and-reskilling-workers-in-the-ageof-automation

MAKING RESKILLING AND UPSKILLING PROGRAMMES EFFECTIVE

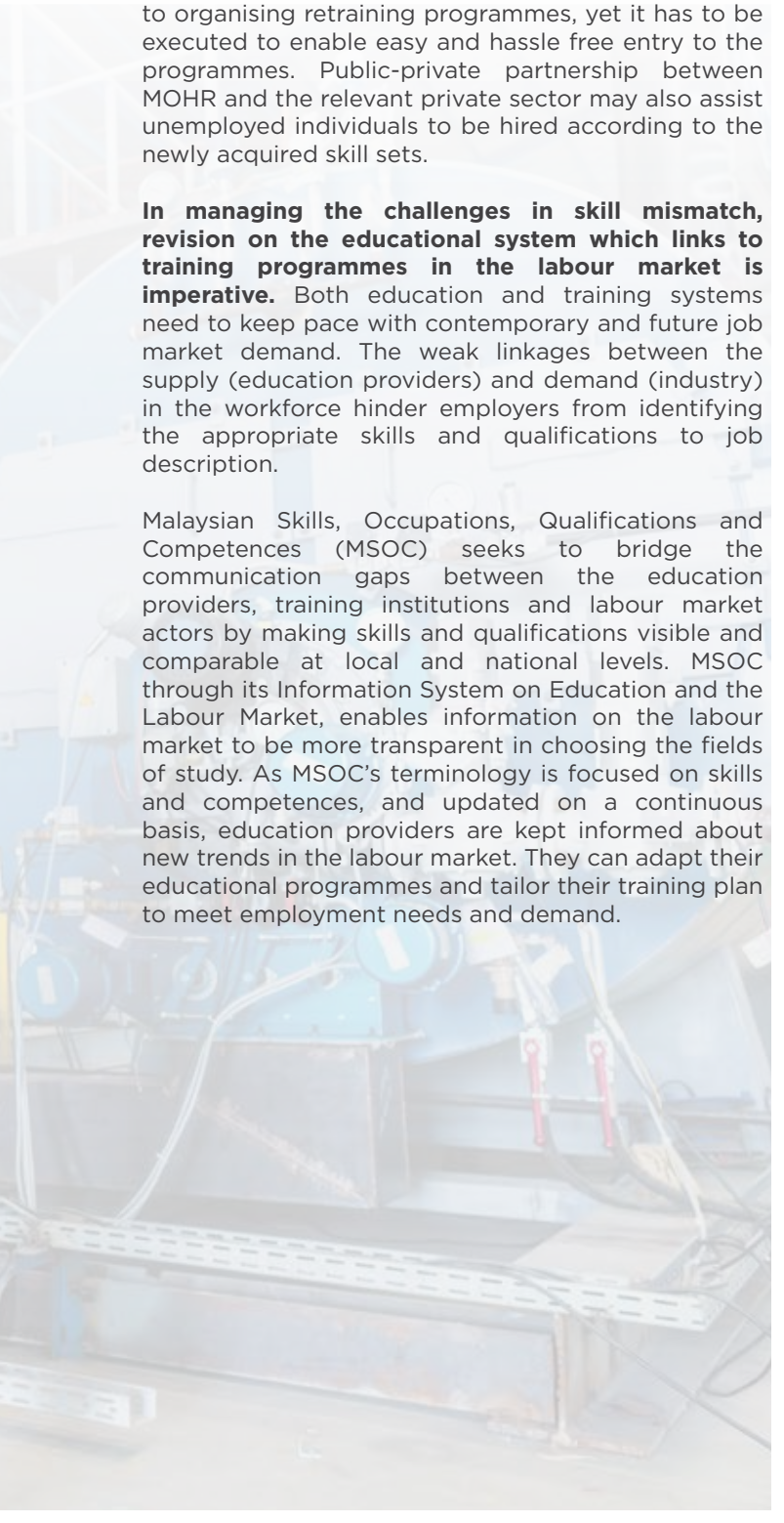
Immediate attention of reskilling and upskilling programmes should be directed to the most affected or vulnerable groups due to the pandemic. Enhanced programmes with specific objectives to equip the specific targeted group are needed to provide them with the most needed skills. For the micro and SME workers, training programmes on the basic to medium digital skills are needed to strengthen their capacity and prepare them for the post-pandemic job requirements. Inability to upskill their competency may lead to job displacement or unemployment. As for the school leavers, graduates, and unemployed youth, the focus should be on competencies which may enable them to find or create job opportunities in the near future. The government's initiative through PENJANA KPT-CAP launched in October 2020 which aims to train graduates in collaboration with businesses can be strengthened to facilitate employment matching with companies. Effective training programmes address the specific needs of the target group.

In addition, specific policy is needed to target reskilling and upskilling efforts for those at the greatest risk of job displacement or are currently displaced. The initiatives may comprise income support scheme to maintain living standards during times of hardship and easy access to relevant retraining opportunities mapped against the emerging jobs and skill sets. While efforts are currently on-going by organisations such HRDF, access is still limited to many.

This has to be government-driven led by the Ministry of Human Resources (MOHR) and its relevant agencies. The implementation must not only confined to organising retraining programmes, yet it has to be executed to enable easy and hassle free entry to the programmes. Public-private partnership between MOHR and the relevant private sector may also assist unemployed individuals to be hired according to the newly acquired skill sets.

In managing the challenges in skill mismatch, revision on the educational system which links to training programmes in the labour market is imperative. Both education and training systems need to keep pace with contemporary and future job market demand. The weak linkages between the supply (education providers) and demand (industry) in the workforce hinder employers from identifying the appropriate skills and qualifications to job description.

Malaysian Skills, Occupations, Qualifications and Competences (MSOC) seeks to bridge the communication gaps between the education providers, training institutions and labour market actors by making skills and qualifications visible and comparable at local and national levels. MSOC through its Information System on Education and the Labour Market, enables information on the labour market to be more transparent in choosing the fields of study. As MSOC's terminology is focused on skills and competences, and updated on a continuous basis, education providers are kept informed about new trends in the labour market. They can adapt their educational programmes and tailor their training plan to meet employment needs and demand.



In ensuring reskilling and upskilling programmes remain relevant and timely, an integrated skill assessment and anticipation system need to be set up. A barrier for effective reskilling and upskilling programmes is the absence of comprehensive evaluation for the implementation outcome. In harnessing human potential to the maximum, leaders need to shift talent from the declining to growth areas in the economy. The absence of a comprehensive, consolidated, and effective system to evaluate employees' performance presents a challenge as areas of improvement could not be accurately captured. The lack of baseline data creates gaps in matching the skills needed to the skills in demand. An integrated reskilling and upskilling system is responsible for supervising training providers, focusing on institutions and providers registered with the system database. One of its aims is to identify institutions or training providers offering low quality courses, i.e. those that do not increase the employability and productivity of participants. The system may also track the effectiveness of reskilling and upskilling programmes based on specific indicators. The establishment of the integrated system has to be a government-led initiative. MOHR and its relevant agencies may create a single landing portal for this purpose.

Effective reskilling and upskilling programmes encompass market-driven skills for "jobs of the future" and their transition. Skilled workforce is crucial to any country's economic transformation and productivity growth. It enables firms to move up the value chain, adapt to economic changes, and spur innovation, while allowing workers to move out of low-productivity activities and earn more from their jobs. The demand for skills is rapidly changing. Future trends indicate the rise in automation, AI, and digital technology.

Hence, smart investments in skills development to match the trends are crucial aiming at three policy goals: productivity growth, inclusion, and adaptability by both individuals and economies. To make large-scale upskilling and reskilling across global economies and societies a reality, government, business, education, civil society and other leaders will need to work together in a more agile, resilient and inclusive manner.

Demands for digital talents and higher skill set are expected to increase post-pandemic given the shift made by the pandemic. In addition, the demand for soft-skills is expected to remain high especially in critical and analytical thinking, problem solving, creativity, and emotional skills. Measures to heighten the delivery of effective reskilling and upskilling programmes within Malaysia's workforce is imperative to boost productivity growth during the country's economic recovery.

The major focus of reskilling and upskilling programme must be on the development of workers' digital skill and skills of the new norms. Due to the rapid change and advancement in technology as well as the impact of the pandemic, a strong emphasis needs to be directed to digital skills and skills of the new norms. Digital skills in relation to entrepreneurship may enable lower income group to create opportunities for better income generation. As for the micro and SME workers, basic to medium digital skills are useful for them to operate business using digital tools which may increase firm's productivity.

As the pandemic disrupts workplaces, the demand for the new norm of working increases. Work From Home (WFH) in Malaysia's context or teleworking has been the new working arrangements. Though there is a possibility that businesses may return to the pre-pandemic conventional working environment once the contagion is curbed, workplaces are becoming more familiar with the new norms and businesses are considering to continue with teleworking. The potential and positive impact of teleworking call for capacity improvement in both the employers and employees to equip with the necessary skills to enable teleworking effectively. While promoting WFH may not be the priority in the post-pandemic scenario, the necessary elements to enable the option in the future can be maintained if not improved.

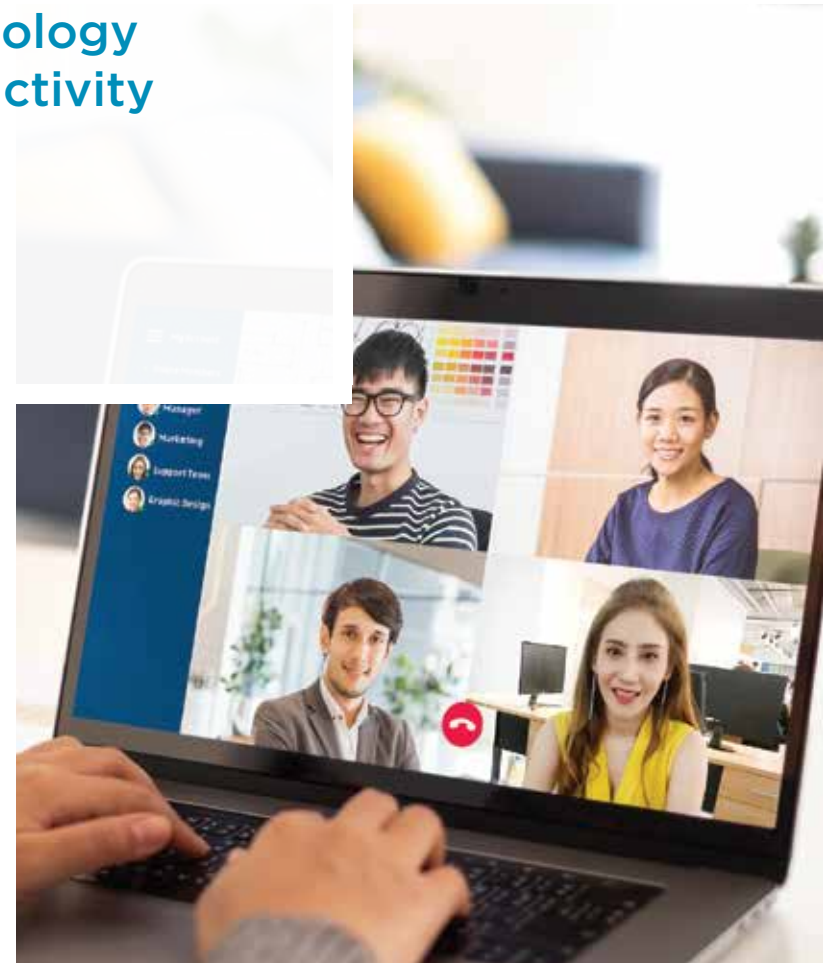
Chapter 1 was produced in collaboration with EIS-UPMCS Centre for Future Labour Market Studies (EU-ERA).

PART 2

BOOSTING PRODUCTIVITY - KEY DRIVERS

CHAPTER 2

Technology
Digital Technology Uplifts Productivity



PRODUCTIVITY AND DIGITAL TECHNOLOGY

Multifactor Productivity (MFP) is identified as one of the drivers for robust productivity growth. The progress of an organisation's MFP is greatly influenced by technology. Adoption of more advance technologies optimizes MFP, which in turn leads to increased productivity level. Within this scope, digital technology has marked its place in workplaces in streamlining processes and operations more efficiently.

Past literature has indicated a strong correlation between the application of digital technology and increased productivity level. Harvard Business Review (HBR) reported that "the most digital companies see outsized growth in productivity and profit margin" [8].

Three (3) main areas in digital technology which impact business performance and productivity are digital assets, usage, and workers.

Simply put, providing digital tools to employees to perform tasks enhances their productivity.

Technology-induced productivity and performance are mainly attributed to efficient and optimal use of firms' resources, energy, expertise, labour, and time. It is the smarter way of getting the job done. In 2020, when the pandemic led the government to impose the MCO for the first time, organisations shifted to digital technology to deliver programmes such as trainings, conferences, and seminars virtually. Online programmes saved cost and resources by more than 50% in comparison to the traditional method. Outreach was wider and such programmes eliminated the need to travel. These are among the exhibits of technology-induced productivity in action.

NATIONAL INITIATIVES

The world economic growth is increasingly driven by digitalisation and technology advancement. Governments from all over the world, have played significant and primary roles in ensuring digital transformation flourishes in their countries to uplift productivity.

Malaysia's long-standing commitment in harnessing the potential of digital technology for country-wide transformation, began in 1996 with the establishment of the Multimedia Super Corridor (MSC) and the effort continues until now. Even before the MSC, the first organisation that officially introduced and used a mainframe computer in Malaysia in 1965, was the National Electricity Board known as Lembaga Letrik Negara and today known as Tenaga Nasional Berhad. Although the computer was used to process staff salary, it was the first step in the country's digitalisation journey.

The MSC introduced high-technology business districts and special economic zones to transform Malaysia into an advanced nation by 2020. Its focus was to build a knowledge-based society as well as leverage on information and communication technology (ICT). Since then, the government has implemented a wide range of policies and measures to spur technological and digital transformation in Malaysia (Figure 14).

8. https://hbr.org/2016/04/a-chart-that-shows-which- industries-are-the-most-digital-and-why

Figure 12 : Policy Revolution in Relation to ICT and Technology Development

The Government continues to formulate and implement new policies and initiatives to create a more conducive environment and provide opportunities for the continued growth of the digital economy. The launch of the Industry 4WRD Policy in October 2019, marks a significant milestone in Malaysia's bid to be at par with developed nations in the Industrial Revolution 4.0. (IR 4.0). Industries and business communities are expected to quickly innovate and transform to embrace IR 4.0 by utilising various intelligent digital technologies to uplift productivity. Their failure may result in stagnating productivity and negative effects on the economy, society and the environment.

Malaysia's government has formulated and implemented the right policy, positive incentives, and conducive ecosystem to drive the transformation in the strive to become an innovation-driven economy. This has resulted in Malaysia being ranked 2nd for Global Competitiveness among ASEAN Countries by the World Economic Forum's Global Competitiveness Report. Malaysia's performance in key global indices have reflected the effectiveness of national policies in developing the digital economy. Figure 13 indicates Malaysia's position among the top 50 in these indices.

Figure 13 : Malaysia Performance in International Ranking Reports

IMD World Digital Competitiveness Ranking (Future Readiness) [39]	2017	2019	2020
	14	11	14
	8	9	18
	4	8	7
	6	15	11
	45	49	50
	27 ▼	29 ▲	28

WEF Global Competitiveness Index (ICT Adoption) [40]	2017	2019	2020
	27	22	21
	23	34	35
	16	16	13
	14	4	5
	61	64	62
	46 ▲	32 ▼	33

Source : WEF World Digital Competitiveness ranking

Technology advances leads economy towards sustainable growth. Thus, technology adoption of a country provides an essential basis in explaining the country's competitiveness and where it ranks among other countries. The use of internet and technology advancement contributes to the rapid growth of data, which is the future commodity. Nevertheless, countries risk creating digital divide if the response to digitalisation is not managed well. For Malaysia to stay competitive and relevant, digitalisation should be embraced and opportunities arising from this trend should be seized.

SLUGGISH DIGITAL TECHNOLOGY ADOPTION AND THE IMPETUS OF THE NEW NORMAL

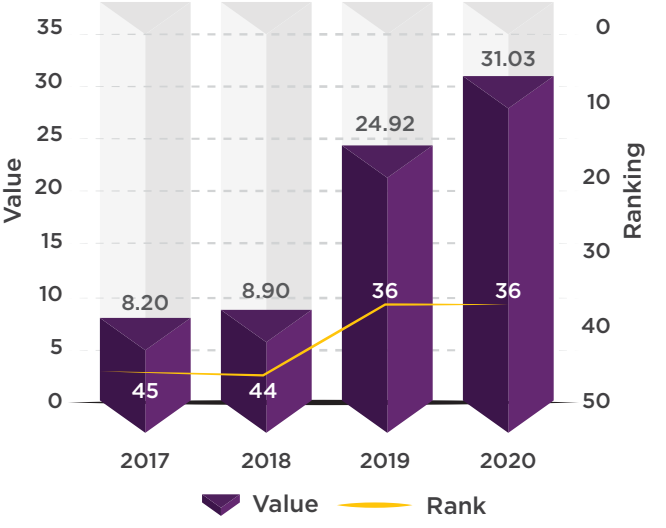
Despite the Government's continuous and nation-wide investment and initiatives to modernise and advance the state of digital transformation, technology adoption rate remains low. Many organisations still prefer the traditional ways of doing business while Malaysia has consistently strived to become an innovation-driven economy. Digital adoption within industries is still in its infancy as industrial development indicates sluggish progression and less aggression by comparison to the neighbouring countries.

The sluggish digital uptake is particularly prevalent among the SMEs especially in e-commerce. As such it widens the digital gap between these businesses and digitalised firms. Subsequently, productivity growth is negatively affected. Lack of funding, infrastructure, and workers' digital skills are identified as among the barriers faced by firms to adopt digitalisation aggressively. SMEs with lack usage in e-commerce and digital tools felt the most pain during the MCO and digitalised companies adapt better during the period. Digital divide worsens.

In terms of digital infrastructure, Malaysia has shown substantial improvement in improving the state and coverage of foundational technology related infrastructure. Regulatory reforms through the Mandatory Standard on Access Pricing (MSAP) have reduced broadband prices while increasing broadband speed. Internet bandwidth speed improved in Malaysia over the years However, the ranking did not improve significantly as improvements in other countries outweighed Malaysia's improvement in bandwidth speed (Figure 14). Malaysia is still far from the Top 20 countries in the world.

In 2019, Malaysia launched the NFCP 2019 – 2023 and the initiative improved the broadband quality and coverage. This plan was reviewed in 2020 and now is known as Pelan Jalinan Digital Negara (JENDELA) with improved targets. Despite improved connectivity over time, broadband access still lags in coverage and the speed, especially in the rural areas. An enabling environment is required in enhancing the development of digital infrastructures, including the establishment of the high-end data centres and review in pricing of broadband services.

Figure 14 : Average Bandwidth Speed

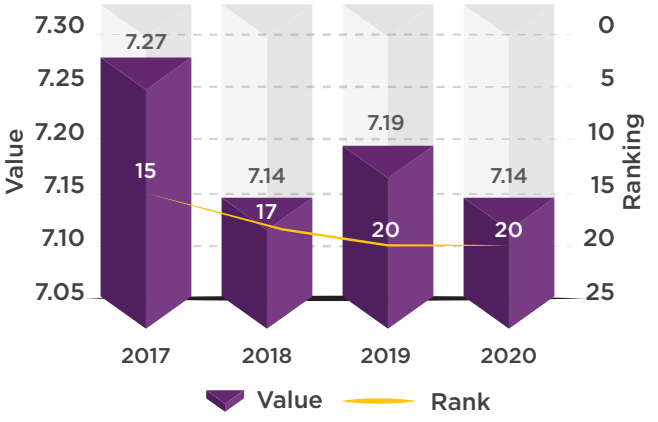


Note : Average connection speed in Mbps: data transfer rates for Internet access by end-users
Source : WEF World Digital Competitiveness ranking

Numerous government initiatives and programmes, including eRezeki, eUsahawan, Pusat Internet and digital social responsibility have been put in place to improve the society's wellbeing. As part of the economic recovery initiative due to COVID-19 , ePenjana credit was introduced to encourage e-wallet usage among the rakyat. Nevertheless, digital gap remains across the dimensions of income, strata, age, gender and skill sets. If not properly addressed, this will impede efforts to achieve an inclusive and comprehensive technology access for all.

Existing regulatory frameworks are slow to respond to innovative business models arising against the growth of digital technology adoption. While progress has been made via Good Regulatory Practices (GRP) initiative, the implementation pattern is still uneven. With the rise of digital economy and technology advancement, GRP implementation needs to be strengthened and new and innovative approaches need to be considered.

Figure 15 : Development and Application of Tech



Source : WEF World Digital Competitiveness ranking

In the aspect of the development and application of technology, Malaysia's ranking was on the declining trend since 2017. Business communities opined that Malaysia's regulatory framework did not facilitate technology adoption.

Going digital provides business opportunities for market access and the opportunity in transforming industry structure while positively disrupting traditional intermediaries. The biggest issue which impedes innovation-based new ventures is enforcing existing traditional regulations to new business models.

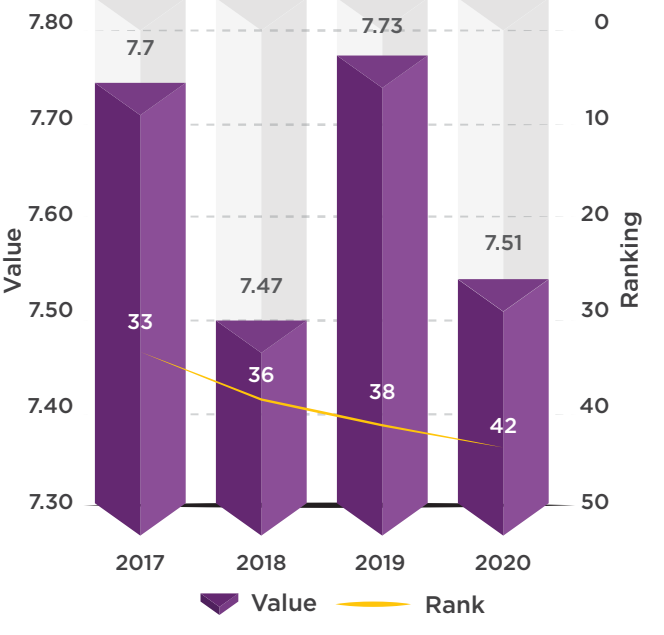
Nonetheless, the government has launched strategies to address some of the issues arising from the new business model. For example, the Land Public Transport Act 2010 and Commercial Vehicle Licensing Board Act have been amended to legalise e-hailing services. This spurs digital and gig economy to expand and as a result, the rakyat benefits from the amendment.

The COVID-19 pandemic in 2020 has caused a major disruption and triggered impetus for the new normal. The Movement Control Order (MCO) to curb the virus from spreading in Malaysia was first enforced on 18 March 2020. During the MCO, businesses, government offices, education institutions, and the general public were forced to stay at home and live, work, and learn remotely. Only critical businesses, essential services, and national security related operations were allowed.

Organisations were expected to adapt their operations in responding to the change. Fast adjustment was imperative to balance the continuity of operation and spread of the virus. The government, industries, and education sectors at all levels demonstrated a remarkable ability in radically transforming the organisational routine through technology although marked by various challenges. Face-to-face and physical operations were shifted online, and the concept of Working from Home (WFH) and Learning from Home (LFH) became the new normal.

Teleworking and e-learning are not new in Malaysia and have been promoted since the launch of MSC. However, the implementations had several setbacks. The implementation of teleworking or working remotely was not popular albeit its many benefits. In workplaces, the issue was due to the lack of trust from employers. In addition, many employees were not prepared and did not have the appropriate tools and culture of working from home. The pandemic left many without options but to change though faced by various limitations. Decreased ranking in communication technology in Malaysia indicated that communication tools and technology were insufficient to support operation.

Figure 16 : Communication Technology



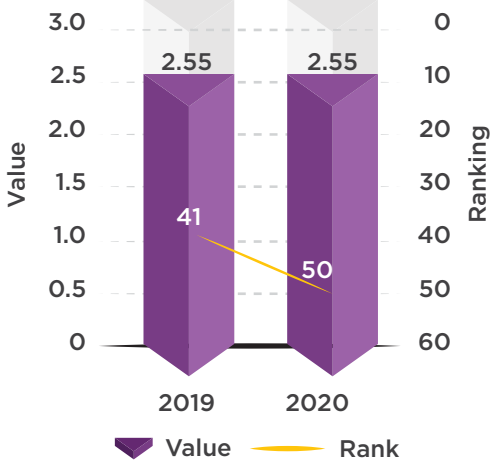
Source : WEF World Digital Competitiveness ranking

Malaysia's ranking in communication technology constantly decreased over the years (Figure 16). As such it denoted that communication technology did not meet the expected business requirements.

Trust has always been an issue in service delivery. The public has been wary on what the industry does with various data captured from each transaction. Fewer than 20% of individuals globally have trust in the current economic system, driven by the increasing polarization, rapid technological change, spread of disinformation, and new expectations on both the workforce and society. The high reliance on digital technology and technology-induced lifestyle has made customers vulnerable. Although the Personal Data Protection Act 2010 has been in place, there is still the looming feeling that some personal information can be accessed and manipulated by irresponsible parties.

The COVID-19 pandemic amplifies the importance of the digital technology to ensure continuity in socio-economic activities, lives, and livelihood. Many leaders are looking beyond returning to the former status quo and evaluating the potential to transform work and the workforce experience to elevate productivity more effectively. The forced situation of having to work remotely in response to COVID-19 is an opportunity to strategise for the future. This calls for the new skills set among employees which support the new normal way of working. Malaysia still lagged behind in terms of scientific and technical employment, as seen in the graph below.

Figure 17 : Scientific and Technical Employment

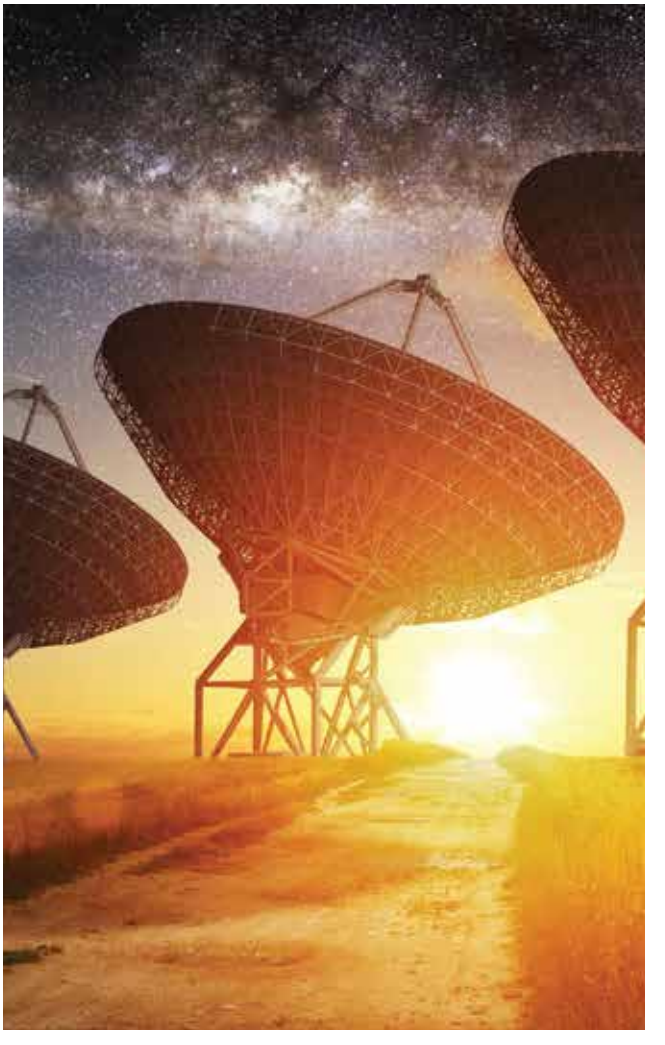


Source : WEF World Digital Competitiveness ranking

Malaysia was ranked among the lowest at 2.55% in scientific and technical employment from the total formal employment. The ranking declined from 2019 to 2020 by 9 points. Comparatively, the United States recorded 15.59% from the total employment in scientific and technical employment. This implies that Malaysia is far behind the advanced economies in this aspect.

By assessing, prioritising, and developing strategies in real time to match work activities to the optimal workplace condition, leaders need to rethink and improve the workplace condition and workforce to fit the change and future demand. This, in turn, elevates the human experience to go beyond surviving.

Before the pandemic, many leaders were aware that most of today's jobs were expected to be displaced in the future. The World Economic Forum predicts that 65% of children entering primary school today will ultimately end up working in a completely new job profile which do not exist today. The recovery phase from the pandemic gives an opportunity for government organisations, business community, and employers to intentionally redesign work and jobs to accommodate the role of technology and machines and fit the contemporary and future needs resulting from broader economy, workforce, and societal shifts.



GO B.I.G. WITH DIGITAL AND GOVERNMENT-LED INITIATIVES

Solutions to address the issues and challenges in digital technology are needed to harness the multifaced advantages of digital technology. Malaysia Productivity Corporation (MPC) through its Digital Productivity Nexus (DPN) has taken the lead to promote the effective use of digital technology through "Go B.I.G. with Digital" initiative under Malaysia Productivity Blueprint (MPB). It is recommended that the Go B.I.G. with Digital 6-P framework be adopted for 2021.

Go B.I.G. with Digital, which represents Breakthrough, Integrity and Good effort, is recommended to be implemented via its 6-P framework comprising the stages of Promotion, Pilot, Proliferation, Protect, Prosper and Partnership.

In this framework, the first recommendation is to promote the adoption of digital technology to leaders and inculcate digital culture in their organisations. The repercussions from the pandemic have emphasised the importance and impact of digital technology in socio-economic activities. More targeted promotion should be executed for specific parties to embrace digital technology and incorporate it their workplace culture and lifestyles. Virtualisation is expected to usher in new job opportunities which may not exist now and the public must be ready to upskill and shift to the job of the future.

The second phase in Go B.I.G. with Digital is to pilot the most impactful digital project in organisations. In this phase, organisational priority is on three areas – acquire, satisfy, and retain customers; uplift the internal and external processes for increased productivity and efficiency; and develop better products which meet the dynamism of customers' demands, needs, requirements, and expectations. A good pilot project should address any of the three areas. It must go through a proper project selection and planning process to ensure all the stakeholders are committed to the project. The pilot initiative should also align with the virtualisation process.

The third stage involves the proliferation of the pilot initiative in the end-to-end value supply chain. The proliferation is expected to uncover and amplify the benefits of the pilot project.

Protection of data and infrastructure by the relevant acts, security protocols, and effective enforcement to ensure data integrity and privacy is the fourth part of Go B.I.G. with Digital. The implementation of this phase enhances trust in the service sector and e-commerce.

Fifthly, analysis and insights should be conducted to ensure digital initiatives are able to prosper in a conducive ecosystem. Data collection and subsequently analysis from the implementation of specific digital projects enable improvements and improvisations of the elements involved in the digital projects.

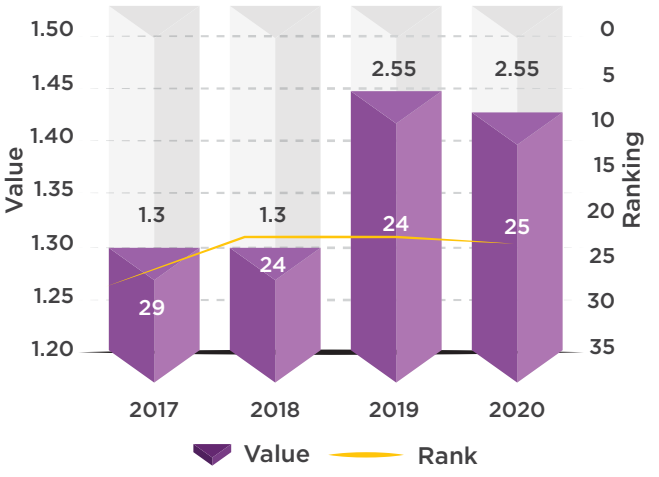
The final part in Go B.I.G. with Digital is Partnership. It is understandably daunting for small organisations to survive and excel on their own in a competitive and challenging environment especially while recovering from the impact of the pandemic. Smart and sustainable partnership in the spirit of a win-win situation should be forged between digital organisations. In this partnership, organisations with digital talents can partner with organisations with digital technology.

At the current stage, addressing the issues and challenges in digital technology is mainly government-led.

In regulating data exchange and sharing, the relevant government bodies such as the Ministry of Communication and Multimedia and its relevant agencies should establish a policy to ensure a more structured, effective, and efficient data exchange and sharing. Digital regulatory framework should lead to better implementation of digital technology initiatives.

Related policymaking has to be data-driven and aims to make optimal use of data and the relationship between evidence-based policymaking, citizens' participation, and integration of analysis of relevant elements. Data-driven policies are important as it instils public confidence by removing subjective elements and allowing better understanding of policy impact. In addition, usage of analytics in policymaking optimises cost, time, and resources. Malaysia still lagged behind in terms of total R&D expenditure, which implied lack of research and development in technology and innovation related subjects.

Figure 18 : Total R&D Expenditure (% of GDP)



Source : WEF World Digital Competitiveness ranking

The Return of Investment (ROI) of digital adoption should be made visible to improve the take-up rate of digital initiatives. Businesses need to be provided with the step-by-step guide in implementing digital solutions at different stages of their digital transformation. IP awareness benefits can be included to facilitate and encourage SMEs to participate and include IP registration as a part of their digitalisation journey.

In transforming the regulatory approach for better agility and increased industry involvement, Good Regulatory Practice (GRP) approach is an appropriate measure. The key steps on implementing this initiative are to:

a) Conduct regular horizontal scanning and interactive review of existing regulations to understand trends in technology and innovation and identify priority regulations to be reviewed and updated;

b) Develop the Code of Conduct (for regulators) to manage industry involvement in regulatory designs related to digital economy;

c) Identify and act upon the areas of involvement (e.g. regulatory framework development, security by design, safety standards, industry standards, flexibility in regulatory framework for innovation purpose);

d) Develop a typology of relevant regulatory approaches to leverage the opportunities and mitigate the challenges of the digital transformation; and

e) Anticipate sectors and areas of innovation to design and establish regulatory sandboxes.

The successful implementation of Malaysia Digital Economy Blueprint (MyDigital) is imperative in taking Malaysia's digital transformation to the next level at par with advance economies. Though the future outlook as detailed in MyDigital seems ambitious, the strategic plans and initiatives should well implemented promise holistic development and achievement of the nation's digital transformation, and garner strong impact on private investment for digital infrastructure. Digitalisation of the economy as stipulated in MyDigital is expected to benefit both Malaysia's economy domestically and internationally. The blueprint is comprehensive and inclusive in addressing the multifaceted elements in enabling national competitiveness, growth, and productivity through digital technology from regulations and policy, infrastructure, investments, talent, and governance angles.

Strategic Pillars of MyDigital

1. Driving digital transformation in the public sector
2. Boosting economic competitiveness through digitalisation
3. Building enabling digital infrastructure
4. Building agile and competent digital talent
5. Creating an inclusive digital society
6. Building trusted, secure and ethical digital environment

In terms of digital infrastructure, a review of relevant federal and state legislations and regulations related to telecommunications infrastructure development and measures is needed to identify areas of improvement and potential solution. Measures from the review could either be in – streamlining relevant federal and state legislations and regulations which regulate the process of infrastructure development in various states to be uniform and/or; amending constitutional clauses to place town planning under a single authority instead of the current shared arrangement between the federal and state governments. Several laws to be reviewed may include, but are not limited to - Town and Country Planning Act; Street, Drainage and Building Act; and Local Government Act.

At the sectoral and enterprise level, increased participation in e-commerce and usage of digital platform are needed for industries' growth and expansion, particularly among the SMEs which count for 90% of businesses in Malaysia. Digital applications in Business to Consumer (B2C) need to expand to stimulate more B2C activities. This will also bridge the digital gap among businesses and at the international level, between Malaysia and other countries. Realising the huge potential of e-commerce and digital platform, Malaysia launched the National eCommerce Strategic Roadmap (NeSR) in 2016 to assist businesses to participate more in e-commerce. COVID-19 pandemic has intensified the need to adopt e-commerce for enterprises to gain competitive advantage. Pertinent elements in e-commerce such as logistic services and digital security need a deeper look to ensure effective and efficient implementation of e-commerce and usage of digital platform.

PART 2
BOOSTING PRODUCTIVITY - KEY DRIVERS

CHAPTER 3

Incentives
Reforming Subsidy for Higher Productivity

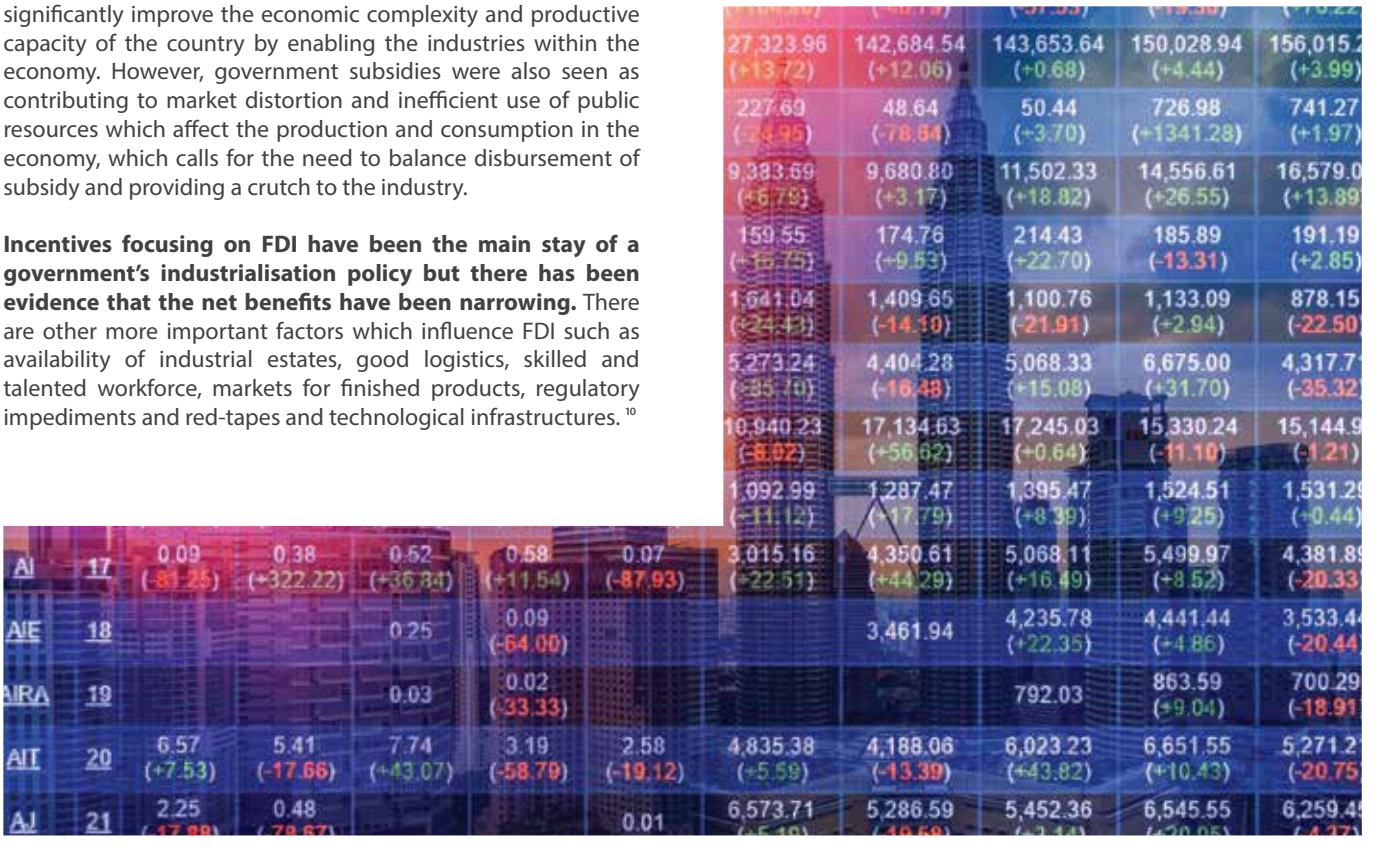
THE ROLE OF SUBSIDY IN PRODUCTIVITY AND PERFORMANCE

OECD defined subsidy as "a measure that keeps prices for consumers below market levels; or keeps prices for producers above market levels; or that reduces costs for both producers and consumers by giving direct or indirect support" [9] . It is a transfer of payment by the government to a company or individual as a form of government intervention to incentivise a company or an individual. The payment can be direct or indirect through programmes such as grants, tax incentives, price control, or regulatory policies for a particular business or industry. Such subsidy and incentives motivate companies to be more productive in reaching certain targets to make them eligible for the assistance.

From the economic perspective, one of the key goals of subsidy is to encourage firms to produce high value-add products and create high skill job opportunities to achieve high economic growth. In other words, subsidies should significantly improve the economic complexity and productive capacity of the country by enabling the industries within the economy. However, government subsidies were also seen as contributing to market distortion and inefficient use of public resources which affect the production and consumption in the economy, which calls for the need to balance disbursement of subsidy and providing a crutch to the industry.

Incentives focusing on FDI have been the main stay of a government's industrialisation policy but there has been evidence that the net benefits have been narrowing. There are other more important factors which influence FDI such as availability of industrial estates, good logistics, skilled and talented workforce, markets for finished products, regulatory impediments and red-tapes and technological infrastructures. [10]

Incentives to attract FDI should be well targeted instead of focusing on creating more jobs as it may only create low-skill jobs which lead to reliance on foreign workers. As such incentives should enable and increase a country's productive capacities and economic complexity. Government incentives and subsidies should be focused on enhancing productive capacities, as referred to "the productive resources, entrepreneurial capabilities and production linkages that together determine the capacity of a country to produce goods and services and enable it to grow and develop" [11] . Economic complexity, on the other hand, indicates the country's whole knowledge and skills used in manufacturing for export and this is expressed in the country's productive output. Increased economic complexity is necessary for a country to be able to hold and use a larger amount of productive knowledge of its human capital. [12]

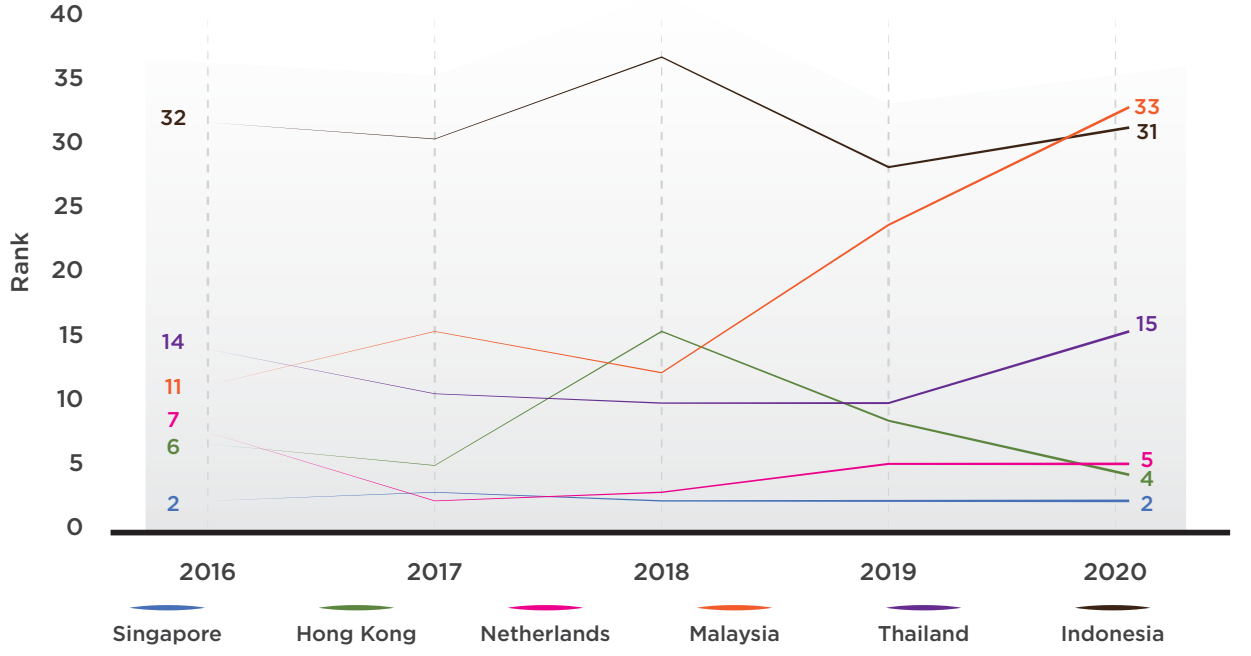


9. OECD (2006) Sustainable Development Studies – Subsidy Reform and Sustainable Development -Economic, Environmental, and Social Aspects
10. Mohd Shazwan Shuhaimen, et al., Economics Department and Foreign Exchange Administration Department, Bank Negara Malaysia, Rethinking Investment Incentives, Staff Insights 2017/12, November 2017
11. Reference XXX
12 a) ATLAS OF ECONOMIC COMPLEXITY; https://atlas.cid.harvard.edu/countries/153
b) UNCTAD, Productive Capacities Index; https://unctadstat.unctad.org/EN/Pci.html (16/2/21)

MALAYSIA'S STANDING AS AN INVESTMENT HUB

The World Competitiveness Yearbook (WCY) reported the continuing decline since 2016 in the attractiveness of Malaysia's incentives in attracting foreign investors as compared to other countries. Malaysia's investment incentives criteria dropped by nine positions to 33 among 63 economies in 2020 (Figure 19). The criteria score was overtaken by the neighbouring countries. Thailand had overtaken Malaysia since 2017, and last year, Indonesia moved ahead of Malaysia. Other ASEAN countries were also catching up and expected to overtake Malaysia in foreign direct investment (FDI) attractiveness should the current incentive programmes continue.

Figure 19 : Malaysia's Investment Incentives Trend in WCY



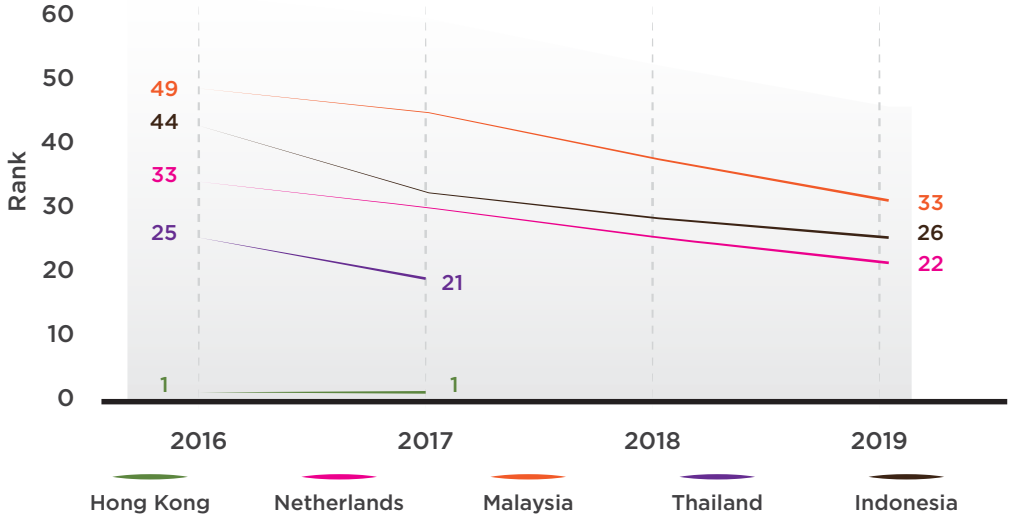
	2016		2017		2018		2019		2020	
	Rank	Value	Rank	Value	Rank	Value	Rank	Value	Rank	Value
SIngapore	2	8.03	3	7.33	2	7.85	2	8.16	2	8.38
Hong Kong	6	7.33	5	7.41	15	7.04	8	7.36	4	8.08
Netherlands	7	7.27	2	7.77	3	7.72	5	7.59	5	7.77
Thailand	14	6.81	11	7.10	10	7.15	10	7.09	15	6.97
Indonesia	32	5.89	31	5.94	37	6.14	28	6.41	31	6.32
Malaysia	11	7.05	15	6.78	12	7.11	24	6.47	33	6.26

Source: World Competitiveness Yearbook, 2020

The Executive Opinion Survey (EOS) from the WCY (2016 to 2020) clearly showed that Malaysia's investment incentives were not attractive to the foreign investors. It is an indication that there is a need to review incentive-related policies from the whole-of-government perspective amidst the current challenges in productivity growth.

Although the relative number of subsidies has been reduced, Malaysia still records high allocation for subsidy as a percentage of GDP to the private and public companies by comparison to many countries. Malaysia's ranking in subsidy to GDP ratio was at 46 in 2019. 1.56% was allocated from Malaysia's GDP for subsidies as compared to Indonesia in which only 1.28% from GDP was apportioned for subsidies. In 2019, Indonesia was ranked at 31, ahead of Malaysia by 15 points.

Figure 20: Malaysia's Rank in Allocation for Subsidy from GDP



Government subsidies to private and public companies as a percentage of GDP

	2016		2017		2018		2019			
	Rank	Value	Rank	Value	Rank	Value	Rank	Value	GDP(2019) (US Billion)	Subsidies from GDP (%)
Hong Kong	1	0.08	1	0.06	-	-	-	-	-	-
Netherlands	33	1.11	32	1.16	24	1.17	22	1.18	880.5	10.39
Malaysia	49	1.98	46	1.63	37	1.90	31	1.56	364.7	5.69
Thailand	25	0.91	21	0.88	-	-	-	-	-	-
Indonesia	44	1.47	34	1.24	26	1.23	26	1.28	1119.19	28

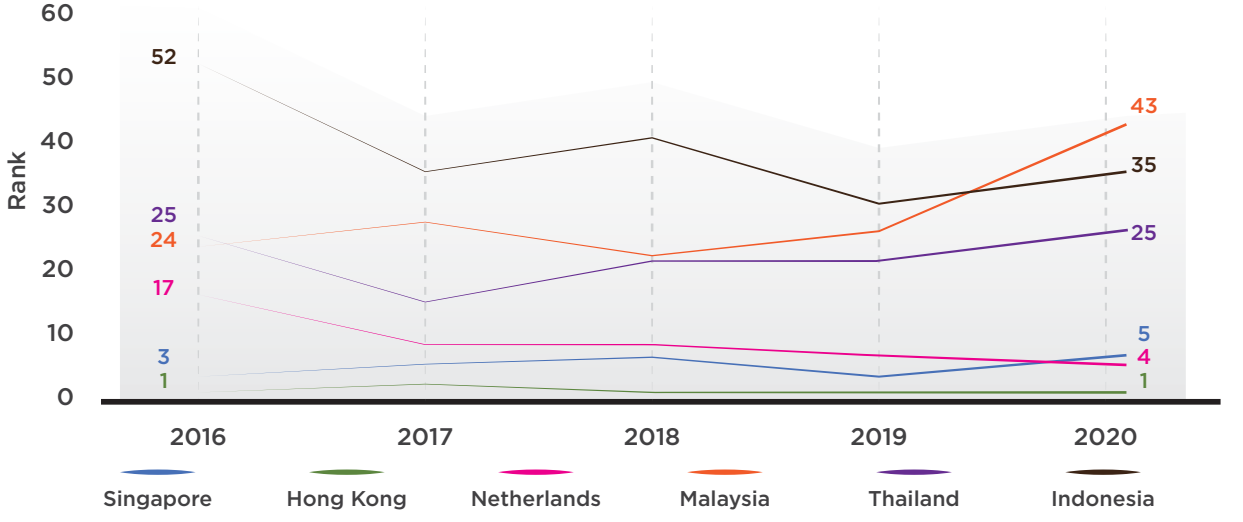
Source: World Competitiveness Yearbook, 2020

While Malaysia continues to provide a wide range of incentives and subsidies to support the FDI and promote expansion of foreign multinational companies in the country, the attractiveness on foreign investments continues to decline. The declines implies that the current subsidy programmes may not be competitive and relevant for the types of potential investments.

In addition, businesses viewed the current subsidy programmes distort fair competition and economic development in the country. The ranking in this aspect dropped to 43 rd place in 2020 (Figure 21). Indonesia and Thailand surpassed Malaysia with better ranks at 35th and 25th place respectively.

The constant decrease in the international indicators relevant to government incentive and subsidy in attracting the FDI has a serious adverse impact on Malaysia as the destination of choice for foreign investments. In the long run, the scenario may affect business sustainability and growth. As much as the social and welfare subsidies affect the public's socio-economic condition positively, they should not impact business fair competition significantly. Industry incentives have generally been treated as part of subsidies but incentives given to industries are meant to serve specific economic objectives. Industry incentives should focus on specific purpose which benefits long-term development of the country, such as increasing the economic complexity[13] and productive capacity [14] of the nation.

Figure 21 : Malaysia's subsidies distort fair competition and economic development



	2016		2017		2018		2019		2020	
	Rank	Value	Rank	Value	Rank	Value	Rank	Value	Rank	Value
Hong Kong	1	8.31	2	7.69	1	7.36	1	7.95	1	7.92
Netherlands	17	6.17	9	6.69	9	6.51	5	7.46	4	7.39
Singapore	3	7.23	4	7.20	5	7.16	3	7.54	5	7.21
Thailand	25	5.70	16	6.03	23	5.83	23	5.94	25	5.84
Indonesia	52	4.24	35	5.17	41	5.20	30	5.68	35	5.62
Malaysia	24	5.73	28	5.42	22	5.87	27	5.79	43	5.08

Source: World Competitiveness Yearbook, 2020

13. Source: ATLAS OF ECONOMIC COMPLEXITY; https://atlas.cid.harvard.edu/countries/153 (25/2/21)
14. Source: UNCTAD, Productive Capacities Index; https://unctadstat.unctad.org/EN/Pci.html (16/2/21)

THE OECD MODEL TO REFORM SUBSIDY

Malaysia has embarked on the rationalisation of subsidies since 2013 on fuel, electricity, and sugar. In 2014, the government introduced Incentive-Based Regulation (IBR) for electricity tariff fixing together with the reduction in natural gas subsidies. The reduction in the natural gas subsidy was carried out gradually and periodically reviewed. This ensured that the inflation was under control and industry adjusted seamlessly. The reform was motivated by the exceeding allocation of subsidies for energy as the country faced contraction in economy and fiscal deficit in 2009[15]. The saving from the subsidy reduction and rationalisation were allocated towards more targeted incentives particularly in addressing social issues.

MIDA has established i-Incentives which is a one-stop portal which publishes investment incentives offered by the federal government. This portal provides information on incentives available for businesses to apply from the relevant ministries and government agencies.

New Zealand agriculture subsidy reform

Issue : Economic unsustainability of New Zealand subsidy program which by 1984, agricultural support amounted to 4% of New Zealand's GDP with almost 30 types of assistance.

Solution :The removal of agricultural subsidies saw a positive impact towards the economy and the environment such as improvements in human capital development, sustainability in the agricultural sector, sharp reductions in the volatility of inflation, and most importantly, reductions in the size of the government administration which benefited the New Zealand's per capita GDP growth. In 2005, New Zealand's government assistance for the agricultural sector was the lowest in the OECD at €208million.

In reforming subsidy programme, one of the model proposed by OECD is the Overview of Approaches for Assessing Subsidies.[16]

The Overview of Approaches for Assessing Subsidies or the checklist approach shows that it is critical to understand and evaluate the role and impact of subsidy programmes. A study was done using the Checklist Approach and was applied in the agriculture and fisheries sector. Market price support, payment based on output and input subsidies as an agricultural support were found to have a negative effect towards the sector. However, supports based on area planted and animal numbers, and based on input constraints were found to have positive impact.

OECD MODELS TO REFORM SUBSIDY Overview of Approaches for Assessing Subsidies

The model uses the checklist approach –

• The checklist focuses on

i. the effects of subsidy removal on the decisions of consumers and producers; and

ii. the linkages between consumers' decisions and the environment.

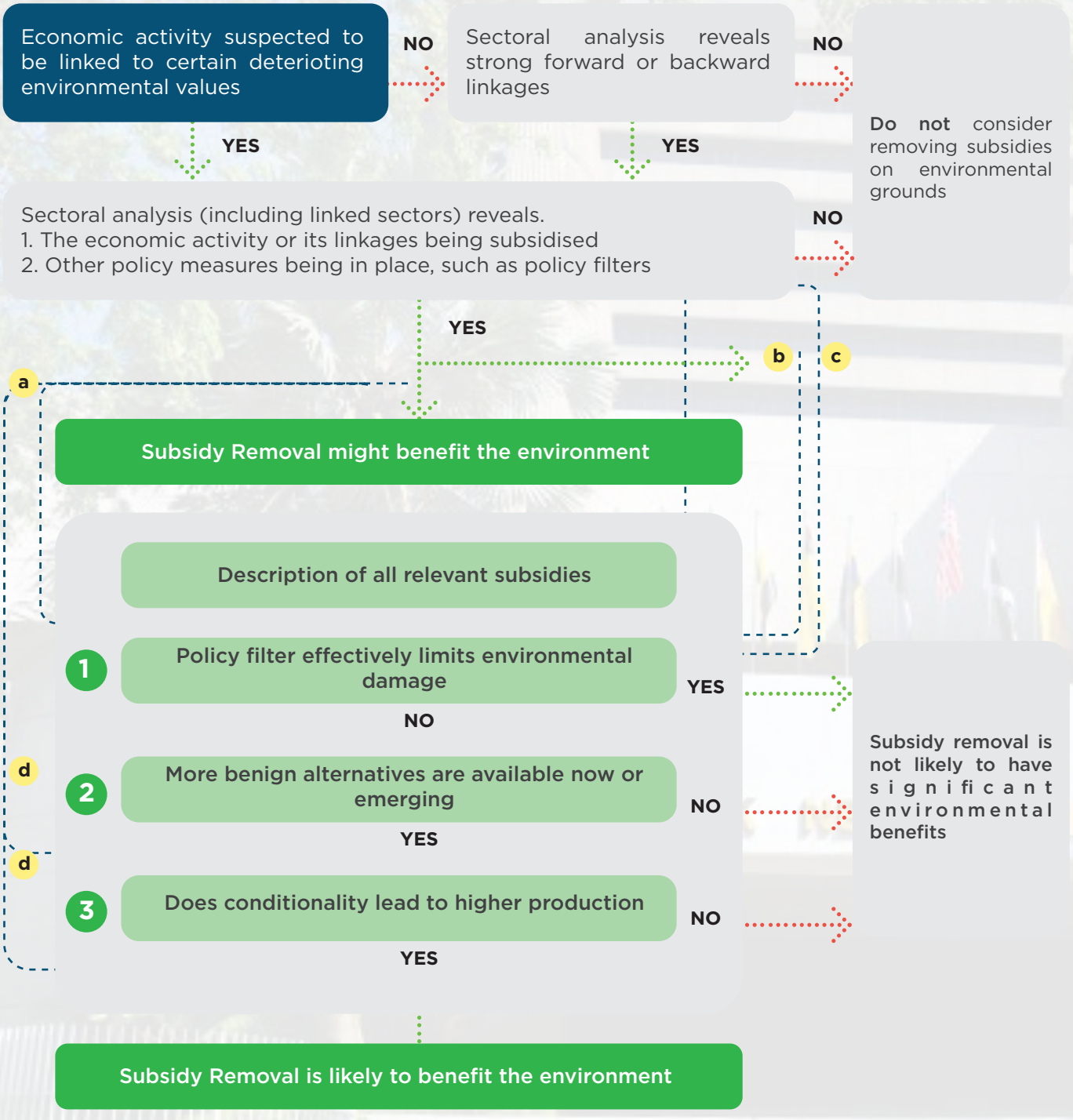
• The checklist can be used as a first-order "quick scan" to determine if removal of a subsidy will result in environmental improvements and provide a ranking of subsidies in terms of their environmental harmfulness.

• The checklist provides a core set of questions that are common to all sectors which can be applied in a systematic way to the existing and proposed subsidy programmes.

• It is a policy tool to which government agencies and other groups can easily apply in a relatively cost-effective manner.

15. Five Key Lessons from Malaysia's 2014 Subsidy Reform Experience. https://www.esmap.org/node/74414
16. UNCTAD Productive Capacities Index – https://unctadstat.unctad.or/EN/Pci.html

Diagram : Flow Chart of the Checklist



INITIATIVES TO STRENGTHEN THE INCENTIVE AND SUBSIDY ECOSYSTEM

Reform initiatives should assess whether the subsidy programmes achieve the intended objectives i.e. benefits quantitatively compared to any spill-over negative consequences. A cost-benefit or cost-effective assessment has to be done for all programmes – ex-ante and ex-post.

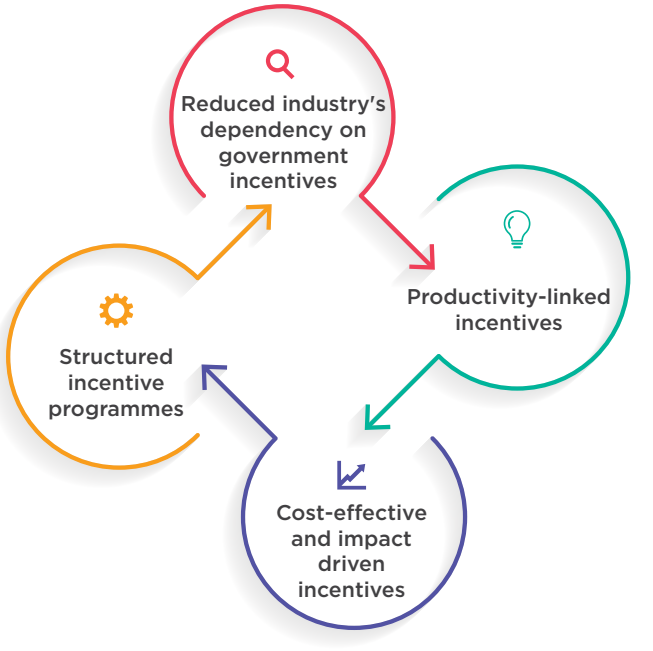
The Malaysia Productivity Blueprint (MPB) with MPC serves as the implementing agency has tabled several initiatives to make industry accountable for productivity, which comprise reducing subsidies to industries. The MPB initiatives also aim to ensure that any incentive is linked to improvement of productivity and achievement of the stipulated outcomes. The establishment of productivity nexus creates linkages between the industry players and relevant authorities in educating the business community that productivity can be government-led, but it has to be industry-driven. Dependency on government subsidies and incentives gives crutch to business expansion, hence impacting business sustainability and continuous growth. Efforts under MPB by MPC should continue with more industry-driven programmes.

A measure of government assistance for the industry is needed to determine the level of assistance appropriate to businesses. The assessment provides indications on the current effectiveness of the subsidy and incentive programmes and future improvements suitable to address the diversified sub-sectors. As the association of productivity growth and dependency of government subsidies is interconnected, the systematic and structured measurement of government assistance to industries can be led by MPC in collaboration with the ministries and government agencies which provide subsidies such as MIDA.

Incentive programmes have to be designed with ex-ante cost-effectiveness and impact evaluation. A standard evaluation design methodology to ensure the proposed incentives lead to high reliability in achieving established objectives must be in place. Impact evaluation can be designed using the established concept and principles such as the OECD Principles of Impact Evaluation. Ministries and the relevant government agencies with incentive and subsidy programmes should establish the impact evaluation programme with specific criteria to evaluate their programmes to the expected outcomes at the sectoral and national level.

Together with ex-ante evaluation, there should be a continuous monitoring and ex-post evaluation of all the implemented incentive programmes. All incentive programmes need to have the life-cycle and continuation of any subsidy or incentive has to be based on empirical justifications. As such, the relevant government authorities must work very closely with industry players receiving subsidies and incentives. The implementation of ex-post evaluation and monitoring will be two-prong from the sides of the relevant authorities and industry. Annual reporting by industry on the implementation of the incentives and assistance received can be made mandatory for industry.

Figure 22 : Potential Outcomes from the Reforms in Subsidy and Incentive Programmes



There is also a need for enhanced capacity building among the government officials towards reducing dependency on government assistance and enhancing industry independence. Capacity building in the aspects of strategising, executing, monitoring, reviewing, and evaluating incentive and subsidy programmes enables government officials to be more competent in designing the most appropriate subsidy and incentive programmes for the business community.

PART 2
BOOSTING PRODUCTIVITY - KEY DRIVERS

CHAPTER 4

Business Environment
Managing Regulatory Concerns for Conduciveness

CONDUCIVE BUSINESS ENVIRONMENT INCREASES PRODUCTIVITY

Business environment comprises internal or external factors that influence the operations of firms on the ground. Malaysia Productivity Blueprint (MPB) stated that challenges in business environment are among the factors which hinder productivity growth at the national, sectoral, and enterprise level.

As businesses are not operated in isolation, forces such as regulations and policies, socio-political condition, and leadership give impact to firms and industries as a whole. While internal business environment is within the control of a firm's management, external factors are beyond their control and evolve dynamically. Firms and the business community must understand and adapt to the dynamism in business environment to remain productive and competitive.

MPB indicates unnecessary regulatory hurdles as counterproductive and must be removed to create a more conducive business environment for productivity to grow and businesses to prosper. Industries' regulatory concerns must be addressed to forge a more robust business ecosystem to ease business operations and activities.

THE IMPACT OF COVID-19 ON BUSINESS ENVIRONMENT

The term 'business environment' denotes external forces, factors, and institutions beyond the control of a business entity and they affect the functioning of a business enterprise. These include among others customers, competitors, suppliers, government, and the social, political, legal and technological factors. In other words, business environment is the environment which provides numerous opportunities, and it is necessary to identify the opportunities to improve the performance of a business.

World Bank identifies Malaysia as one of the most open economies in the world with a trade to GDP ratio averaging over 130% since 2010. The country's openness to trade and investment has been instrumental in employment creation and income growth, with about 40% of jobs in Malaysia linked to export activities. After the Asian financial crisis in 1997-1998, Malaysia's economy has been on the upward trajectory with the average growth of 5.4% since 2010, and is expected to achieve its transition from an upper middle-income[17] economy to a high-income economy by 2024.

However, the COVID-19 pandemic has fundamentally changed the global economic landscape. In 2020, in the months since the COVID-19 outbreak was first diagnosed, it has spread to over 200 countries including Malaysia. The pandemic has negatively affected the global economic growth beyond anything experienced in nearly a century. Malaysia's GDP contracted by 3.4% in 2020, with a partial recovery of 2.5% to 5.2% projected for 2021[18] .

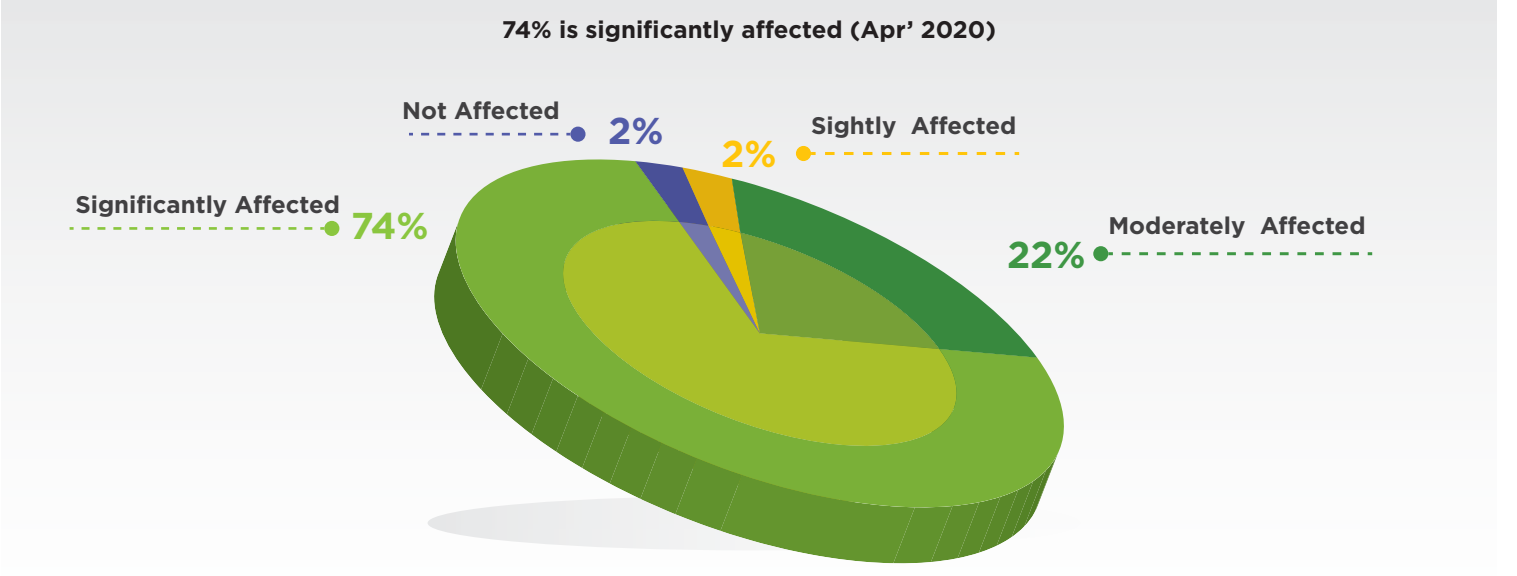
Major advanced economies, which comprise 60% of global economic activities, are forecasted to operate below their potential output level through at least until 2024. Compared with the synchronised nature of the global economic slowdown in the first half of 2020, the global economy showed signs of a two-track recovery in the third quarter of 2020 with developed economies experiencing a nascent recovery while the growth in developing economies lagged behind. A resurgence in positive COVID-19 cases in developing economies since September 2020 renewed the call for curfews and threatened to weaken or delay a sustained economic recovery into at least the first or second quarters of 2021.

Based on the World Bank's Doing Business 2020 rankings, Malaysia has seen a steady improvement in its business climate. Although the rank improved consistently, 2020 has brought significant disruption to the economic growth. Malaysia was ranked 12th with 81.5 points amongst 190 global economies in 2020, recording an improvement from 15th position from the previous year. However, COVID-19 has changed the landscape of Malaysia's economy. Constructed on a survey conducted by MPC in the first quarter of 2020, businesses in Malaysia were struggling to recover with 74% from the total businesses were significantly affected, and 46% stated that they would not be able to recover even after six months after the imposed lockdown. 82% of the respondents recorded decreased revenue, 70% experienced disruption in operation, 60% faced reduction in local demand and 57% dropped in cashflow and liquidity (Figure 23).

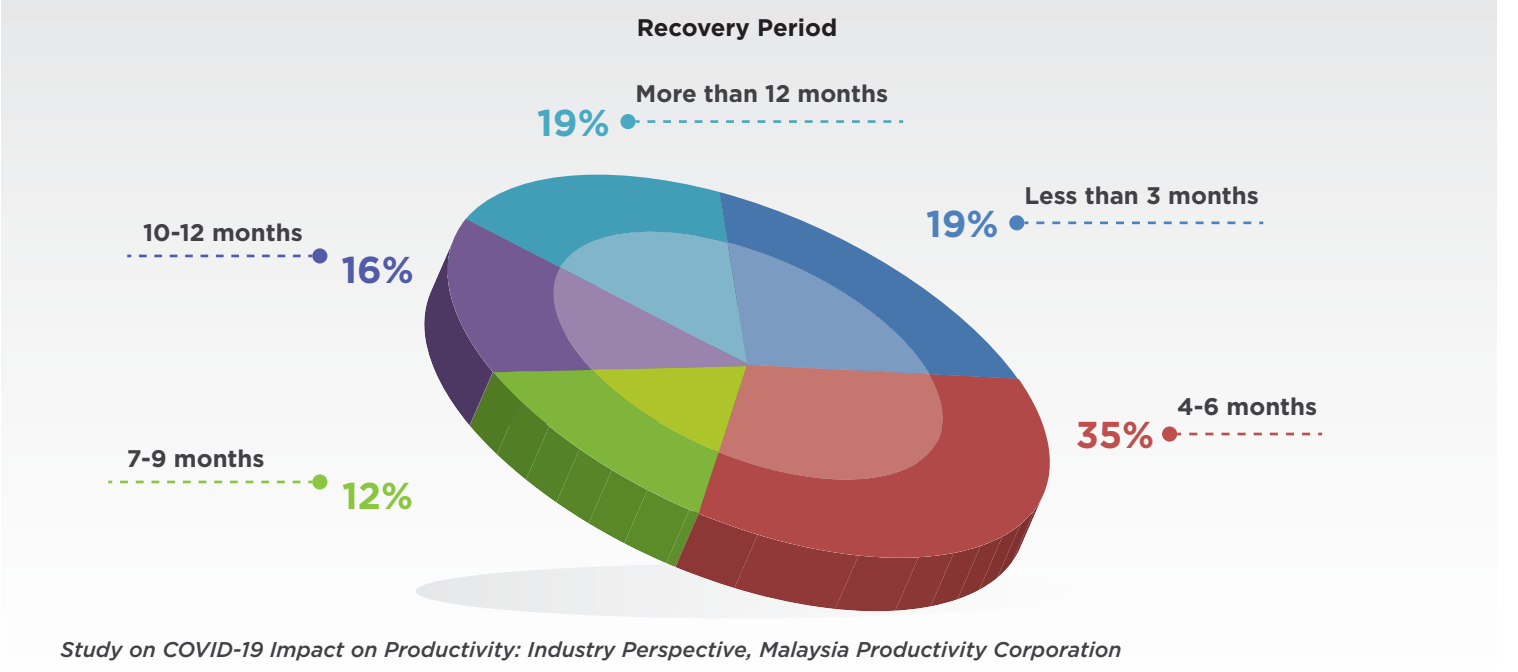
17. As classified by the World Bank.
18. World Bank, 2020

Figure 23 : The Situations of Businesses in Malaysia during COVID-19

Business in Malaysia are struggling to recover from economic shock due to the impact of Covid-19 and calling for urgent recovery actions



Study on COVID-19 Impact on Productivity: Industry Perspective, Malaysia Productivity Corporation



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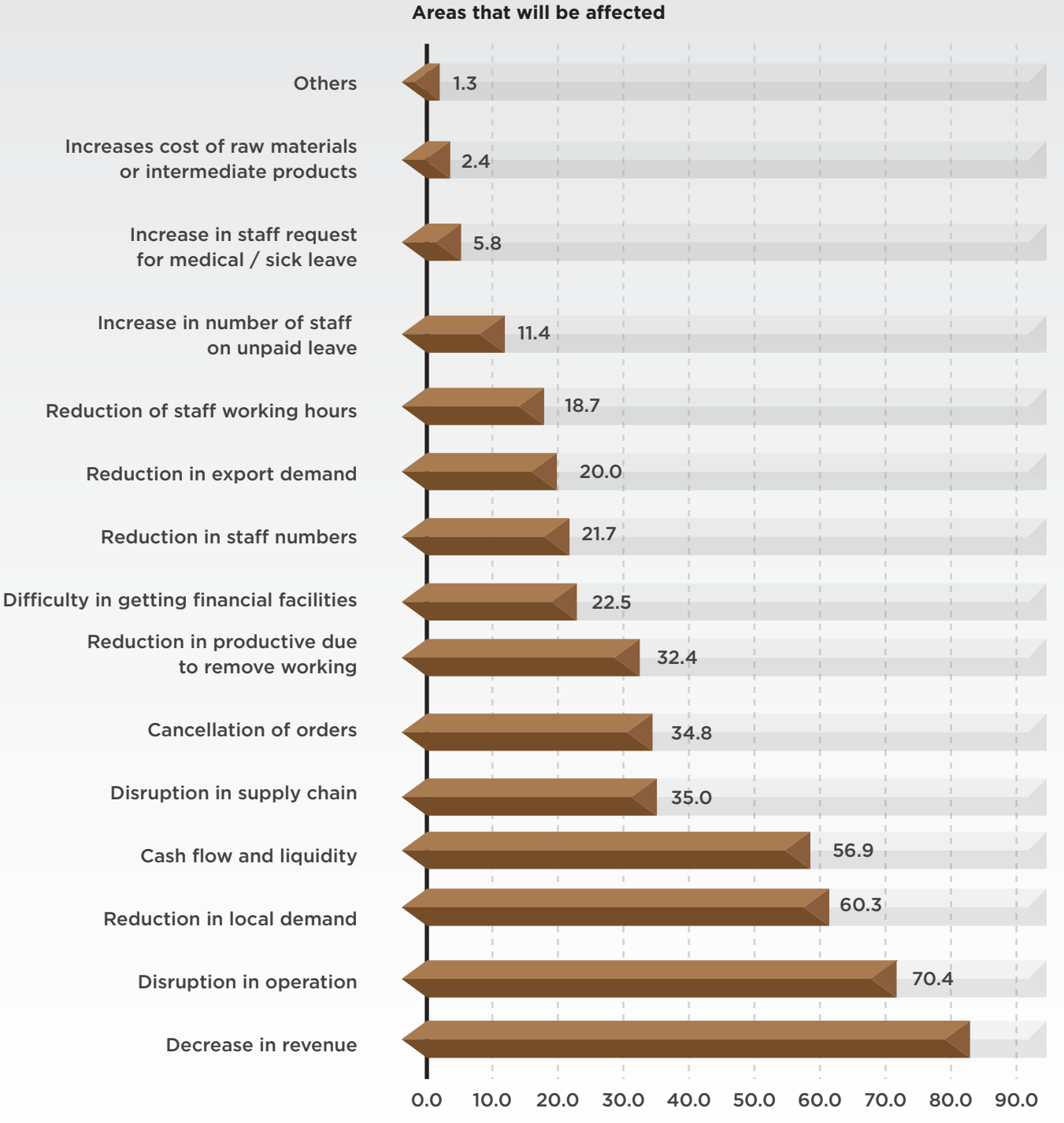


Source: Study on COVID-19 Impact on Productivity: Industry Perspective, Malaysia Productivity Corporation

INITIATIVES BY THE GOVERNMENT TO STRENGTHEN BUSINESS ENVIRONMENT

The Government has embarked on a series of economic stimulus measures totalling RM305 billion entailing fiscal and nonfiscal measures in order to assist domestic businesses during the pandemic. The PRIHATIN SME+ stimulus package worth RM10 billion was introduced in April 2020 and later in June 2020, the Government announced the Short-Term Economic Recovery Plan (PENJANA) totalling RM35 billion. In September, the Government released the RM10 billion additional package, dubbed the PRIHATIN Supplementary Initiative Package (KITA PRIHATIN). Having the assistance in place and compounded by the spill-over effects from the fiscal injection, private investment is expected to rebound by 6.7% in 2021.

Under the PRIHATIN package, the nation's healthcare services are strengthened by additional allocations, among others for medical equipment, enhancing testing capacity and developing the MySejahtera application for contact tracing. PRIHATIN has also provided immediate financial assistance to ease the cash flow burden of the rakyat and businesses, including employment retention support, deferment or restructuring of loan repayments as well as provision of credit facilities. In addition, the implementation of the PRIHATIN SME+ was launched to ensure the survival and ease the financial burden of the SMEs.

Measures to strengthen business environment include the establishment of funds to support digitalisation, especially for the SMEs, as well as tax incentives to attract foreign direct investment (FDI) and assistance to sustain businesses.

On 20 July 2020, the Government agreed to commence the MalaysiaMudah (#MyMudah) initiative. The decision was made through the Economic Action Council (EAC) meeting chaired by Malaysia's Prime Minister. The initiative aims to assist companies and businesses which are burdened by unnecessary regulations, bureaucracy or red tapes, and reduce business compliance costs as well as to create job opportunities and stimulate the economy. A total of 65 Virtual Roundtable Discussion Sessions were conducted with participation from throughout the country involving 722 representatives of associations, captains of industries, and business owners with the aim to identify regulatory problems faced in conducting business operations.

In addition, feedback was gathered through the online platform, the Unified Public Consultation (UPC) Portal which was developed with the purpose to collect and expedite the gathering of regulatory issues faced by businesses to increase the ease of doing business. The UPC portal facilitates stakeholder engagements in rulemaking process. It provides members of the public with easy access to regulatory consultations through a single website. UPC contributes to achieving the Government's commitment to accountability, transparency, and inclusiveness in policymaking and regulatory reforms. With the establishment of the centralised online public consultation mechanism, it is envisaged that a set of guidelines can be designed to develop a more systematic and effective public consultation towards a more robust rulemaking process. It is expected to enhance legitimacy and trust in public institutions. Furthermore, it provides a tracking tool for better monitoring and evaluation of evidence-based and quality rulemaking. The publication of notice of regulatory consultations from various regulators on a centralised portal serves to enhance accessibility, transparency, inclusiveness, and accountability in the process of policymaking and regulatory improvements.

Via UPC, stakeholders are required to register to participate in the preliminary and final consultations. Parties participating in forums or consultations must observe certain conditions to ensure fruitful discussions or feedbacks to regulators. The following conditions are to be observed :

- Statements offending racial, religious, or cultural sensitivities should be avoided;
- Statements attacking or insulting person/s or organisation/s are not allowed;
- Comments/feedback must be relevant to the issue(s) under consideration; and not to attach any link to offensive or unsolicited websites;
- Compliance with copyright, trademark, and patent requirements must be ensured if relevant;
- UPC must not be used to conduct competition or commercial activities; and
- Files uploaded must be virus-free.

#MyMudah has achieved a number of success stories. One of the highlighted issues was the severe backlog of readily occupied buildings to obtain Certificate of Completion and Compliance (CCC) due to pending clearance by the local authorities and technical agencies. Resolving this regulatory backlog is a potential source of productivity and economic growth. The Economic Action Council has agreed for technical agencies to issue a clearance letter within 28 days and introduce the 'silence implies consent after 28 days' concept for completed buildings to obtain CCC. Its implementation enables CCC to be issued without unnecessary delay and businesses can start operations more swiftly, thus creating more job opportunities for Malaysians. The end result is the ease in business operation and a better business environment.

BUSINESS ENVIRONMENT ON THE GROUND

Malaysia has played an important role in the economy of the South-East Asia in the last decades and is among the most successful economies among the developing countries in the region.

The country has started to pay more attention to entrepreneurial mindset and approach in its business environment. Many supportive initiatives have been implemented to help the SMEs and knowledge-oriented start-ups.

Nevertheless, the severity of the COVID-19 impact in 2020 on domestic business was unprecedented. Weak economic and financial results, demand cut-backs, supply chain disruptions, and knock-on effects of troubled sectors on employment were challenging the country's economy. Consequently, the economic growth sharply contracted by almost -6% in 2020 compared to the previous year at 4.3% as reported by the IMF in the World Economic Outlook Report 2020. There are some concerns on the speed of growth, change and economic share of competing economies in this economic region. As such, Malaysia has started new initiatives to accelerate the growth process in both the economic and human capital dimensions.

The Government recognises that regulatory environment has a substantial effect on the behaviour and performance of businesses. Innovation culture and private sector participation in the economy require a regulatory environment which provides the necessary protections and guidelines, while offering flexibility for businesses to choose the best ways to operate. Too often, Malaysian firms face a tangle of accumulated regulations leading to constrained growth. Malaysia has consistently improved regulatory performance since the last few years as can been seen from the country's overall ranking in the World Bank Report on Doing Business 2020.

Despite continuous and affirmative efforts and success in regulatory reforms to enhance business environment, registering a new business is still a challenge faced by the business community. Lack of integration and coordination among various ministries and authorities and registrations at various government counters for approval of licences and permits hinders businesses from commencing operation seamlessly. In addition, the process increases time, energy, cost, and resources.

Table 5 : Malaysia's Competitiveness Performance in Doing Business Report – Malaysia's Ranking

Indicator	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Overall	23	18	12	6	17	18	23	24	15	12
Starting a business	111	50	54	16	12	14	112	111	122	126
Dealing with construction permits	111	113	96	43	15	15	13	11	3	2
Getting electricity	60	59	28	21	13	13	8	8	4	4
Registering property	59	59	33	35	36	38	40	42	29	33
Getting credit	1	1	1	1	24	28	20	20	32	37
Protecting Minority Investors	4	4	4	4	4	4	3	4	2	2
Paying taxes	39	41	15	36	32	31	61	73	72	80
Trading across borders	28	29	11	5	48	49	60	61	48	49
Enforcing contract	60	31	33	30	44	44	42	44	33	35
Resolving	57	97	49	42	43	45	46	46	41	40

Source : Doing Business, World Bank (various years)

Towards achieving a more conducive business climate which include starting a new business, the Government begun with a comprehensive review of business regulations, starting with regulations which impacted on the National Key Economic Areas (NKEAs). Regulations which contributed to the improvement of the national outcomes were retained, while unnecessarily burdensome, redundant, and outdated regulations were eliminated.

The 10th Malaysia Plan mandated MPC to spearhead the national initiative in reducing the unnecessary regulatory burdens (RURB) to businesses. Such burdens were originated from poorly designed and enforced regulations. MPC developed the RURB Framework which eliminates the unnecessary regulatory burdens encumbering businesses. A comprehensive review of business regulations and improved processes and procedures is expected to increase productivity and competitiveness of major economic sectors in the country.

In the effort to improve regulatory delivery systems, MPC reviewed licence issuances by 23 ministries and 2 departments under the Prime Minister's Department. A comprehensive scanning and stocktake of business licences were conducted to reduce the irrelevant ones. The review was approached using business process re-engineering to understand the logical flow of any licencing process and delivery. From 767 reviewed licences, 454 were consolidated and 29 were abolished. The initiative resulted in the estimated compliance cost saving of RM 729 million.

The launch of the National Policy on Development and Implementation of Regulations (NPDIR) in 2013 reflected the Government's desire to improve the rulemaking process. The national policy mandates MPC, through its responsibility to the National Development Planning Committee (NDPC), to implement the functions of the national policy. Regulatory impact statements and public consultations were introduced in order to standardise the way polices, laws, and regulations are developed and improve the overall regulatory quality.

The NPDIR addresses the gaps in the management system for regulations to put Malaysia in a position to meet international best practices in regulations or Good Regulatory Practice (GRP). This enhances transparency and credibility of regulatory actions and creates a climate for better quality of life and business environment. The Government recognises that this initiative contributes towards building an economy which is attractive to industries and investments.

As a result of Malaysia adopting international regulatory good practices for a decade, the country's significant achievements in 2020[19] included:

- The second-best global performer in the dealing with construction permits indicator. Local businesses only go through nine procedures to obtain all the required permits and authorisations to build a warehouse. The overall time to complete this process is three times faster than the regional average. In the past year, Malaysia streamlined the process to obtain construction permits by eliminating the requirement for road and drainage inspection by the Kuala Lumpur City Hall.
- The second-best performer in the world in the protecting minority shareholders indicator.Malaysia's legal framework has strong rules and requirements for the protection of minority shareholders.
- The fourth-best global performer in getting electricity indicator as the process for a business to obtain a permanent commercial electricity connection. It is now 23 times cheaper and substantially faster than the regional average.

19. Based on World Bank's Doing Business 2020 rankings report.

However, there are still concerns on regulatory enforcement and the lack of transparency in terms of how regulations are developed, implemented and enforced. UPC has enhanced the transparency in the development of new policy and regulations, in which consultations with all relevant stakeholders are done to ensure that the regulations address their concerns. The single portal for policy consultation is an effective method, however the coverage is still limited. It is crucial that the consultation should also reach beyond the relevant government departments/agencies and business community to include other groups such as consumers and non-governmental organisations. Inclusive public consultation leads to better regulatory outcomes when the process is transparent and comprehensive.

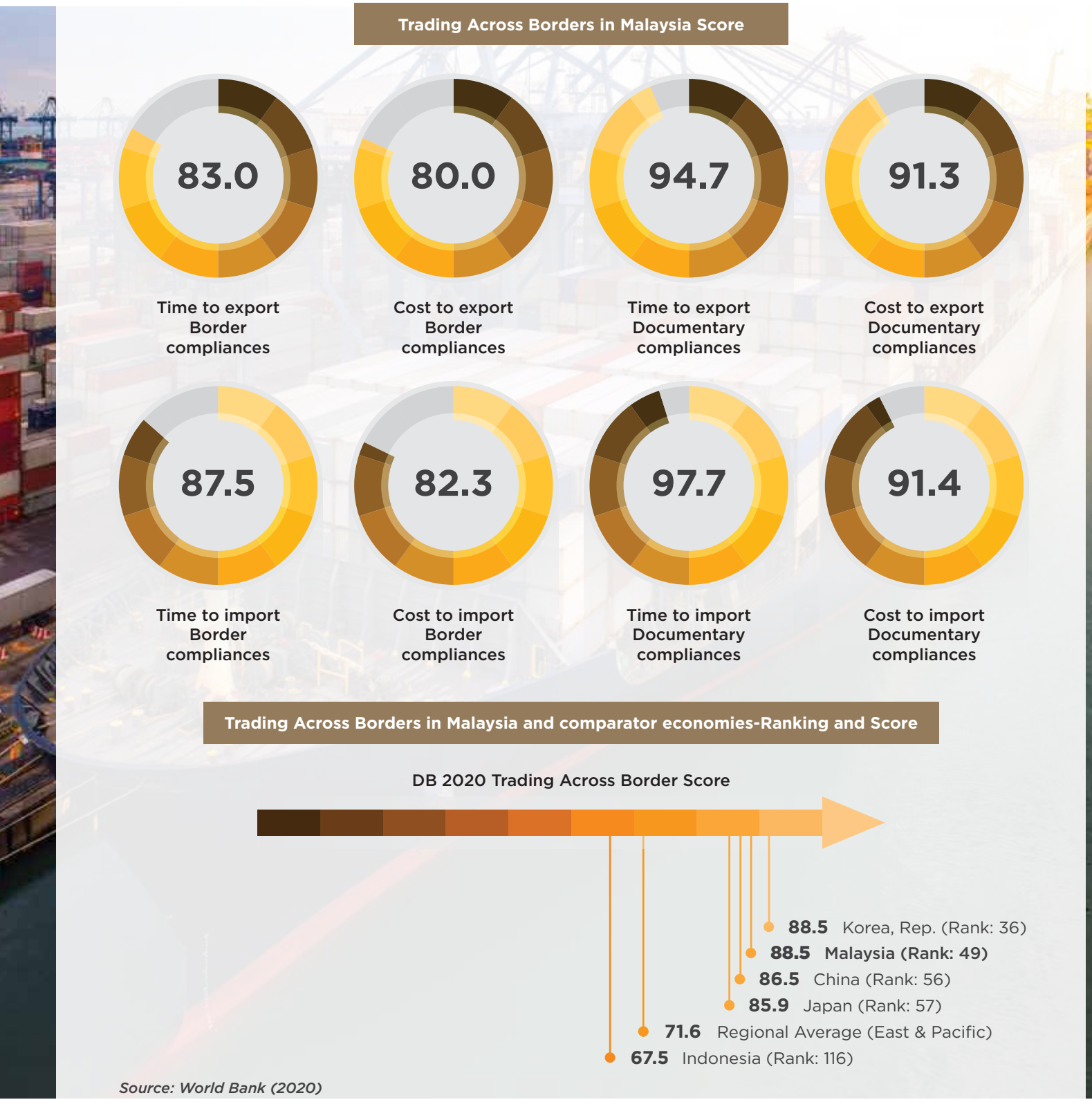
In terms of regulatory delivery, Personal Data Protection Act (PDPA) 2010 is one of the areas of concern. The implementation of the Act is perceived by practitioners as an additional burden and a redundance as personal data protection has already been addressed under the Private Healthcare Facilities and Services Act (PHFSA) 1998. PHSA regulates the collection, recording, holding or storing of personal data, and execution of any operation on personal data for commercial transactions. PHSA, however, does not restrain a party from processing data if the processing is done legitimately in accordance with stipulated principles. PHSA does not apply to the federal and state governments; non-commercial transactions; personal, family and household affairs; credit reference agencies; personal data processed outside of Malaysia (unless the data is intended to be further processed in Malaysia). The security Principle in PDPA is considered as the most challenging principle in processing personal data since businesses have to take practical steps to protect personal data from any loss, misuse, modification, unauthorised or accidental access or disclosure, and alteration or destruction. Nevertheless, the implementation of PDPA increases the cost in protecting personal data since businesses have to use effective security measures and proper tools to protect personal data from being disclosed to an unauthorised party unwillingly.

In relation to transparency, regulatory reforms also require strong anti-corruption practices in establishing a healthy environment for businesses to operate. A recent exercise by MPC in collaboration with the Governance, Integrity and Anti-Corruption Centre (GIACC) to ensure online publication of guidelines for approval of permits and licences increases transparency and minimise corrupt practices. Information shared for public consumption benefit both the users and authorities as both parties have similar references. Trust in the integrity of the public sector enhances compliance among players in the business community.

Despite various challenges, 2020 has recorded several success stories of enhanced business environment on the ground. In a globalised world, seamless trading across borders is increasingly important for businesses. The ability by firms and economies to compete in the global markets was put to test in past few years of economic turmoil. In 2020, world trade recorded its largest decline in more than 80 years because of the pandemic. No region was left untouched by the impact of the pandemic. Past literature indicated that during the recent slump in global demand, making trade easier facilitated the decline in an economy's exports by promoting stronger links between suppliers and buyers.

In the World Bank Doing Business 2020 report, Malaysia was ranked 49th among 183 countries in Trading Across Borders indicator based on four Malaysian ports. Continuous efforts to reduce time, minimise costs and simplify procedures for trade are being undertaken by establishing benchmarks and best practices in relation to ASEAN and OECD countries.

Figure 24 : Trading Across Borders – Malaysia



Source: World Bank (2020)

The Focus Group on Trading Across Borders, chaired by the Ministry of International Trade and Industry (MITI), undertakes initiatives to improve Malaysia's trade environment, especially with respect to Trading Across Borders. Among the reforms implemented include:

- Streamlining import and export process flows;
- Standardisation of import and export process flows;
- Combining documents for export, invoice, and packing list;
- Trade facilitation initiatives project; and
- Consultative Committee on ancillary charges.

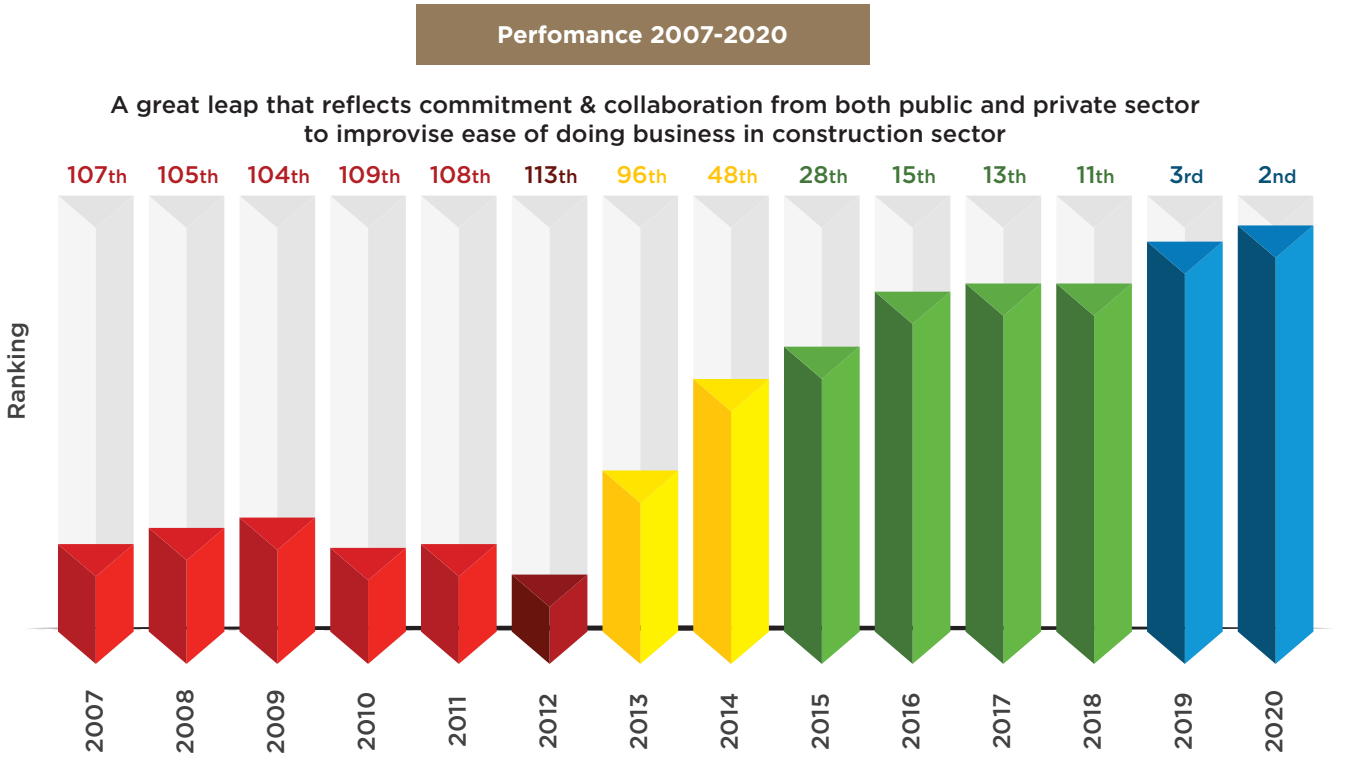
One of the key issues highlighted in 2020 was the unnecessary regulations affecting Malaysia's export competitiveness globally which caused an incurred cost of more than RM2.4 million per year and 60,000 hours per year in the course of doing business. In order to tackle the issue, in August 2020, the government agreed to remove the unnecessary procedures for export of 524 items (524 HS Codes) which inconsistent with Customs (Prohibition of Export) Order 2017. Since the commencement of the initiative, feedback received from the exporters recorded reduction in cost and time which were burdening them.

Another success story is in the aspects in dealing with construction permits. Malaysia has streamlined the process in dealing with construction permits by eliminating the road and drainage inspection performed by Kuala Lumpur City Hall. Kuala Lumpur had the following issues:

- Too many procedures (interactions) between firms and authorities;
- Long processing time by authorities in issuing permits; and
- High fees charged by the relevant authorities.

Based on the World Bank Doing Business report 2020, Malaysia was ranked 2nd in dealing with construction permits.

Figure 25 : Construction Permits – Malaysia



Dealing with Construction Permits (rank)	2
Score of dealing with construction permits (0-100)	88.0
Procedures (number)	9
Time (days)	53
Cost (% of warehouse value)	1.3
Building quality control index (0-15)	13.0

THE "PACING" PROBLEM DURING THE PANDEMIC

A survey was conducted by MPC in April-July 2020 to gauge the extent businesses were impacted by COVID-19. Since MCO was imposed on 18 March 2020, businesses are struggling to recover from the economic shock due to the impact from COVID-19 and call for urgent recovery actions. It is essential to understand the impact in terms of productivity, revenue, overhead and operating costs, and workforce (turnover/layoff /reduced working hours) if the pandemic continues for another 12 months. By understanding the areas affecting businesses including unnecessary regulatory burden, their readiness to embrace the new normal as well as their recovery plans and strategies post MCO, initiatives and regulatory reliefs can be designed to support economic recovery and mitigate the impacts.

The survey covered the 9 Productivity Nexus established under the MPB. A minimum sample of 38-40 was achieved for each Nexus.

Overall, 74% of the respondents indicated that they were significantly affected by the pandemic. By Nexus, ICT & Digital and Chemicals & Chemical Products both registered the lowest percentage of 54% to be significantly affected. More than 86% of the respondents from the Healthcare, Tourism, Retail & F&B sectors were significantly affected.

The top 5 recovery plans recorded from the survey were – reduce unnecessary expenses (41.4%); explore new areas/markets (37.3%); increase use of digitalisation and technology (28.3%); increase product offering (23.6%); and assess risk and financial plan (22.3%).

The MCO has also forced businesses to adopt digitalisation. The lockdown and need for physical distancing have encouraged companies to accelerate digitalisation adoption rate. The new normal presented adoption of digitalisation and technology as the gamechangers. Businesses indicated that increased digitalisation adoption during the pandemic was at 49%. It reflects businesses' intention to move forward and ride the wave for recovery. It also implied businesses' willingness to use digitalisation as a tool for recovery. Adoption of digitalisation had the positive impact on productivity as 41% of the respondents claimed that it increased their productivity.

Although the results from the study indicated a positive outlook and signs of businesses recovering, comments made by respondents reflected the need for further government interventions especially in the disbursement of financial assistance. Currently, the stimulus packages provide a temporary or short gap answer to businesses but not a long-term solution. Even with the funding provided through various stimulus packages, the main issue highlighted was the slow and inefficient disbursement of the funds; and this affected business recovery efforts negatively. Respondents also highlighted the need to ease the regulatory burdens and strategise regulatory reliefs to support economic recovery.

PRIORITIES TO ENHANCE BUSINESS ENVIRONMENT

Improved regulations are necessary for economic revival to manage risks and minimise the unnecessary red tapes. A good system of regulatory management methodically helps to identify the best choice of policy options. It reduces unnecessary burdens on citizens and businesses and promotes transparency in the design of and access to regulations while protecting health, safety, and the environment.

According to World Bank, Malaysia's GRP journey has many lessons for countries embarking on similar reforms. Success factors in GRP effort include strong links between regulatory reform commitments and broader economic and development goals; the establishment of a whole-of-government regulatory policy and GRP guidelines' focus not on fewer but better regulations; and the in-depth engagement with the private sector. Challenges to effective GRP approach include the absence of a framework to monitor the implementation of regulatory policy and GRP; lack of a formal or binding requirement for regulators to use GRP when proposing or reviewing regulation; ineffective quality assurance functions in the rulemaking process; and still nascent adoption of GRP by subnational governments.

Table 6 : Malaysia's GRP Journey

Successes	Remaining Challenges
Establishing a whole-of-goverment regulatory policy that includes core GRP building blocks	Lack of formal framework to monitor implementation of the national policy and GRP tools
Equipping the regulatory oversight body (MPC) with adequate resources	Lack of codified/binding mandate for regulators to comply with GRP requirements
Developing GRP guidelines (RIA and public consultation) to support implementation by regulators	Absence of effective gatekeeper function to strengthen MPC'S oversight function
Conductiong other oversight functions, such as awareness raising, coordination, and capacity building around GRP	RIA system without enough nuances to determine when RIA is required and the type of RIA to be developed
Keeping the reform momentum by linking regulatory and GRP reforms with national development and productivity plans	Lack of emphasis on other GRP tools, such as forward planning for new regulation, access to existing laws and regulation or systematic ex-post review
Engaging deeply the private sector as a co-driver of reforms	Low level of adoption of GRP at the subnational level

Source: World Bank (2019) – Regulatory Governance for Development & Growth

MPC has been mandated to implement regulatory reforms through GRP and the remaining challenges need to be addressed to enhance business environment in Malaysia.

In establishing formal and legally binding requirements, so far, Malaysia's approach depends mainly on raising awareness among regulators on the benefits of GRP and supporting them with their adoption of GRP by providing guidelines, capacity building, and coordination. This approach was adopted because there was limited capacity, experience, and knowledge of GRP when the regulatory policy was established in 2013. While this was a good approach during the first few years, proven results are mixed, with a handful of regulators openly embracing GRP, while others are still unaware or unwilling to implement GRP as they perceive the adoption of the approach as voluntary and an additional burden. Introducing more binding GRP requirements may ensure a clearer observation of GRP[20] .

Establishing a formal framework to monitor and assess Malaysia's regulatory policy implementation provides the right incentives for better GRP compliance. This recommendation follows the idea that what "can be measured, can be done". Malaysia could benefit from identifying a monitoring and evaluation framework to assess its policy implementation, performance, and compliance with GRP requirements by regulatory agencies. MPC is already making some progress in this area. However, timely reports with relevant metrics on GRP implementation should be more frequent and publicly obtainable to benchmark regulators, recognise good performers, and identify laggard agencies. Specific, measurable, attainable, realistic, and timely key performance indicators (KPI) must be set to determine Malaysia's performance in GRP and guide the future direction.

The key to successful implementation rests on good practices at the sectoral and subnational government levels. GRP in sectors is pertinent because line ministries and sectoral regulators have different capacities and incentives to implement GRP, providing uneven results across sectors. Moreover, GRP in the sectoral government level becomes relevant because major regulatory reform efforts are driven at the sectoral level. Mainstreaming GRP at the state and local government level is needed. Countries with highest regulatory burdens and imposed cost on the private sector and citizens are due to their subnational regulations.

As an example, the case of Changes of Machinery Layout Under the Wood-based Industries (State Legislatures Competency) Act 1984- Impact to Business Environment:

1. The Wood-based Industries (State Legislatures Competency) Act 1984 is an Act to confer on state legislature authority to pass laws with respect to the establishment and operation of wood-based industries.
2. The mandate given includes the permission to issue licence for machines used in processing woods.
3. The Act is aligned with the Factories and Machinery Act 1967- An Act to provide for the control of factories with respect to matters relating to the safety, health, and welfare of person therein, the registration and inspection of machinery and for matters connected therewith.
4. Businesses, however, perceive this act as troublesome for the industry to move forward and improve productivity growth. This is related to the time consumed in getting the approval and the documentations to prepare. Industry players claimed that the approvals require almost 3 months.
5. Process to inform the authority on the changes of layout machine is likely the same procedure as to install a new machine. For wood-based industry, depending on the type of machine, there are two different agencies responsible for the process - the Department of Occupational Safety and Health Malaysia (DOSH); and the State Forestry Department.
6. Looking into the hassle and time consuming process, the industry players are reluctant to change and adopt technology into businesses. The easiest way to is to hire foreign workers to do the 3D jobs (dangerous, dirty, and difficult).

20. The understandings of the regulations various among the industry players compared to the authorities therefore it is suggested that both parties shall go through a training together so as to get the same level of understanding.

7. Recommendations to overcome this issue are:

   i. **Regulation Review**
      - To advise both DOSH & DOF to review and evaluate the relevancy of the act in this new era; and
      - To review based on either it benefits the country or obstructs industry development.

   ii. **Streamline Process**
      - To streamline the application process by reducing the number of layers for approval;
      - To establish proper guidelines and checklist; and
      - To provide information on the website to ensure submission of application is right at the first time.

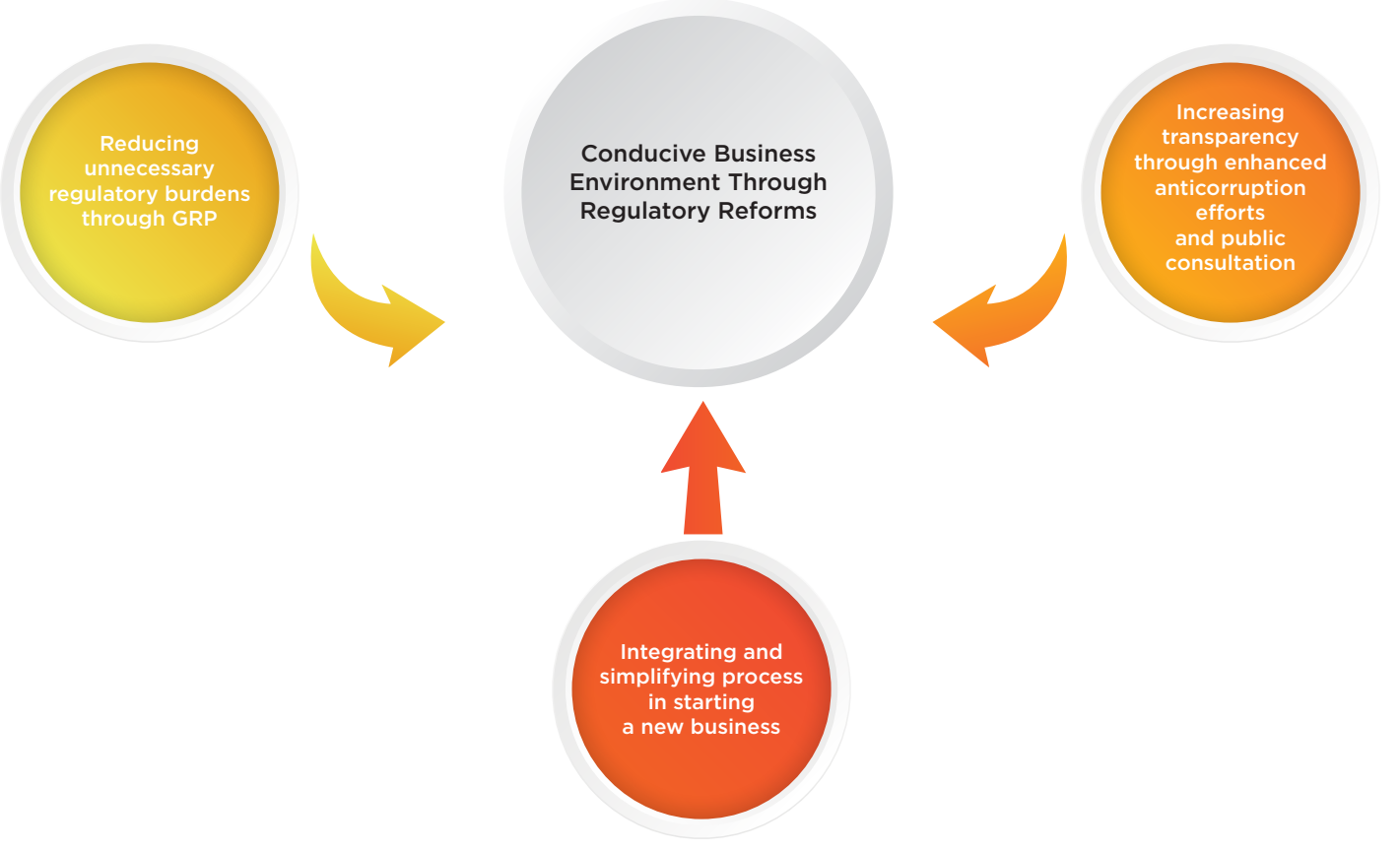
   iii. **Tracking System**
      - To establish a tracking system on the submitted application by the relevant agencies.

Transparency, accountability, and predictability are keys to successful regulatory reforms. Malaysia's regulatory and GRP reforms have progressed and played a key role in the country's move towards achieving the high-income and developed nation status. The building blocks of a sound GRP system are in place. Strong collaboration with the private sector and political commitment have contributed to the current success. The next steps include the third-generation reforms to ensure the system works better. Better transparency, accountability, and predictability to the regulatory process are imperative to the regulating agencies. Regulators' awareness about GRP must also be improved.

Current efforts by the government to enhance transparency and eliminates corruption must be strengthened. The UPC's functions can be further improved to be more inclusive and comprehensive to reach wider groups and stakeholders. A systemic approach in the engagements with various stakeholders in managing regulatory concerns may increase the effectiveness of UPC as the main platform for public consultation. Affirmative actions on anti-corruption must also continue to improve the public and business community's perception on public service delivery. Efforts to reduce nepotism and undue influence should be heightened to eliminate wrongdoing and negative perception on the integrity of the public sector.

MPC has been rigorous and continuous in regulatory reforms to improve business environment. Through MPC's MyMudah initiatives, the Ministry of Tourism, Arts and Culture (MoTAC) has implemented relaxation of regulatory requirements on tour operators and travel agents in which application for licence renewal requirements are exempted from submitting audited financial report for applications submitted from January 2020 until 31 December 2021. Tour operators are also allowed to co-share office space to reduce their operating costs during the pandemic. MyMudah initiative must continue as the results so far have shown direct impact to the business community fast and immediate.

As starting a new business is still burdensome due to multiple dealings at various authorities in the process of obtaining permits and licenses, a more efficient mechanism is needed to simplify the process. Simplified and hassle-free process increases productivity on both parties – authorities and business entity. Better coordination and integration among authorities as well as the establishment of a wider-coverage one-stop-centre can increase the ease in starting a new business and expedite firm creation into the market. Even more than before, in the wake of the impact by the pandemic, the ease in starting a new business becomes more important. An integrated system with simplifying digital tools may reduce multiple dealings with various agencies. The impact is apparent – ease in starting a business stimulates firm creation.



MPC's efforts in regulatory reforms have invited attention and created impact in the business community. Intel Malaysia and BASF Petronas Chemicals have requested the Government to review the requirement at relays calibration in their plants. The proposals are made through the Energy Commission of Malaysia (EC) to extend the period of relays calibration exercise from 2 years to 3 - 5 years. The rationale of the proposal is to minimise the operational cost which subsequently could contribute to productivity improvement that enables businesses to be more competitive and resilient. The cost incurred is in the form of huge production lost due to the shutdown of production lines to perform such exercise. The relays calibration is governed under the Electricity Regulations 1994. In addition, this recommendation is sound, where it has been implemented by their counterparts such as at BASF Ludwigshafen, Germany and Intel Saigon Vietnam and Chengdu China.

PART 2

BOOSTING PRODUCTIVITY - KEY DRIVERS

CHAPTER 5

Productivity Mindset

Nudging Perspective through Behavioural Insights

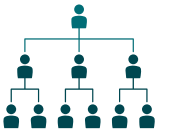
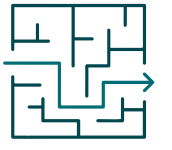
PRODUCTIVITY MINDSET AND PRODUCTIVITY GROWTH

Productivity mindset is one of the main areas of challenges to productivity growth in Malaysia. The issue is reflected in the deterioration of attitudes and values indicators as captured by the IMD World Competitiveness Yearbook. In addressing this challenge, MPC has introduced several initiatives to enhance productivity culture and mindset as aligned with the MPB.

However, the existing initiatives alone are inadequate to resolve the issue. **In bridging the gap, MPC is mandated as an oversight agency to spearhead initiatives to introduce Behavioural Insights as a public policy tool. The application of Behavioural Insights is based on in-depth understanding of human behaviour which lead to evidence-based intervention to influence attitude and decision making towards the intended action.**

Higher level of awareness and understanding of the importance and benefits of productivity are needed at the enterprise level, along with guidance on how to measure and track productivity.

Figure 26 : Challenges to productivity growth.

Talent	Technology	Incentive Structure	Business Environment	Productivity Mindset
				
More cohesive efforts needed to meet the demand of the future economy, by building a strong pipeline of skilled workers and gradually reducing reliance on low-skilled workers	Investments in technolgy and digitalisation, and industry adoption, need to be accelerated and supported. Stronger collaboration between industry and academia is essential for greater innovation and industry-relevant R&D	Incentives and other financial support need to be directly linked to productivity to incentives enterprises to improve efficiency and perfomance	Regulatory hurdles need to be reduced, and regulations interpreted and applied with greater consistency, to improve ease and reduce cost of doing business for enterprises	Higher level of awareness and understanding importance and benefits of productivity needed at enterprise level, along with guidance on how to measure and track productivity

Source : Malaysia Productivity Blueprint.

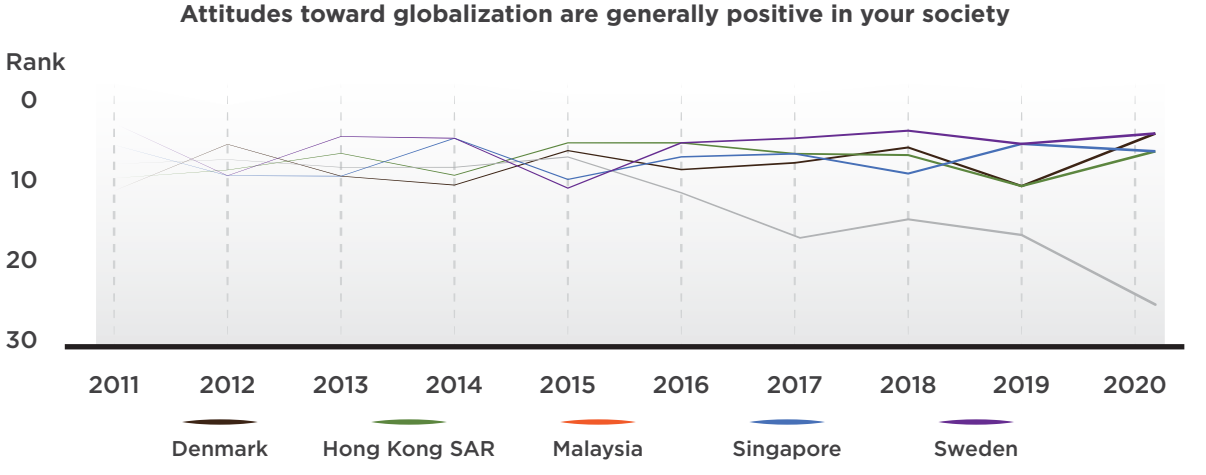
MPB states that "...there is limited understanding of the benefits of productivity among Malaysian enterprises. 95% of the enterprises surveyed agreed with the statement that 'productivity is important'. While this awareness is encouraging, only 40% of enterprises surveyed tracked their productivity systematically. Given the various challenges faced by Malaysian businesses, improving productivity is not a primary concern, and many enterprises and business owners are currently contented with the status quo, and hesitate to adopt new yet more efficient operating methods".

The lack of productivity mindset can be attributed to attitudes and values among enterprises. IMD World Competitiveness Yearbook provides measures of attitudes and values through the following indicators[21] :

- The value system in the society supports competitiveness
- Attitudes toward globalization are generally positive in the society
- Flexibility and adaptability of people are high when faced with new challenges
- The need for economic and social reforms is generally well understood

Over the years, Malaysia recorded declining performance in rankings on attitudes and values indicators. Malaysia's ranking in the indicator on "attitudes towards globalization in society" was at 27th place in 2020, which is steep plunge from the 5th position in 2011. Malaysia's performance in this indicator has been on a steady decline over the past decade (Figure 27).

Figure 27 : Attitude Towards Globalization Are Generally Positive in Your Society

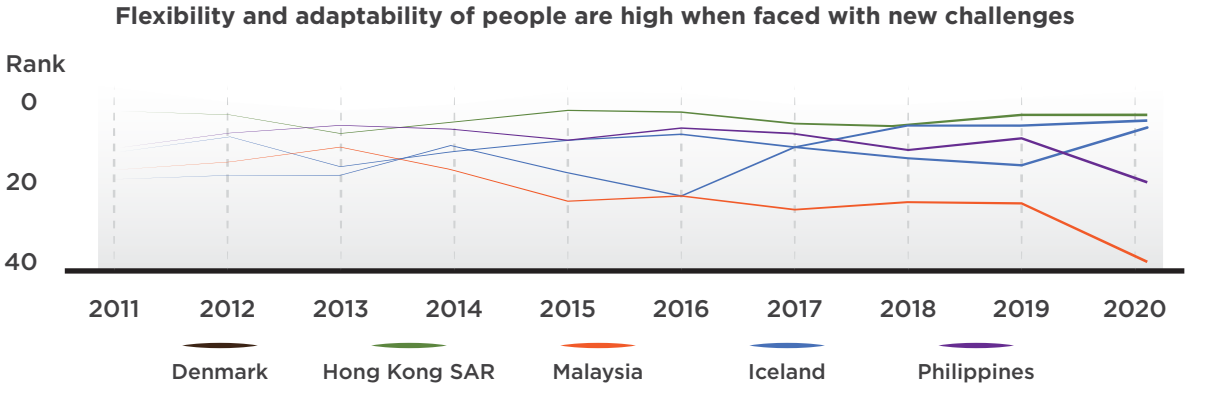


Source : World Competitiveness Yearbook, various issues

21. IMD World Competitiveness Yearbook 2020

In terms of the "flexibility and adaptability of people when faced with new challenges", Malaysia was ranked at 35th position in 2020. The decline had been consistent since 2011 (Figure 28).

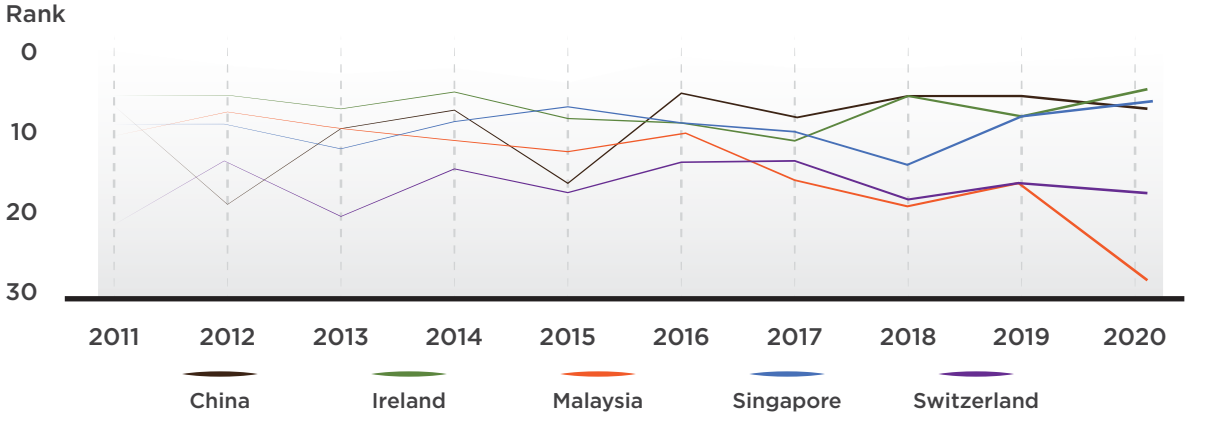
Figure 28 : Flexibility and Adaptability are High When Faced with New Challenges



Source : World Competitiveness Yearbook, various issues

Figure 29 indicated Malaysia's position at 25th place on the indicator the "need for economic and social reforms", a sharp decline from the 6th position in 2011. Malaysia's performance in this indicator has also been on a steady decline over the years.

Figure 29 : The Need for Economic and Social Reform is Generally Well Understood



Source : World Competitiveness Yearbook, various issues

Malaysia's decline in the international attitudes and values indicators affect the country's competitiveness and reflects the gaps in productivity mindset. Without adequate interventions, Malaysia's position can be further compromised and this can negatively affect the country's goal to be competitive and may hinder achievement of targets in Shared Prosperity Vision 2030 (SPV2030).

In addressing the issues on attitudes and values, targeted policy initiatives are recommended by adopting insights of human behavior, in addition to the existing initiatives introduced by MPC and other government agencies. **Behavioural Insights (BI) offers an excellent policy tool to overcome challenges in productivity mindset through a cost-effective approach.**

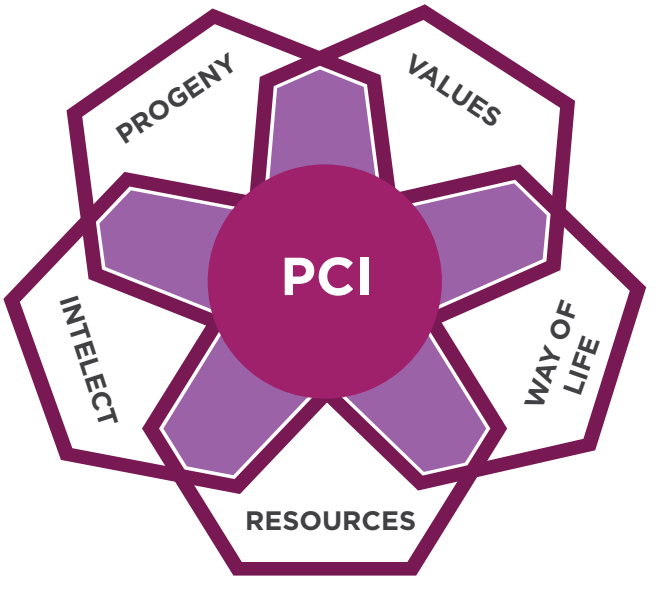
CURRENT INITIATIVES TO ENHANCE PRODUCTIVITY CULTURE AND MINDSET

MPC has introduced two initiatives to cultivate productivity culture and mindset through the Integrated Communication Plan and Sejahtera Productivity Culture Index (SPCI).

Integrated Communication Plan enables information to be organised and presented effectively to promote a productive culture. The plan proposes the appropriate way of thinking and supports required to increase productivity. In achieving the desired goals in productivity, information about productivity is communicated consistently to the right target segments using strategically - coordinated communication channels.

Sejahtera Productivity Culture Index (SPCI), developed in 2020, is a tool to measure the norms and behaviour (culture) assimilated by Malaysians and their impact on productivity culture. SPCI comprises the elements of Values, Way of Life, Resources, Intellect and Progeny (Figure 30). It is adopted to measure and identify gaps in personal productivity. Baseline study was conducted in 2020 and repeat survey is recommended to evaluate impact on national productivity.

Figure 29 : Sejahtera Productivity Culture Index (SPCI)



While SPCI provides means to measure norms and behavior, it is not meant to address the gap in productivity mindset and issues on attitudes and values, as measured by the IMD World Competitiveness Yearbook indicators. Similarly, the Integrated Communication Plan is also inadequate to address the shortcomings in Malaysia's productivity mindset.

Given the issues that would negatively impact Malaysia's productivity and competitiveness, MPC embarked on a journey to explore a policy tool that can minimise or eliminate the gaps and improve the overall productivity. Behavioural Insights, a relatively new discipline proposed by behavioural economists and psychologists, was introduced.

APPLICATION OF BEHAVIOURAL INSIGHTS IN NUDGING PERSPECTIVE AND DECISION MAKING

As an oversight agency appointed to spearhead the Behavioural Insights initiatives in Malaysia, MPC organised various awareness programmes, capacity and competency development training, strategic communication plan and engagements with stakeholders in 2020. The first National Behavioural Insights Seminar was held in February 2020 where intellectuals, policy makers, business leaders and practitioners from various fields and disciplines gather to engage in the pioneering event for Behavioural Insights applications in Malaysia's policy making.

Since 2020, MPC has initiated several behavioural insights case studies in collaboration with various ministries. The case studies, spanning across sectors such as education, health, safety, transportation, agricultural, tourism and consumerism were implemented through strong cooperation with the relevant stakeholders in the public and private sectors, as well as the academia and consultants. Four case studies on Behavioural Insights were conducted based on the following themes:

- Talent: Enhance Skills and School Life Expectancy
- Technology: Adoption of Technology in Agriculture
- Incentive: National Trade Blueprint
- Regulation: Improving COVID-19 Compliance for Tourists to Langkawi Island

In all the case studies, the application of Behavioural Insights indicated change of attitude and behaviour towards the intended results, implying that the method has the potential to change mindset and influence perception.

In the case study collaborated with the Ministry of Education to increase skills and competency, the method managed to shift and improve negative perception towards Technical and Vocational Education Training (TVET) by promoting role models to inspire youth to enrol in TVET programs.

In the agriculture case study, Behavioural Insights method broke farmers' reluctance and barriers to embrace technology and seek assistance from the government. As the result in the change of behaviour, technology was adopted and this improved production capacity and efficiency by farmers in the agriculture sector.

BIG DATA : COWS TO CLOUD

Cows to Clouds is an inspiring video which portrays how an ordinary farm owner ventured into big data. Farm Fresh begun its journey with 60 cattle and 3 workers. Now the company is a successful milk manufacturer. Azmi Zainal, Co-Founder and COO highlighted how the company's investment in technology enable a more informed decision-making for the business.

The company benefited from faster detection of valuable parameters and the ability to develop and adapt products that meet the specific needs of customers.

Using big data, Farm Fresh is able to correlate between supply and demand for any given time and location. By understanding customer behaviours, the company is able to manage supply chain more effectively and avoid wastage. Big data analysis also lessens the need for manpower. With access to wide range of information, the company is able to develop better products, track products more efficiently, and ultimately make the right decision for the business. To Farm Fresh, big data capability has proven to be the key asset for business seeking a competitive advantage over competitors.

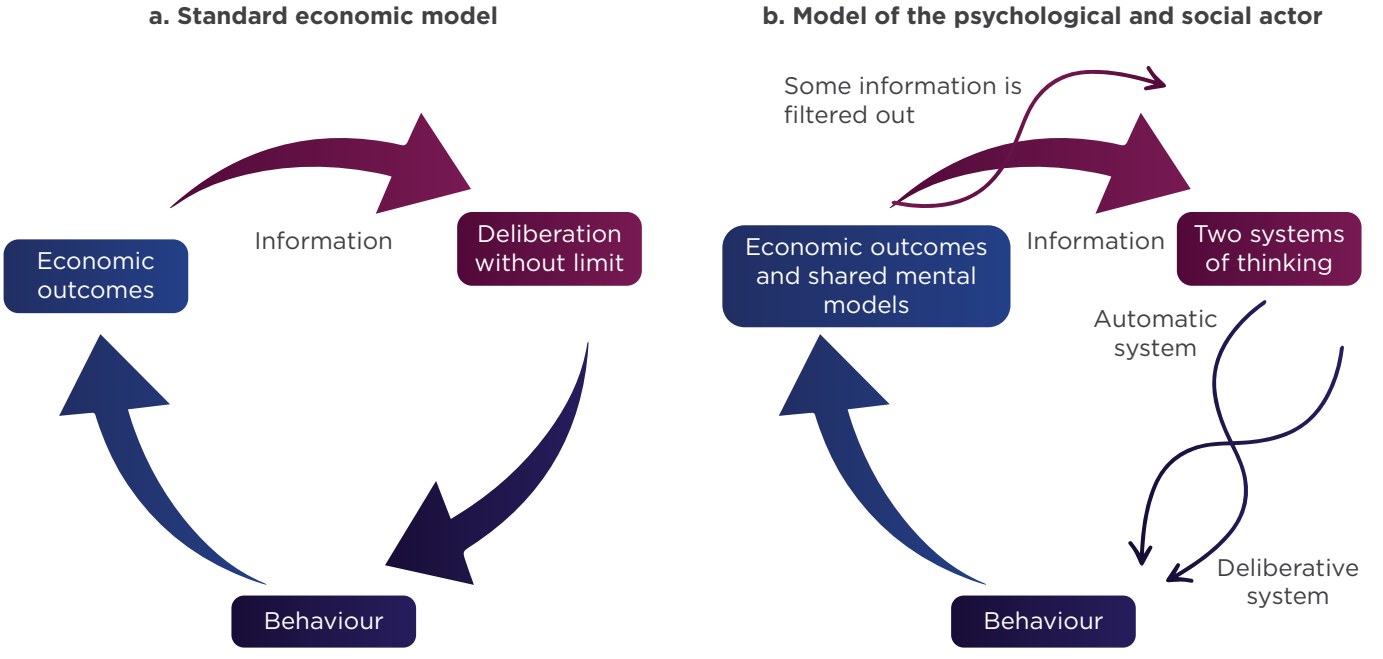
Video link:
https://www.youtube.com/watch?v=BUW4m7CUQvA

In increasing the uptake of the Export Support Programme as stated in the National Trade Blueprint, Behavioural Insights was used to tackle the issue of mindset among the SMEs through in-depth understanding of motivations and attitudes to growth and growth activities. The study proposed interventions to nudge the SMEs towards export-oriented model. Behavioural interventions are anticipated to remove barriers among SMEs to participate and complete programmes offered by the government.

The study conducted at Langkawi Ferry Terminal aimed to improve COVID-19 SOP compliance among tourists. The expected outcome was to reduce enforcement cost. When travels to Langkawi were allowed in 2020, the media reported public concerns regarding the lack of COVID-19 SOP compliance among tourists, particularly at the ferry terminal building and while getting into the ferries. Passengers' behaviours were identified as one of the key issues. In addressing this, banners and posters were designed to remind tourists to comply with the COVID-19 SOP. Public announcements were made to remind tourists about SOP compliance at the ferry terminal. Videos were produced to create awareness and remind visitors. The efforts managed to improve SOP compliance among tourists.

The application of Behavioural Insights is closely related to decision making process. In a standard economic and public policy, human beings are assumed to make rational decision for their wellbeing by processing information in an unbiased way and make careful calculations in their decision-making (Figure 31). In reality, decision-making is influenced by cognitive bias and systems of thinking (Table 7).

Figure 31 : Model of The Psychological and Social Actor – Standard Economic Model



Source : World Bank (2015)

Table 7 : Two Systems of Thinking

Automatic System	Deliberative System
Considers what automatically comes to mind (narrow frame)	Considers a broad set of relevant factors (wide frame)
Effortless	Effortful
Associative	Based on reasoning
Intuitive	Reflective

Source : World Development Report (2015), World Bank

Psychologists established that human beings tend to rely on the automatic system to make decisions. This tendency leads to sub-optimal decision-making and thus, has negative implication on public policy. Over the years, policymakers realised the importance of incorporating insights of decision-making in policymaking.

BEHAVIOURAL INSIGHTS

"An inductive approach to policy making that combines insights from psychology, cognitive science, and social science with empirically-tested results to discover how humans actually make choices" (OECD)

Table 8 : Key Terms and Concepts in Behavioural Insights

Behaviour	What to attend to, how to form beliefs, what to choose, whether to stick to one's choices and any other response that constitutes a counterfactual event conditional on volition.
Cognitive Bias	A systematic tendency for behaviour to deviate from the predictions of rational models due to cognitive mechanisms.
Heuristics (Rules of Thumb)	Mental shortcuts or intuitive judgments.
Nudge	Any aspect of the choice architecture that alters people's behavior in a predictable way without forbidding any options or significantly changing their economic incentives.
Choice architecture	The practice of influencing choice by "organising the context in which people make decisions".
Default	An aspect of choice architecture, where one particular choice option is chosen as the pre-set choice such that people have to make an active decision to choose an alternative choice option.

Source : https://www.behavioraleconomics.com/resources/mini-encyclopedia-of-be/

ESTABLISHMENT, IMPLEMENTATION, AND PROLIFERATION OF BEHAVIOURAL INSIGHTS

The application of Behavioural Insights has been proven effective by over 200 institutions worldwide. As demonstrated through the local case study experiences, Behavioural Insights offers an excellent tool with huge potential to make a lasting impact in Malaysia's public policy. To promote and develop BI as a key policy tool in Malaysia, MPC plays a pivotal role as an oversight body to spearhead BI initiatives and promote understanding among policymakers and regulators while fostering close collaboration between policymakers, practitioners and academicians.

The efforts to establish Behavioural Insights programmes have started from 2020. The efforts shall continue in the next three years by focusing on developing Behavioural Insights capacity and competency programmes. In 2021, MPC is in the process of developing Behavioural Insights training module to enhance knowledge and awareness for the public on this area. Three levels of training modules will be developed which cover Basic, Intermediate and Advanced levels. Training sessions are designed for government officers at the ministries, government agencies, state governments, and local authorities. The Basic training module for beginners is expected to be ready by the middle of 2021.

The training program will be organised both via face-to-face physical and online training. To facilitate the accessibility to the training programme, online training sessions will be offered through the platform MyLatihanMaya.my. Through this approach, it is estimated around 1000 government officials will be trained every year.

In addition, MPC will continuously organise awareness programmes through webinars, conferences, and seminars to engage regulators and policymakers from Strategic Planning and Policy Division at the relevant ministries.

Case studies and Behavioural Insights initiatives will be broadened through "1 Ministry, 1 Project" Programme to develop local pool of talents and widen local experiences among practitioners in the public sector. Relevant publications will be produced, including publications on the case studies and baseline studies.

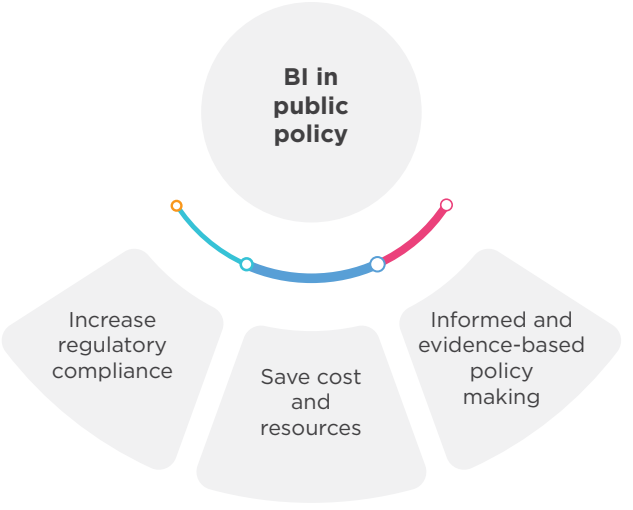
To ensure accountability and transparency in BI practices, a strong implementation mechanism is recommended through adequate governance. In achieving this goal, Behavioural Insights Governing Committee and Technical Working Group will be established by MPC. Behavioural Insights programme evaluation will be developed to measure the effectiveness of adopting Behavioural Insights as a policy tool. In addition, guidelines and case studies will be published as references for practitioners in government agencies at the federal, state, and local government levels.

Government officers will be trained throughout the implementation of the 12th MP. Trained government officers are anticipated to actively participate in relevant case studies and Behavioural Insights initiatives across various ministries and government agencies.

With the capacity and competency developed and strong implementation mechanism in place, Behavioural Insights initiatives will be proliferated across all government agencies at the federal, state, and local government levels. At this stage, Behavioural Insights is anticipated to cater for a wide range of applications in the public sector, such as in entrepreneur development, education, healthcare, agriculture, consumer protection, and poverty eradication.

Adoption of Behavioural Insights as a new public policy tool is expected to gain momentum over the course of the next few years through capacity building trainings, case studies, and Behavioural Insights projects. Experiences and best practices gained in implementing Behavioural Insights initiatives will be used to constantly update the Behavioural Insights training modules.

Benchmarking against the success stories of BI application in public policy in other countries, the impact of the method in policymaking and regulatory delivery is expected to be huge. Cost saving, increased compliance, and informed policymaking are quoted as among the main outcomes of BI in public policy.



The Road Transport Department's Behavioural Insights Initiative: Improving Regulatory Compliance through Cashless Payment

MPC in collaboration with the Malaysia Road Transport Department (RTD) promoted cashless payment for various services delivered through RTD's counters, such as renewal of driving license and road tax. This initiative is in line with the government's call to move towards a cashless society and support the digitilisation of government services towards the Industrial Revolution 4.0 (4IR).

In this pilot initiative, customers were nudged to pay using cashless methods at six RTD branches between September 2020 until February 2021. Results showed a significant increase in the number of customers using cashless payment. The success results would see the initiative extended to all RTD branches nationwide.

JPJ Office	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21
Perlis	51.0%	97.0%	97.0%	98.0%	97.0%	100.0%
Batu Uban	50.0%	53.0%	100.0%	99.0%	99.0%	100.0%
Sg. Petani	27.0%	28.0%	26.0%	100.0%	99.0%	100.0%
UTC Perlis	0.0%	0.0%	0.0%	100.0%	100.0%	100.0%
UTC Sungai Petani	28.0%	30.0%	37.0%	100.0%	100.0%	100.0%
UTC Alor Setar	18.5%	18.7%	24.7%	99.9%	100.0%	100.0%

Management Team

YBhg. Dato' Abdul Latif Hj. Abu Seman
Director General

Encik Zahid Ismail
Deputy Director General

YBhg. Datin Hjh. Zainon Bakar
Deputy Director General

Directors

- Kamaruddin Mohamad
- Hjh. Sarimah Misman
- Hj. Suhaimi Hamad
- Hj. Rosmi Abdullah
- Hjh. Roziana Hj. Othman
- Dr. Hjh. Mazrina Mohamed Ibramsah
- Sugumar a/l Saminathan
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- Saliza Saari
- Hj. Zainudin Hj. Elias
- Hjh. Nor Hafizah Mohd Arop
- Mohamad Muzaffar Abdul Hamid
- Mohamad Norjayadi Tamam

MPC Headquarters/Branches Address

Headquarters (Petaling Jaya)

Malaysia Productivity Corporation
Lorong Produktiviti, Jalan Sultan
46200 Petaling Jaya,
Selangor
Tel: 603-7955 7266 Fax: 603-7957 8068
Email: marketing@mpc.gov.my

Northern Region Office

Malaysia Productivity Corporation
Beg Berkunci 206, Jalan Tun Hamdan Sheikh Tahir,
13200 Kepala Batas Seberang Perai Utara,
Pulau Pinang.
Tel: 604-575 4709 Fax : 604-575 4410
Email: nro@mpc.gov.my

Southern Region Office

Malaysia Productivity Corporation
No. 8 Jalan Padi Mahsuri Bandar Baru UDA
81200 Johor Bahru,
Johor.
Tel: 607-237 7422 / 237 7644 Fax : 607-238 0798
Email: sro@mpc.gov.my

Sarawak Region Office

Malaysia Productivity Corporation
Lot 894, Lorong Demak Laut 3A
Taman Perindustrian Demak Laut
93050 Kuching,
Sarawak.
Tel: 6082-439 959 / 439 960 Fax : 6082-439 969
Email: sko@mpc.gov.my

East Coast Region Office

Malaysia Productivity Corporation
Tingkat 14, Menara Zenith,
Jalan Putra Square 6,
25200 Kuantan,
Pahang.
Tel: 609-513 1788 / 513 1789 Fax : 609-513 8903
Email: ecr@mpc.gov.my

Sabah Region Office

Malaysia Productivity Corporation
Level 2, MAA Tower
No. 6, Lorong Api-Api 1
88000 Kota Kinabalu,
Sabah.
Tel: 6088-233 245 / 235 837 Fax: 6088-242 815
Email: sbo@mpc.gov.my

Terengganu Office

Malaysia Productivity Corporation
Lot No. 1F 22 Kompleks Usahawan Terengganu
Kubang Jela, Manir
21200 Kuala Terengganu
Terengganu
Tel: 609-615 6089 Fax : 609-615 6081
Email: ecrt@mpc.gov.my

Kelantan Office

Malaysia Productivity Corporation
Pejabat Negeri Kelantan Tingkat 3,
Wisma PERKESO Jalan Kota Darulnaim
15538 Kota Bharu,
Kelantan
Tel: 09-7416260 / 09-7416262 Fax : 09-7416263
Email: ecrk@mpc.gov.my

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