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Digitalizing SMEs to Boost Competitiveness

OCTOBER 2022



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1818 H Street NW

Washington DC 20433

Telephone: 202-473-1000

Internet: www.worldbank.org

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Acronyms and Abbreviations

| | |
|---------------------|---|
| ADB | Asia Development Bank |
| AdTech | Advertisement Technology |
| AgriTech | Agriculture Technology |
| AI | Artificial Intelligence |
| ANZ | Australia and New Zealand |
| APEC | Asia-Pacific Economic Cooperation |
| API | Application Programming Interface |
| ASAPCP | ASEAN Strategic Action Plan on Consumer Protection |
| ASEAN | Association of Southeast Asian Nations |
| B2B | Business-to-Business |
| B2C | Business-to-Consumers |
| BEPS | Base Erosion and Profit Shifting |
| BNM | Bank Negara Malaysia |
| BPS | Business Pulse Survey |
| BRICS | Brazil, Russia, India, China and South Africa |
| BusinessTech | Business Technology |
| CA | Certification Authorities |
| CA 2010 | Competition Act 2010 |
| CAGR | Compound annual growth rate |
| CBPR | Cross-Border Privacy Rules |
| CBRA | Cross Border Regulatory Agencies |
| CCA | Central Coordinating Agency |
| CCCS | Competition and Consumer Commission of Singapore |
| CEA | Controlled-environment agriculture |
| CEDAR | Centre for Entrepreneur Development and Research |
| CIDB IBS | Construction Industry Development Board – Industrialized Building Systems |
| CleanTech | Clean Technology |
| CMA 1998 | Communications and Multimedia Act 1998 |
| CNII | Critical National Information Infrastructure |

| | |
|-------------------|---|
| COVID-19 | Coronavirus disease |
| CPA | Consumer Protection Agency |
| CPA 1999 | Consumer Protection Act 1999 |
| CPTPP | Comprehensive and Progressive Agreement for Trans-Pacific Partnership |
| CRM | Customer Relationship Management |
| DAI | Digital Adoption Index |
| DEA | Digital Economy Agreements |
| DIO | Digital Investment Office |
| DMO | Delivery Management Office |
| DOSM | Department of Statistics Malaysia |
| DPT | Data Protection Trustmark |
| DSA 1997 | Digital Signature Act 1997 |
| EAP | East Asia and Pacific |
| ECA 2006 | Electronic Commerce Act 2006 |
| E-commerce | Electronic Commerce |
| EdTech | Education Technology |
| e-KYC | Electronic Know-Your-Customer |
| e-payment | Electronic Payment |
| EPU | Economic Planning Unit |
| ERP | Electronic Resource Planning |
| FAMA | Federal Agricultural Marketing Authority |
| FCI | Finance Competitiveness Innovation |
| Fintech | Financial Technology |
| FOI | Freedom of Information |
| FoodTech | Food Technology |
| FRP | Foreign Registered Person |
| FSP | Foreign Service Provider |
| FTA | Free Trade Agreements |
| G20 | Group of Twenty |
| GDPR | General Data Protection Regulation |

| | |
|----------------------|--|
| GMV | Gross Merchandise Value |
| GoM | Government of Malaysia |
| GP | Global Practice |
| HealthTech | Health Technology |
| HRTech | HR Technology |
| ICT | Information and Communications Technology |
| IMD | Institute for Management Development (Switzerland) |
| INSKEN | <i>Institut Keusahawanan Negara</i> (National Institute of Entrepreneurship) |
| IoT | Internet of Things |
| IPOPHL | Intellectual Property Office of the Philippines |
| IPR | Intellectual Property Rights |
| IRBM | Inland Revenue Board of Malaysia |
| JENDELA | <i>Jalanan Digital Negara</i> (National Digital Network) |
| JET | Jobs and Economic Transformation |
| KBS | <i>Kementerian Belia dan Sukan</i> (Ministry of Youth and Sports) |
| KDNHEP | <i>Kementerian Perdagangan Dalam Negeri dan Hal Ehwal Pengguna</i> (Ministry of Domestic Trade and Consumer Affairs) |
| KKMM | <i>Kementerian Komunikasi dan Multimedia Malaysia</i> (Ministry of Communications and Multimedia) |
| KPLB | <i>Kementerian Pembangunan Luar Bandar</i> (Ministry of Rural Development) |
| LogisticTech | Logistic Technology |
| M&E | Monitoring and Evaluation |
| MaGIC | Malaysian Global Innovation & Creativity Centre |
| MAMPU | Malaysian Administrative Modernization and Management Planning Unit |
| MarketingTech | Marketing Technology |
| MARii | Malaysia Automotive Robotics and IoT Institute |
| MCMC | Malaysian Communications Multimedia Commission |
| MCMM/KKMM | Ministry of Communications and Multimedia Malaysia/ <i>Kementerian Komunikasi dan Multimedia Malaysia</i> |

| | |
|----------------------------|---|
| MCO | Movement Control Order |
| MCSS | Malaysia Cyber Security Strategy |
| MDE4IR | National Digital Economy and 4IR Council |
| MDEC | Malaysia Digital Economy Corporation |
| MDTCA | Ministry of Domestic Trade and Consumer Affairs |
| MEDAC | <i>Kementerian Pembangunan Usahawan dan Koperasi</i> (Ministry of Entrepreneur Development and Cooperation) |
| MIDA | Malaysian Investment Development Authority |
| MIDF | Malaysian Industrial Development Finance |
| MIMOS | Malaysian Institute of Microelectric Systems |
| MobilityTech | Mobility Technology |
| MOF | <i>Kementerian Kewangan</i> (Ministry of Finance) |
| MOHR | Ministry of Human Resources |
| MoSTI | Ministry of Science, Technology and Innovation |
| MOT | Ministry of Transport |
| MOTAC | Ministry of Tourism, Arts and Culture |
| MPC | Malaysian Productivity Corporation |
| MPPP | Penang Municipal Council |
| MRC | Malaysian Rubber Council |
| MSME | Micro, Small and Medium Enterprise |
| MyCC | Malaysian Competition Commission |
| MyDigital | MyDigital Corp |
| MyDigital Blueprint | Malaysia Digital Economy Blueprint |
| MyIPO | Intellectual Property Corporation of Malaysia |
| MYNIC | Malaysia Network Information Centre |
| NCSP | National Cyber Security Policy |
| NDI | National Digital ID |
| NeCC | National e-Commerce Council |
| NESDC | National Entrepreneur and SME Development Council |
| NITC | National IT Council |

| | |
|------------------|--|
| ODI | Open Data Institute |
| ODR | Online Dispute Resolution |
| OECD | Organisation for Economic Co-operation and Development |
| OGA | Other Government Agencies |
| OSHA | Occupational Safety and Health Administration |
| OTA | Online Travel Agencies |
| OTT | Over-The-Top |
| PDPA 2010 | Personal Data Protection Act 2010 |
| PDRM | <i>Polis Diraja Malaysia</i> |
| PEDis | Community internet centres under Keluarga Malaysia Digital Economy |
| PENJANA | <i>Pelan Jana Semula Ekonomi Negara</i> (National Economic Recovery Plan) |
| PERMAI | <i>Perlindungan Ekonomi & Rakyat Malaysia</i> (Protection for Malaysian Economy and People) |
| PIA | Permit Issuance Agencies |
| PMR | Product Market Regulation |
| PoS | Point of Sale |
| PRIHATIN | Prihatin Rakyat Economic Stimulus Package |
| PUJB | <i>Perbadanan Usahawan Johor</i> (Entrepreneur Corporation Johor) |
| R&D | Research and Development |
| RAKKSSA | <i>Rangka Kerja Keselamatan Siber Sektor Awam</i> (Cyber Security Framework for the Public Sector) |
| RCEP | Regional Comprehensive Economic Partnership |
| RMC | Royal Malaysia Customs |
| RmiT | Risk Management in Technology |
| RURB | Reducing Unnecessary Regulatory Burdens |
| Sabah MID | Sabah Ministry of Industrial Development |
| SCM | Supply Chain Management |
| SCMO | Strategic Change Management Office (later renamed MyDigital Corporation) |
| SESSS | Self-Employment Social Security Scheme |
| SME | Small and Medium Enterprise |

| | |
|-----------------|--|
| SMECorp | SME Corporation Malaysia |
| SMK | <i>Sistem Maklumat Kastam</i> |
| SMP | Significant Market Power |
| SOCISO | Social Security Organisation |
| SOP | Standard Operating Procedures |
| SSDLC | Secure Software Development Lifecycle |
| SSM/CCM | <i>Suruhanjaya Syarikat Malaysia/</i> Companies Commission of Malaysia |
| STA 2018 | Service Tax Act 2018 |
| TCC | Tribunal for Consumer Claims |
| TIA 1992 | Tourism Industry Act 1992 |
| TOBTAB | Tour Operating Business and Travel Agency Business |
| TRIPS | Trade-Related Aspects of Intellectual Property Rights |
| UN | United Nations |
| USP | Unique selling position |
| VAPT | Vulnerability Assessment and Penetration Testing |

Abstract

While Malaysia's digital economy had already been growing rapidly over the past decade, the COVID-19 pandemic has further accelerated this trend. In particular, increased access to digital platforms has enabled businesses of all sizes to mitigate the crisis' adverse impacts. At the same time, the depth and breadth of SME digitalization has remained limited, suggesting a growing risk of digital divide in the country. This report analyzes opportunities and challenges for Malaysian SMEs to better leverage digital tools and platforms to increase their productivity and competitiveness. It is structured around three complementary analytical pillars: (i) a *Digital Business Landscape Diagnostic* presenting the extent of digitalization and use of digital platforms among SMEs in traditional sectors, and the constraints that SMEs still face to digitalize; (ii) an *Institutional and Policy Mapping* reviewing the government of Malaysia's efforts to foster SME digitalization; and (iii) a *Digital Market Regulations Assessment* evaluating the adequacy of Malaysia's digital regulatory environment, to identify shortcomings that may undermine SMEs' capacity to access and benefit from the use of digital platforms. The analysis has been undertaken with a view to inform the implementation of the Malaysia Digital Blueprint (MyDIGITAL).

Executive Summary

Key findings and recommendations

Malaysian SMEs are enthusiastic about digital technologies, but their capacity to make the most of them remains limited

- Small and medium-sized enterprises (SMEs) have been severely affected by the COVID-19 crisis in Malaysia, but many have mitigated the crisis' impacts by turning to digital technologies, notably by reaching customers and selling on digital platforms. A majority of Malaysian firms now regularly use ICT and the internet, although there are variations across sectors and regions. This marked increase in use was made possible by progress in connectivity, as well as the rapid expansion of the ecosystem of digital businesses in Malaysia.
- However, most SMEs only have a limited usage of digital tools, mainly for customer-facing functions (e.g. social media presence). Few have leveraged more complex productivity-enhancing solutions to transform their business operations or are able to conduct end-to-end digital transactions. Various constraints still impede the depth and breadth of SME digitalization, ranging from business operators' limited capabilities, lack of information about digital technologies, constrained access to finance and market frictions, to aspects of the institutional and regulatory environment. This raises the risk of a growing digital divide, at a time when digitalization is becoming more crucial to stay competitive.

The government of Malaysia has been committed to SME digitalization, but a more integrated policy framework would make its support more impactful

- The government has actively fostered the use of digital technologies by SMEs over the last decade and has considerably increased the provision of direct support to firms since the onset of the pandemic. This support has generally been aligned with SMEs' interest in accessing online markets, and business surveys show most firms continue to seek support to increase digitalization.
- The government's objectives and approaches on SME digitalization have been spelled out through several strategies in recent years and would benefit from a more integrated approach. Likewise, a large and growing number of public agencies have provided support to firms in this area through over 100 different programs in recent years, posing risks of uncoordinated and duplicative approaches and scattered resources. Recent efforts to strengthen inter-agency coordination should therefore be pursued and accompanied by greater program oversight.
- Public agencies supporting SME digitalization should also collect and publish more monitoring and evaluation (M&E) data on their program, to ensure the public resources used have significant and durable positive impacts on a large number of firms. Other ways public support programs could be improved include (i) complementing the focus on e-commerce with support to digitalize backend business functions and with skills development programs, and (ii) improving the provision of public information about available support and streamlining application processes.

Further regulatory reforms could help digital markets function better in Malaysia and help SMEs to thrive in them

- The regulatory environment is generally conducive to support the digital economy, with key legislations in place. Malaysia performs well in terms of international benchmarks related to the quality of enabling regulation for the digital economy and few firms perceive regulations pertaining to e-transactions to be a significant constraint on their increased use of digital tools and platforms.
- That said, the current legislation pertaining to safeguards (including personal data protection and cybersecurity) could be strengthened to stimulate online business by increasing consumers' and vendors' confidence in digital transactions. Other key regulatory frameworks, such as competition and the gig economy, could also be updated to reflect new dynamics in the digital economy and ensure a level playing field for SMEs.
- Promisingly, reviews of the legislation are ongoing and different amendments are considered to bridge gaps and better align with international standards. Reforms should consider adapting regulatory requirements for smaller enterprises so that they are not excessively onerous and do not constrain innovation.

The analysis has been undertaken with a view to inform the implementation of the Malaysia Digital Blueprint (MyDIGITAL).

Small and medium-sized enterprises (SMEs), which constitute a major part of Malaysia's economy, have been severely affected by the COVID-19 crisis. SMEs represent the vast majority of firms in Malaysia and account for about 48 percent of employment and 38 percent of GDP. Like in most countries, the pandemic and prolonged mobility restrictions in place in Malaysia between March 2020 and early 2022 have had a much greater negative impact on small businesses than on large ones. Thus, Malaysia's SME sector's GDP contracted by 7.3 percent in 2020, compared to 4.6 percent for the non-SME sector.

Increased access to digital platforms has enabled businesses of all sizes to mitigate the crisis' adverse impacts. While Malaysia's digital economy had been growing rapidly over the past decade, the pandemic has further accelerated this trend. In particular, the increased adoption of e-commerce platforms has enabled firms to continue sales activities, to maintain or even expand their geographical market reach, and to retain their workforce. However, like in many other countries of the world, firms' capacity to turn to digital solutions to cope with the COVID-19 crisis has been correlated with their size.

There is a risk of growing digital divide if the depth and breadth of SME digitalization are not increased. While most SMEs now use ICT and the internet in Malaysia, digital adoption remains low in some sectors and regions. Moreover, many firms that sought to turn to digital solutions over the last two years have only used them for basic customer-facing business functions. This confirms findings from previous reports on Malaysia's digital economy that suggest that Malaysia has yet to realize the full potential of digital technologies to boost SME productivity. Various constraints, ranging from business operators' limited capabilities and market frictions to aspects of the institutional and regulatory environment, still impede the depth and breadth of SME digitalization. This raises the risk of a growing digital divide, at a time when digitalization is becoming more crucial to remain competitive.

This report analyzes opportunities and challenges for Malaysian SMEs to better leverage digital tools and platforms to increase their productivity and competitiveness. The analysis has been undertaken with a view to inform the implementation of the Malaysia Digital Blueprint (MyDIGITAL). The report is structured around three complementary analytical pillars:

- a. Digital Business Landscape Diagnostic (Chapter 2):** This pillar sets the stage by assessing (i) the degree to which Malaysia's ecosystem has been conducive to the growth of digital enterprises, notably digital platforms (a critical foundation to enable traditional businesses to adopt digital technologies and new digital business models); (ii) the extent of digitalization and use of digital platforms among SMEs in traditional sectors, notably since the onset of the pandemic; and (iii) the constraints that SMEs still face to digitalize. This analysis in this chapter is based on data from several sources, including the World Bank and Department of Statistics, Malaysia (DOSM), as well as on previous studies on Malaysia's digital economy.
- b. Digital Economy Institutional and Policy Mapping (Chapter 3):** Given the obstacles to SME digitalization highlighted in the previous chapter, this pillar reviews the adequacy of government efforts to boost the digital economy in Malaysia, particularly in terms of increasing the level of SME's participation in it. This assessment includes the identification of the key strengths and weaknesses of the current institutional framework. Findings are informed by an online survey of public agencies conducted for the study, as well as by stakeholder consultations and a desk review of previous studies.
- c. Digital Market Regulations Assessment (Chapter 4):** As argued above, the capacity of SMEs to thrive in the digital economy can be supported not only through the provision of direct public support, but also by putting in place a clear, predictable, and inclusive legal and regulatory framework. The report's last pillar therefore evaluates the adequacy of Malaysia's digital regulatory environment to identify shortcomings that may undermine SMEs' capacity to access and benefit from the use of digital platforms. It is based on public agencies' responses to a detailed regulatory questionnaire prepared for this study, complemented by stakeholder interviews.



Digital Business Landscape Diagnostic

Malaysia's digital economy has expanded rapidly in recent years. Digital businesses, such as data-driven firms and digital platforms, provide a critical foundation to enable traditional businesses to digitalize. Malaysia hosts over 1,600 digital firms (a third of which are headquartered abroad), one of the highest numbers in the East Asia Pacific (EAP) region relative to the size of the economy. These firms provide a wide variety of solutions, dominated by e-Commerce and Fintech. Digital platforms, most of which have emerged over the past decade, now account for about 13 percent of digital businesses in Malaysia, almost double the EAP average. As of 2020, platforms in Malaysia were most numerous in e-Commerce (106), followed by FinTech (46), TravelTech (33) and MobilityTech (22).

The COVID-19 pandemic has resulted in an increased demand for digital platforms' services in Southeast Asia, and particularly so in Malaysia. In Malaysia, the digital economy's gross merchandise value (GMV)¹ grew by an estimated 27 percent in 2020 and 47 percent in 2021, with the total value increasing from US\$ 14 billion to US\$ 21 billion. This growth was driven primarily by e-commerce, which grew by 68 percent in 2021, 6 percentage points higher than the regional average. The pandemic has resulted in an increase of digital consumption both at the intensive margin – existing users – and at the extensive margin – new users, which represented about 15 percent of Malaysia's digital consumer by mid-2021, over half of whom lived in non-metropolitan areas (Google, Temasek and Bain 2021). Shopee has become Malaysia's most frequently visited digital marketplace during the pandemic, seeing its number of users soar far higher than its competitors since 2020. Digital platforms' growth prospects are strong: by 2025, it is expected that e-commerce GMV will increase by a factor of almost 6.1 in Southeast Asia and by 6.3 in Malaysia, relative to 2019.

Malaysia performs relatively well in terms of overall digital competitiveness and e-commerce readiness, although infrastructure and connectivity issues remain. Malaysia still lags behind regional leaders (e.g. Singapore, Hong Kong, Japan, South Korea) on global benchmark indices related to the digital economy, but it is ahead of many of its ASEAN peers. While the country made substantial investment in connectivity infrastructure over the last decade, allowing the internet penetration rate to reach high-income levels, indicators such as the number of fixed broadband and download speeds remain far below the levels recorded by a number of EAP competitors.

Prior to the pandemic, most SMEs in Malaysia were still at the earliest stages of digitalization. Businesses' use of basic ICT has increased steadily over time, reaching a relatively high level even prior to the pandemic, albeit a large share of SMEs in certain sectors (e.g. food & beverages) and regions (e.g. Sabah, Sarawak) still do not use the internet. Emails, social media and online banking are the most common reason for going online, but still relatively few firms deliver goods or provide customer service online. Many SMEs have been stuck in what some called a "computerization trap", meaning that, while they are enthusiastic about ICT and already use it for limited front-end (i.e. customer facing) business functions, they are not yet using more advanced technologies to digitalize back-end processes and leverage data. E-commerce was already a growing source of income for many businesses in Malaysia prior to the pandemic, again with large sectoral and regional variations. However, even among firms engaging in e-commerce, most payments were still transacted in cash or through a separate banking transaction, rather than through an integrated payment gateway to enable a seamless online transaction.

1 GMV is a term used in online retailing to indicate a total sale monetary-value for merchandise sold through a particular marketplace over a certain time frame.

The pandemic has resulted in a significant increase in the pace of business digitalization in Malaysia.

The World Bank's Business Pulse Survey (BPS) shows that, like in many other countries, the most common coping strategy for businesses in Malaysia involved a shift towards digital platforms. Controlling for size, sector and region, enterprises that report having invested in new digital solutions to cope with the crisis have experienced a 12 percentage point lower decline in sales than those that have not done so, although this does imply the direction of causality. The tendency to turn to digital technologies held true regardless of business size, although SMEs started from a lower level of digital adoption, generally have used less complex digital solutions than large enterprises and have been less capable of leveraging their digital investments to generate higher sales. In the case of small businesses, the increased use of digital modalities has mostly been applied to manage customer-facing functions (e.g., marketing, sales, delivery), relying on major social media platforms (e.g. Facebook, Instagram). Moreover, BPS data suggests that new users (the extensive margin) accounted for a much smaller share of the increase in digital adoption 18 months into the pandemic than did intensified use by existing users (the intensive margin).

Several constraints remain important barriers to digitalization for many SMEs, many of which continue to call for more support.

The constraints most commonly cited by Malaysian SMEs who have struggled to adopt digital technologies relate to lack of financial resources, lack of information regarding relevant technologies and potential benefits, and the lack of skills. Stakeholders emphasized the need to strengthen not only digital skills but also general business and management skills, a point identified as key by the literature on technology adoption by firms. BPS data shows that government support to enable increased digitalization was among the most popular use of government support programs during the pandemic, and most firms continue to express the need for support to enable them to digitalize further.

Digital Economy Institutional and Policy Mapping

This chapter assesses the adequacy of government efforts to support the digitalization of SMEs by providing an overview of the related policies, institutions, and programs.

The Government of Malaysia has long sought to foster the digital economy and SME digitalization, but the extent of public support has considerably increased with the COVID-19 pandemic. Arguably, Malaysia is now one of the countries supporting SME digitalization the most actively in Asia. However, the relatively limited depth and breadth of SME digitalization in Malaysia presented in the previous chapter suggests that the extent to which this public support has achieved its goal remains unclear.

The government has established a dense strategic framework to set objectives related to SMEs' place in the digital economy, which would benefit from a more integrated approach.

SME digitalization has been discussed in over a dozen public strategies over the last decade, including the Malaysia Digital Economy Blueprint (MyDIGITAL) adopted in February 2021 as the country's flagship long-term digital strategy. While the successive strategies have increasingly focused on meeting MSMEs' needs and have addressed most of the priority policy areas, the government could more effectively manifest its vision by developing an integrated policy framework for SME digital transformation.

Likewise, the large and growing number of public agencies providing support to firms in this area poses risks of uncoordinated and duplicative approaches.

More than a dozen ministries have provided direct support to firms through about two dozen agencies, many of which have only been involved through a single initiative. Several committees have been tasked with ensuring inter-agency coordination on digital issues over

time, the National Digital Economy and 4IR Council (MDE4IR), chaired by the Prime Minister, currently being the highest body. However, it is unclear whether these steering bodies have effectively managed to oversee and coordinate initiatives to support SME digitalization. Indeed, few surveyed agencies declare having been involved in them and the number of support programs has increased over the past couple of years. Beyond the federal level, state governments have also established specialized agencies to implement programs related to digitalization, which do not seem to have been involved in coordination bodies established at the federal level.

The recent proliferation in SME support programs, which often provide support in broadly similar areas and through similar modalities, increases the risk of overlap. Based on the dataset of programs collected for this study, the public federal and local agencies previously mentioned currently provide support for digitalization to firms through at least 101 different programs. While new initiatives have been adopted each year over the last decade, the vast majority of programs were introduced in 2020 and 2021, with a significant increase in the number of different agencies involved during this period. This recent proliferation of programs does not appear to have been directed with reference to an integrated framework. This raises the risk of inefficiencies, with resources spread too thinly across the programs. It could also create confusion for SMEs that seek support to adopt digital technologies. While an in-depth review of complementarities and potential overlaps between existing programs is beyond the scope of this study, the information collected suggests there may be potential for consolidation.

The support provided through government programs focuses on enabling SMEs to reach online markets, which aligns with SMEs' preferences to a significant extent. The surveyed agencies stated that the primary objective of most programs with which they are involved was to enable SMEs to digitalize front-end (i.e. customer-facing) business functions, such as sales and marketing, and to engage in e-commerce through participation in digital platforms. This corresponds with the needs most commonly expressed by businesses themselves, although a sizeable proportion of enterprises also expressed the need for support to digitalize back-end functions (e.g. business administration, production, supply chain management), which receive less emphasis under current government programs. In the context of the pandemic and associated mobility restrictions, the agencies' focus on e-commerce may be justified, but the digitalization of back-end and more complex production functions could be a useful complementary focus going forward.

About 40 percent of current SME digitalization programs provide some form of financial support, while 80 percent provide some form of non-financial support. Grants are by far the most common form of financial support provided to businesses, with the maximum grant value per beneficiary varying widely across programs. The most common forms of non-financial support involve the provision of activities to raise awareness of digital technologies and support towards general training. This seems appropriate given that, as previously mentioned, a large proportion of SMEs state that the lack of information regarding relevant digital solutions and/or uncertainty regarding the benefits of adopting them constrained them from making investments in digital technologies. Of course, the efficacy of such support depends on the quality and depth of training provided, the reach of awareness campaigns, and other factors.

There are also questions regarding the number and distribution beneficiaries for public support programs. Current programs vary widely in terms of the number of beneficiaries they target and reach, ranging from just a few firms to hundreds of thousands. In any case, they only reach a very small fraction of the total number of SMEs in the country, which included both about 1.2 million formal businesses at the end of 2020 and a large informal sector that employed 1.3 million people in 2019. While the geographic distribution of beneficiaries partly reflects the distribution of firms in the country, it appears that some states, such as Sabah, Sarawak, Kelantan, Terengganu and Pahang, may have been underserved.

Beyond the objectives and modalities of support programs, SMEs often face difficulties with the way they are administered. Stakeholders consulted during the preparation of this study notably identified a number of key weaknesses in government policy and programs, including cumbersome application processes and poor user experience; long processing times, especially in terms of disbursement of grants; lack of clarity in communication regarding grant approval/rejection; and a lack of clarity regarding grant and program continuity.

There is a need for better data on public support programs' implementation and impacts. While many SME digitalization programs integrate monitoring and evaluation (M&E) systems, the type of analysis conducted, and the use and publication of results could be improved. BPS data suggests that SME digitalization support programs is correlated with better performance during the pandemic, although it does not necessarily indicate a causal relationship. There is therefore a need for more data and in-depth analysis to determine whether current programs make a good use of public resources.

Digital Market Regulations Assessment

This chapter assesses the adequacy of the current digital economy legal and regulatory framework in Malaysia, and how it applies to SMEs. A conducive framework is an essential part of creating a safe and competitive market in which SMEs can flourish. Overall, Malaysia has established strong foundations for the regulation of the digital economy, including a broad, principles-based legal framework that covers issues related to e-commerce, digital transactions, and the management of personal data. As a result, Malaysia performs well in terms of international benchmarks related to the quality of enabling regulation for the digital economy. This assessment is reflected by the perceptions of Malaysia's business community, as BPS data shows that respondents do not perceive regulations pertaining to e-transactions to be a significant constraint on their increased use of digital tools and platforms.

To foster the ongoing development of Malaysia's digital economy, the authorities can build on the experience of other jurisdictions to develop its safeguards framework. Overall, while Malaysia has a data governance regulatory environment characterized by an intermediate level of "enablers", it has a relatively weak level of "safeguards". The authorities have established a legal framework for personal data protection, but this framework does not currently include certain rights that are protected in more developed jurisdictions, such as the right to data portability. That said, the proposed key amendments to the Personal Data Protection Act 2010 currently under review are expected to address fundamental gaps related to data portability, the appointment of data protection officers, requirements for greater clarity regarding data subjects' consent and cross-border data flow facilitation, amongst other issues.

Insufficient safeguards can result in decreased confidence in the digital economy, deterring consumers from engaging in it and suppressing demand. Businesses themselves may also be impacted by insufficient safeguards, with SMEs more likely to be the targets of cybercrime than larger enterprises. As Malaysia's economy develops, the authorities are striving to strengthen these safeguards, in line with the proposals contained in the recently launched Malaysia Digital Economy Blueprint. The need to strengthen safeguards should be balanced against the need to refrain from measures that may stifle the development of the digital economy by customizing the requirements for smaller enterprises so that they are not excessively onerous and that they do not constrain innovation. To build consumer trust, these safeguards should also include measures to strengthen consumer protection. The current legal framework, established by acts of legislation including the Consumer Protection Act 1999, Electronic Commerce Act 2006 and specific e-commerce regulations, provides

a good foundation. These could be updated to reflect the latest technological and market developments and to facilitate the resolution of consumer complaints and disputes through the adoption of an online dispute resolution (ODR) mechanism.

Malaysia's legal framework for cyber security is fragmented across different acts of legislation. As a result, Malaysia currently performs less well in terms of international benchmarks related to safeguarding regulation. Cybersecurity enhancements have been recognized as a crucial pillar for the conducive functioning of the digital economy, with numerous initiatives implemented to improve on this aspect. The Malaysia Cyber Security Strategy (MCSS) 2020-2024 will focus on improving safeguards through initiatives to enhance cyber security preparedness, capacity, and capabilities. Cybersecurity also remains a key focus point of the Twelfth Malaysia Plan (2021-25), with particular focus on the adoption of better cyber security strategies by MSMEs. In the same vein, CyberSecurity Malaysia is also conducting a cyber security enhancement program for SMEs to strengthen their level of readiness and resilience against cyber threats.

Malaysia's competition framework also needs to be sufficiently dynamic to meet the challenges that emerge with the growth of the highly dynamic digital economy. The digital economy, and in particular the emergence of platforms that intermediate between two or more different types of users (including consumers, producers, individual service providers, or advertisers), has created new challenges for competition authorities globally. The dynamics of new business models tend to incentivize aggressive expansion, vertical integration and the exploitation of network effects, which may create risks to competition that may not be adequately addressed through traditional competition enforcement frameworks. In line with the Malaysia Digital Economy Blueprint, the authorities should enhance the competition enforcement framework to reflect the dynamics of the digital economy and further assess the need for regulatory intervention in particular areas of concern.

To facilitate increased participation in international e-commerce, Malaysia's logistics management and customs need to be strengthened to improve trade competitiveness. Last mile delivery remains the most challenging and costly part of the supply chain, with digital platforms facing increasing consumer demands for faster and more cost-competitive delivery services. In these terms, the World Bank's Logistics Performance Index ranks Malaysia relatively low, in 41st place out of 160 countries.² The importance of having a fully integrated, end-to-end single window for goods clearance has become imperative for the achievement of increased trade competitiveness and the facilitation of greater trade activities with Malaysia's participation in multi-lateral trade deals such as the Regional Comprehensive Economic Partnership (RCEP) and initiatives under the ASEAN Economic Community. An e-customs platform would improve transparency in customs processes and enable better tracking and tracing abilities by its users. Thus, the expedient implementation of such an e-customs system would not only enhance Malaysia's logistics performance but would also increase its overall trade competitiveness.

The authorities should continue to implement strategies to ensure that workers enjoy the necessary degree of security in the digital economy. The government has introduced social security provisions to ensure that gig workers have access to a social safety net. The Self-Employed Social Security Act 2017 contains provisions related to replacement of income, rehabilitation (medical and vocational) and medical benefits. Ensuring that these provisions are widely implemented will mitigate the precarious financial position of some workers. Beyond social security, the government should also monitor the lower level of legal protection afforded to gig economy workers relative to traditional employees and consider the need for wider medical protection schemes above and beyond those that relate to work-related accidents. In this regard, the proposed review

of the Employment Act 1955 to amend definitions of employees and employers to account for the rise in gig economy participation is a welcome initiative. Budget 2022 also includes a number of initiatives that are directly intended to address gaps in access to finance and the social safety net for gig economy workers, with measures such as guarantee schemes for banks extending home loans to gig workers, job incentive schemes for employers of gig workers, and a matching contribution scheme administered by Social Security Organisation (SOCSSO) to encourage more self-employed workers (including gig workers) to participate in the Self-Employment Social Security Scheme (SESSS).

Finally, the government could build on its existing open data framework to fully embrace the economic and social benefits of more transparent and accountable government and governance. Although the government has adopted an open data framework, its current open data policies have no statutory force. Overall, Malaysia's level of transparency of public data remains relatively low compared to international benchmarks.

Policy Recommendations

Based on this report's analysis, several priority reforms in the short to medium term could help SMEs make the most of digital technologies.

Regarding the institutional and policy framework, priority measures include the following:

| | Short term (less than 3 months) | Medium term (3-12 months) | Long term (more than 12 months) |
|--|---|---|--|
| Establish a more integrated policy framework, with stronger program oversight and M&E | <ul style="list-style-type: none"> Ongoing efforts under the National Digital Economy and 4IR Council (MDE4IR) to improve coordination between public agencies supporting SME digitalization could be deepened (for instance by ensuring the inclusion of sub-national agencies) and rapidly completed by establishing strong permanent coordination mechanisms. | <ul style="list-style-type: none"> MDE4IR and MyDigital Corporation should launch a comprehensive review of the current landscape of support programs to identify duplications, synergies and gaps, and to assess their modalities, efficiency and impact. This review could then be periodically updated to ensure the programs meet the fast changing needs of businesses. | <ul style="list-style-type: none"> Agencies supporting SME digitalization should ensure all programs feature proper M&E systems to identify lasting outcomes and impacts (not just outputs), particularly for major, recurring initiatives. Under the supervision of oversight bodies, agencies should use M&E data to periodically revise program design and implementation modalities, with a view to scale up high-impact programs and discontinue less effective ones. M&E data on the different programs' reach and impacts should be published and made easily accessible to improve accountability and help SMEs identify the best programs for them. Based on M&E data, federal and state agencies should work jointly to ensure public support does not underserve SMEs in particular regions, and programs take into account local constraints (e.g. limited connectivity). |

| | Short term (less than 3 months) | Medium term (3-12 months) | Long term (more than 12 months) |
|--|---|---|---|
| Facilitate SMEs' access to support programs by establishing an online one-stop shop | <ul style="list-style-type: none"> Under the MDE4IR framework, the MyDigital Corporation could establish and advertise an online database of all available support programs. Federal, state and local agencies should be required to enter detailed, up-to-date information for all the programs they implement, and clear guidelines regarding program eligibility. This database would be easily searchable to allow SMEs to identify programs that best meet their needs. SMEs could also benefit from greater hands-on support from a program manager or a business unit to help navigate the application process. | <ul style="list-style-type: none"> The one-stop shop could be upgraded to enable SMEs to apply to the different programs through seamless online processes, monitor the status of their applications, and obtain feedback on reasons for approval/rejection to facilitate future applications. In addition to improving online application processes, the authorities should also ensure agencies have adequate resources to process all applications and notify SMEs of decisions in a timely fashion. | |
| Address the shortage of skills required for SME digitalization | <ul style="list-style-type: none"> The government, working jointly with private sector associations and private training providers, should also develop coaching for SMEs owners/managers to better understand how to integrate digital solutions in their business operations. | <ul style="list-style-type: none"> The authorities could work with higher education institutions to ensure digital skills are fully included in traditional curriculum (e.g. ensuring accounting, finance and HR graduates are taught about Enterprise Resource Planning software). In addition, to address the shortages of digital skills, retraining the existing workforce by reinforcing digital skills training. This includes giving more weights to a skill based certification in hiring and rewards system, regularly update in-demand digital skills and ensure training remains accessible and affordable. | |

Regarding the legal and regulatory framework, priority reforms are as follows:

| | Short term (less than 3 months) | Medium term (3-12 months) | Long term (more than 12 months) |
|---|--|---|---|
| Enhance users' trust in the digital economy, while facilitating SME compliance | <ul style="list-style-type: none"> Reforms currently considered to improve the functioning of digital markets and transactions (e.g. amendments to the Personal Data Protection Act 2010) to facilitate greater ease and security of cross-border data transfers. Different options discussed in the report could address current weaknesses of the PDPA 2010 on this front, but the ease of compliance, especially for smaller firms, should be considered a priority. Capacity building programs could be developed to help SMEs navigate regulatory requirements in the digital economy. | <ul style="list-style-type: none"> Finalize amendments to the Consumer Protection Act 1999 to increase clarity with respect to digital products, while facilitating compliance by SMEs as much as possible (e.g. simple requirements, minimal administrative processes, phase in periods). | <ul style="list-style-type: none"> Preparation of an overarching Cyber Security Law) should be finalized and with a view to facilitate compliance by SMEs. |

| | Short term (less than 3 months) | Medium term (3-12 months) | Long term (more than 12 months) |
|--|--|--|--|
| Update the competition framework to reflect new dynamics in the digital economy and ensure a level playing field for SMEs | | <ul style="list-style-type: none"> Proposed amendments to the Competition Act 2010 should cover much-needed merger control legislation, as well as include specific references to the monitoring and enforcement of competition in digital markets. A market review on digital platforms should also be conducted in order to help competition authorities better understand the market and where risks could emanate from, including for SMEs. | |
| Facilitate the resolution of disputes related to e-Commerce transactions | | <ul style="list-style-type: none"> The authorities could set up an Online Dispute Resolution (ODR) mechanism to efficiently adjudicate and resolve small claims. ODR mechanisms can facilitate cross-border dispute resolutions and as such, the establishment of an ASEAN Online Dispute Resolution (ODR) Network under the ASEAN Strategic Action Plan on Consumer Protection (ASAPCP) 2025 is a welcome initiative. Processes for both domestic and cross-border ODR mechanisms should be made sufficiently easy for SMEs to effectively leverage. | |
| Monitor the status of gig economy workers to ensure their adequate financial and legal security | | <ul style="list-style-type: none"> The authorities could assess the extent to which the extension of mandatory social security provisions to the self-employed under the Self-Employment Social Security Scheme (SESSS) in 2020 enhanced the financial security of gig economy workers. | <ul style="list-style-type: none"> Apart from social security coverage for accidents incurred through work under SESSS, more robust legal rights to gig workers could be established, for instance under the occupational safety and health administration (OSHA) standard. The private sector could also play a more integral role in ensuring the social and legal protection of gig workers. |
| Expand the Open Data framework to stimulate citizen engagement and create economic opportunities | <ul style="list-style-type: none"> An area of enhancement could be the publication of enforcement outcomes data across the board, i.e. pertaining to the prosecution of cybercrimes, personal data breaches and consumer complaints. This could help enhance transparency of enforcement actions and help strengthen environment for the private sector to adhere to the prevailing laws and regulations to safeguard both consumers and businesses in the digital economy. | <ul style="list-style-type: none"> Malaysia needs to adopt the best practices on open data are not currently in place in Malaysia, including the availability and ease of access of data in electronic formats. Measures to consider include (i) adopting a statutory Open Data standard; (ii) reviewing the public sector exemption under the Personal Data Protection Act 2010. | |

CHAPTER 1

Introduction



Small and medium-sized enterprises (SMEs), which constitute a major part of Malaysia's economy, have been particularly severely affected by COVID-19. More specifically, 97.4 percent of the total number of Malaysia's businesses are MSMEs,³ with these businesses accounting for 48.0 percent of the country's employment and for 38.2 percent of its GDP (DOSM 2021). SMEs are concentrated in the services sector (23.7 percent), with the greatest proportion in the wholesale and retail trade, food and beverage, accommodation sub-sectors (15.4 percent). Like in most countries, the pandemic has had a much greater negative impact on small businesses than on large ones in Malaysia, with the latter much more likely to be able to buffer the financial shocks related to the prolonged mobility restrictions in place between March 2020 and early 2022. Thus, while in 2020, Malaysia's GDP contracted by 5.6 percent overall, the contraction was far higher for the SME sector, at 7.3 percent, than for the non-SME sector, at 4.6 percent (DOSM 2021).

In the context of the pandemic, increased access to digital platforms, including e-commerce marketplaces, has enabled many businesses of all sizes to mitigate the crisis' adverse impacts. In the extremely difficult circumstances facing business operators over the past couple of years, the increased adoption of e-commerce platforms as an alternate means of doing business has played a significant positive role in enabling them to continue sales activities, to maintain or even expand their geographical market reach, and to retain their workforce. Nevertheless, the evidence suggests that, despite the efforts of both the government and online service providers to encourage businesses to use digital technologies and online channels, the use of such technologies remains largely limited to basic, customer-facing business functions for most SMEs. Moreover, in Malaysia as in many other countries of the world, fewer SMEs than large firms have been able to turn to digital solutions to cope with the COVID-19 crisis. This suggests that various constraints, ranging from business operators' limited capabilities and market frictions to aspects of the institutional and regulatory environment, still impede the depth and breadth of SME digitalization.

While Malaysia's digital economy had already been growing at a rapid rate over the past decade, the pandemic has further accelerated this trend. The recent period has seen the growth of many digital businesses and the emergence of new ones, including digital platforms (see Box 1.1 for definitions). The DOSM estimates that the ICT sector contributed to 22.6 percent of GDP⁴ in 2020, up from 19.2 percent in the previous year (DOSM 2021a). Overall, the sector grew at a compound annual growth rate (CAGR) of 8 percent between 2015 and 2019, with the figure standing at 10.4 percent in 2020. Within this sector, e-commerce has been the most rapidly expanding component, its contribution increasing by 26.5 percent in 2020 to reach RM163.3 billion (about US\$40 billion), more than double its CAGR of 9.7 percent over the 2015-2019 period. Furthermore, the latest data shows that 85.2 percent of Malaysian enterprises used the internet in 2019, up from 73.3 percent two years earlier and from 62 percent in 2015 (DOSM 2021b).

3 Source: SME Corp (<https://www.smecorp.gov.my/index.php/en/policies/2020-02-11-08-01-24/profile-and-importance-to-the-economy>).

4 22.6% to GDP comprising of 14.2% of gross value add of ICT sector and 8.4% of e-commerce of other industries.

BOX 1.1

Defining digital businesses

For the purpose of this study, key terms are defined as follows:

- **Digital businesses** are digital solution providers that develop and manufacture digital technology products and/or provide digital services.
- **Data-driven businesses** collect or aggregate large datasets and leverage advanced analytics (such as artificial intelligence [AI], big data and blockchain) to create value, leveraging data as a key element of their business model.
- **Digital platforms** are multisided online businesses that intermediate between different types of users to create value by removing market frictions, facilitating interactions and matching, and by exploiting and managing direct and indirect network effects. Many data-driven businesses are also multi-sided digital platforms, since the information and economies of scale powered by data can be monetized via a platform business model.

This study analyzes the growth of new digital businesses (including digital platforms) and the digitalization of traditional businesses and their access to digital platforms to access new markets.

The available evidence suggests that increased digital uptake has a greater positive impact on the productivity of small enterprises than large ones. In the OECD's most recent Economic Surveys for Malaysia (2021), an analysis of digital uptake (computer, internet and e-commerce usage) by enterprises of different sizes shows a positive correlation with productivity. Another OECD study,⁵ covering 10 member countries,⁶ found that the increased use of online platforms resulted in a significant increase in multi-factor productivity for firms in sectors that account for a large share of SMEs (such as hospitality and retail trade). In particular, this productivity boost was significant for enterprises who adopted the use of aggregator platforms, which are defined as digital platforms that aggregate incumbent service providers to enable more efficient reach to their customers,⁷ with notable examples in Malaysia including Grab Food, Lazada and Shopee. These empirical results suggest that the use of these platforms can provide greater benefits to small enterprises than to large ones. In the smallest of businesses sampled (i.e., fewer than 10 employees), it was found that a 1-standard deviation increase in platform traffic could increase labor productivity by more than 10 percent.⁸ Figure 1.1 below shows that, across firm sizes, labor productivity is highest for businesses participating in e-commerce, although this is not evidence of a causal link. Although MSMEs record the largest incremental boosts to labor productivity through such participation, their participation rate is also relatively low (see Figure 1.2).

5 Costa et al. 2020.

6 Belgium, France, Germany, Hungary, Italy, Poland, Spain, Sweden, United Kingdom and the United States.

7 Bailin Rivas, A. et al. 2019.

8 Costa et al. 2020.

Figure 1.1: Labour productivity across firm sizes

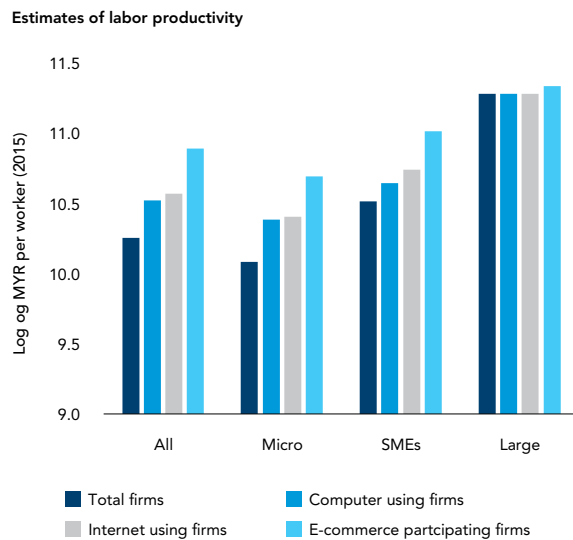
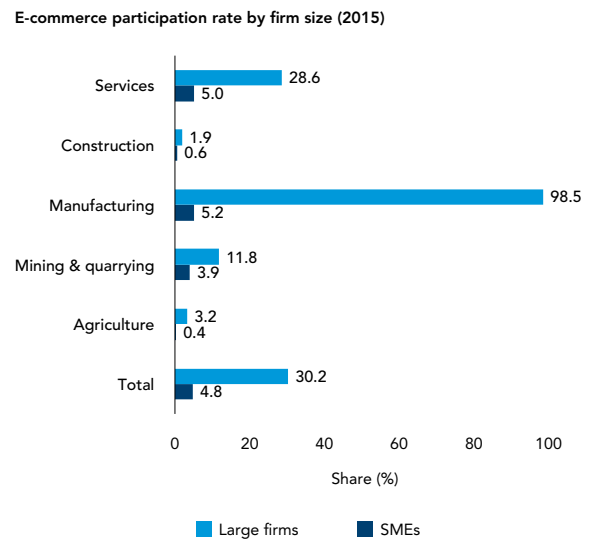


Figure 1.2: E-commerce participation rates

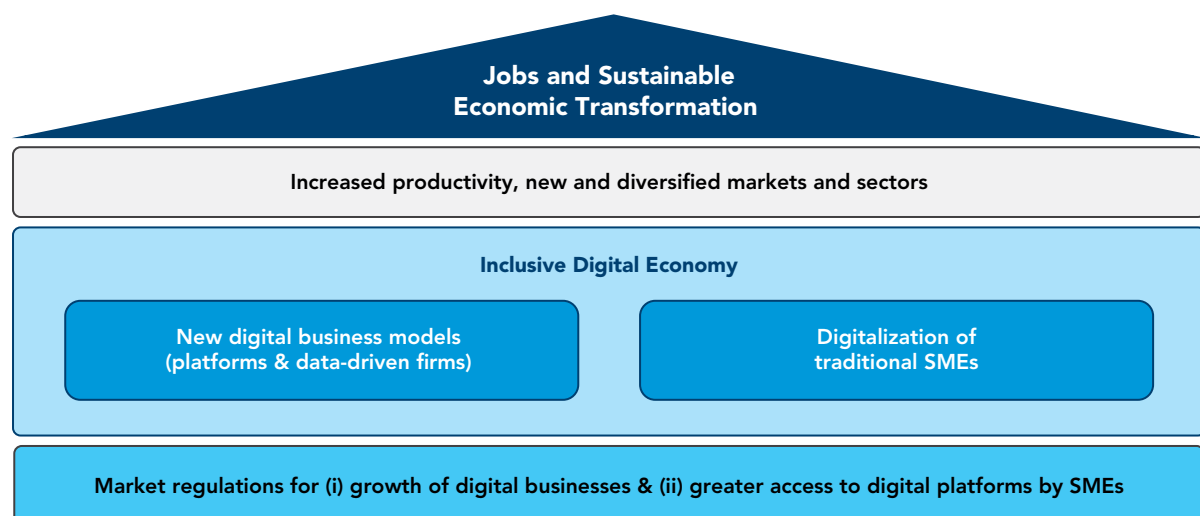


Source: OECD Economic Surveys - Malaysia (2021)

With the right enabling foundations, the digital economy can boost productivity and innovation-driven growth to create a greater number of good jobs and facilitate sustainable economic transformation.

Figure 1.3 below illustrates this, using an adapted version of the World Bank's Jobs and Economic Transformation (JET) framework.⁹ As argued above, the productivity impact of leveraging platforms is more significant for smaller businesses, but these firms' level of digital adoption is significantly lower than for large businesses. This suggests that increasing SMEs' access to digital tools could significantly boost both their productivity and competitiveness, enabling them to contribute more significantly to Malaysia's overall economic performance. To achieve this objective, robust institutional and regulatory frameworks are needed to support both the adoption of digital tools by SMEs and their increased access to digital platforms.

Figure 1.3: An inclusive digital development framework for Malaysia's private sector



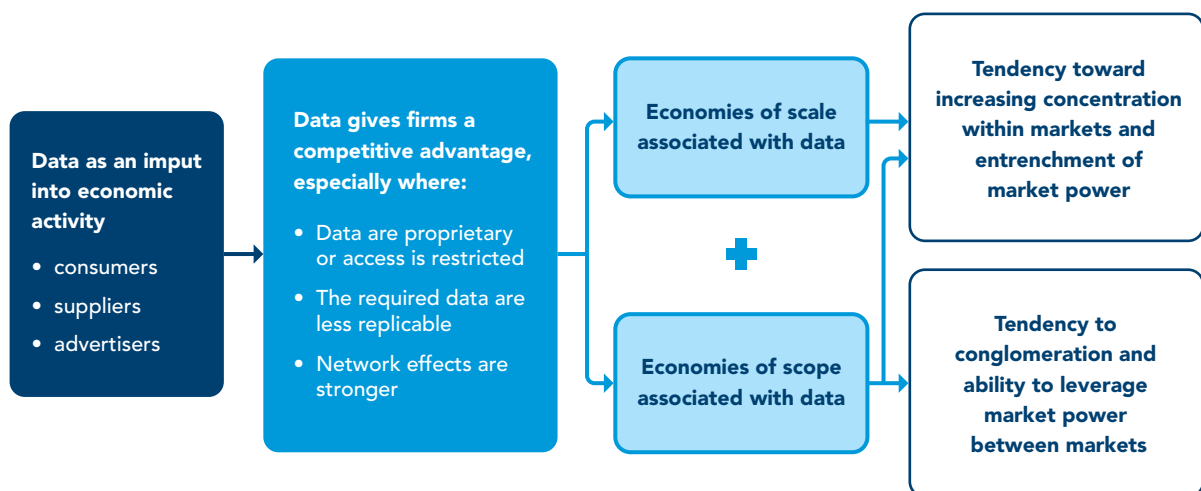
Source: Staff adaptation from World Bank, 2019, Updated JET Framework

⁹ See: <https://ida.worldbank.org/en/topics/theme/jobs-and-economic-transformation>

Digital platforms can boost business competitiveness through two main channels: (i) enabling the generation and use of network effects; and (ii) facilitating the accumulation and use of data:¹⁰

- **The network of digital business service providers created through the platform ecosystem can generate positive network externalities by enhancing market reach both for suppliers and customers.** This is particularly important for SMEs, given their limited financial and human capacity for marketing and networking. The range of services embedded in digital platforms to help firms reap the benefits of e-commerce, such as payment systems and marketing tools, can reduce investment and operational costs which may prove too large for SMEs to bear on their own. Platforms and their user-experience feedback mechanisms can also enable businesses to better serve a wider market. Access to wider networks can enable businesses to scale up more rapidly, allowing them to attain economies of scale and enhanced cost competitiveness.
- **Leveraging data generated through digital platforms can also boost firms' productivity, although not all firms have the same capacity to do so.** Businesses that are better able to utilise and extract insights from Big Data and to expand their networks by leveraging the enhanced connectivity in the ecosystem will have a competitive advantage in a digitalised context. This conclusion is supported by analysis presented in the World Bank's World Development Report 2021 - Data for Better Lives, which shows that platform enterprises with both superior data access and stronger networks have a higher degree of competitive advantage. Moreover, the type of data collected and its level of exclusivity (by virtue of it being proprietary or less replicable) also has an impact on the competitive advantage of firms (see Figure 1.4).

Figure 1.4: Data as a competitive edge for platform firms

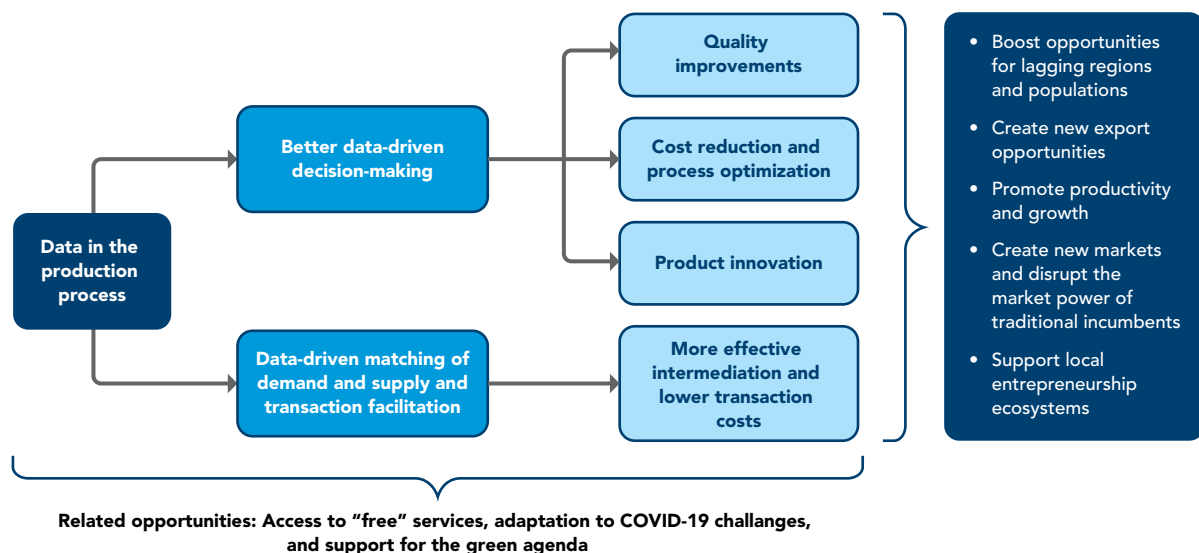


Source: World Development Report 2021 - Data for Better Lives, World Bank (adaptation)

10 Knudsen, E.S. et al. 2021. Stability in turbulent times ? The effect of digitalization on the sustainability of competitive advantage.

The use of digital platforms and data in production processes can have a transformative impact for firms through several channels, including quality improvement, cost reduction, innovation and lower transaction costs (see Figure 1.5). In turn, these can generate increased opportunities to expand exports; to increase productivity and growth; to break into new markets; and to support local entrepreneurship. While harnessing the power of data and digital tools can help SMEs bridge the competitiveness gap, the growth of the digital economy can cause them to fall behind larger firms if they lack the capacity to do so. There have also been concerns that the growth of digital platforms could result in new risks for SMEs, related to platforms' entrenched market power, the abuse of their asymmetric bargaining position, and unfair trading practices, including unexplained changes to terms and conditions, the sudden termination or suspension of their business accounts, and the lack of complaint mechanisms. A conducive regulatory environment and adequate institutional support are therefore essential to enable small businesses to compete with large ones in terms of their ability to access and utilize digital tools more effectively.

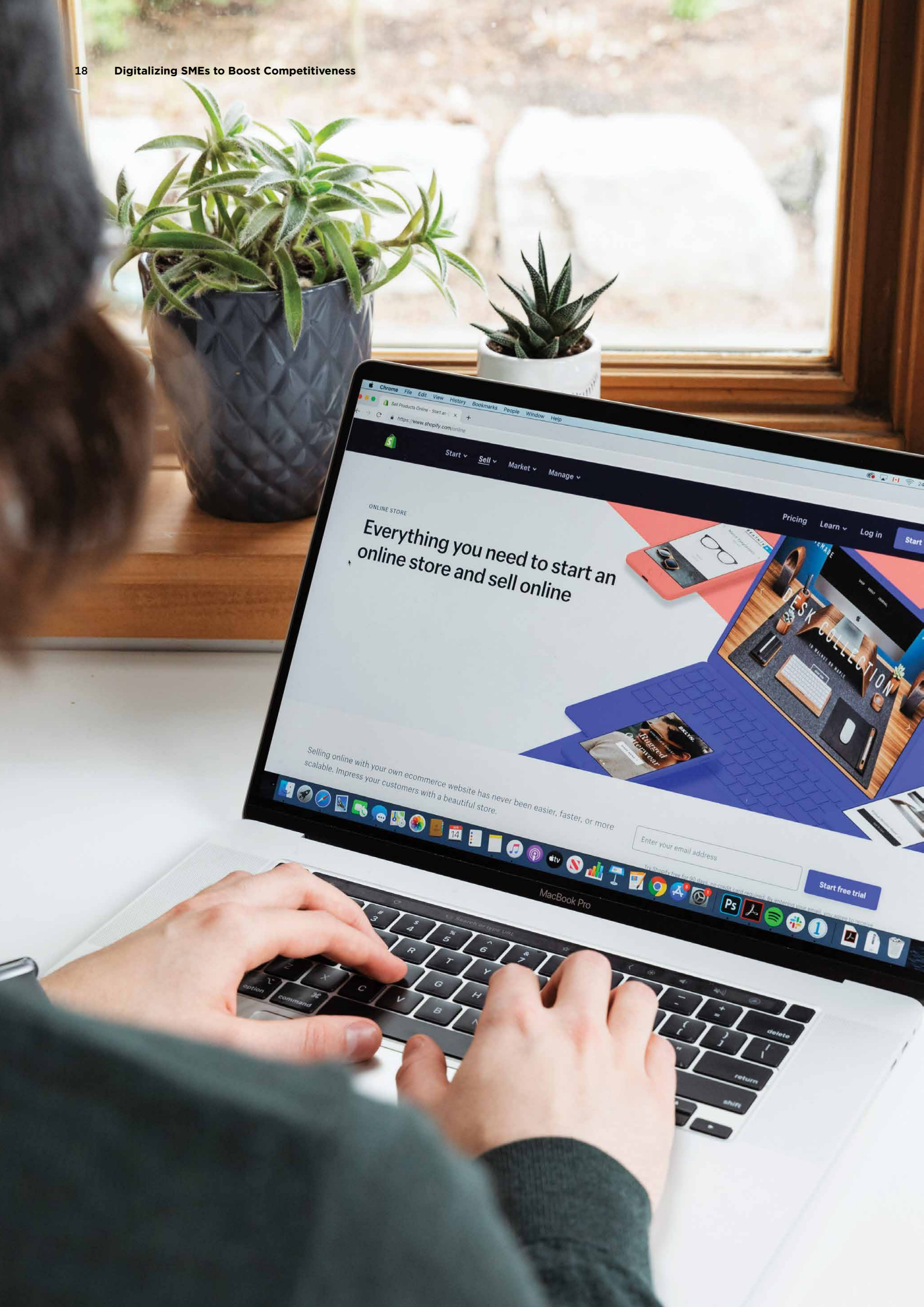
Figure 1.5: Transformative impact of data in the production process



Source: World Development Report 2021 - Data for Better Lives

This report analyzes opportunities and challenges for Malaysian SMEs to better leverage digital tools and platforms to increase their productivity and competitiveness. This report is also part of a larger body of work that has been undertaken over the last few years (see Box 1.2). It is structured around three complementary analytical pillars:

- **Digital Business Landscape Diagnostic (Chapter 2):** This pillar sets the stage by assessing (i) the degree to which Malaysia's ecosystem has been conducive to the growth of digital enterprises, notably digital platforms (a critical foundation to enable traditional businesses to adopt digital technologies and new digital business models); (ii) the extent of digitalization and use of digital platforms among SMEs in traditional sectors, notably since the onset of the pandemic; and (iii) the constraints that SMEs still face to digitalize. This analysis in this chapter is based on data from several sources, including the World Bank and DOSM, as well as on previous studies on Malaysia's digital economy.



- **Digital Economy Institutional and Policy Mapping (Chapter 3):** Given the obstacles to SME digitalization highlighted in the previous chapter, this pillar reviews the adequacy of government efforts to boost the digital economy in Malaysia, particularly in terms of increasing the level of SME's participation in it. This assessment includes the identification of the key strengths and weaknesses of the current institutional framework. Findings are informed by an online survey of public agencies conducted for the study, as well as by stakeholder consultations and a desk review of previous studies.
- **Digital Market Regulations Assessment (Chapter 4):** As argued above, the capacity of SMEs to thrive in the digital economy can be supported not only through the provision of direct public support, but also by putting in place a clear, predictable, and inclusive legal and regulatory framework. The report's last pillar therefore evaluates the adequacy of Malaysia's digital regulatory environment to identify shortcomings that undermine SMEs' capacity to access and benefit from the use of digital platforms. It is based on public agencies' responses to a detailed regulatory questionnaire prepared for this study, complemented by stakeholder interviews.

BOX 1.2

Complementary analysis undertaken

The World Bank Malaysia Digital Economy Report (2018) examined three interrelated issues — digital connectivity, digital entrepreneurship, and taxation of digital platforms — that are closely aligned with Malaysia's goal of becoming the e-commerce hub of the region.

Following up on the Digital Economy Study, an assessment of the start-up financing ecosystem, (Kuriakose et. al, 2022) undertook a regional comparative analysis to assess Malaysia's performance with respect to the Southeast Asian region as a benchmark. The focus of the study was to identify the financing gaps in Malaysia's start-up financing ecosystem and to propose specific policy levers to address the identified constraints on both the availability of and access to early-stage financing.

The Malaysian SME Program Review (2022) assessed the adequacy and appropriateness of Malaysia's current SME support policy framework and the coherence of its related policy and program mix in terms of its ability to support the government's efforts to facilitate greater innovation-led productivity growth. This analysis was updated and complemented through the survey on SME digitalization programs that are analyzed in Chapter 3.

In addition, in 2019 an analysis was undertaken to assess new challenges and opportunities in manufacturing in light of increasing automation through operational technologies (robotization for e.g.). Using a policy framework focused on strengthening competitiveness, capabilities and connectedness – the “3 Cs” – it helped identify the risk of displacement based on Malaysia's specific production structure and the differential changes expected to come by manufacturing subsectors. It suggested policy priorities to ensure that Malaysia is well-prepared to take best advantage of opportunities going forward.

BOX 1.3

Hexa Food / Hexa IoT: From spice maker to leading innovator



Hexa Food Sdn Bhd ('Hexa Food') commenced its operations as a manufacturer and purveyor of spice mixes and marinades in 2007, subsequently developing its own brand, known as HEXA. Primarily a domestic-oriented business, exports have grown moderately over the past few years, accounting for 15 percent of the business' average annual turnover of RM 22 million (approximately US\$5.5 million). As with many other food-related businesses, the pandemic resulted in a shift in the composition of its sales, with a decline in B2B segments and corresponding increase in B2C activities. Thus, in March 2020, when mobility restrictions were first imposed, while the company's B2B sales fell by a significant 50 percent, its B2C sales increased by more than 100 percent in the same month.

The use of digital solutions played a pivotal role both in increasing the company's sales and enabling it to establish a new start up, involved in providing Internet of Things (IoT) solutions for SMEs. The company's ability to pivot smoothly to B2C sales was made possible by the fact that it already had a well-established e-commerce strategy in place prior to the pandemic, with the necessary factory systems to enable manufacturing activities to continue in compliance with social distancing and other health regulations. In addition, the company leveraged its involvement in the digital space to establish in 2018 a successful start-up, Hexa IoT, which provides Internet of Things (IoT) solutions for SMEs in partnership with Huawei.

Vendor-managed proprietary e-commerce channels and marketplaces have a number of unique benefits. Hexa Food conducted its online sales strategy by leveraging both its own e-commerce platform, known as *ebaza*, and other well-established platforms, including Lazada and Shopee. Interestingly, the company established its own sales platform in 2015 prior to their involvement in third-party online marketplaces in 2017. It continues to conduct sales activities on both types of platforms concurrently, with a belief that the different platforms serve different purposes. In particular, they were motivated to establish *ebaza* to showcase their products in a manner that enabled them to maintain full control over their branding.

At the same time, participation in established marketplace platforms generated significant network effects for the company's business. The company decided to participate in these marketplace platforms to gain access to larger markets, resulting from the platforms' networks, platform marketing services and free shipping services, which were a key competitive draw of the marketplaces at the time. During the earliest period when the company utilized both types of platforms simultaneously, 90 percent of sales took place through the company's own website. However, with the benefits of the network effect developing over time, the shares of sales have flipped, with third-party marketplace platforms now accounting for 90 percent of online sales. Hexa Food considers digital platforms to be extremely valuable tools for microenterprises, enabling them to reach broader markets without having to allocate the financial and human resources necessary to establish their own sales platforms.

Hexa Food has a deep-rooted training culture that has enabled it to remain at the forefront of technological developments. The company's culture supports training and knowledge-building, which is vital to its success as an innovative organization. Although Hexa Food has been involved in a number of government training programs, the company has found that the in-house development of their own curriculum better meets its needs. The company's training budget is largely self-funded, enabling it to finance its own training schemes within the timeframe needed.

The IoT startup grew out of the company's perceived need to improve manufacturing productivity. Hexa IoT was established to provide IoT solutions not just for the parent company's own operations, but for SMEs more generally, with its ability to provide the solutions derived from its successful partnership with Huawei, which provides Artificial Intelligence (AI) support. This partnership also supported Huawei's efforts to fill in its own technical gaps (particularly in the area of small-scale manufacturing businesses). In addition, there were synergies with Hexa Food's intentions to leverage on the greater adoption of AI to improve its productivity. The strategic collaboration resulted in the development of the Pandora software, which can be used to remotely monitor factory production processes and to accurately determine output quality. While Hexa Food initially used this software to improve the efficiency and quality of their own chilli sorting activities, it now offers the software to other SMEs in the manufacturing and agriculture sectors. With Huawei onboard as a technical partner, Huawei has promoted the partnership through branding and marketing efforts that have resulted in Hexa's increased brand recognition, including overseas.

CHAPTER 2

Digital Business Landscape Diagnostic

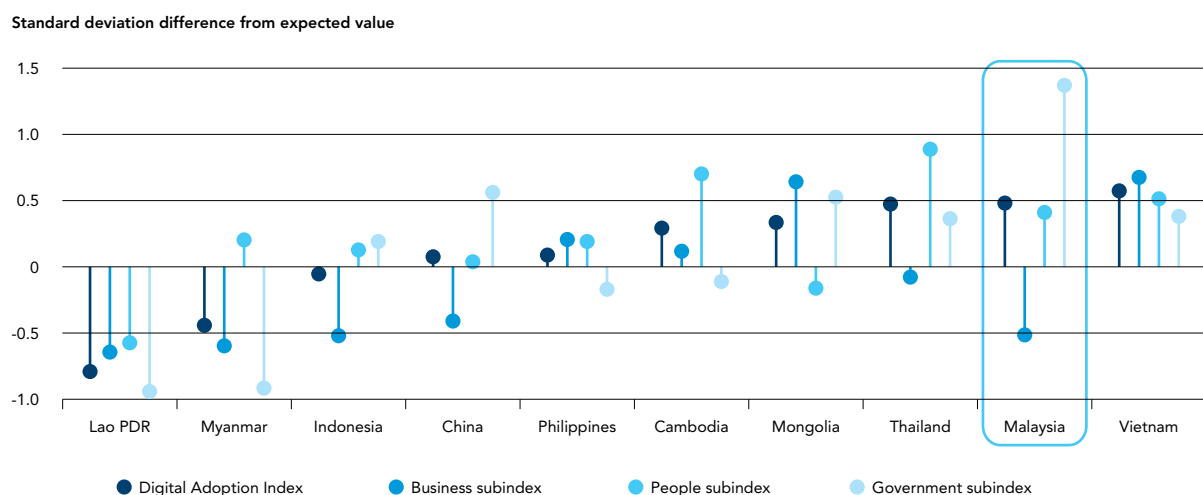


Introduction

Malaysia's digital economy, which had already expanded rapidly over the past decade, has received a further boost since the onset of the COVID-19 pandemic.¹¹ The official data indicates that the ICT sector contributed 22.6 percent to Malaysia's GDP in 2020, up from 19.2 percent the previous year (DOSM 2021a). Overall, the sector grew at a CAGR of 8 percent in the period from 2015 to 2019, with this rate standing at 10.4 percent in 2020. Within the ICT sector, e-commerce has been the fastest growing component, with a CAGR of 9.7 percent over the same time period and annual growth accelerated to 26.5 percent in 2020, to reach a value of RM163.3 billion (about US\$ 40 billion).

One key challenge has been to ensure that the digital economy benefits all Malaysians and does not exclude SMEs in traditional sectors. The latest DOSM data shows that 85.2 percent of Malaysian enterprises used the internet in 2019, up from 73.3 percent two years earlier and from 62 percent in 2015 (DOSM 2021b). This proportion has almost certainly increased further since then. However, previous analysis has found that Malaysian businesses have adopted digital technologies less readily than the government or general population, relative to expectations based on per capita income and compared to other EAP countries (see Figure 2.1). Similarly, the World Bank's 2018 report on Malaysia's digital economy concluded that, for it to be a major driver of the country's development, it would be necessary to bridge the growing digital divide between the small proportion of businesses that have adopted digital technologies, which tend to be larger than average, foreign-owned and concentrated in a few states, versus the majority of SMEs, which are yet to fully embrace digital opportunities (World Bank 2018).

Figure 2.1: Baseline level of digital adoption in EAP



Source: (Mason and Shetty 2019)

Note: The DAI measures digital adoption in 180 countries on a 0–1 scale across three dimensions: people, government, and business. Originally constructed as part of the World Bank's 2016 World Development Report (Digital Dividends), the DAI has been updated to reflect new data sources and an improved methodology. The Business cluster is the simple average of four normalized indicators: the percentage of businesses with websites, the number of secure servers, download speed, and 3G coverage in the country. The People cluster is the simple average of two normalized indicators from the Gallup World Poll: mobile access at home and internet access at home. The Government cluster is the simple average of three sub-indices: core administrative systems, online public services, and digital identification. Data for online public services are provided by the UN's Online Service Index. Data for core administrative systems and digital identification was collected by the World Bank. The figure shows where digital technology adoption stands in each country relative to what would be expected given its per capita income (represented by "0") (Mason and Shetty 2019).

11 There is no universally accepted definition for the term digital economy. It can be viewed in terms of its core scope (digital content, ICT goods and services), a narrow scope (activities reliant on digital technologies), or a broad scope (activities enhanced by digital technologies) (Bukht and Heeks, 2017).

This chapter takes stock of Malaysia's current digital business landscape, examining the extent to which SMEs have been able to participate in the digital and platform economy. Firstly, it assesses whether the Malaysian ecosystem successfully nurtures home-grown digital enterprises, including platforms, and how its performance in this area compares to regional and global peers. Secondly, it analyzes the extent to which SMEs in traditional sectors have adopted digitalization and the obstacles and constraints they have faced in so doing. The chapter draws from a range of data sources to provide as detailed and accurate a picture of digital businesses in Malaysia as possible, with these sources including official government statistics, data collected by the World Bank (Global Digital Business Database, Malaysia Business Pulse Surveys, etc.) and data from other studies (ADB, 2021; IMD, 2021; Huawei and SME Corp, 2018; Google, Temasek & Bain, 2021).

The Rise of Digital Businesses and the Platform Economy in Malaysia

Digital businesses

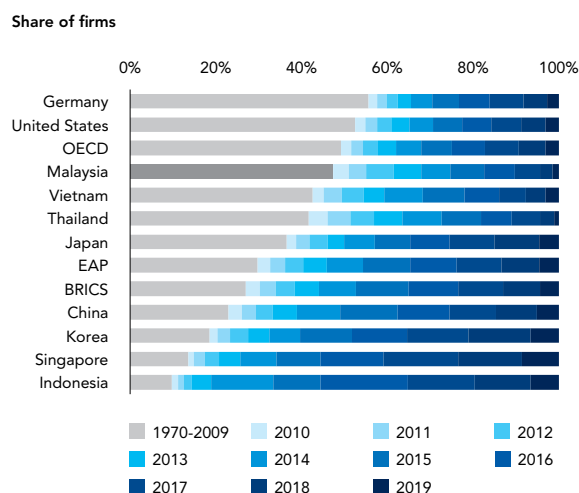
Digital businesses provide a critical foundation to enable traditional businesses to adopt digital technologies and new digital business models. These businesses include digital startups and established digital businesses that develop and manufacture digital technology products and/or provide digital services. As noted earlier (see Box 1.1), digital platforms and data-driven firms are two major categories of digital businesses.

Malaysia benefits from a deep presence of digital businesses. A World Bank database of such businesses identified 1,644 firms in Malaysia as of September 2020, out of some 34,000 in 27 countries of the East Asia Pacific (EAP) region.¹² While about half of these Malaysian businesses have emerged over the past decade, the share of older businesses is higher than the regional and BRICS¹³ averages, and closer to the share in mature OECD markets (see Figure 2.2). While this likely reflects the large number of firms in Malaysia's 50-year-old electrical and electronics industry (E&E), it should be noted that younger businesses account for a majority of digital businesses in other countries that also have long experience in this sector, including China, Japan, Korea, Singapore. Nonetheless, the weight of Malaysia's digital economy is reflected by the fact that it now ranks sixth in EAP in terms of the number of digital businesses relative to GDP (see Figure 2.3).

¹² This database provides a conservative estimate of the universe of digital businesses based on Firm-level data are gathered from 3 proprietary data sources (Pitchbook, CB Insights, Briter Bridges), using techniques from web-scraping entrepreneur networks to extracting firm information from venture capital or other investment deals.

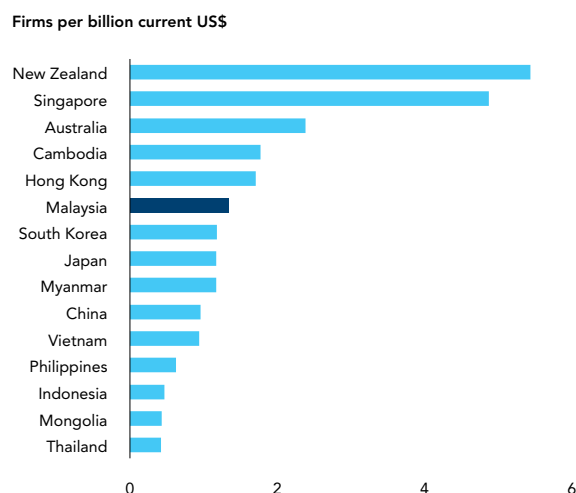
¹³ BRICS refers to the five following large emerging economies: Brazil, Russia, India, China and South Africa.

Figure 2.2: Share of digital businesses by founding year



Source: World Bank, FCI Global Digital Business Database (2020)

Figure 2.3: Number of digital business relative to GDP (2019)

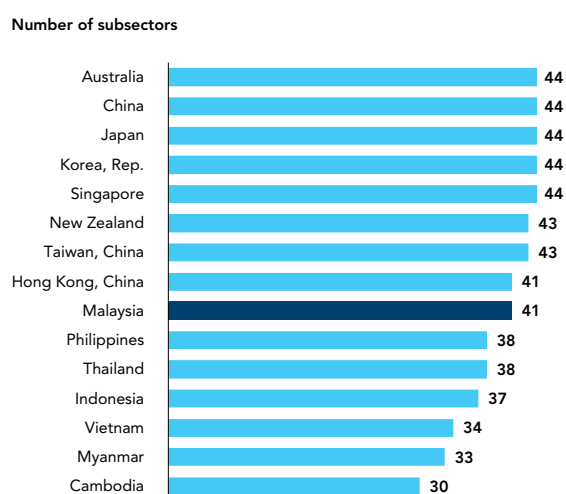


Source: World Bank, FCI Global Digital Business Database (2020)

Malaysia's digital businesses offer a wide variety of solutions, dominated by e-Commerce and FinTech.

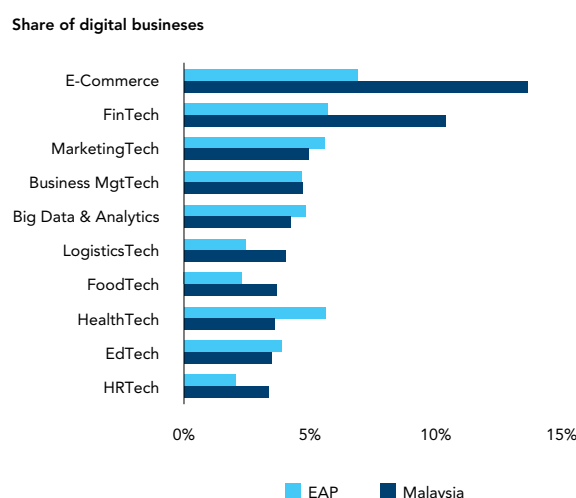
These digital businesses operate in 41 out of the 44 subsectors tracked in the World Bank database, making Malaysia's digital economy one of the most diverse in the EAP region in terms of this metric (see Figure 2.4).¹⁴ E-commerce and FinTech have consistently accounted for the greatest share of Malaysia's digital businesses since the 2000s, well above the regional average (see Figure 2.5). Services to businesses, such as Business ManagementTech, MarketingTech and Big Data, and LogisticsTech, are also relatively large.

Figure 2.4: Subsectors with at least one digital business, by country



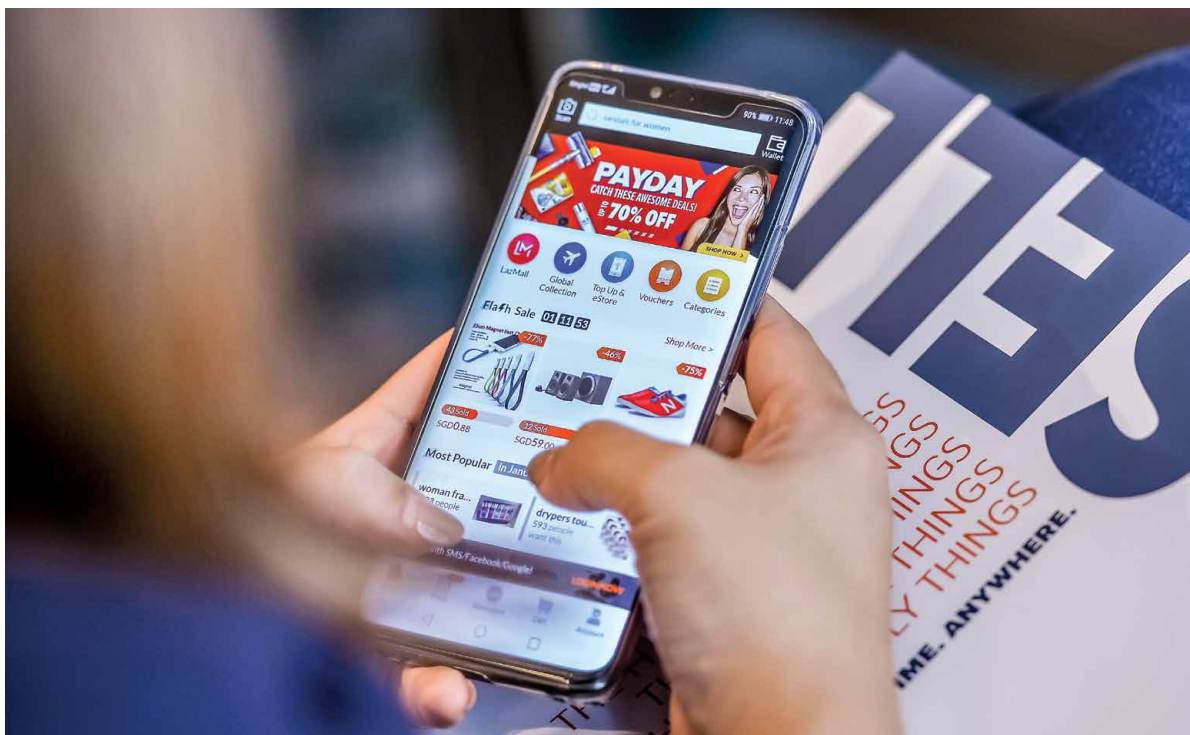
Source: World Bank, FCI Global Digital Business Database (2020)

Figure 2.5: Top 10 digital business subsectors in Malaysia and EAP



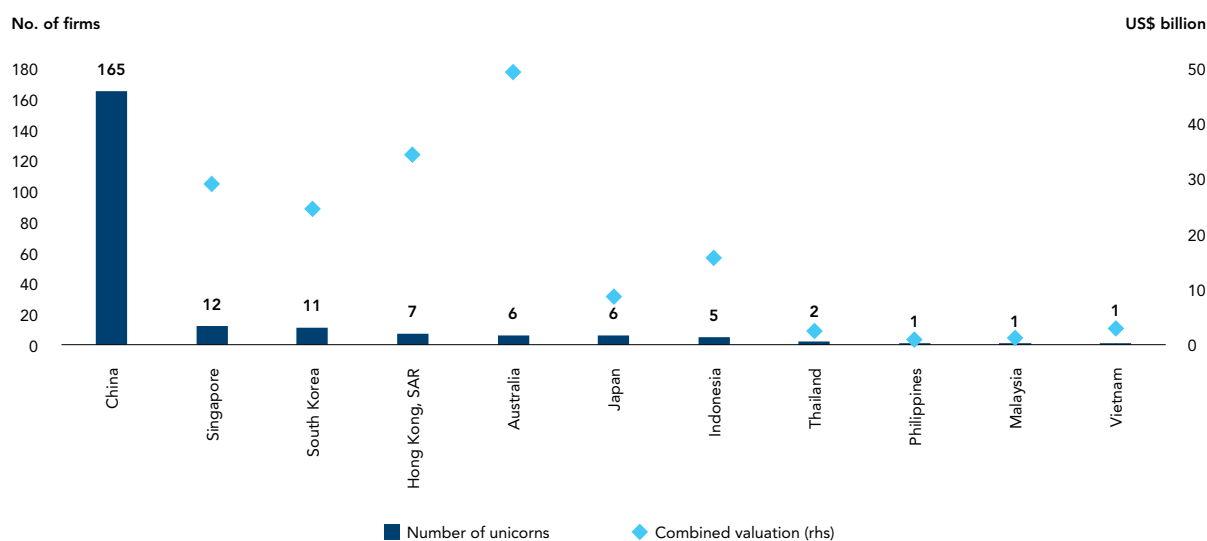
Source: World Bank, FCI Global Digital Business Database (2020)

¹⁴ Digital businesses can operate in more than one subsector and the database includes 895 business-subsector pairs for Malaysia.



Despite the density and diversity of its digital businesses, Malaysia is still home to a relatively small number of market leaders in this space. For instance, it has a relatively small number of unicorns,¹⁵ with a single business, Carsome, in this category. In this regard, it lags behind all the other ASEAN countries except Vietnam and the Philippines, which also have one each (see Figure 2.6).

Figure 2.6: Number of unicorns by country in EAP (2020)

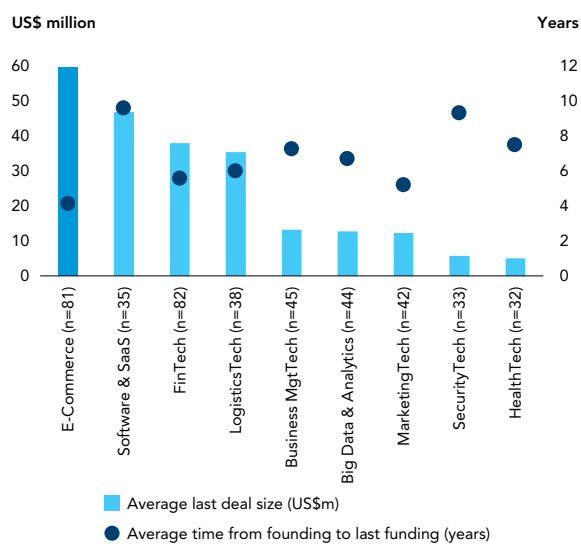


Note: China has 165 unicorns with valuation of US\$544.1 billion Source: CB Insights

¹⁵ A unicorn is a privately held startup company valued at over US\$1 billion.

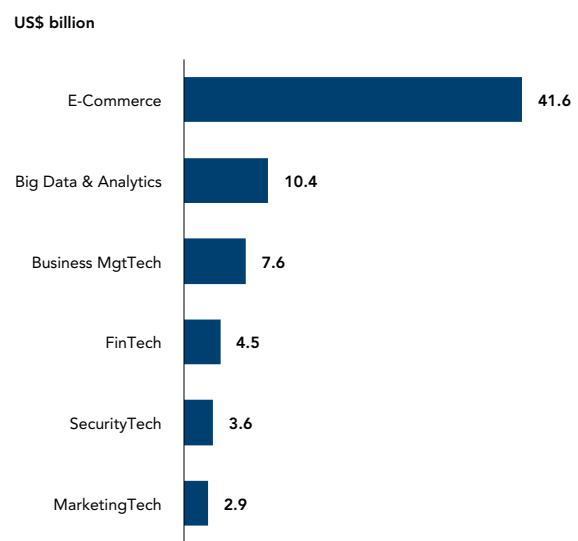
E-commerce is the sector of Malaysia's digital economy that has attracted the greatest interest from investors. Businesses in this subsector have attracted the most funding since 2015, followed by FinTech, LogisticsTech and services to business (see Figure 2.7). E-commerce businesses have also raised funds faster than those in other sectors and have the highest total valuation, suggesting that investors consider this subsector to have a large growth potential (see Figure 2.8).

Figure 2.7: Average last deal size and time to funding by subsectors



Source: World Bank, FCI Global Digital Business Database (2020)

Figure 2.8: Total valuation by subsector in Malaysia¹⁶



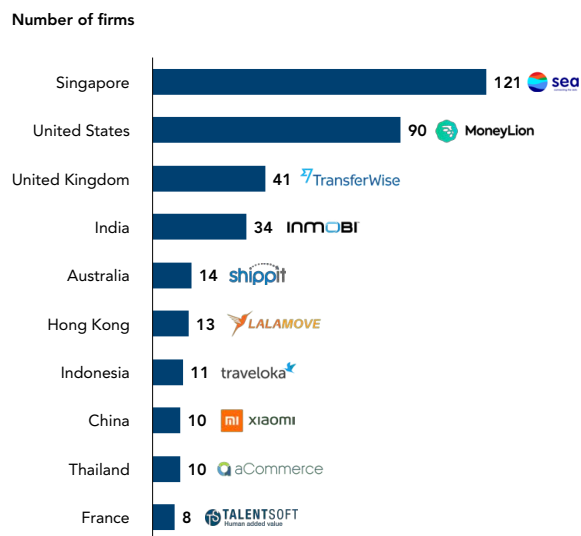
Source: World Bank, FCI Global Digital Business Database (2020)

Foreign enterprises account for a substantial share of Malaysia's digital economy, with just under a third of digital businesses operating in Malaysia headquartered abroad. These foreign enterprises originate from 39 countries, with by far the largest share coming from Singapore and the United States (see Figure 2.9), the former being home to e-commerce leaders such as SEA Limited (mother company of Shopee) and Lazada. While domestic and foreign enterprises compete against each other in the same or similar digital subsectors, foreign enterprises tend to be better funded (see Figure 2.10).

Within Malaysia's digital economy, a growing number of enterprises have adopted platform business models. Most of Malaysia's digital platforms have emerged over the past decade, with businesses of this type accounting for more than a third of new businesses in this space in 2019 (see Figure 2.11). They now account for about 13 percent of all digital businesses in the country, almost double the EAP average, which stands at 7 percent. In Malaysia, by far the largest proportion of businesses utilizing this model operate in the e-commerce subsector, followed by FinTech, TravelTech and MobilityTech (see Figure 2.12).

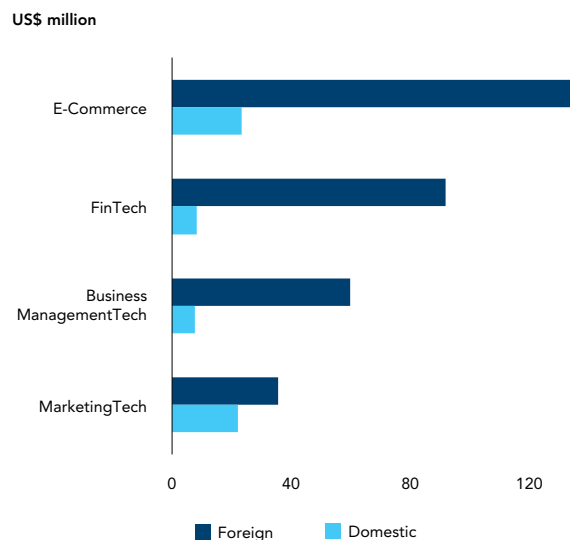
¹⁶ Based on valuations at the time of the latest funding of the firms between 2010 and 2020, available only for about 20 percent of the sample of firms operating in Malaysia. One firm can be active in multiple subsectors, leading to counting its valuation several times. For multinationals, the valuation is that of mother companies across all countries where they are active, not just Malaysia.

Figure 2.9: Origin countries of foreign digital businesses operating in Malaysia¹⁷



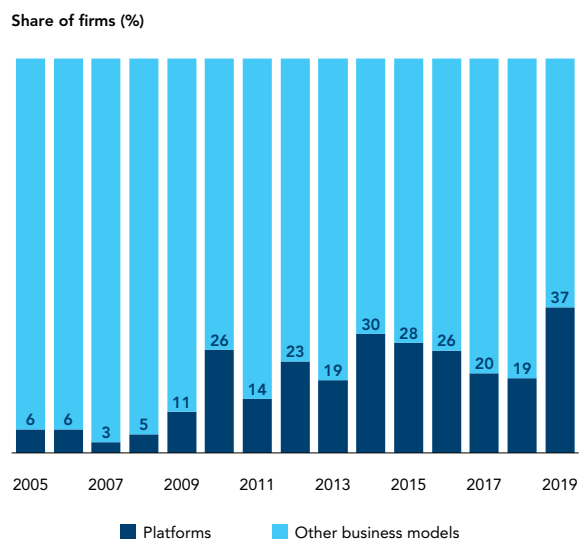
Source: World Bank, FCI Global Digital Business Database (2020)

Figure 2.10: Average total funding received by domestic and foreign digital businesses



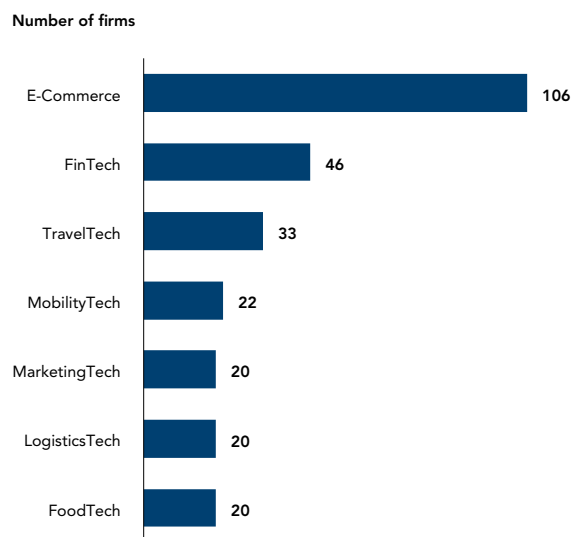
Source: World Bank, FCI Global Digital Business Database (2020)

Figure 2.11: Share of digital platforms among new digital firms in Malaysia



Source: World Bank, FCI Global Digital Business Database (2020)

Figure 2.12: Top subsectors for platform business models



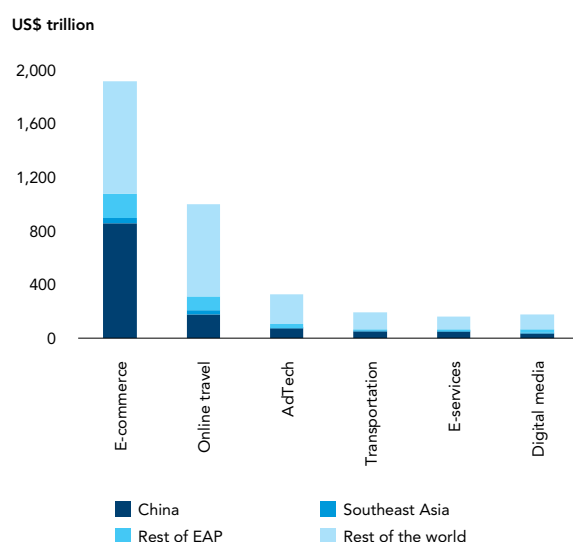
Source: World Bank, FCI Global Digital Business Database (2020)

¹⁷ Foreign digital business here means firms that are headquartered outside of Malaysia but incorporated to be legally compliant in Malaysia. (Digital Businesses operating in Malaysia N=917; Foreign Digital Businesses operating in Malaysia N =427)

The platform economy

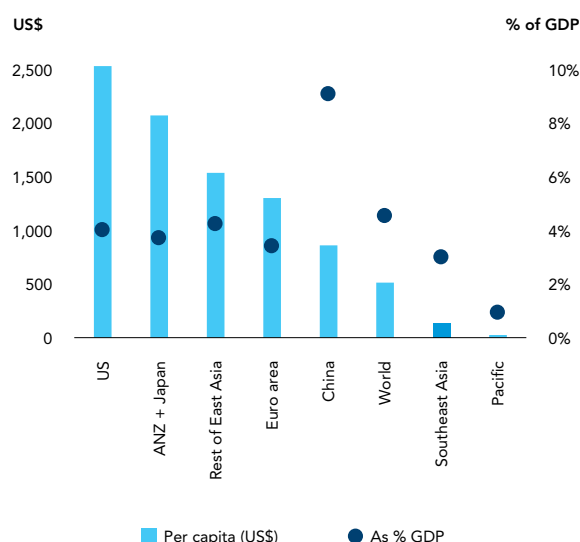
Digital platforms have had a large and fast-growing economic weight in Asia. Digital platforms in the EAP region accounted for about 45 percent of these platforms' global revenues in 2019, or around US\$ 1.7 trillion, amounting to approximately 6 percent of regional GDP (ADB 2021). Within the EAP region, China accounted for the lion's share, with Southeast Asia's contribution remaining marginal by comparison, suggesting that there is significant growth potential (see Figure 2.13). Revenue growth has been much faster in developing Asia than the global average in recent years, especially in the e-commerce subsector. However, platform revenue per capita is still much lower in Southeast Asia than in high-income EAP countries and China, although it is close to the world average relative to GDP (see Figure 2.14).

Figure 2.13: Digital platform revenues in 2019



Source: ADB (2021)

Figure 2.14: Digital platform revenue in relative terms



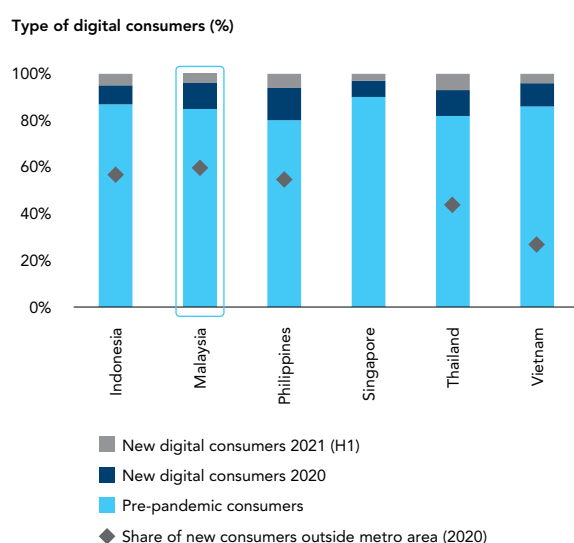
Source: ADB (2021)

The COVID-19 pandemic has resulted in an increased demand for digital platforms' services around the world, particularly in Southeast Asia. The digital economy's gross merchandise value (GMV) grew by an estimated 18 percent in 2020 and by 49 percent in 2021 (Google, Temasek and Bain 2021).¹⁸ In Malaysia, the GMV growth rate stood at an estimated 27 percent in 2020 and at 47 percent in 2021, with the total value increasing from US\$ 14 billion to US\$ 21 billion. This growth was driven primarily by e-commerce, with the growth rate in 2021 for this subsector standing at 68 percent in Malaysia, 6 percentage points higher than the regional average. By contrast, the growth rates for transport and food stood at 35 percent, followed by online media (14 percent) and online travel (4 percent). By mid-2021, it was estimated that individuals who had not used digital services prior to the pandemic accounted for about 15 percent of Malaysia's digital consumers at

¹⁸ GMV is a term used in online retailing to indicate a total sale monetary-value for merchandise sold through a particular marketplace over a certain time frame. The perimeter of the "internet economy" covered in the referenced report includes e-commerce, online transport and food services, online travel and online media.

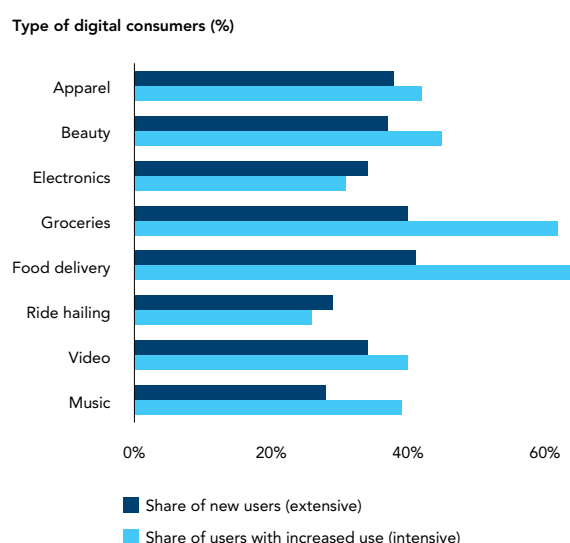
that point, roughly in line with the regional average (see Figure 2.15). Among these new users, 58 percent were from non-metropolitan areas. The vast majority of consumers who used such services in 2020 continued to use them in the following year (Google, Temasek & Bain 2021). Across Southeast Asia, the influx of new digital consumers has been spread across multiple types of service, with e-commerce (groceries, apparel) and food delivery benefiting to the greatest extent (see Figure 2.16). Moreover, consumers who used digital services prior to the pandemic intensified their usage following its onset, especially for groceries and food delivery.

Figure 2.15: New consumers of digital services due to COVID-19 lockdowns



Source: Google, Temasek and Bain (2020, 2021)

Figure 2.16: Margins of digital service use in Southeast Asia after COVID-19

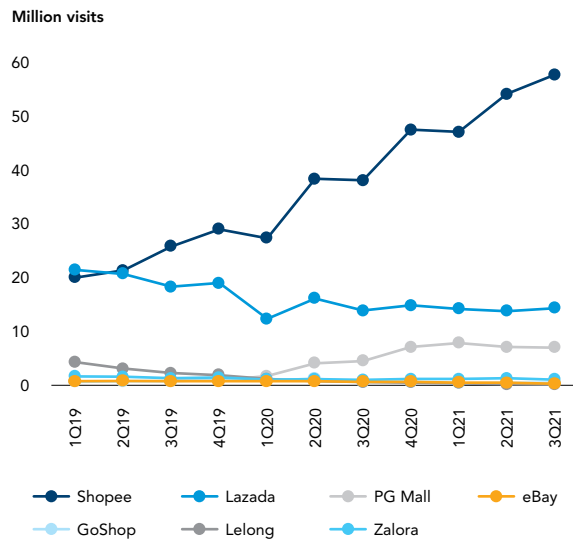


Note: New users are those that started using between 2020 and mid-2021
 Source: Google, Temasek and Bain (2021)

As elsewhere in the region, e-commerce boomed in Malaysia during the pandemic. Malaysia recorded one of the highest rates of growth for e-commerce in the Southeast Asia region in 2021, at 68 percent. In 2021, the total value of Malaysia's e-commerce market stood at 61.4 percent of China's, at US\$ 6.3 billion, only slightly lower than that of Thailand's and Indonesia's (Deloitte, 2021).¹⁹ Since 2019, when it overtook Lazada, Shopee has been Malaysia's most frequently visited digital marketplace, seeing a soaring number of users since 2020 (iPrice 2021) (see Figure 2.17). Domestic marketplaces such as PG Mall, GoShop, and Lelong lag far behind, although these marketplaces have also recorded dramatically increased usage rates, with monthly visits on PG Mall quadrupling over 2020. The relatively weak performance of domestic marketplaces contrasts with the experience in other Southeast Asian countries, such as Indonesia and Vietnam, where domestic marketplaces more closely rival Shopee and Lazada. Out of the 39 platforms in Malaysia for which iPrice tracked traffic in the third quarter of 2021, 14 were international and 25 were domestic. The 32 platforms not shown on the graph had combined monthly visits of around 2.8 million that quarter, around 5 percent of the number recorded by Shopee. Across Southeast Asia, the average basket size has increased by 19 percent in 2020, with Malaysia recording one of the highest in the region, lagging only behind Singapore (see Figure 2.18) (iPrice and SimilarWeb 2021).

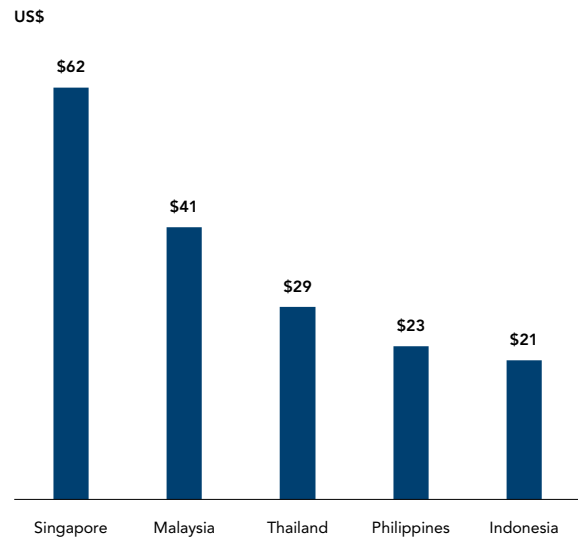
¹⁹ However, despite the rapid growth of e-commerce in Malaysia, Deloitte (December 2021) highlighted that logistic sector remains a constraint affecting Malaysia's growth. This is in line with Figure 2.39, where pre-COVID 19, the numbers of non-adopters in services subsector are second highest in the transport and storage subsectors.

Figure 2.17: Monthly web visits on Malaysia's main digital marketplaces (average by quarter)



Source: iPrice

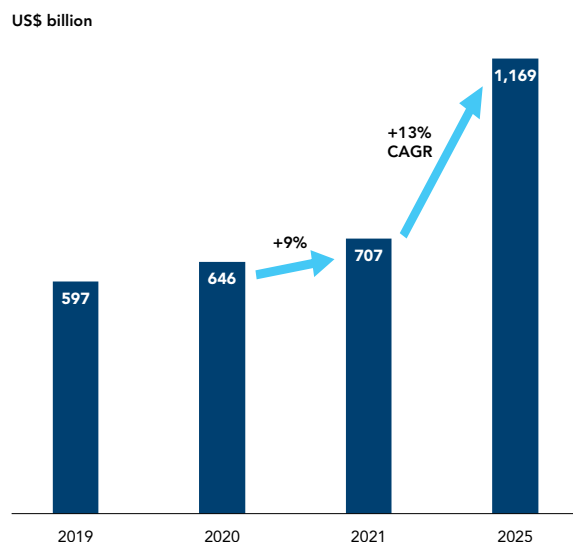
Figure 2.18: Average online basket size in 2020



Source: iPrice, SimilarWeb, AppsFlyer (2021)

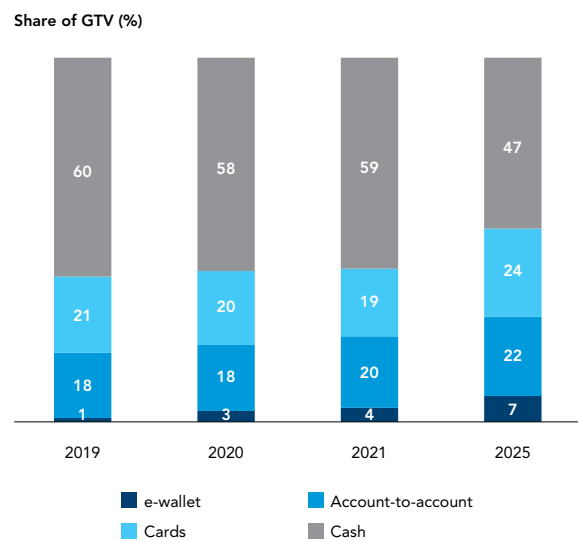
The pandemic has also accelerated the uptake of digital payments in Southeast Asia. Digital payments in the region have grown in line with digital services and, with COVID-19, are expected to almost double by 2025 (see Figure 2.19). The coming years are expected to see a gradual decline of cash payments, and a continued growth of e-wallets in Southeast Asia (see Figure 2.20).

Figure 2.19: Gross transaction value

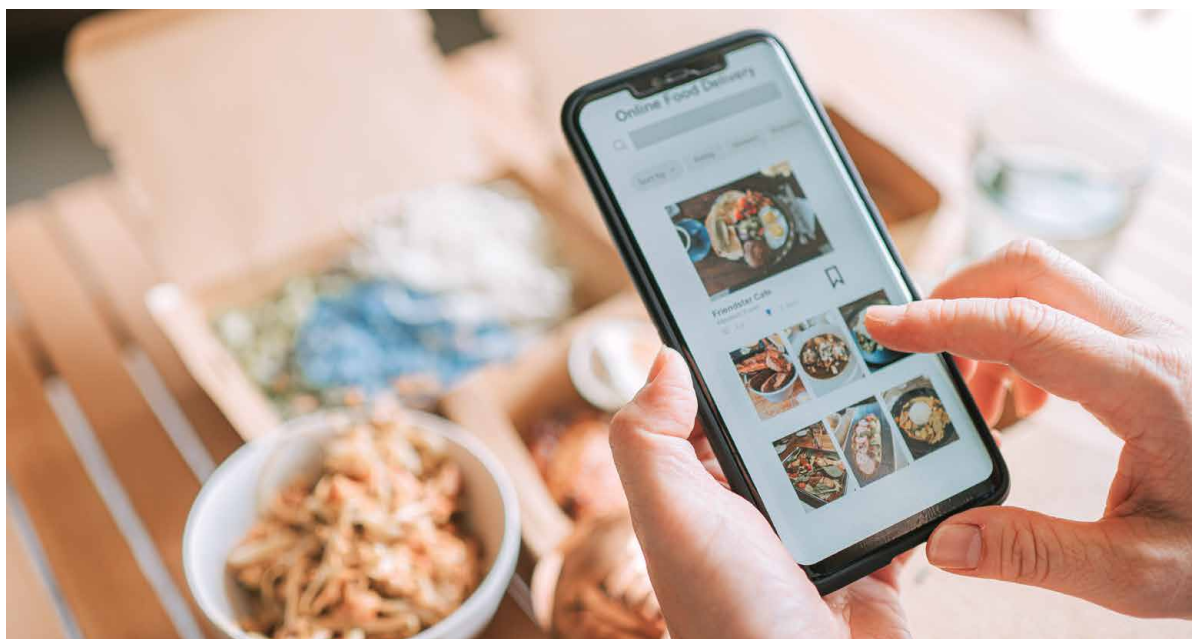


Source: Google, Temasek and Bain (2021)

Figure 2.20: Digital vs. cash payments in Southeast Asia



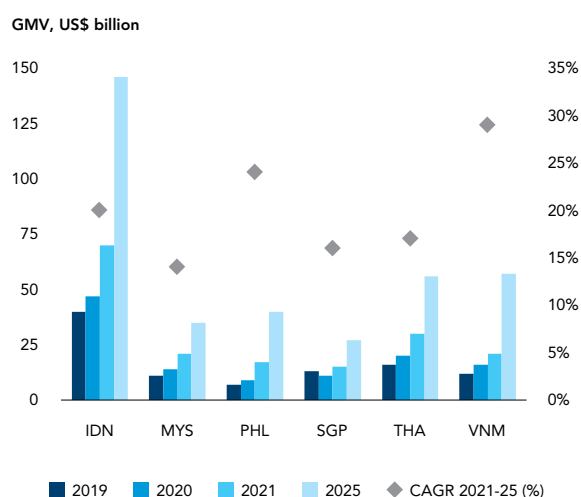
Source: Google, Temasek and Bain



The growth prospects for digital platforms are strong in Southeast Asia, particularly in Malaysia.

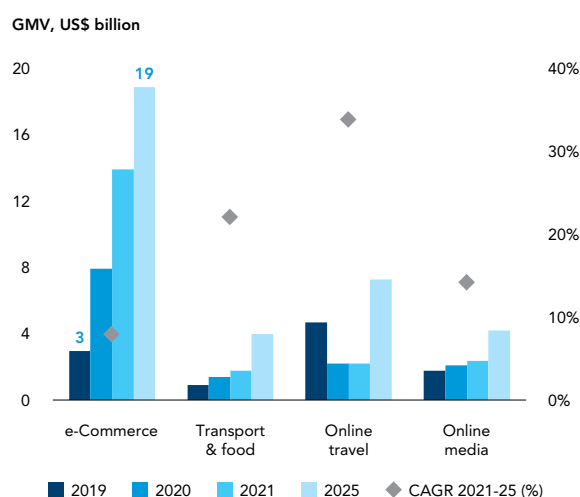
It is estimated that in the period from 2021 to 2025, the CAGR of combined platform GMV could reach 20 percent in Southeast Asia and 14 percent in Malaysia (Google, Temasek and Bain 2021) (see Figure 2.21), with e-commerce expected to be the main driver of volume growth. By 2025, it is expected that e-commerce GMV will increase by a factor of almost 6.1 in Southeast Asia and by 6.3 in Malaysia, relative to levels recorded in 2019 (see Figure 2.22). In particular, although the online groceries subsector has grown rapidly since the onset of the pandemic, its penetration rate remains low in Southeast Asia, at around 2 percent, compared to markets such as the United States and China (about 10 percent), suggesting a strong potential for growth.

Figure 2.21: Forecast growth of Southeast Asia's platform economy over 2019-2025, by country



Source: Google, Temasek and Bain (2021)

Figure 2.22: Forecast growth of Malaysia's digital economy over 2019-2025, by sector



Source: Google, Temasek and Bain (2021)

The Extent of SME Digitalization in Malaysia

Business digitalization prior to the COVID-19 pandemic

In terms of the overall competitiveness of its digital economy, Malaysia has been in an intermediate position in recent years. While Malaysia has improved in terms of access to digital infrastructure, the quality of its mobile broadband infrastructure, measured in terms of speed, is behind that of a number of its regional comparators. In several Malaysian states, businesses still cite the poor quality of the digital infrastructure as a constraint to achieve the full potential of the digital economy.

Malaysia has performed relatively well in terms of global indices related to digital competitiveness and e-commerce readiness (see Figure 2.23). While it records better performance than many of its ASEAN peers, it still lags behind regional leaders, such as Singapore, Hong Kong, Japan and South Korea. Malaysia has recorded marginal improvements in terms of the business subindex of the World Bank's Digital Adoption Index, going up from 88th place out of 194 countries in 2017, with a score of 0.58, to 81st place in 2020, with a score of 0.63 (see Figure 2.24). Despite this improvement, its performance in terms of this subindex remains below that for subindices related to adoption by people (0.69) and the government (0.93), suggesting that business adoption remains a weak spot in Malaysia.

Figure 2.23: Performance on global digital readiness indices, Malaysia and competitors

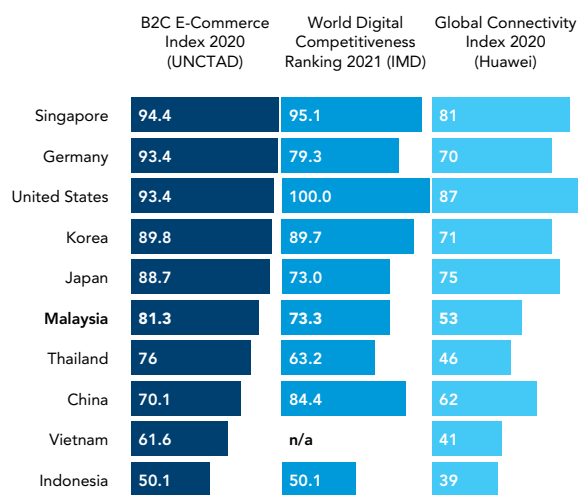


Figure 2.24: Digital Adoption Index, business sub-index



Source: World Bank

Factors necessary for participation in the digital economy include technological know-how and in-house skills to use new technologies. A survey conducted by IMD found that Malaysia did not rank highly in terms of digital and technological skills, although this was also true for most of its Southeast Asian peers, with the exception of Singapore (see Figure 2.25). However, Malaysia did improve slightly in terms of digital and technological skills between 2020 and 2021. Over the same period, it also recorded improvements in terms of the agility of companies, which can be taken as a proxy for managerial agility and foresight, with Malaysia

moving from the third quartile in 2020 to the second quartile in 2021 (see Figure 2.26). While these incremental improvements suggest that Malaysia is moving in the right direction, the rankings also suggest that greater efforts need to be made to develop a more dynamic workforce capable of remaining abreast of the latest technological developments and with the skills necessary to harness these opportunities.

Figure 2.25: Technical skills readiness of companies

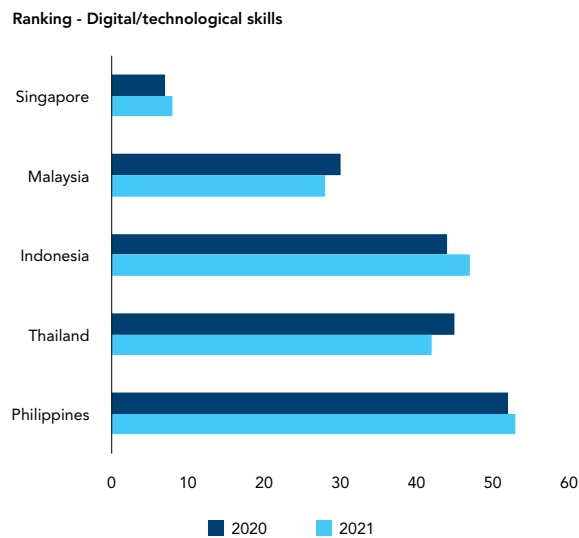
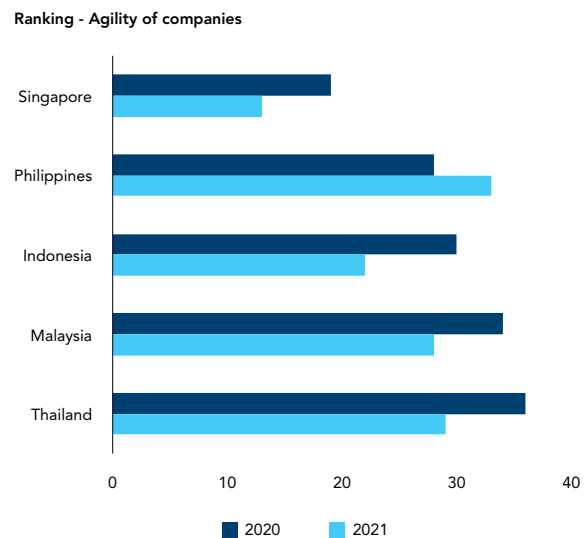
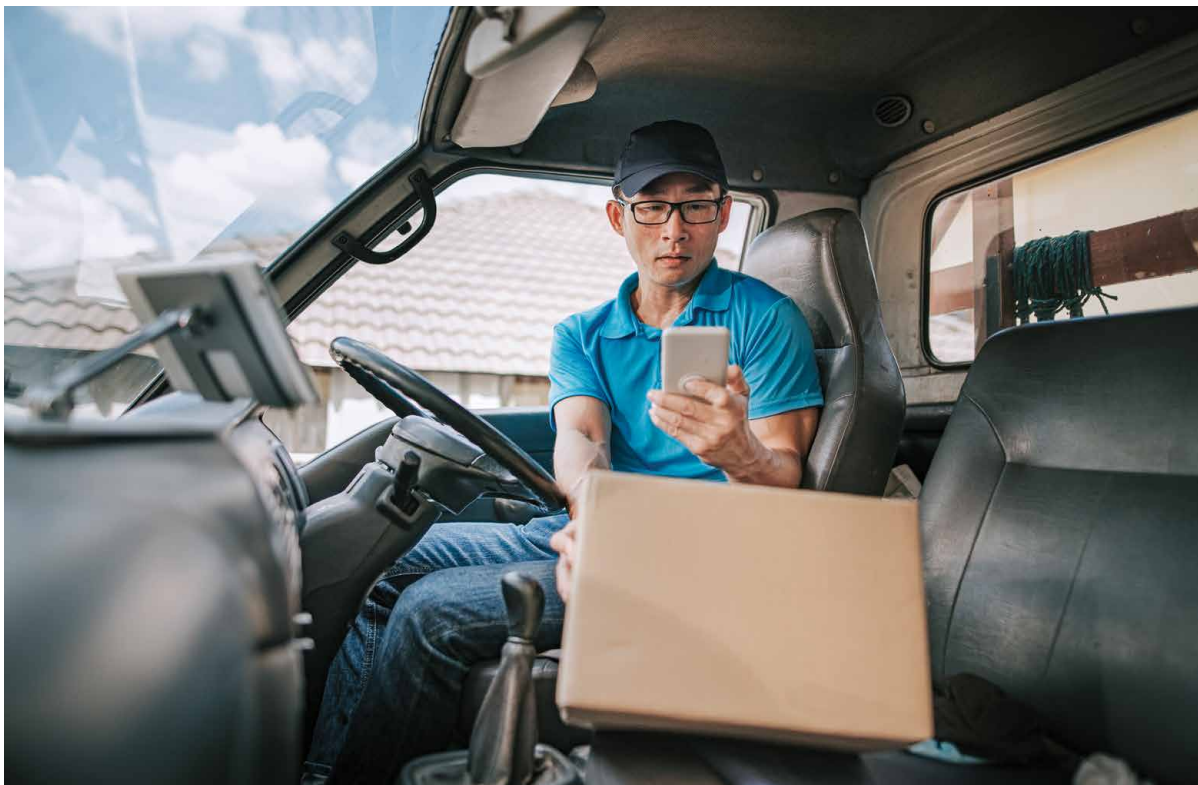


Figure 2.26: Managerial agility of companies

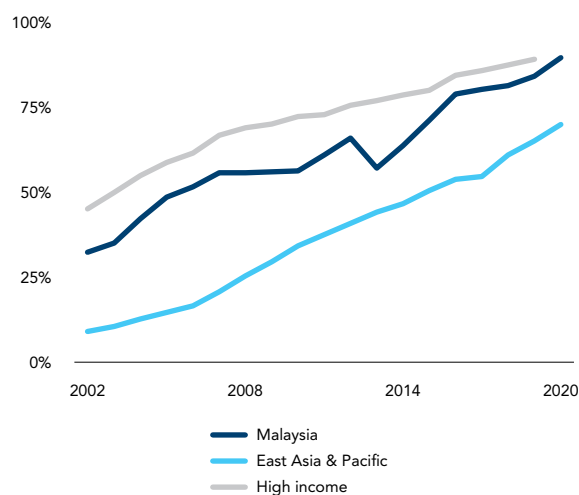


Note: Lower is better. Ranking in 2020 (out of 63), while ranking in 2021 (out of 64)
Source: IMD Digital Competitiveness Index, 2020 and 2021



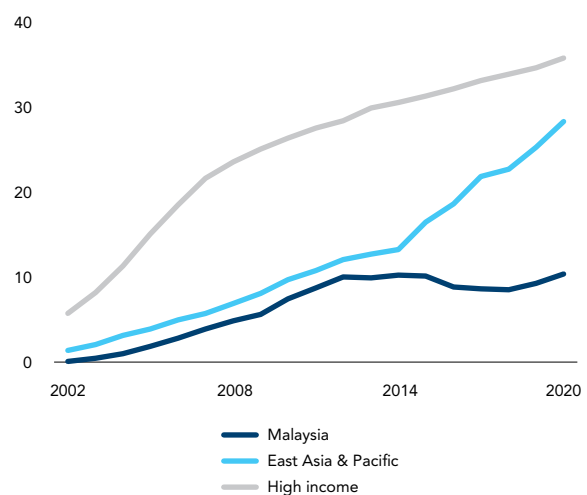
Overall, Malaysia's ability to reap the full potential of its digital economy is still undermined by infrastructure and connectivity issues. While Malaysia's internet penetration rate is close to the average levels for high income economies (see Figure 2.27), Malaysia lags behind its regional and high-income comparators for other fundamental catalysts for the digital economy, such as the number of fixed broadband connections per capita (see Figure 2.28). DOSM data suggests that businesses' use of fixed broadband has increased to a relatively high level, with the proportion of businesses using fixed broadband increasing to 84 percent by 2019, up from 75 percent in 2015. However, the rate of increased usage has been much slower than that for mobile broadband over the same period (see Figure 2.29).²⁰ Beyond access, Malaysia continued to record relatively poor performance in terms of the quality of connections in March 2022, with average fixed and broadband download speeds remaining far below the levels recorded by a number of EAP competitors (see Figure 2.30).

Figure 2.27: Share of the population using the internet



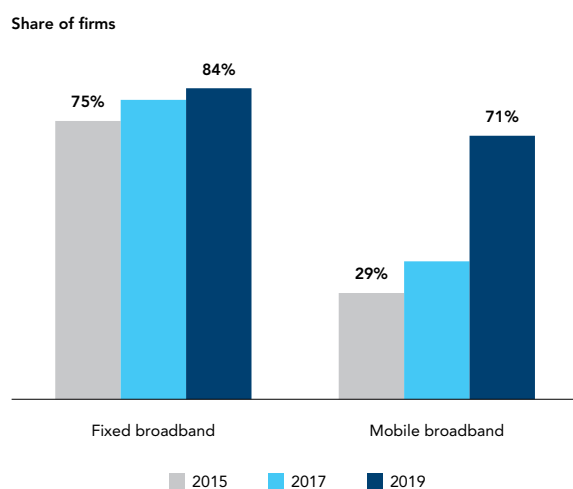
Source: WDI

Figure 2.28: Fixed broadband subscriptions (per 100 people)



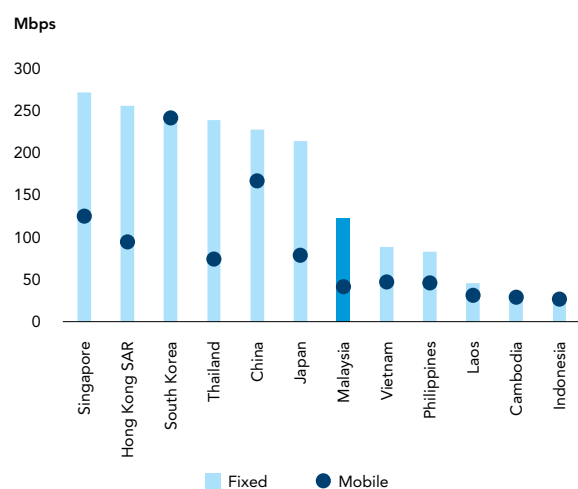
Source: WDI

Figure 2.29: Type of connection used for businesses using the internet



Source: DOSM (2021b)

Figure 2.30: Average broadband download speed (March 2022)

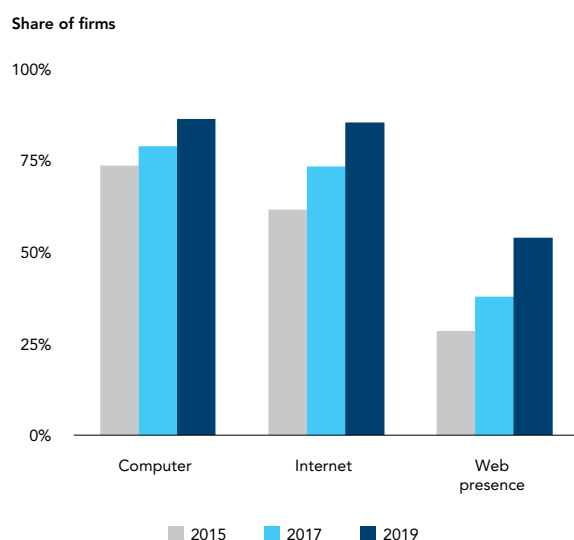


Source: Ookla (2022)

²⁰ Based on DOSM definition: Broadband internet is defined as technology with minimum speed of 256 kbit/s in one or both directions. This applies to both wired fixed broadband and fixed wireless broadband.

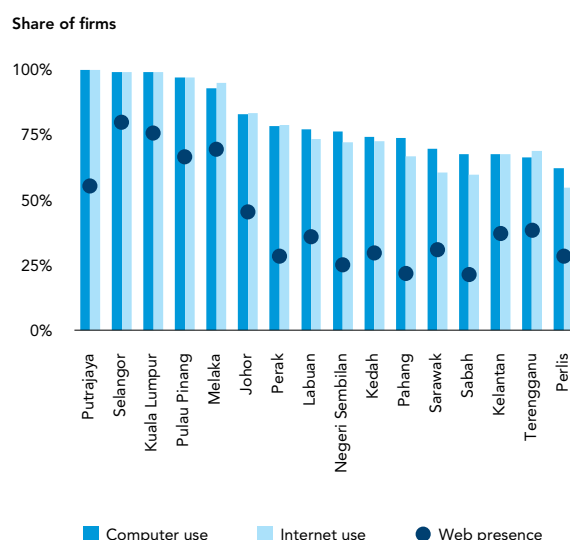
Businesses' use of basic ICT has increased steadily over time, reaching a relatively high level even prior to the pandemic, albeit with significant variation across sectors and regions. About 85 percent of Malaysian businesses were using computers and the internet by 2019, up from 60-70 percent in 2015 (see Figure 2.31). Virtually all firms now use these tools in some services sectors (e.g., ICT, financial, professional services, accommodation) and over 90 percent in manufacturing, but only about half in food & beverages. The share of firms not using the internet is now marginal in Central States, Penang and Melaka, but still over 25 percent in 9 other States and territories (see Figure 2.32). In particular, MSMEs operating in rural areas and in East Malaysia (Sabah and Sarawak) face greater obstacles related to the use of digital infrastructure and general connectivity. With a recognition of these challenges, the authorities have implemented measures to strengthen internet access across the nation through the national digital infrastructure plan, the *Jalinan Digital Negara* (JENDELA) program.²¹

Figure 2.31: Share of firms using different digital tools in Malaysia



Source: DOSM (2021b)

Figure 2.32: Regional variation in ICT uses among firms (2019)

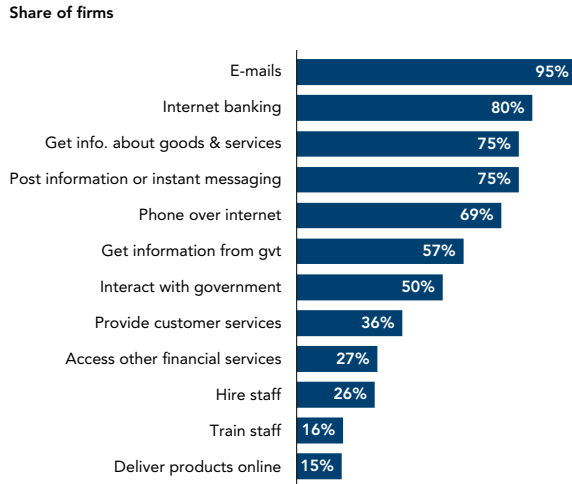


Source: DOSM (2021b)

The main purposes for which connected businesses use the internet are to send and receive emails (95 percent) and to conduct online banking transactions (80 percent) (see Figure 2.33). Relatively few businesses delivered goods or provided customer service online in 2019 (see Figure 2.34), with the proportion higher in the case of businesses in services (16 percent) and in manufacturing (11 percent), but lower in the case of subsectors that account for most MSMEs, including those in accommodation (8 percent) and food and beverages (6 percent).

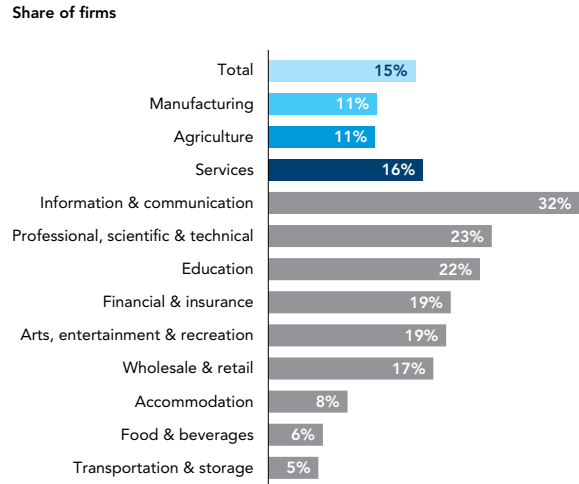
²¹ As of 30 September 2021, 4G mobile coverage expanded to 94.03% (against the target of 96.9%) of all populated areas, mobile broadband speed has increased from 25Mbps to 31.3Mbps (against the target of 35Mbps) and 6.43 million premises nationwide now have access to fibre broadband. (Against the target 7.5 million premises) based on Malaysian Communications and Multimedia Commission, 2021.

Figure 2.33: Purpose of firms' internet usage (2019)



Source: DOSM (2021b)

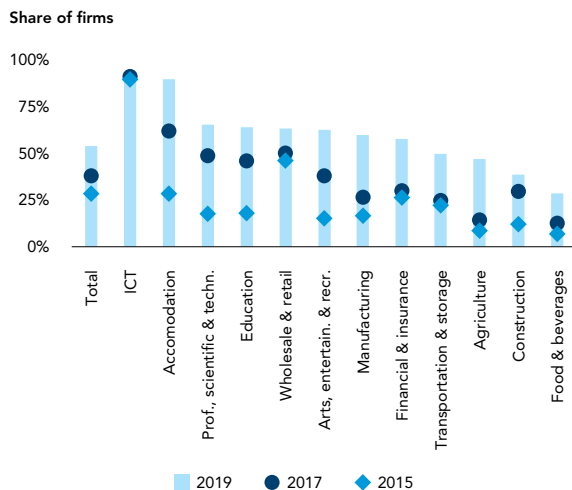
Figure 2.34: Share of firms delivering services online, by sector/subsector (2019)



Source: DOSM (2021b)

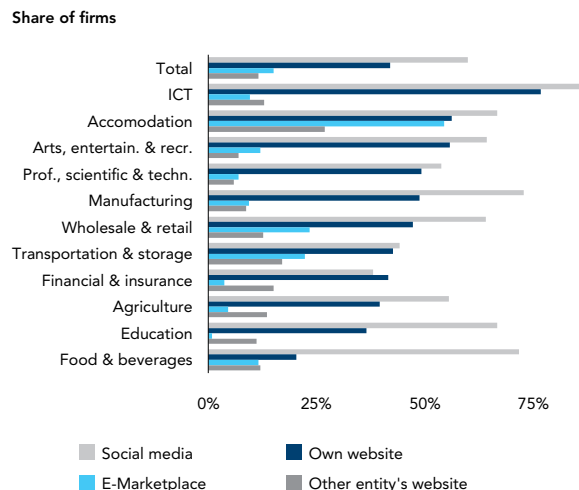
Businesses' online presence has grown greatly in recent years. In 2019, prior to the pandemic, only 54 percent of Malaysian businesses had a web presence, with significant variation across sectors (see Figure 2.35). However, this was almost twice as many as in 2015 and the pandemic likely further boosted this share. The proportion of businesses with a website presence also varies between states, with the highest found in Selangor (80 percent) and the lowest in Sabah (21 percent). By far the most common form of presence on the web was through social media and, to a lesser extent, own website (see Figure 2.36). Prior to the pandemic, only the accommodation sector had a large proportion of businesses that participated in digital platforms.

Figure 2.35: Share of firms with a web presence in Malaysia



Source: DOSM (2021b)

Figure 2.36: Type of web presence



Source: DOSM (2021b)



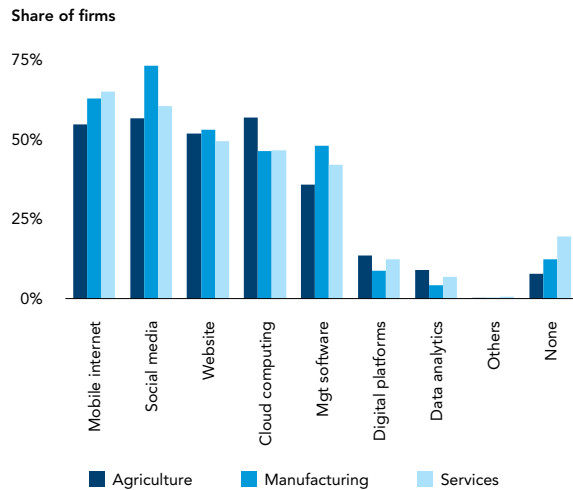
Prior to the pandemic, most SMEs in Malaysia were still at the earliest stages of digitalization. Based on the results of a survey of more than 2,000 SMEs across sectors and states in Malaysia, Huawei and SME Corp argued that many of Malaysia's SMEs were stuck in a "computerization trap" (Huawei and SME Corp 2018). This means that, while businesses were enthusiastic regarding the use of ICT to grow their business and while they already used basic digital technologies (e.g., computer, internet) for limited business functions, they had not yet progressed to the use of more advanced technologies and software to rethink their business strategies, to digitalize back-end processes, and to leverage data (see Figure 2.37). In the area of front-end functions, while 71 percent of surveyed SMEs used social media for product communication and marketing purposes, only 44 percent actually engaged in e-commerce activities. Even when they did engage in such activities, most payments were still transacted in cash or through a separate banking transaction, rather than through an integrated payment gateway to enable a seamless online transaction. This could actually increase the burden on these businesses, requiring them to manage unintegrated online and offline processes. DOSM data confirms that, by 2019, mobile internet and social media were the most commonly used digital tools by businesses in all sectors, with a sizeable proportion of firms reporting the use of cloud computing or management software (with a lack of precise definitions regarding what was meant by this term) (see Figure 2.38). The sector with the greatest proportion of businesses that did not use digital technology was services, with a particularly high proportion in the food and beverage subsector, in which many MSMEs are active, followed by the transportation and storage subsector (see Figure 2.39).

Figure 2.37: SMEs' use of ICT tools in Malaysia, by size



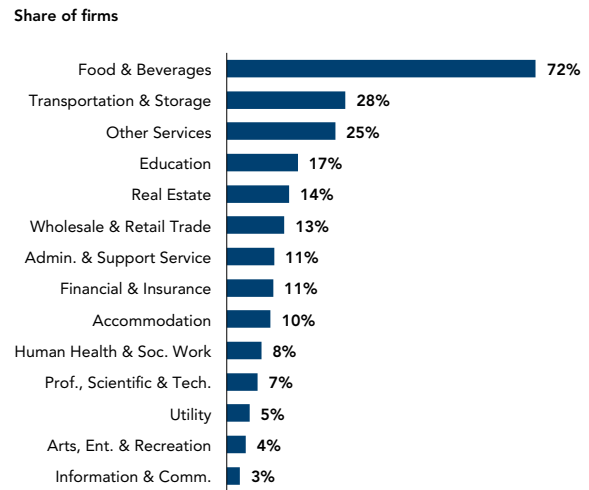
Source: (Huawei and SME Corp 2018)

Figure 2.38: Firms' usage of ICT tools by sector (2019)



Source: DOSM (2021b)

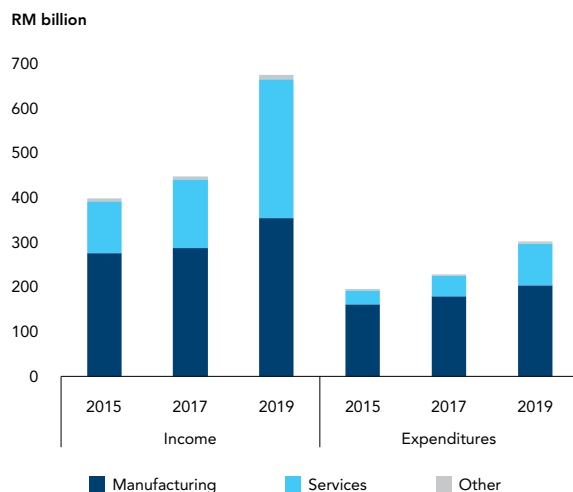
Figure 2.39: Share of services firms not adopting digital tools, by subsector (2019)



Source: DOSM (2021b)

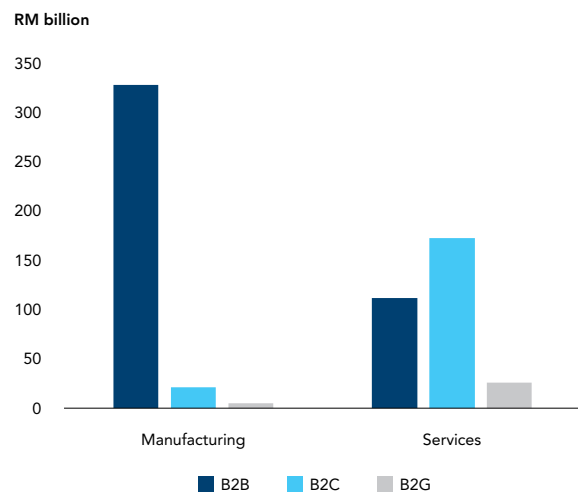
Prior to the pandemic, e-commerce was already a growing source of income for many businesses in Malaysia. Aggregate business income from e-commerce increased from about RM 400 billion (US\$ 103.0 billion) in 2015 to RM 675 billion (US\$ 173.8) in 2019, mostly due to growth in the service sectors, although the manufacturing sector still recorded greater online income at that point (see Figure 2.40). Interestingly, businesses' online expenditures also increased over this period, going up from RM 195 billion (US\$ 50.2 billion) in 2015 to RM 300 billion (US\$ 72.4 billion) in 2019. In the case of businesses in the manufacturing sector, a greater proportion of e-commerce income came from B2B transactions than from B2C, while the opposite was true for services (see Figure 2.41). In terms of geographic distribution, businesses in Selangor and Kuala Lumpur accounted for about half of the total value of Malaysia's e-commerce income in 2019. Selangor punched above

Figure 2.40: Evolution of firms' e-commerce income and expenditures in Malaysia



Source: DOSM (2021b)

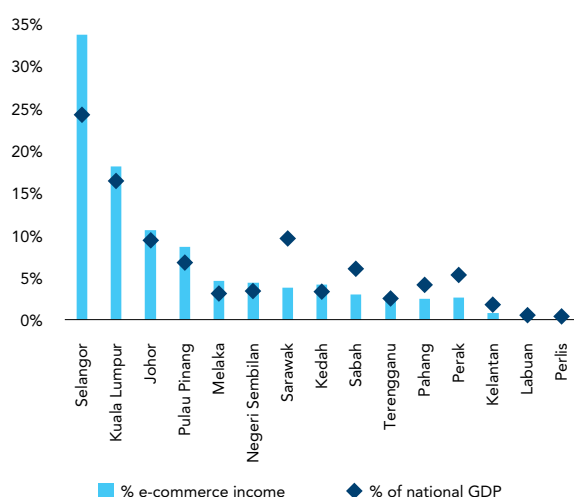
Figure 2.41: Source of e-commerce income for manufacturing and services firms (2019)



Source: DOSM (2021b)

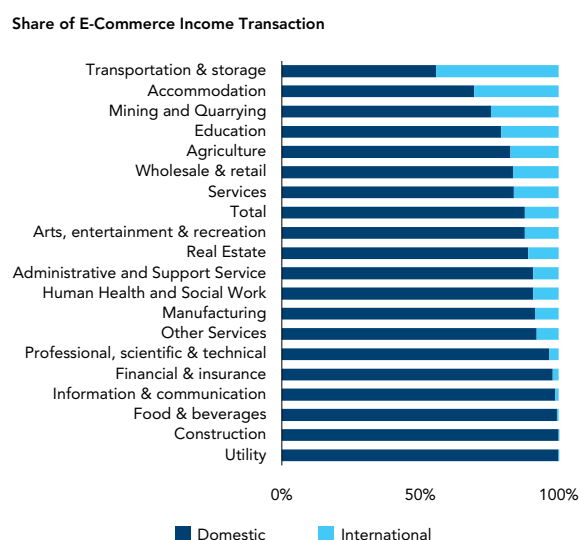
its weight, with its share of e-commerce income exceeding its contribution to national GDP. By contrast, Sabah and Sarawak underperformed (see Figure 2.42). Foreign clients contributed to 12 percent of e-commerce income on average, with variations across sectors, the highest proportion being recorded for transport services (44 percent) and the lowest for food and beverages (1 percent) (see Figure 2.43). Some states that recorded low levels of e-commerce income in absolute terms have nonetheless seen rapid increases in recent years. For example, Kelantan recorded the highest CAGRs for e-commerce income in the period from 2015 to 2019 at 48 percent, despite having less developed digital infrastructure, although this is likely partly due to a low base effect (see Figure 2.44).

Figure 2.42: Share of e-commerce income vs. share of GDP by State (2019)



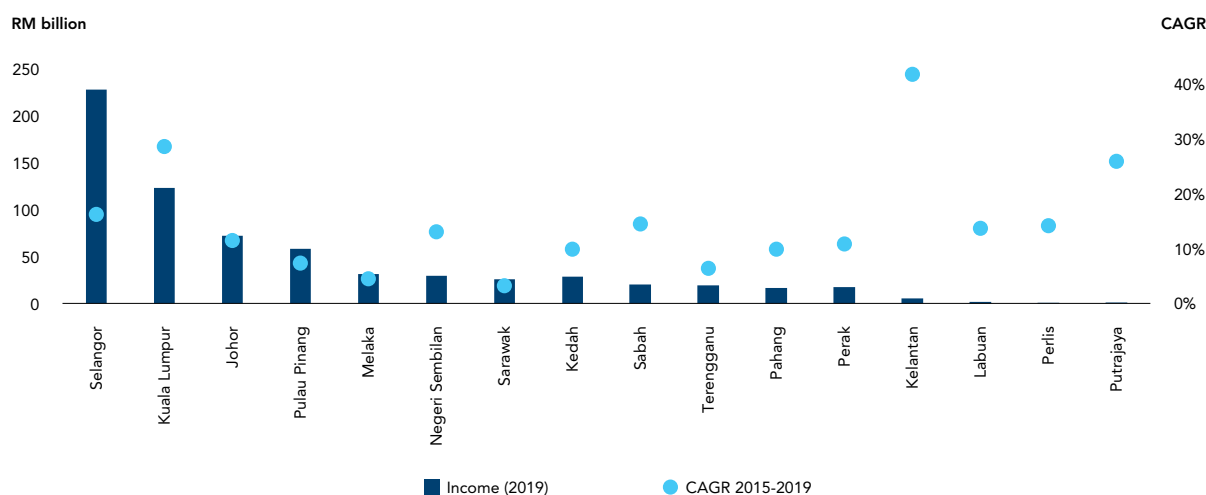
Source: DOSM (2021b)

Figure 2.43: Origin of e-commerce income for Malaysian firms, by sector (2019)



Source: DOSM (2021b)

Figure 2.44: Level and growth rate of e-commerce income by State



Source: DOSM (2021b)

Digital technology adoption in the COVID-19 context

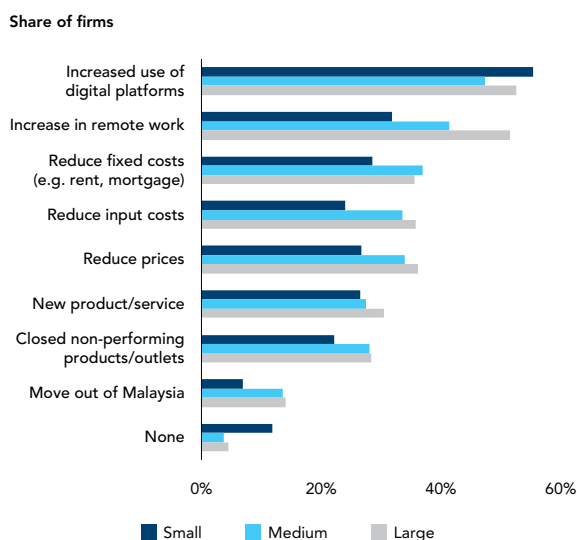
The pandemic has resulted in a significant increase in the pace of business digitalization in Malaysia.

The World Bank's Business Pulse Survey (BPS) shows that Malaysian businesses' most common coping strategy in the context of the pandemic involved a shift towards digital platforms (see Figure 2.45). This tendency held true regardless of business size, although SMEs started from a lower level of digital adoption and generally use less complex digital solutions than large enterprises. This mirrors digital adoption trends observed in most other countries where BPS have been conducted globally since 2020. The data from these surveys also suggest that larger businesses may have been more capable of leveraging their digital investments to generate higher sales than smaller and medium sized businesses.

In the case of small businesses, the increased use of digital modalities has mostly been applied to manage customer-facing functions (e.g., marketing, sales, delivery) (see Figure 2.46).

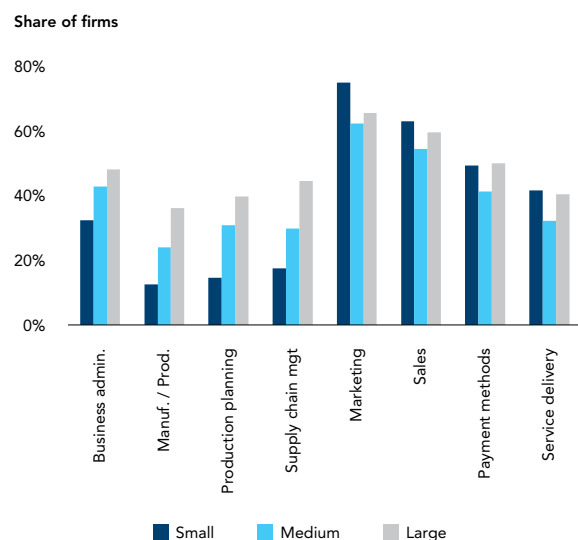
The data shows that small businesses tend to rely on major social media platforms, such as Facebook and Instagram, to manage marketing and sales functions to a much greater extent than medium and large ones, with the latter tending to have greater access to formal sale channels. The platforms used by most businesses for marketing and sales functions during the pandemic were Facebook (especially in the case of smaller businesses) and Shopee. For digital payment systems, Maybank, Touch 'n Go and Shopee's e-wallets have recorded the greatest number of new users. On the other hand, businesses that have used digital solutions for production/supply chain management tend to be larger.

Figure 2.45: Share of Malaysian firms implementing different strategies to deal with COVID-19 (July 2021)



Source: World Bank, BPS

Figure 2.46: Digital use by business functions, among firms that started or increased their use during COVID-19 (Jan/ Feb 2021)



Source: World Bank, BPS

BOX 2.1

myBurgerLab: “Pandemic-ready”



In 2012, myBurgerLab (“myBL”) established its business with a mission to deliver high quality burgers to Malaysians, emulating burger heavyweights in the US (ShakeShack) and the UK (GBK). Through successful word-of-mouth marketing and by appealing to young consumers intent on discovering the next big thing, myBL recorded overnight success. By 2019, its annual turnover stood at an impressive RM 14 million (approximately US\$ 3.5 million). However, the onset of the pandemic in 2020 shook the whole food and beverages (F&B) industry to its core due to the impact of lockdowns and mobility restrictions. Operational challenges adversely affected the company’s revenues during the period when the restrictions were first imposed in March-May 2020. During this period, revenues declined by about 50 percent compared to the pre-pandemic period. However, by June 2020, revenues had rebounded significantly, increasing by 150 percent compared to the previous year as the company adjusted to the new context. After the initial dip, for the next year, myBL’s revenues never sank to less than 80-90 percent of pre-pandemic levels. The company’s resilient business performance was largely due to myBL’s foresight in developing a good IT infrastructure and a team in place to deliver the required digital tools and products, helping them to ride out uncertain and challenging times.

External technology expertise forms the backbone of myBL’s digital operations. While the company did not start out digitally inclined, it began to adopt new technologies in order to achieve higher levels of operational efficiency and thereby to stay ahead of the competition even before the onset of the pandemic. myBL initially adopted a digital strategy of engaging an external IT team on retainer, which enabled it to build the required digital solutions as and when required. This seemed to be a good middle ground for myBL’s founders, as they found it difficult to hire an in-house IT professional with the right skillset within their budget. In fact, this third-party vendor partnership was a very successful collaboration, with the arrangement allowing the vendor to white-label any solutions developed for myBL for adoption by other clients. In effect, myBL served as a testing ground for many cutting-edge digital products, possibly contributing to increased digital adoption by businesses in the F&B industry more generally. Moreover, the arrangement gave myBL the ability to customize digital solutions rather than to buy them off-the-shelf, providing further benefits. This partnership remains intact until this day.

With these digital foundations, the pandemic inspired myBL to make further improvements to the infrastructure. With a well-established social media platform strategy to reach consumers,

with their first-generation ordering platform and as an established vendor on GrabFood, myBL's revenue streams were not significantly affected when the pandemic hit. Even so, with uncertainty regarding the duration of dine-in restrictions and in order to increase margins on sales by reducing platform-led orders, the myBL team was motivated to improve the sales platform on their own website. With some discounts offered on purchases through their own sales channel, the share between the digital platform and website e-commerce sales became more balanced. myBL believes that the use of multiple sales channels is appropriate in the context of Malaysia's F&B industry, with different channels providing different benefits.

The use of third-party digital platforms has both pros and cons for businesses. In myBL's view, business-run proprietary sales platforms offer greater financial benefits to their owners than do third-party marketplace platforms, especially for more established brands. On the other hand, digital platforms can offer an integrated end-to-end digital solution, building consumer awareness of the product and providing online payment and delivery options. The greatest benefit of using established third-party platforms is their ability to handle logistics and orders.

However, there are also challenges related to the establishment of an efficient digital platform landscape to serve both businesses and customers. These include the intense level of competition between the various food delivery platforms for a limited number of riders, sometimes resulting in an inability to fulfil orders (including the need to cancel orders) and long delays or bunching of orders. Rider management has become a vital consideration for food delivery platforms, with competition between platforms resulting in a sustained flux in fleet capacity.

The different platforms are constantly evolving to fulfil new vendor needs. Despite the issues described above, myBL has expanded its use of platforms throughout the pandemic. Although it is not their core business, myBL has also started selling burger patties and other DIY cooking kits through GrabMart and is also involved in Grab's cloud kitchen initiative, Grab Kitchen.²² While these services enabled myBL to diversify its revenue streams during the height of the pandemic, their importance has diminished with the loosening of mobility restrictions.

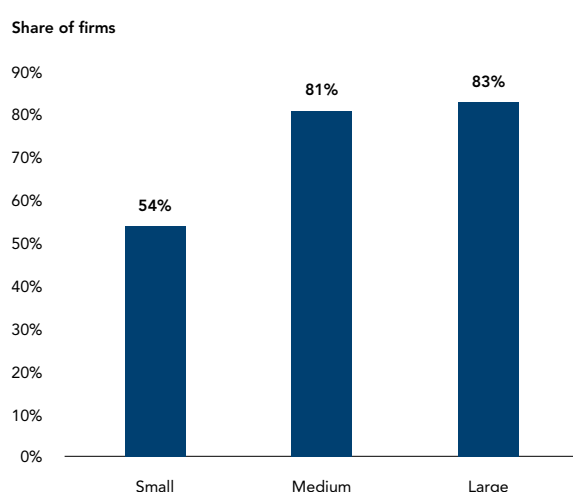
myBL's competitive advantage relates to the fact that it was financially viable and secure very early on. Thus, their digital initiatives have been largely self-financed. Their partnership with an external IT vendor has also enabled them to manage digital development costs effectively. Although myBL applied for government program funding at various points, it did not meet the size and other criteria required to access funding. Thus, government programs have not been a key source of funding for them. myBL has also established strong collateral in terms of branding, developed through years of social media engagement with its customers. It is also characterized by its ability to rapidly adjust and cater to changing consumer preferences. Both its financial standing and its superior branding ability enabled it to navigate the use of digital platforms to suit their needs, without being overly dependent upon them for sales.

Nine years since its first establishment, myBL has grown from modest beginnings to operate six stores. It has also established another brand, myPizzaLab. myBL is plugged into the digital ecosystem and has the financial flexibility to develop the digital tools it needs to ensure a high degree of resilience in the context of the pandemic and other business cycles. By leveraging on these digital tools, the company was able to build up resiliency throughout the business cycles and the pandemic.

²² Grab established its own cloud kitchen in 2021, eliminating the need for food and beverage vendors to own their own kitchen premises by providing kitchen facilities and appliances in a central location to reduce fixed costs and facilitate delivery services.

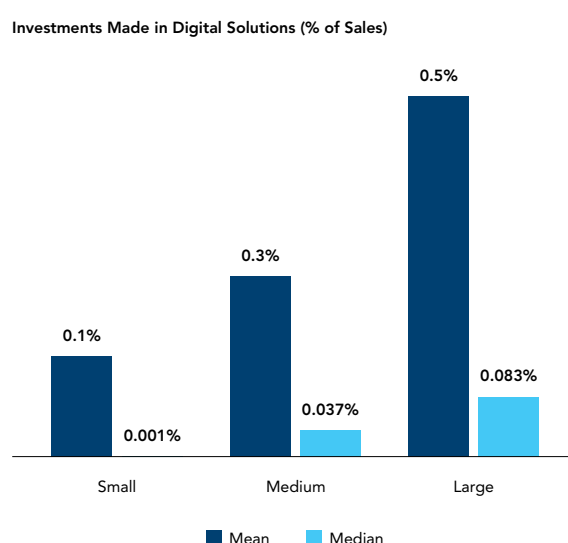
The extent to which businesses have been prepared to invest in digital solutions in the context of the pandemic is correlated with their size, with larger businesses being considerably more likely to do so than smaller ones. While more than 80 percent of medium and large enterprises reported having invested in digital solutions during the pandemic, the figure was only just over 50 percent in the case of smaller businesses (see Figure 2.47). The value of businesses digital investment relative to their sales also increases with the size of the business, with large businesses investing on average five times more relative to their sales revenues as small ones during the pandemic (see Figure 2.48).

Figure 2.47: Share of firms investing in digital solutions, by size



Source: World Bank, BPS

Figure 2.48: Investments in digital solutions as a share of sales, by firm size



Source: World Bank, BPS

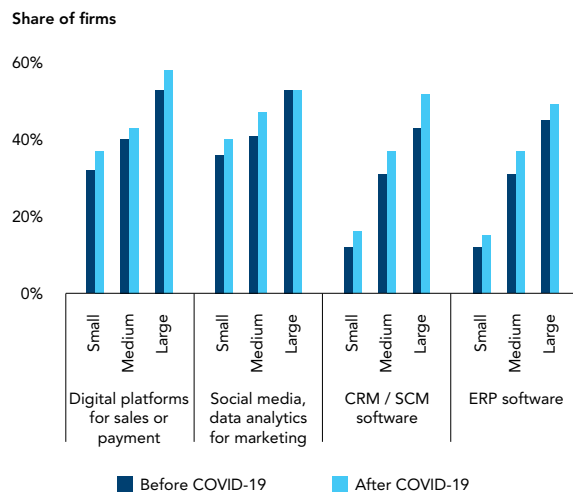
Pandemic-induced digital adoption has been driven by the intensive margin. As was the case before the onset of the COVID-19 crisis, larger businesses have invested in a more diverse range of digital solutions than smaller ones, including for backend functions. However, adoption levels have not changed dramatically (see Figure 2.49). BPS data suggests that new users (the extensive margin) accounted for a much smaller share of the increase in digital adoption 18 months into the pandemic than did intensified use by existing users (the intensive margin) (Figure 2.50). In addition, BPS data suggests that large businesses may have been relatively more capable of leveraging their digital investments into higher sales: while in the case of large businesses, the proportion of sales conducted through e-commerce increased from 29 percent before the pandemic to 34 percent after its onset, sales increased by only 1-2 percentage points in the case of small and medium-sized firms.

Throughout the pandemic, certain enterprise characteristics have been associated with higher levels of digital adoption. The correlation analysis shows that exporters and firms in service sectors with intensive in-person transactions (food services, tourism and transportation, other commerce) are significantly more likely to have used digital platforms relative to other firms (see Figure 2.51).²³ Thus, it appears that customer outreach

²³ Coefficient estimates are obtained by regressing the fact to have started/increased use of digital platforms on baseline employment, size, sector fixed effects, export status, expected sales in 6 months, and firms that report facing increased market competition.

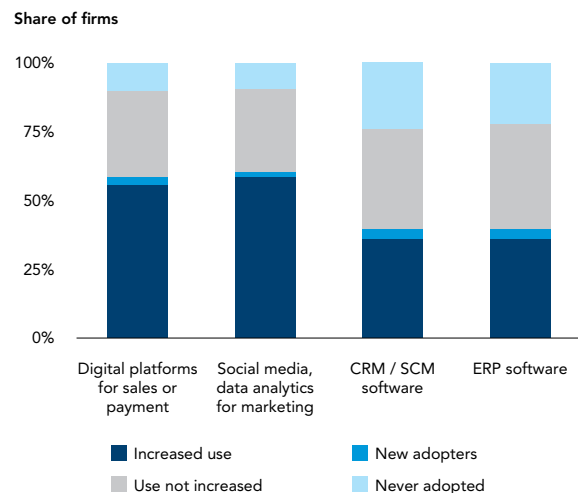
may have been a key driver of adoption. Medium and large enterprises are more likely to invest in digital assets, suggesting that smaller enterprises face potential capacity/financial constraints that prevent them from doing so (see Figure 2.52).²⁴ There also appears to be a correlation between the level of competition a business faces, either domestic or in export markets, and its willingness to invest in digital solutions.

Figure 2.49: Investment in different types of digital solutions, by firm size (July 2021)



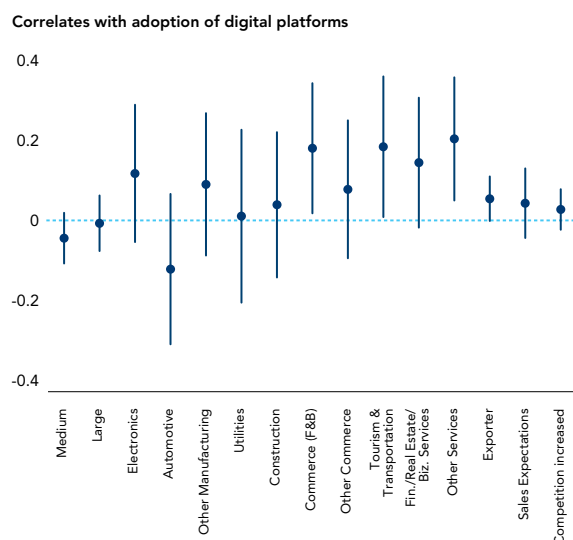
Source: World Bank, BPS

Figure 2.50: Intensive and extensive margins of digital adoption during the pandemic (July 2021)



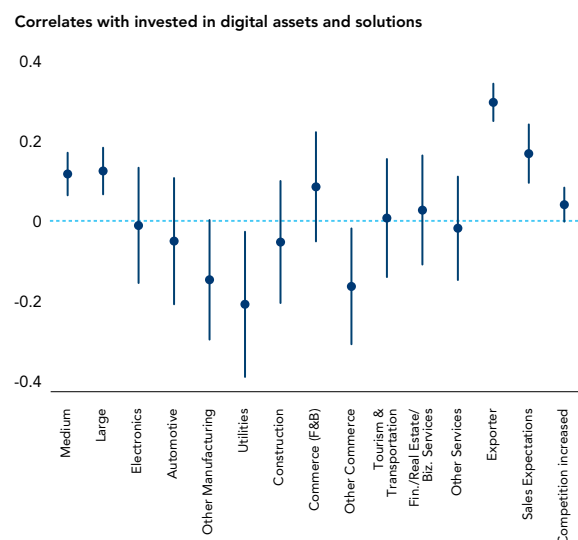
Source: World Bank, BPS

Figure 2.51: Correlates of digital platform adoption



Source: World Bank, BPS

Figure 2.52: Firms especially exporters are more likely to invest in digital assets



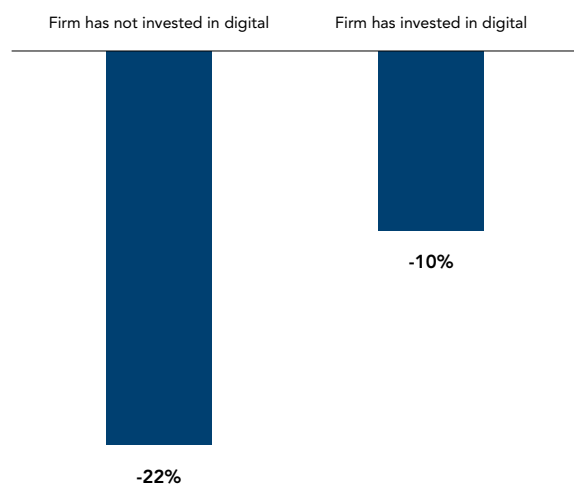
Source: World Bank, BPS

²⁴ Coefficient estimates are obtained from regressing an indicator for investment in digital assets and solutions on baseline employment size, sector fixed effects, export status, expected sales in 6 months, and firms that report facing increased market competition.



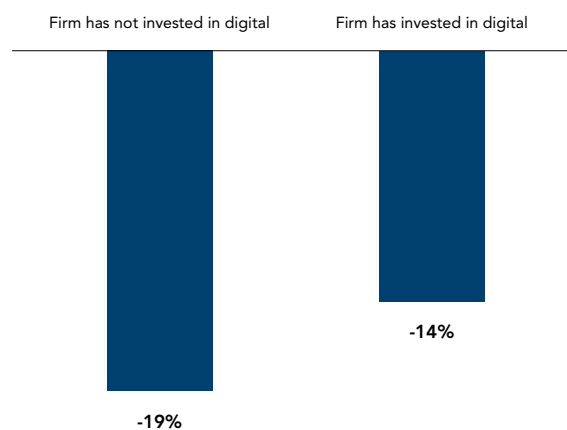
The available evidence suggests that enterprises that have engaged in digital investment throughout the pandemic have recorded relatively better outcomes. A correlation analysis using BPS data from July 2021 found that, controlling for size, sector and region, enterprises that report having invested in new digital solutions to cope with the crisis have experienced a decline in sales that is 12-percentage points lower than those that have not done so (see Figure 2.53). Similarly, those that engaged in digital investment recorded declines in employment that were five percentage points lower compared to employment during pre-COVID-19 than those that did not (see Figure 2.54). This confirms the link between firms’ digitalization and their bottom line, although it does not imply the direction of causality.

Figure 2.53: Average change in sales



Note: Controlling for firm size, sector, region
Source: World Bank, BPS

Figure 2.54: Average change in employment compared to pre-COVID-19

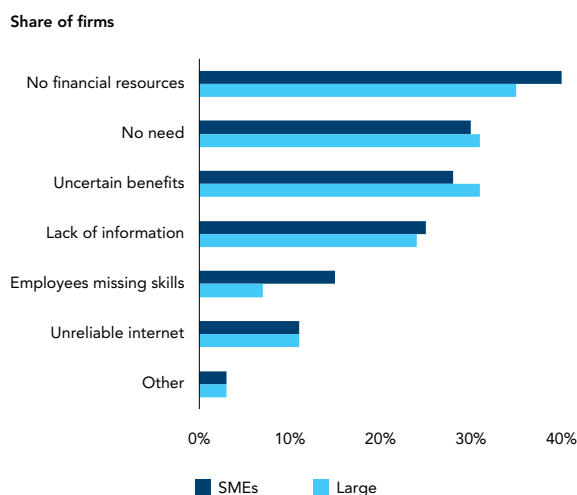


Note: Controlling for firm size, sector, region
Source: World Bank, BPS

Constraints Faced by Firms to Digitalize

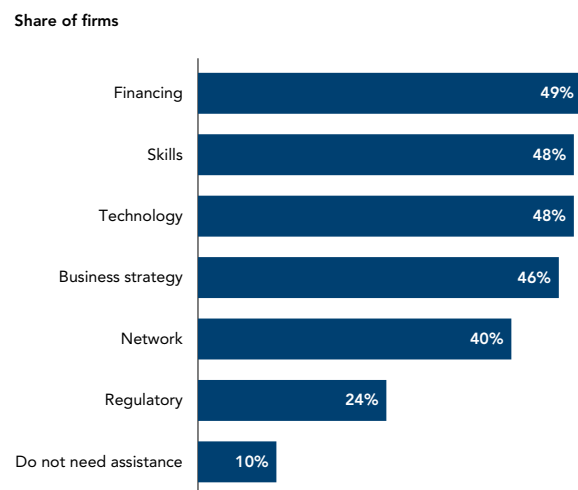
The most commonly cited constraints to the adoption of digital technologies by Malaysian SMEs relate to limited financial resources and skills. With digitalization being one of the most significant business coping strategies during the COVID-19 crisis, the top binding constraints to the adoption of new digital technologies reported by firms (excluding those that did not see a need to digitalize) were the lack of financial resources; lack of information regarding relevant technologies; and lack of clarity regarding benefits (see Figure 2.55). This is largely consistent with responses prior to the pandemic, with the most binding constraints to digitalization by SMEs relating to the perceived high costs and lack of awareness regarding financing options; inadequate employee skillset (IT, but also sales and marketing, business management); limited awareness of and/or access to digital technology; and lack of a digital business strategy and capacity to leverage digital technologies to transform business (see Figure 2.56). In addition, SMEs often expressed apprehension regarding the adoption new ways of doing business due to fears related to the need to overhaul their existing business processes and to face the steep learning curve required to implement these new ways. Thus, while SMEs have welcomed the government's recent provision of grants to facilitate the adoption of digital technologies, in most cases they also need training to enable them to utilize these technologies to effectively transform their businesses.²⁵ This echoes research findings on technology adoption by firms, which points to the role of managerial practices and organizational capabilities as key drivers, SMEs being usually at a disadvantage (World Bank 2022). Efforts to improve such capabilities should therefore complement initiatives aiming at facilitating SMEs' access to digital technologies through the provision of financing or digital training.

Figure 2.55: Reason for not investing in digital solutions during COVID-19 (Jan/Feb 2021)



Source: World Bank, BPS

Figure 2.56: Main constraints faced by SMEs to digitalize



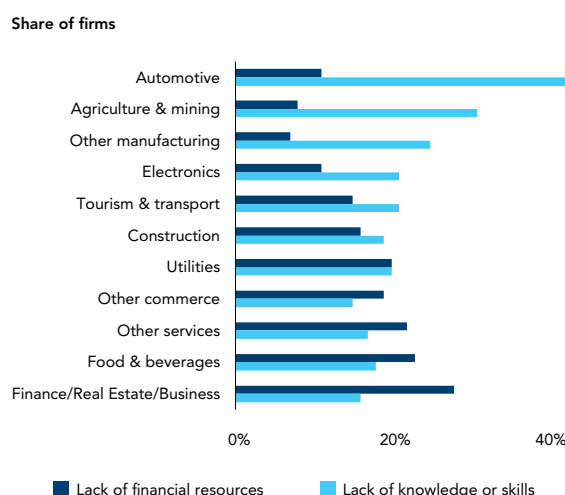
Source: Huawei and SME Corp (2018)

Perceptions regarding the most binding constraints to the adoption of digital technologies vary across different groups of enterprises. By sector, constraints related to skills are seen as more significant by businesses in the manufacturing sector, while access to finance is regarded as more significant by those in the

²⁵ Source: Stakeholder consultations.

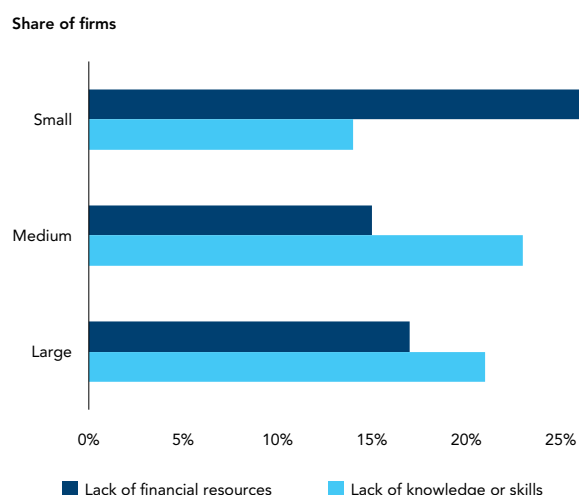
services sector, particularly in the case of the food and beverage subsector, in which many MSMEs are active (see Figure 2.57). The data also suggests that smaller enterprises consider the lack of financial resources to be a greater constraint (with banks being hesitant to amortize loans to small firms with longer maturity), while larger ones cite access to knowledge and skills as a significant constraint (see Figure 2.58). There is also a difference in perceptions by firms' geographical location (see Figure 2.59). For example, enterprises in Negeri Sembilan and Sarawak were particularly likely to rank issues related to digital infrastructure as the most binding constraint. On the other hand, in Pahang, twice as many respondents cited issues related to payment systems as being a significant constraint as digital infrastructure.

Figure 2.57: Financial and skills constraints to digitalize, by sector



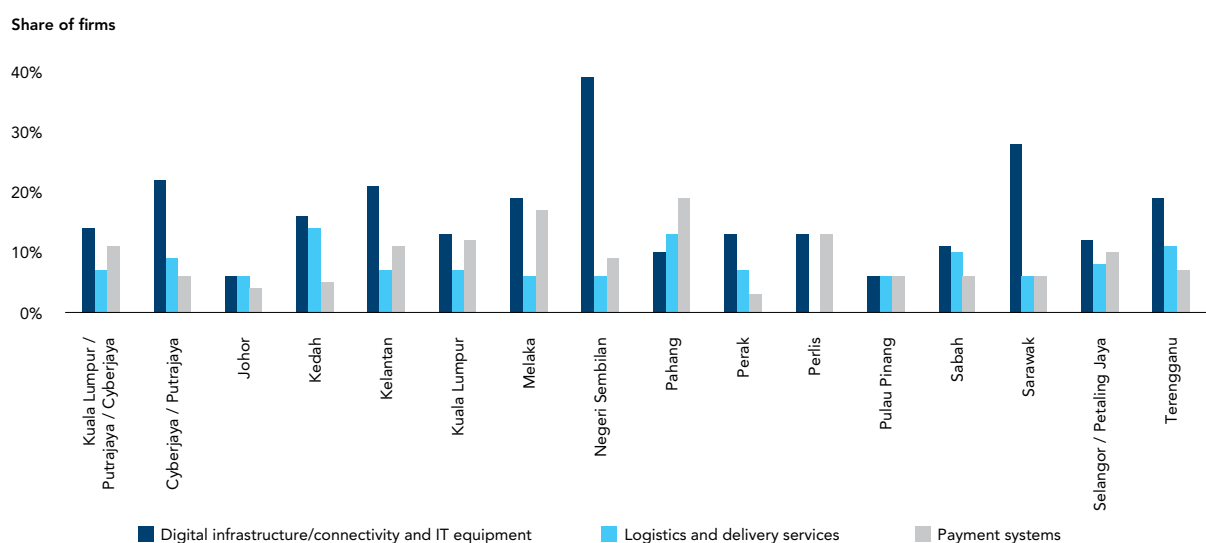
Source: World Bank, BPS

Figure 2.58: Financial and skills constraints to digitalize, by firm size



Source: World Bank, BPS

Figure 2.59: Firms' perception of selected major barriers to digitalization, by State



Source: World Bank, BPS

In addition to the constraints identified by enterprises, other issues may limit the degree to which SMEs may benefit from participation in digital technologies and the use of digital platforms. One such issue relates to data security and privacy safeguards. World Bank BPS data shows that, as of mid-2021, almost half of surveyed businesses did not have an information security policy or a business continuity and/or disaster recovery plan. This suggests that a large proportion of businesses are not yet equipped to manage the cybersecurity risks that are inherent to the use of digital payment and other systems. This weakness could make SMEs a more vulnerable target for hackers than better-protected larger businesses.²⁶

Summary

While Malaysia has recorded significant improvements in terms of access to digital infrastructure, the quality of mobile broadband in terms of download speeds and costs of connecting to broadband lag behind a number of regional comparators. Businesses in a number of states continue to cite issues related to digital infrastructure as a binding constraint. This suggests that there is an ongoing need to facilitate the successful rollout of Malaysia's digital backbone infrastructure to enable SMEs to fully leverage the benefits of digitalization. While Malaysia has one of highest density level of digital companies in the region, it has produced only a single unicorn, considerably less than many of its comparators. Whilst e-commerce is expanding rapidly, it is mainly driven by domestic demand and dominated by large foreign platforms.

Prior to the pandemic, the services sector recorded higher growth rates for e-commerce than did the manufacturing sector, although manufacturing still recorded the greatest share. Economically dense, well-connected states such as Selangor and Kuala Lumpur capture the value of e-commerce to the greatest extent at present, suggesting that poorer states such as Kelantan, Sabah and Sarawak have unfulfilled potential and can further increase their share.

While the pandemic has resulted in Malaysian businesses' increased adoption of digital technologies, larger enterprises have been relatively more likely to invest in such technologies than smaller ones. Not only were larger enterprises more likely to invest in digital technologies, but they also invested greater amounts relative to sales revenues and were likely to invest in more complex business process functions.

While the accelerated adoption of digital technologies is a positive development, there is a need to ensure that the regulatory environment related to the digital economy mitigates against possible threats and risks related to issues such as cyber security. The regulatory environment should also ensure a level playing field so that small enterprises are not disadvantaged (see Chapter 4).

At the aggregate level, enterprises often cite issues related to finance and skills as the most binding constraints on the adoption of digital tools and technologies. Access to finance is a more significant constraint for small businesses than for medium and large ones. Despite the already high proportion of Malaysian businesses that have adopted digital technologies in response to the pandemic, it appears that the vast majority of enterprises are interested in government assistance to facilitate their adoption of digital solutions. Therefore, the next chapter of this study presents an analysis of the Government's institutional and policy support programs in the context of overall agenda for SME digitalization.

²⁶ Source: Stakeholder consultations.

CHAPTER 3

Policies and Institutions to Foster SME Digitalization in Malaysia



Key Takeaways

This institutional assessment draws mainly from data derived from an online survey of Malaysian public agencies conducted by the World Bank between March and June 2021. This survey was conducted to gain insights into the responding agencies' strategies for SME digitalization and to determine details related to their current programs to support this agenda. Survey findings were subsequently discussed and validated in private and public stakeholder consultations in March-April 2022.

These findings present a complex landscape, with over 25 central ministries and agencies and at least ten state and municipal agencies offering SME digitalization support through at least 101 different programs. In terms of program offerings, the assessment found programs mostly aligned with SMEs' often expressed preferences for support to digitalize front-end (i.e. customer facing) business functions and provided general training on digital technologies. On the other hand, few programs offer support to digitalize back-end business functions (e.g. HR, finance and accounting, logistics and inventory) which could enhance efficiency gains. Application processes were noted by SMEs as overly complex, long and opaque. For most programs, the majority of beneficiaries are located in the Central States and, to a lesser extent, the Northern States, indicating some states may have been underserved.

The proposed policy recommendations could help the authorities enhance the effectiveness of public support for SME digitalization and the use of digital platforms:

- Establish a strong integrated policy framework to improve coordination between public agencies, including sub-national ones through collaboration with stakeholders from federal and state agencies, the private sector, and academia to develop more integrated policies.
- Strengthen program oversight mechanisms through inter-agency coordination bodies that could conduct periodical reviews of the program landscape to identify duplications, synergies and gaps, and to assess their modalities, efficiency and impact.
- Develop and fully implement M&E frameworks and publish M&E findings to revise program design, scale up high-impact programs, and to discontinue less effective ones.
- Improve the provision of public information regarding available support for SMEs by establishing an online one-stop center which would include all relevant support programs under federal, state and local agencies.
- Enhance application processes to facilitate greater access to public support programs through the deployment of a program manager or business facilitation unit to assist SMEs throughout the application process.
- Develop human capital support through digitalization training through government-local universities collaboration to enable universities to integrate curriculum on digitalization skills into their syllabi.
- Build Public-Private Partnerships to support digitalization with private sector helping to bridge gaps related to the provision of training and implement solutions.
- Customize support to create solutions appropriate to local conditions for underserved SMEs in the Eastern States, Sabah and Sarawak and meet their specific needs by addressing constraints such as limited connectivity and lack of familiarity with digital tools.

Introduction

The Malaysian government actively supports both the growth of the country's digital economy and the adoption and uptake of digital technologies by SMEs. Building on long established policies intended to foster the growth of a competitive electronics industry (Rasiah 2017), the government has dedicated considerable attention and resources since the 2000s to encouraging digitalization and the use of ICT, including by businesses. In parallel, the increasing importance of SMEs to the Malaysian economy has led the government to implement a range of different strategies and programs to boost the productivity and competitiveness of these enterprises, including through their increased adoption of digital and other technologies.

With the onset of the COVID-19 pandemic, public support to encourage SMEs to digitalize has further increased. Recognizing both the urgent need to respond to the impact of the COVID-19 crisis on the business sector and the opportunities created by the exponential growth of e-commerce throughout the pandemic, the government has intensified its support for SME digitalization by introducing a number of new programs, such as the SME Business Digitalization Grant, SME Technology Transformation Fund, and Smart Automation Grant. A large number of central and local public agencies are now involved in providing support on SME digitalization, with more than a hundred distinct programs currently implemented for this purpose. Arguably, Malaysia is one of the countries supporting SME digitalization the most actively in Asia.²⁷ The evidence presented in this chapter suggests that the government support provided, largely focused on access to online markets, has been broadly aligned with the needs expressed by firms during the COVID-19 crisis. However, ensuring that programs cover a fuller range of technologies, including for the digitalization of back-end business functions, could enable SMEs to leverage additional opportunities to boost business productivity as they recover from the crisis.

However, the extent to which this public support has achieved the goal of increasing SMEs' use of digital technologies remains unclear. As discussed in the previous chapter, while ICT and internet usage has increased considerably over recent years, and most particularly since the onset of the pandemic, most Malaysian enterprises still use only relatively basic digital technologies. According to a survey conducted by Huawei and SME Corp in 2018, only about half of the surveyed SMEs were aware of available support programs at the time, of which only about half had participated in at least one program, mostly offered by SME Corp and MDEC (Huawei and SME Corp 2018). While Malaysian enterprises have benefited from participation in a range of support programs, there is limited hard evidence available from monitoring and evaluation (M&E) regarding the impact of the government's efforts to accelerate SME digitalization at the national level, as well as budget data to assess the efficiency of public support in this area. Moreover, the large number of programs increases the risk of overlap, and the lack of an integrated strategy could undermine the efficiency of the government's policies in this area.

This chapter assesses the adequacy of government efforts to support the digitalization of SMEs by providing an overview of the related policies, institutions, and programs. In addition to publicly available information related to government policies and stakeholder interviews, it draws mainly from data derived from an online survey of Malaysian public agencies conducted by the World Bank between March and June 2021 (see Annex 1). This survey was conducted to gain insights into the responding agencies' strategies for SME digitalization and to determine details related to their current programs to support this agenda. While the data

²⁷ While there is no comprehensive and internationally comparable data on SME digitalization programs, a World Bank tracking of business support policy initiatives adopted by East Asian governments in the wake of the COVID-19 crisis suggests that countries introducing the newest digital-focused measures included Singapore, Malaysia and, to a lesser extent, Thailand.

collected does not allow for comprehensive determination of the efficacy and efficiency of these programs, the chapter aims to identify key strengths and weaknesses of the policy mix within the current framework. In particular, it presents new evidence related to SMEs' levels of awareness regarding digitalization, institutional coordination, program overlap and outreach. The analysis and recommendations are intended to serve as inputs for the formulation of strategies and policies to develop a stronger framework for SME digitalization by MyDigital Corporation, the coordinating body mandated to lead the 2021 Digital Economy Blueprint (MyDIGITAL) initiative, under the Economic Planning Unit in the Prime Minister's Department.

Strategic and Institutional Framework

Digital economy strategies

The government's strategic efforts to foster increased digitalization began with the promotion of ICT and the development of internet connectivity several decades ago. In the 1990s and 2000s, the government first began to implement policy and strategies to encourage the adoption and uptake of ICT to facilitate productivity gains and innovation in certain core sectors, with a view to increasing value addition and competitiveness.²⁸ For the past two decades, the government has also implemented a number of strategies to develop the infrastructure required to support ICT connectivity, including the roll out of successive generations of broadband technologies.²⁹

Over time, government policy has increasingly focused on fostering the adoption and uptake of digital technologies by SMEs. With a recognition that SMEs account for the vast majority of Malaysia's businesses, policymakers have increasingly focused on measures to facilitate their contribution to the achievement of increased productivity and inclusive growth. In particular, initiatives to support this contribution were consolidated and intensified through the formulation of the SME Masterplan (2012-2020), which explicitly included objectives to nurture innovative enterprises and to improve productivity (World Bank 2022). For example, the Digital Malaysia initiative in 2011 was intended to facilitate the emergence of new digital entrepreneurs and to encourage the adoption and uptake of digital technologies by SMEs to boost their productivity. The Tenth Malaysia Plan (2011-15) included a target of training 20,000 SMEs in skills related to ICT, with a particular emphasis on facilitating their access to backend business software through cloud computing. The Eleventh Malaysia Plan (2016-2020) was based around six pillars intended to expand the growth of SMEs, of which the first was "enhancing productivity through automation and innovation." The Twelfth Malaysia Plan (2021-2025) expresses the government's objective of accelerating the digitalization of SMEs by establishing a national SME digitalization roadmap, with a target of digitalizing 90 percent of SME business operations.

With gradual improvements in connectivity and increases in the usage of basic ICT, the government has adopted a range of new policies since the 2010s to leverage the full potential of the digital economy and to broaden its benefits (see Figure 3.1). Beyond the use of digital technologies to facilitate production, the government has recently implemented policies to support SME digitalization through an increased emphasis on the use of e-commerce and digital platforms to expand market access. The first National

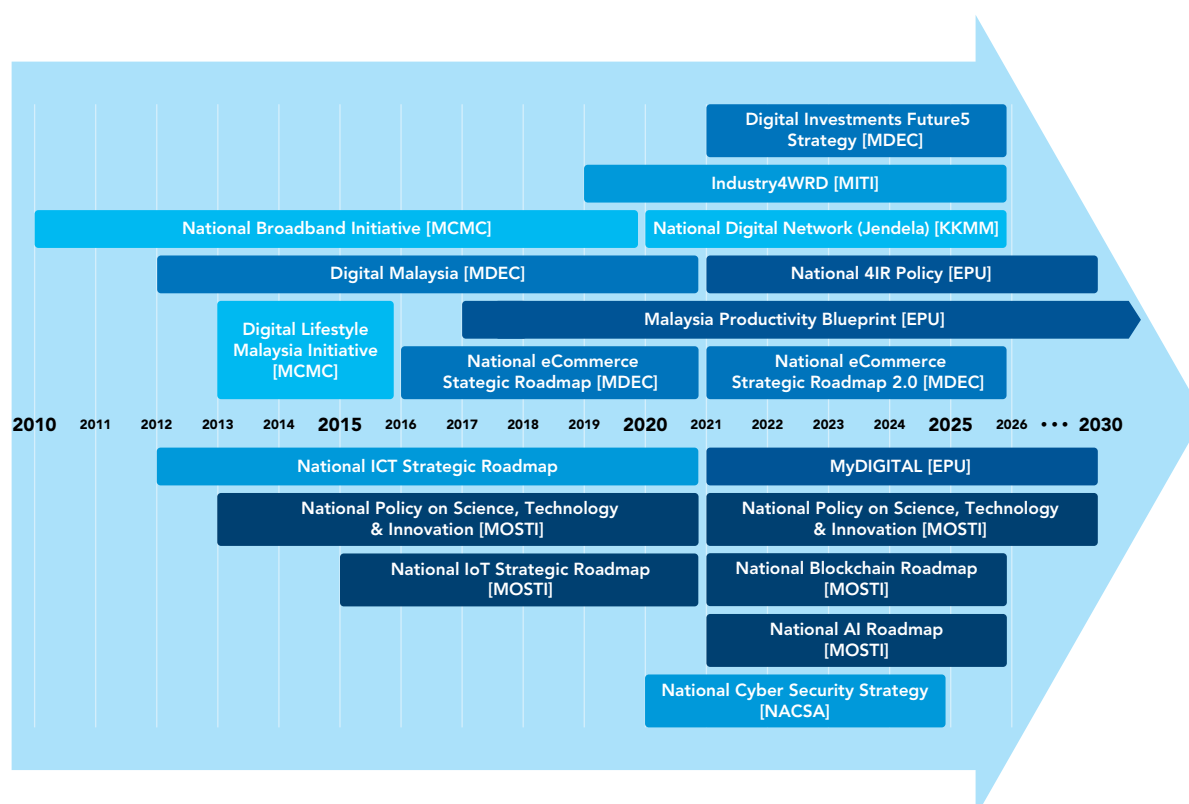
28 For instance, the National Information Technology Agenda (1994); the Second (1996-2005) and Third (2006-2020) Industrial Master Plans; as well as the Seventh (1996-2000), Eighth (2001-2005) and Ninth (2006-2010) Malaysia Plans.

29 This includes the National Broadband Plan (2004); Malaysian Information, Communications, and Multimedia Services (MyICMS) 886 Strategy (2006-2010); National Broadband Initiative (2010); and the National Fibreisation and Connectivity Plan (2019-2023), which was rebranded as the National Digital Infrastructure Plan (Jendela) (2021-2025).

eCommerce Strategic Roadmap (2016), spearheaded by the Malaysia Digital Economy Corporation (MDEC), established the goal of doubling the pace of e-commerce growth to 20.8 percent by 2020³⁰ through programs to promote e-commerce among SMEs, to provide them with training, and to enable them to access e-payment solutions. One of the central objectives of the Malaysia Productivity Blueprint (2017-2020) was to “strengthen digitalization among SMEs through e-commerce and adoption of innovative technology.”

In February 2021, the government adopted the Malaysia Digital Economy Blueprint (MyDIGITAL) as the country’s flagship digital strategy (see Box 3.1), following which it published the National eCommerce Strategic Roadmap 2.0 in April and the National 4IR Policy in July. All of these instruments expressed ambitious objectives related to the expansion of MSMEs’ participation in the digital economy. Building on this base, in July 2021, MDEC adopted the Digital Investments Future5 strategy, the objective of which was to boost investments, to foster innovations, and to encourage job creation in the digital economy, with specifics targets to be achieved by 2025. This strategy focuses on the development of five priority sectors: AgTech, HealthTech, Islamic Digital Economy and FinTech, CleanTech and EduTech. Finally, the government has promoted MSME digitalization as a central element of the successive COVID-19 recovery plans implemented since 2020, including PENJANA, PRIHATIN, PERMAI. MSME digitalisation is also a core component of the government’s latest budget for 2022.³¹

Figure 3.1: Timeline of selected recent digital economy strategies in Malaysia



Source: World Bank Staff Illustration

³⁰ See: https://www.miti.gov.my/miti/resources/1_NeSR_Book_Final_.pdf

³¹ This includes a RM100 million allocation for the Smart Automation matching grant to help 200 manufacturing and services companies adopt industry 4.0 technologies; a RM200 million allocation for the SME Digitalization Grant scheme, of which RM50 million is earmarked for Bumiputera micro-entrepreneurs in rural areas; a RM250 million allocation for the Shop Malaysia Online and Go e-Commerce Onboarding Programs for SMEs; and the development of local one-stop centers to help micro-entrepreneurs use digital technologies.

BOX 3.1

Support for MSMEs in Malaysia's Digital Economy Blueprint (MyDIGITAL) (2021-2030)

MyDIGITAL is the government's flagship long-term digital economy strategy. To contribute to the country's broader development strategies,³² its vision is to “transform Malaysia into a digitally driven, high-income nation and a regional leader in digital economy” by 2030. The Digital Economy Blueprint (MyDIGITAL), which was launched by the Economic Planning Unit in February 2021, lays out the strategies and initiatives intended to achieve this vision.

MSME digitalization is a key component of MyDIGITAL. The blueprint emphasizes driving digitalization across Malaysia and bridging the digital divide as key objectives. It foresees that, through its implementation, MSMEs will “enjoy greater opportunities to build and expand locally, regionally and even globally through digital revenue streams.” Objectives include helping 800,000 MSMEs to digitalize and 875,000 MSMEs to adopt e-commerce by 2025. Out of the six thrusts, 22 strategies and 48 national initiatives included in the Blueprint, several directly address MSMEs' needs (Table 3.1).

Table 3.1: Initiatives to Support MSME Digitalization in MyDIGITAL

| Thrust | Strategy | Lead agency | Initiative | Targets |
|--|---|----------------|---|---|
| 2. Boost economic competitiveness through digitalization | S1. Facilitating digital adoption, access, and effective use of digital technology across all firm sizes and digital maturity level | MEDAC and KKMM | 1. Address varying digital maturity among businesses through a new “Digital Compass,” a step-by-step guide on digital solutions available for growth. | More than 800,000 MSMEs adopt digitalization |
| | S4. Developing digital industry cluster and driving entrepreneurial activity | MITI | 7. Accelerate digital integration actions at regional level to facilitate cross-border trade and investment and lower operating barriers for businesses, particularly MSMEs | Key and strategic digital economy elements incorporated in all international trade arrangements and cooperation pursued by Malaysia |
| 4. Build agile and competent digital talent | S3. Reskilling current workforce with digital skills needed to stay relevant | MOHR via HRDF | 9. Introduce an e-learning program for senior managers to improve digital skills | 50% senior mgmt. in GLC, MNCs, and MSMEs to participate in program by 2025 |

Continued on next page...

32 These include the Twelfth Malaysia Plan (RMKe-12), Shared Prosperity Vision 2030 (Wawasan Kemakmuran Bersama 2030) and Sustainable development Goals (SDGs).

| Thrust | Strategy | Lead agency | Initiative | Targets |
|-------------------------------------|--|--|---|---|
| | | | 10. Streamline reskilling initiatives by various government agencies onto a centralized portal for ease of access | MYFutureJobs as a single platform for upskilling and reskilling program for all employers and employees in Malaysia by 2030 |
| | | | 13. Introduce long-term social protection for gig workers | All gig workers to have social protection |
| 5. Create inclusive digital society | S1. Increasing inclusivity of all Malaysians in digital activities | Bank Negara Malaysia | 3. Promote electronic payment onboarding program for both merchants (especially MSMEs through subsidising point of sale (PoS) system setup costs and exempting e-payments transaction costs) and consumers towards a cashless society | 400 electronic payment transaction made per capita by 2022 36 EFTPoS terminals per 1,000 inhabitants by 2022 |
| | | Implementation Coordination Unit (ICU) | 4. Providing an online platform to facilitate better access for vulnerable groups | 875,000 MSMEs onboard eCommerce by 2025 |

Source: EPU and authors

The government could more effectively manifest its vision by developing an integrated policy framework for SME digital transformation. The government's successive strategies have increasingly focused on meeting MSMEs' needs and have addressed most of the priority policy areas highlighted in the OECD's diagnostic of SME digitalization in Southeast Asia (see Box 3.2). Of the different dimensions that this diagnostic identifies, the greatest need is arguably for the implementation of an integrated policy framework for SME digital transformation. While the wide range of existing policies and initiatives do not necessarily conflict with each other, an integrated framework for SME digitalization would enable the government to better coordinate its efforts in this area. As the flagship agency mandated with the responsibility of implementing digital strategy, MyDIGITAL Corp could play this role effectively, given its relatively high structural position, within the government to convene all ministries and agencies. The need for coordination within an integrated framework is critical given the myriad number of existing support programs implemented by different ministries and agencies. Efforts currently underway to strengthen the institutional coordination framework could help progress towards an integrated policy framework, as discussed in the following section.



BOX 3.2

Priority policy areas for SME digitalization in Southeast Asia

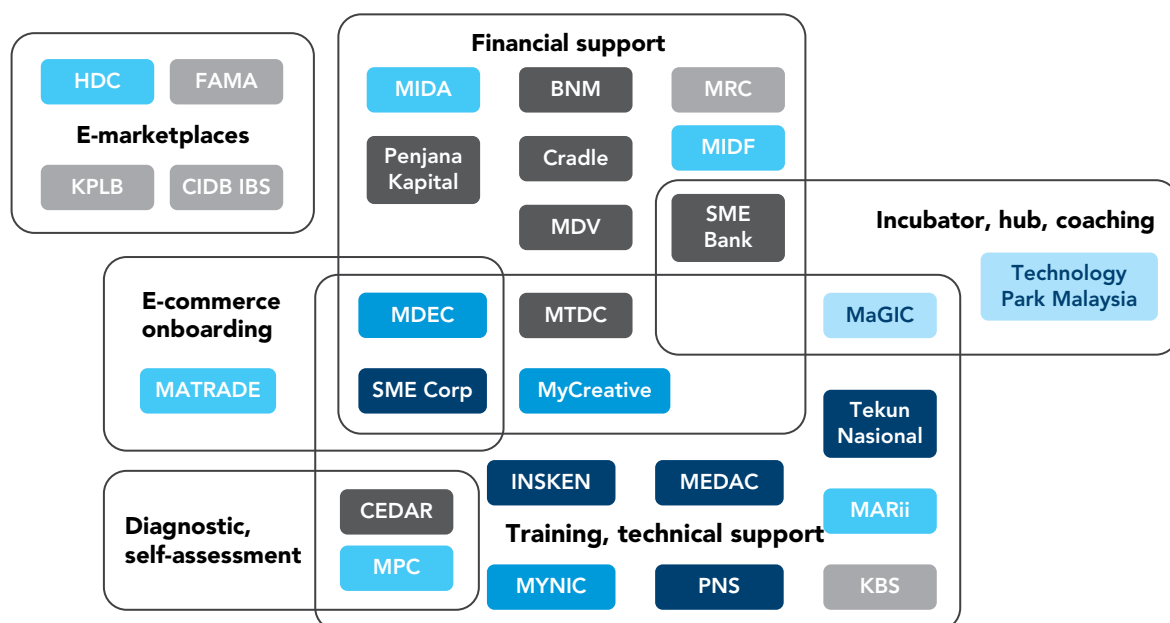
In its assessment of opportunities and challenges to integrate SMEs in the digital economy in Southeast Asia, the OECD highlighted the following priority areas for policy:

- **Enhancing SME's access to broadband** by fostering competition in both fixed and mobile broadband markets and extending access to affordable and high-quality communication services.
- **Increasing the effective use of digital services by SMEs** by fostering digital skills for people and firms, supporting SMEs to overcome challenges in adopting digital tools, and harnessing the potential of digital government to promote relevant digital content.
- **Unleashing innovation among start-ups** by re-evaluating regulations that are not fit for a fast-changing digital age, promoting digital start-ups and young firms with the support they need at each stage of their life cycle, and fostering policy experimentation in support of the digital transformation.
- **Promoting an inclusive digital transformation** by increasing access to and use of digital services and applications by vulnerable and rural populations, addressing gender digital divides, and preparing SME employees for the changing work environment brought about by the digital transformation.
- **Fostering e-commerce** by removing barriers, including those that distinguish between online and offline commerce, and by harmonizing national regulatory frameworks in the region to minimize frictions and costs for cross-border trade by SMEs.
- **Leveraging regional integration** including regional connectivity infrastructure, cross-border data flows and sharing of experiences in Southeast Asia to minimize frictions and costs for cross-border trade by SMEs.
- **Strengthening SMEs' trust in digital tools and services** by raising awareness about digital security risk management, developing privacy and digital security frameworks with a whole-of-society perspective, and continuing to facilitate cross-border data flows.
- **Establishing and effectively implementing a strategic and coherent policy framework for the digital transformation of SMEs** through coordinating the government institutions and stakeholders dealing with both SME and digital policy issues; identifying the main challenges and policy objectives; and building an evidence-based action plan with clear milestones and allocation of responsibilities.

Public Agencies Involved in the Digital Economy

In recent years, a large number of federal ministries and agencies have been involved in providing support to facilitate SME digitalization and the growth of digital startups. Based on the dataset of programs collected for this study, more than a dozen ministries have been directly involved in providing such support to varying extents through about two dozen agencies (see Figure 3.2). The Malaysia Digital Economy Corporation (MDEC) is arguably the lead agency, providing support to enterprises of different sizes and sectors in a wide range of areas related to the digital economy through more than two dozen programs. A number of other agencies have implemented several programs, while others have been involved in only a single initiative. The agencies support digitalization as part of their various general mandates, with these mandates including general support for SME development and entrepreneurship (e.g., SME Corp, SME Bank, CEDAR); for technology adoption and innovation (e.g., Malaysian Technology Development Corporation – MTDC, Malaysia Productivity Corporation – MPC, Malaysian Global Innovation & Creativity Centre – MaGIC); and for sector development (e.g., Malaysia Automotive Robotics and IoT Institute – MARii, Halal Development Corporation), amongst others.

Figure 3.2: Mapping of federal agencies providing different types of support for MSME digitalization in Malaysia in recent years



Parent ministry:



It is unclear whether existing steering bodies have effectively managed to oversee and coordinate initiatives to support SME digitalization. Since the 1990s, a number of strategic committees have been established to guide the government’s efforts to foster SME development, to grow the digital economy, and to ensure coordination across ministries and agencies (see Table 3.2). The National Entrepreneur and SME Development Council (NESDC) and the National Digital Economy and 4IR Council (MDE4IR), both chaired by the Prime Minister, are presently the two highest bodies in these areas. When representatives of public agencies were surveyed to determine whether they had participated in a formal intra-government framework to coordinate SME digitalization initiatives, only two of the 30 respondents stated that they had been involved through the NESDC and three through the MDE4IR. This suggests there may be a need to raise awareness regarding coordination mechanisms across government institutions in order to ensure better oversight of programs and to minimize overlaps between them. An interesting example is that of SME Corp, which was designated as the Central Coordinating Agency (CCA) for SME development in 2009. Since then, it has helped to strengthen accountability by producing annual reports to evaluate all SME support programs, including those focusing on digitalization, for the NESDC (World Bank 2022). This system could be leveraged to ensure stronger coordination and better monitoring of programs focused on digitalization. With a recognition of the need to address these coordination issues, the MDE4IR has been tasked with coordinating initiatives at the federal level.

Table 3.2: Government Coordination Structures in the Digital and SME Spaces

| Name | Established | Composition and function |
|---|-------------|---|
| National IT Council (NITC) | 1994 | The NITC, chaired by the Prime Minister and made up of senior government officials and corporate leaders, was formed in 1994 to advise the government on IT development and developed the nation’s first IT plans (ITU 2002). |
| National Entrepreneur and SME Development Council (NESDC)³³ | 2004 | The National SME Development Council, rebranded as NESDC in 2019, has been the highest policy-making authority for SME development in Malaysia. It is chaired by the Prime Minister and comprises of 20 Ministers. |
| Central Coordinating Agency (CCA) for SME development³⁴ | 2009 | In 2009, SME Corp was appointed as CCA, tasked to coordinate, streamline, monitor and evaluate the progress and effectiveness of SME development programs implemented by 15 Ministries and over 60 Agencies each year, including on digitalization. The information collected is compiled in an annual SME Integrated Plan of Action (SMEIPA) presented to the NESDC. |
| National e-Commerce Council (NeCC)³⁵ | 2016 | The NeCC was set up with the adoption of the National eCommerce Roadmap in 2016. Chaired by the MITI minister it comprised 21 agencies and was expected to meet twice a year. |
| Delivery Management Office (MPC) | 2017 | The DMO was established to coordinate, monitor and evaluate the implementation of the country’s productivity-related initiatives under the Malaysia Productivity Blueprint. |

33 See: <https://www.smecorp.gov.my/index.php/en/about/2015-12-21-08-40-32/nsdc>

34 See: <https://www.smecorp.gov.my/index.php/en/about/2015-12-21-08-40-32/cca>

35 See: <https://www.miti.gov.my/index.php/pages/view/4052>

| Name | Established | Composition and function |
|---|-------------|---|
| National Digital Inclusion Council | 2019 | The establishment of this council, to be chaired by the Prime Minister with representatives of key ministries, was announced to create digital economy income opportunities for the people. |
| National Digital Economy and 4IR Council (MDE4IR) | 2020 | This Council is chaired by the Prime Minister and made up of key cabinet ministers and heads of agencies, with representatives of the private sector, academia and civil society. It was established to replace previous digital and technology-related committees. Working under the Council are 6 thematic clusters led by ministers. |
| Strategic Change Management Office (SCMO later renamed as MyDigital Corporation) | 2021 | The SCMO was established under the EPU in the Prime Minister's Department to oversee implementation of the Digital Economy Blueprint / MyDIGITAL |
| Digital Investment Office³⁶ | 2021 | The DIO was set up as a collaborative platform between MDEC and the Malaysian Investment Development Authority (MIDA) to facilitate foreign and domestic digital investments into the country and coordinate the work of Investment Promotion Agencies (IPAs) in this area. |
| State Digital Economic and 4IR Policy Council | 2021 | This council is intended to harmonize digital development plans at the Federal and State levels in implementing the Malaysia Digital Economy Blueprint. The council will be chaired by the Minister in charge economic affairs in the Prime Minister's office and attended by State Executive Councillors from various States responsible for the digital portfolio |

Source: World Bank Staff compilation

Beyond the federal level, state governments and public-private partnerships have also established specialized agencies to implement programs related to digitalization. Agencies such as Digital Perak,³⁷ Digital Penang,³⁸ and the Selangor Information Technology and Digital Economy³⁹ were established to foster the growth of the digital economy in their respective states, with each of these implementing programs targeting local SMEs. Various city councils, such as Seberang Perai's, have also introduced similar programs. State agencies do not seem to have been involved in the established coordination bodies, which may have increased the risk of overlaps between programs at different levels of government. However, the government announced in November 2021 that a State Digital Economic and 4IR Policy Council would be established, with its objective being to harmonize digital development plans between the federal and state levels (see Table 3.2), which should help to improve coordination.

³⁶ See: <https://mdec.my/dio/>

³⁷ See: <https://digital.perak.my/>

³⁸ See: <https://digitalpenang.my/>

³⁹ See: <https://www.sidec.com.my/>

BOX 3.3

Dr Kong Malaysia (incorporated under Zara Diversified Sdn Bhd)



Using digital presence for a successful pandemic pivot

Prior to the pandemic, Dr Kong Malaysia ('Dr Kong'), the sole distributor for Dr Kong (Hong Kong), a specialist in health footwear, operated exclusively through ten brick-and-mortar outlets around the Klang Valley and Malacca. With the onset of the first and strictest Movement Control Order (MCO 1) in March 2020, sales completely ceased, as non-essential businesses, including physical clothing and footwear retail outlets, were not permitted to operate. Although retail operations were permitted to sell online, Dr Kong did not participate in online marketplaces, as they had previously generated a high level of sales through their brick-and-mortar outlets. Moreover, given that they added value to their customers through their in-store foot assessment and insole fitting service, online sales were not an important priority for them. However, with the dramatic decline in revenues resulting from the pandemic, they began to doubt the sustainability of their operations as a primarily brick-and-mortar operation. Thus, they took the decision to embrace a new suite of digital tools in order to sustain sales and to grow the business.

In their adoption of digital technologies, the pandemic served as a turning point for Dr Kong. Prior to 2020, Dr Kong utilized digital tools only to a minimal extent in the frontline of their business, utilizing Point of Sale (PoS) technologies and inventory management systems in their warehouses to enable planning and monitoring. By May 2020, some of the restrictions on business operations had been loosened. However, even with the loosened restrictions, Dr Kong's sales only recovered to 10 percent of the level recorded in the pre-MCO 1 period. This prompted their decision to establish an online sales platform. Dr Kong managed to secure a 1:1 matching government grant from MDEC, valued at RM 5,000, to establish their e-commerce initiative and enhance their website. These funds enabled Dr Kong to repurpose their previously static corporate website to accommodate online sales, a feat they achieved by engaging an external vendor. During this period, they also utilized online marketplaces such as Lazada and Shopee to facilitate online sales. However, they felt that while these platforms served the mass-market well, they were not an effective means of reaching the niche customer base they were targeting.

Although Dr Kong did not experience any major operational issues with the platforms per se, they felt they would have more control over their branding and customer communication by establishing their own online sales platform. They believed that digital platforms might be more beneficial for very new start-ups that do not currently have an established customer base, but less beneficial for a relatively more established business such as Dr Kong.

The company funded its digital initiatives mostly through the use of its own financial resources. In addition to establishing the online sales channels, Dr Kong also enhanced their online branding presence on various social media outlets, hired new staff who were well versed with the use of social media for marketing and community outreach for the brand, and strengthened their cybersecurity initiatives through specialist vendors hired for this purpose. Despite various initiatives undertaken to achieve this digital pivot, Dr Kong self-funded the majority of their initiatives. While Dr Kong was aware of several government programs that provided funding support for digital adoption and training, they perceived the associated processes as being too time-consuming and costly, with difficult documentation and certification requirements. Moreover, most of the grants provided through such programs were structured with a reimbursement mechanism, making them less attractive from a cashflow management perspective. Regarding the SME digital funds established through stimulus packages, Dr Kong felt that the stringent application and eligibility criteria imposed by the banks made them less accessible to SMEs, which may not have had all the required documentation or the required track record.

Dr Kong considers the lack of digital know-how amongst their workforce to be a significant drawback to SMEs' digital development. In particular, the readiness of their workforce to embrace these new digital tools and to leverage them in their day-to-day work was a barrier to greater digital adoption. They believe that without the right training, the premature adoption of digitalization could even lead to a decline in productivity. As a small enterprise, the owners decided to train themselves first in the use of new digital tools and then to subsequently train their workforce. The company mostly relied on its own research and engaged in 'learning by doing' to gain new digital skills. All in all, Dr Kong believes that without the necessary upgrading in technical know-how required to utilize new digital tools, attempts by the government to promote the national digitalization agenda may fall short of the stated objectives.

The company's digitalization initiative resulted in both efficiency gains and greater customer insight. By August 2020, five months after the initial pandemic-related restrictions, sales had recovered to 70 percent of pre-MCO 1 level due to Dr Kong's efforts to establish a more dedicated online presence, with online sales capabilities on e-commerce channels and with a greater focus on social media for marketing outreach. Apart from these operational gains, the more efficient tracking of customer data and online behavioral trends has also enabled the business to better target marketing campaigns and promotions. This has led to noticeable efficiency gains in the areas of service delivery and time management. Overall, Dr Kong's integrated digital strategy has greatly enhanced overall operational productivity, with greater supply chain integration leading to better cash flow and inventory management.

Despite the digital shift, Dr Kong's physical presence remains a key unique selling point. The pivot to online sales has benefited Dr Kong, enabling it to sustain its operations and to achieve productivity gains during this challenging period. However, Dr Kong still considers real-life consultations and their specialist fitting process as a key selling point. They feel that it is still too early to tell whether consumers will embrace the digital buying mechanism outside the context of the pandemic. In their view, access to digital tools was an integral part of their survival during the pandemic, but whether this shift is permanent is still to be determined.

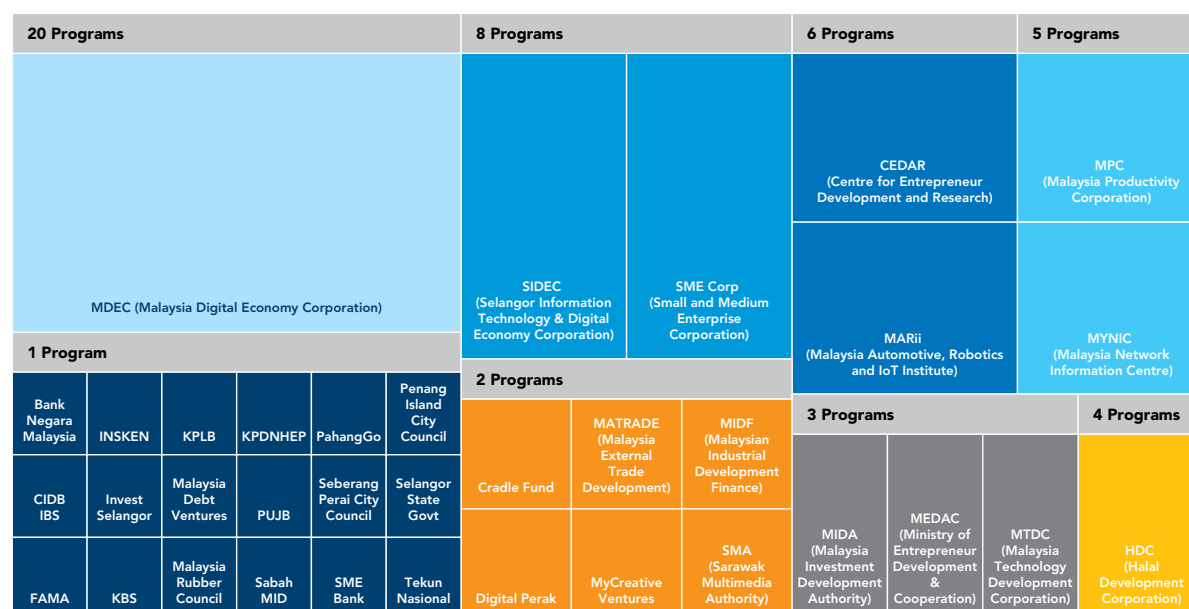
SME Digitalization Support Programs in Malaysia

Landscape of programs

Overall number of programs

In order to enable the government to achieve its strategic vision, a wide range of public agencies have been tasked with implementing numerous programs to support SME digitalization over the years. Based on the dataset established for this study, around 25 central ministries and agencies and at least ten state and municipal agencies currently offer such support to SMEs through at least 101 different programs.⁴⁰ The list of programs was assembled on the basis of: (i) direct responses by representatives of agencies participating in the online survey previously mentioned; and (ii) manual entry by the project team for other programs not captured through the survey. The focus was on programs that provide direct support for business digitalization. Thus, it excluded programs that supported innovation, startups or SMEs more generally or that focused on boosting online consumption (such as through e-commerce vouchers). The team tried to include only current or recently implemented programs, but it is possible that a few of the listed initiatives may not have been fully implemented, may not yet be effective, or may have been discontinued. The government agencies leading the SME digitalization agenda include the Malaysia Digital Economy Corporation (MDEC) and the SME Corporation (SME Corp), both of which have provided financial and technical support through multiple programs. Many other agencies have only implemented one or two programs (see Figure 3.3).

Figure 3.3: Institutional landscape of agencies implementing SME digitalization support programs⁴¹



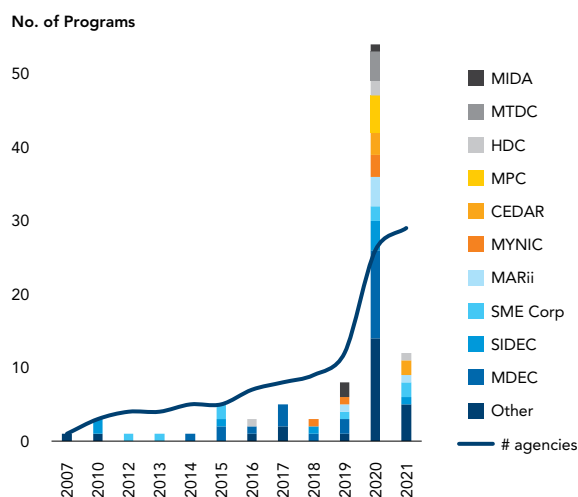
Source: World Bank, SME digitalization support survey

40 See the annex for a list of programs in the database (as of June 2021). Some programs have since been discontinued after the expiry of the COVID-19 stimulus packages.

41 Each agency's square size is proportional to the number of programs it implements. CIDB IBS: Construction Industry Development Board – Industrialized Building Systems; FAMA: Federal Agricultural Marketing Authority; INSKEN: Institut Keusahawanan Negara (National Institute of Entrepreneurship); KBS: Kementerian Belia dan Sukan (Ministry of Youth and Sports); KPLB: Kementerian Pembangunan Luar Bandar (Ministry of Rural Development); KDNHEP: Kementerian Perdagangan Dalam Negeri dan Hal Ehwal Pengguna (Ministry of Domestic Trade and Consumer Affairs); PUJB: Perbadanan Usahawan Johor; Sabah MID: Sabah Ministry of Industrial Development

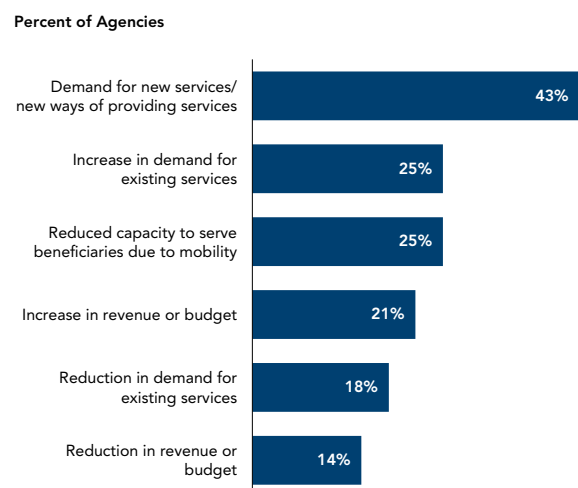
The COVID-19 crisis has resulted in an increased demand for support for digitalization, with agencies responding through the introduction of a number of new programs. As shown in Figure 3.4, while new initiatives have been adopted each year over the last decade, the vast majority of programs were introduced in 2020 and 2021, with a significant increase in the number of different agencies involved during this period. Since the onset of the COVID-19 pandemic, 43 percent of agencies providing digitalization support reported increased demand for new services or for new means of providing them, with a 25 percent increase in demand for existing services (see Figure 3.5). Evidence from recent World Bank Business Pulse Surveys (BPS) also confirms that the vast majority of enterprises of all sizes are interested in receiving support to enable them to deepen their adoption of digital technologies and to better exploit digital opportunities. In response to this demand, 79 percent of agencies surveyed planned to introduce new services or programs to foster SME digitalization, particularly to adapt to the impact of the pandemic and to prepare for the new normal.

Figure 3.4: Timeline of SME digitalization program introduction



Source: World Bank, SME digitalization support survey

Figure 3.5: Trends faced by agencies supporting SME digitalization since COVID-19



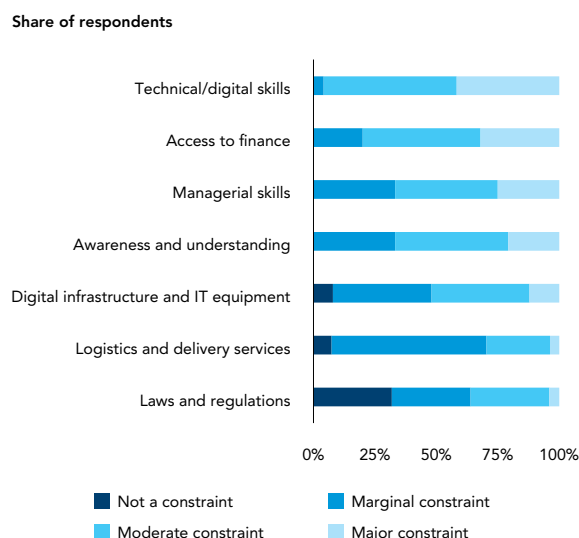
N=28

Source: World Bank, SME digitalization support survey

There is a broad alignment between government agencies' perceptions of the constraints to digitalization and those reported by enterprises themselves. The surveyed agencies stated that the most significant constraints were related to skills (both technical and managerial), access to finance, and awareness (see Figure 3.6). Regarding constraints related to skills, the 2021 Digital Talent in Malaysia Survey also noted that enterprises were constrained by the difficulty of finding employees with adequate academic and technical qualifications and soft skills (Social Economic Research Initiative 2021).⁴² As for types of digital skills in high demand in order of importance includes Big Data Analytics, Digital Marketing, Artificial Intelligence, Data Science and Cybersecurity. From the perspective of the enterprises, apart from those who do not currently see the need for digital investments, the main reasons cited for not making such investments related to the lack of financial resources, insufficient information regarding relevant digital technologies, and uncertainty regarding the benefits of such investments (see Figure 3.7). Compared to large enterprises, SMEs appear to be particularly disadvantaged in the areas of skills and access to finance, with access to financing referring both to loans and to financing for back-end digital solutions such as invoicing and supply chain management.

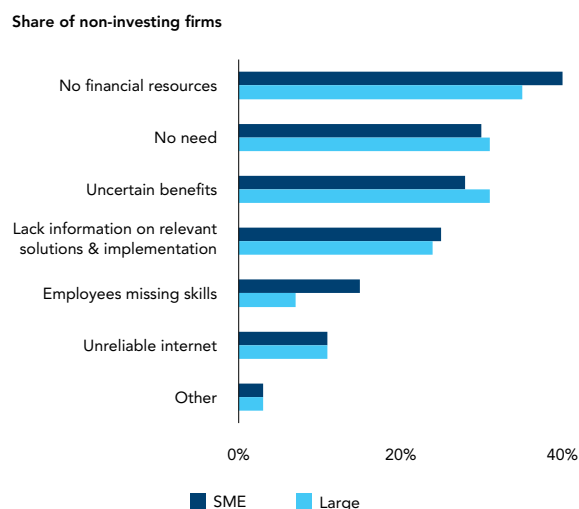
⁴² Respondents identified insufficient qualified candidates with satisfactory soft skills (73 percent) and with necessary academic technical qualifications (70 percent) as the two most significant factors affecting ability to meet talent needs.

Figure 3.6: Main constraints for SME digitalization perceived by support agencies



N=28
Source: World Bank, SME digitalization support survey

Figure 3.7: Main reasons for firms not investing in digital solutions



Source: World Bank, BPS (Jan/Feb 2021)

SMEs identified several additional obstacles related to program support and the associated application processes. Participants in private stakeholder consultations in March 2022 identified a number of key weaknesses in government policy and programs, including cumbersome application processes and poor user experience; long processing times, especially in terms of disbursement of grants; lack of clarity in communication regarding grant approval/rejection; a lack of clarity regarding grant and program continuity; and limited provision of the appropriate technical advice to business owners to enable them to digitalize effectively.

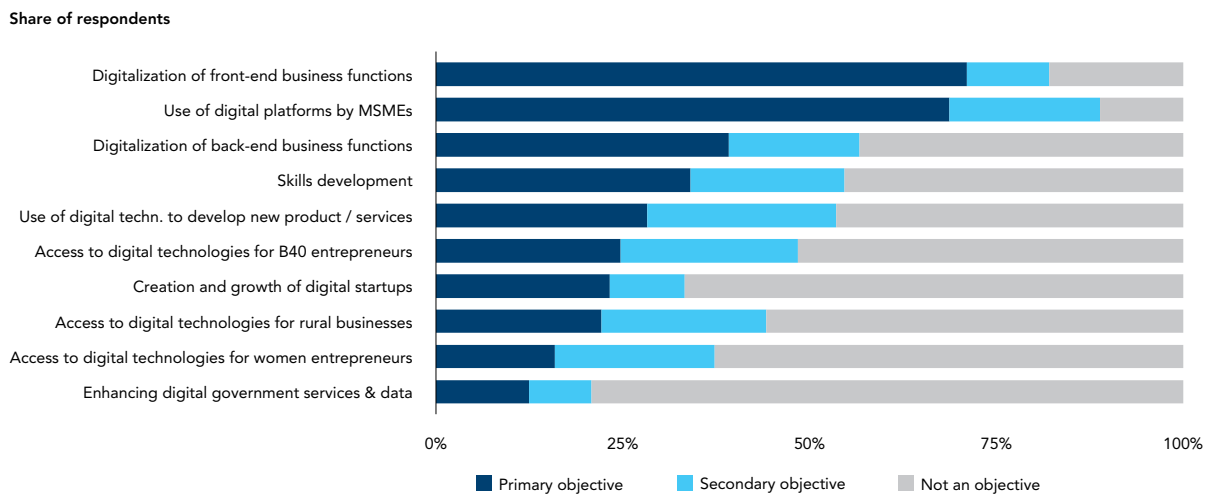
Type of support provided

The support provided through government programs currently focuses on enabling SMEs to leverage digital technologies to reach online markets, which aligns with SMEs' preferences to a significant extent. The surveyed agencies stated that the primary objective of most programs with which they are involved was to enable SMEs to digitalize front-end (i.e. customer-facing) business functions, such as sales and marketing, and to engage in e-commerce through participation in digital platforms (see Figure 3.8 and Figure 3.9). This corresponds with the two most commonly expressed needs by the businesses themselves, although a sizeable proportion of enterprises also expressed the need for support to digitalize back-end functions (e.g. business administration, production, supply chain management), which receive less emphasis under current government programs (see Figure 3.10). In the context of the pandemic and associated mobility restrictions, the agencies' focus on e-commerce may be justified.

However, the provision of greater support to enable SMEs to digitalize back-end functions could complement the government's current digitalization strategy. Greater emphasis on backend functions under the government's medium-to-long term digitalization strategy could enable SMEs to leverage additional

opportunities to boost business productivity through the use of digital technologies, helping them to escape the “computerization trap” (Huawei and SME Corp 2018). In the stakeholder consultations, SMEs stated that there was a greater need for the government to support the adoption of advanced back-end business functions, such as enterprise resource planning (ERP) tools, to increase efficiency gains.

Figure 3.8: Main objectives of current SME digitalization programs



N=99

Source: World Bank, SME digitalization support survey

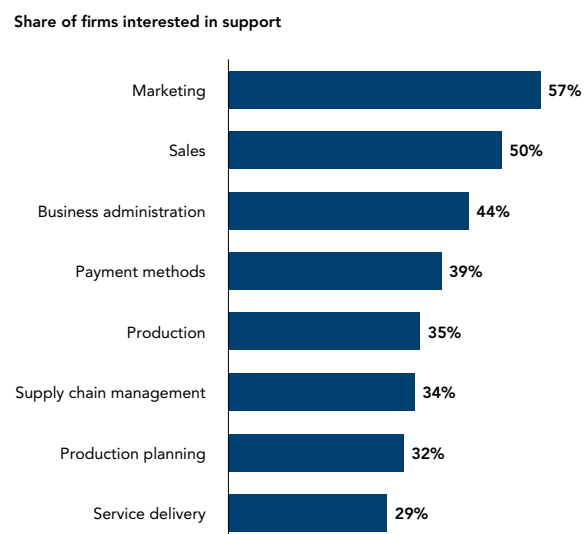
Figure 3.9: Main business functions targeted by support programs



N=87

Source: World Bank, SME digitalization support survey

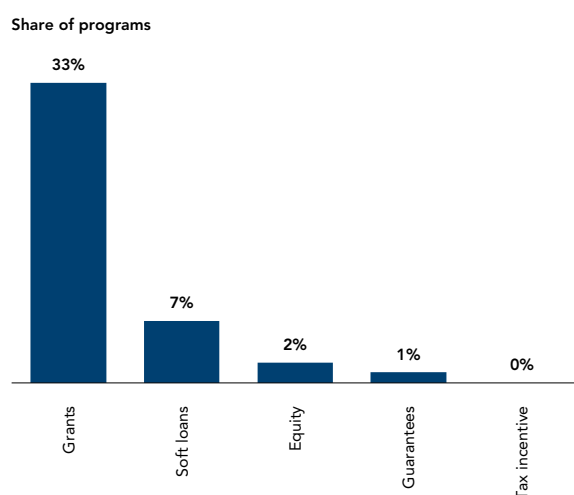
Figure 3.10: Most needed areas for digitalization support



Source: World Bank, BPS (Jan/Feb 2021)

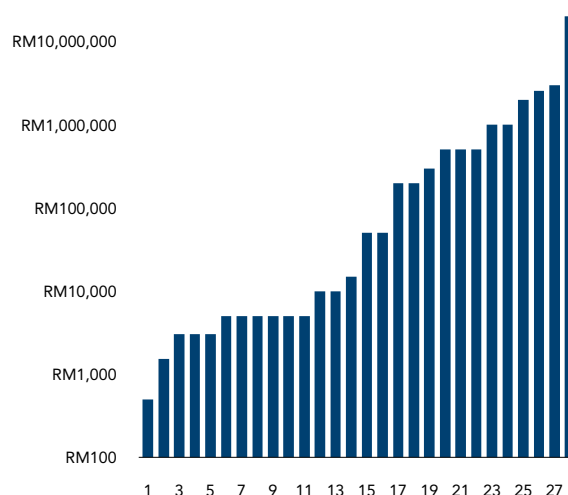
Approximately 40 percent of the current programs provide some form of financial support. Grants are by far the most common form of financial support provided to SMEs, well ahead of soft loans and other forms of support such as credit guarantees (see Figure 3.11). As shown in Figure 3.12, the maximum grant value per beneficiary varies widely across programs, ranging from a couple of thousand ringgit (less than US\$ 500), such as under MDEC’s PENJANA e-Commerce initiative, to loans to a value of up to RM20 million (about US\$ 4.8 million) under MIDF Berhad’s Soft Loan Scheme for Automation & Modernization program. In the case of SMEs who expressed an interest in applying for larger funds, the fees to hire a consultant to assist with the proposal, the time required to pitch, and the lengthy approval process (sometimes up to one-year) were also cited as constraints. Other identified constraints related to grant and program continuity, as when a program or grant runs out allocated funds, support ends, with SMEs having to wait until funds become available again. This lack of clarity regarding funding horizons could deter businesses from developing longer term digitalization plans.

Figure 3.11: Types of financial support provided



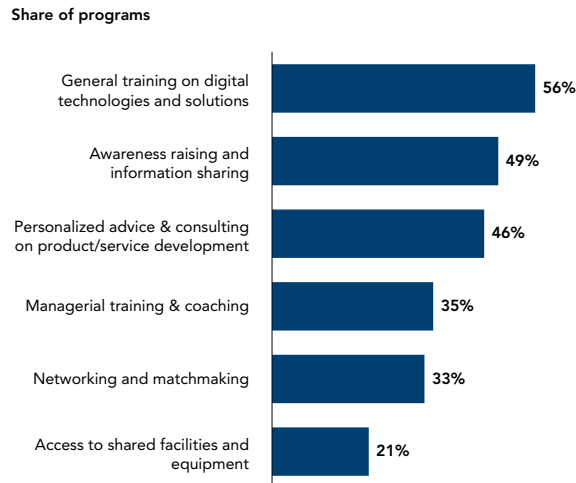
N=89
Source: World Bank, SME digitalization support survey

Figure 3.12: Maximum amount of financial support per program beneficiary



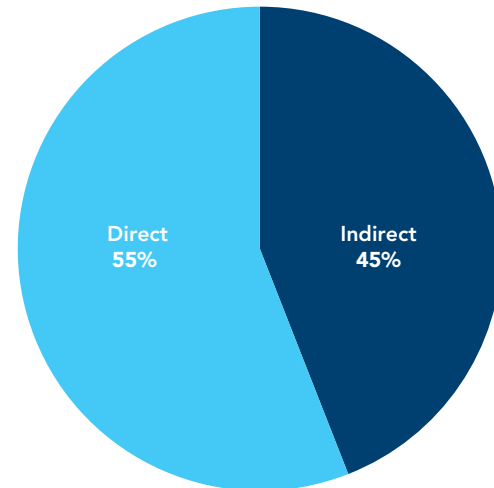
N=28
Source: World Bank, SME digitalization support survey

About 80 percent of programs provide some forms of non-financial support, with the most common form of such support involving the provision of general training and/or activities to raise awareness regarding digital technologies (see Figure 3.13). This seems appropriate given that, as previously mentioned, a large proportion of SMEs state that the lack of information regarding relevant digital solutions and/or uncertainty regarding the benefits of adopting them constrained them from making investments in digital technologies. Of course, the efficacy of such support depends on the quality and depth of training provided, the reach of awareness campaigns, and other factors. Complementing this general support, a significant proportion of programs provide more personalized assistance to firms in the form of consulting, coaching, or matchmaking. In terms of implementation modalities, support is provided directly by the agency in the case of 55 percent of surveyed programs, with the remainder providing the support through intermediaries such as financial institutions, consulting companies, and others (see Figure 3.14). SMEs participating in stakeholder consultations also stated that peer coaching and experience sharing by SMEs who had already progressed with the adoption of digital technology was an important means of gaining knowledge.

Figure 3.13: Types of non-financial support provided

N=101

Source: World Bank, SME digitalization support survey

Figure 3.14: Direct vs. indirect delivery of support

N=85

Source: World Bank, SME digitalization support survey

Complementing the development of digital literacy with training on broader managerial skills and tailoring support to firm technology readiness can enhance a program's impact. As argued in the previous chapter, managerial practices and organizational capabilities are key drivers of technology adoption, and SMEs are usually at a disadvantage (World Bank 2022). Efforts to improve such capabilities should therefore complement initiatives aiming at facilitating SMEs' access to digital technologies through the provision of financing for digital training. Firms have varying degrees of digital and managerial skills, which means that they require different levels of handholding to identify and introduce new technologies. South Korea's experience supporting "smart manufacturing" in the SME sector provides an interesting experience of how this can be done in practice (Box 3.4).

With the proliferation of SME support programs since the onset of the pandemic and with these programs often offering support in similar areas and through similar modalities, there is an increased risk of overlap. With the government placing a high priority on its digital agenda, the mainstreaming of digitalization across different SME support programs would appear to be justified. In addition, there may be good reasons for different agencies to implement initiatives with similar objectives to foster SME digitalization, such as when each caters to SMEs in different sectors and/or regions. However, the recent proliferation of programs does not appear to have been directed with reference to an integrated framework. While an in-depth review of complementarities and potential overlaps between existing programs is beyond the scope of this study, the information collected suggests there may be potential for consolidation. For example, the analysis identified 29 recent initiatives intended to educate MSMEs regarding e-commerce opportunities and to encourage onboarding as merchants on digital platforms.⁴³ Similarly, it identified 21 different programs that provide financial support to MSMEs to invest in digital solutions.⁴⁴ Finally, more than 40 initiatives offer training to MSMEs to enable them to adopt digital technologies.⁴⁵ This multiplication of support programs

43 Among others, these include MATRADE's eTRADE Program 2.0; MDEC's Go-eCommerce initiative, Shop Malaysia Online initiative, MSME E-Commerce campaign and Perkhidmatan e-Dagang Setempat initiative; MEDAC's Program Jom Ubah Minda Peniaga; SIDEC's Jelajah Usahawan Digital initiative, Selangor Online 100 initiative and e-Commerce Masterclass initiative; SME Corp's Warongku initiative; and INSKEN's E-Board program.

44 Including BNM's SME Automation and Digitalization Facility; MDEC's SME Business Digitalization Grant and Smart Automation Grant; MIDF's Soft Financing for Digitalization & Technology program; Selangor's SME Digitalization Matching Grant; CEDAR's SME Technology Transformation Fund; etc.

45 For instance, MDEC's 100 Go Digital, Digital Xccelerator and Jom Transform programs; MPC's Productivity through Digitalization initiative; MTDC's Adoption of Digital Solutions initiative; and SME Corp's Micro Connector program.

BOX 3.4

South Korea's support for SMEs' smart manufacturing innovation



The Korea Smart Manufacturing Office (KOSMO) was created in 2014 to improve SMEs' productivity by supporting their adoption of "smart" manufacturing technologies. Its targets were to establish 30,000 smart factories⁴⁶ and 10 smart green industrial complexes,⁴⁷ as well as to train 100,000 specialized workers in smart manufacturing by 2022. As of 2020, 19,800 factories had adopted smart manufacturing since the program started in 2014.

The scope of KOSMO's support has covered all factory operations, including planning and design, production, sales and distribution. The factories are supported to use application systems, underpinned by technologies such as cloud computing, artificial intelligence and sensors. Supported firms first go through a diagnostic to assess their current capability and can

⁴⁶ KOSMO (2022a) defines a smart factory as "a people-oriented high-tech intelligent factory that integrates all production processes from product planning to sales with ICT (Information and Communication) technology to produce customized products at minimum cost and time." A factory is considered smart if it fulfils five major requirements, namely, (1) digitization of "4M+1E" (man, machinery, material, method and environment), (2) integration, (3) connection with smart systems, (4) intelligence, and (5) creation of engineering knowledge.

⁴⁷ The Korean Ministry of Trade, Industry and Energy (MOTIE) defines a smart green industrial complex as an industrial complex that facilitates the digitalization, energy independence, and greening of resident firms and common facilities (MOTIE 2022).

then avail of a 50 percent matching grant to subsidize upgrading costs incurred to become a smart factory.

Overall, an independent evaluation commissioned by the Korean Ministry of SMEs and Start-ups (MSS)⁴⁸ found that firms that have benefited from KOSMO's program have performed better in terms of overall productivity, quality of products, cost efficiency and exports revenue compared to firms that did not participate (MSS 2019). Specifically, after two years, firms that received support had higher increases in revenue (4x), exports (2x), and number of employees (increased by 10 percent vs. decreased). Other performance indicators used by the government have all had marked increases, including productivity (30 percent), quality (43.5 percent), cost-efficiency (15.9 percent) and the ability to meet payment deadlines (15.5 percent). The study also revealed that performance improvements in smaller firms have been more significant than in larger firms.

After several years implementing this program, following key lessons have emerged:

- Given the complex technologies involved in smart manufacturing, firms need time to correctly identify appropriate technologies and develop the skills required to introduce and operate them as part of their manufacturing processes. A 2018 survey conducted by the Korea Federation of SMEs (KBIZ) confirmed the lack of trained employees with such expertise, compounded by high staff turnover among SMEs, is a major obstacle for firms (KBIZ 2018).
- Additionally, broader management capabilities to understand and adapt operations to these new technologies have been highlighted as a key complement to digital skills for success. For this reason, KOSMO has assessed applicant firm managers' understanding of the way digitalization could be used to upgrade firm capabilities.
- Substantial coordination efforts for systems integration and adapting data sharing and usage practices are required to build this smartness. The CEO's leadership, interest in technology (Galasso and Simcoe, 2011), as well as the existence of an ICT division are further vital drivers for successful implementation.
- Finally, adapting the support provided to a firm's capabilities is essential. After the initial diagnostic, firms are categorized according to five capability levels, level 1 being the most basic and level 5 being the most advanced. A majority of firms have been found to operate at levels 1 and 2 and have been assigned dedicated coordinators to help them select vendors and match solutions tailored to their factory needs. Factories at levels 4 and 5, which have a higher capacity to identify and adopt technologies, have been given more autonomy to do so under the program.

Source: The World Bank, Policy Support Note for Smart Manufacturing in Korea (unpublished)

48 MSS is the parent ministry of KOSMO.

BOX 3.5

BoomGrow: Digital pioneers breaking new ground in sustainability

BoomGrow's business was built out of the founders' passionate interest in sustainability and their desire to grow healthy and nutrient-rich vegetables of superior quality through the use of cutting-edge technology to reduce wastage and to conserve energy and other resources. This was the result of years of experimentation and product development, which led to the establishment of their current operations utilizing 'machine farms,' which are high-tech indoor farms that utilize precision farming and controlled-environment agriculture (CEA) methods to control temperature, humidity and light levels to increase productivity. Thus, the company was built on a strong foundation of technology from the start, with artificial intelligence (AI) forming an integral part of their operations as a means to ensure optimal growing conditions for their produce.

The pandemic triggered a pivot in BoomGrow's business strategy. Prior to the pandemic, BoomGrow served a niche market through B2B sales to the hospitality industry, particularly high-end hotels and restaurants. The mobility restrictions imposed in March 2020 required the business to rethink their strategy, as their key markets had been severely impacted by the business lockdowns. By May 2020, BoomGrow had used seed funding obtained from SME Corp, MDEC, the now defunct PLaTCOM Ventures, and angel investors to pivot to a new business strategy, involving B2C sales through vegetable subscription bundles to retail consumers. To facilitate this pivot, they established their own online sales portal on the company website. As of October 2021, the split between their B2B and B2C markets stood at 20:80, although this is expected to become more balanced as the effects of the pandemic recede.

BoomGrow's initial funding needs were met through various government agencies. BoomGrow was able to secure a sizeable amount of start-up funding through their ideation and commercialization phases through various matching grants provided by SME Corporation, PLaTCOM Ventures⁴⁹ High Impact Program and MDEC, to a total value of around RM 1 million (approximately US\$ 250,000). These funds were utilized to establish all aspects of the operations, from the development of the machine farms to the hiring of the technical experts to set up and run the operations. Other than grant financing, BoomGrow has also been part of other non-funded programs, including the MaGIC Accelerator Program and the Petronas Future Tech Accelerator, which provided mentorship and networking opportunities for the company. In fact, BoomGrow's unique business proposition has caught the attention of both industry players and the Ministry of Agriculture and Food Industries. In 2020, Telekom Malaysia invited BoomGrow to represent the agriculture industry at its 5G showcase in Langkawi due to its success in harnessing technology in its operations. This showcase led to the establishment of its first machine farm outside Klang Valley, in Langkawi, when it caught the attention of several prominent hotel chains on the island.

The reduction of administrative bottlenecks could further enhance the financing ecosystem. The story of BoomGrow's growth and success has been anchored in its ability to remain innovative and relevant in the market and to leverage on its network and opportunities in the start-up ecosystem. That said, it has also faced its fair share of challenges. Although the company was successful in securing government financing, the identification of the relevant programs and the application processes involved could have been better facilitated through a central portal

⁴⁹ This program has since been discontinued.

dedicated to these initiatives. The documentation involved in the application, status reporting and reimbursement claims processes involved significant resources, which could be reduced by making the requirements simpler. In this regard, the company benefited from their established practice of keeping good financial records, which greatly facilitated the application process.

Domestic private sector venture capitalists continue to regard agritech as a risky investment.

BoomGrow's experience in the funding arena shows that public sector entities were more open to its concept than private investors. In particular, the company has found it challenging to identify venture capitalists who are capable of understanding their business model. Related to this is the lack of established standards for this new and developing industry, which can make regulatory approval processes challenging at times. Thus, there is an inherent need to ensure that all stakeholders within the digital ecosystem are up to speed with the latest technological developments to facilitate the growth of new high-growth, technology-driven industries.

While obtaining workers with the appropriate skills remains a challenge, BoomGrow has adapted well.

Human capital has always been a challenge, especially in a cutting-edge industry such as agritech. Agronomy remains a developing area, with the supply of technical experts and practitioners in this field remaining limited. Thus, the company has tended to hire biotechnologists as technical staff, with the staff picking up the skills of specialized agronomists through a process of 'learning by doing.' For non-technical staff, they focus on recruiting people who are 'open to tech,' as much of their culture is based on knowledge-building and adaptability in a high-tech space. Most of their training initiatives are based on their own requirements and are conducted in-house. Their experience with the accelerator programs has sharpened their marketing and brand communication abilities. BoomGrow is attempting to engage in greater collaboration with universities to expand their product testing facilities to improve cost efficiency in this area.

Digital marketplaces and platforms apps as they are currently structured do not meet BoomGrow's business needs.

BoomGrow attracts customers by promising high quality, freshly harvested produce and a limited carbon footprint. Thus, they cannot fulfil deliveries on demand, which is the common practice with current digital platforms. They deliver only within a radius of 15 km around the farm, guaranteeing that customers will receive the produce no more than six hours after harvest. Due to these issues, the company has opted to retain greater control over the purchase and fulfilment management by developing their own online store, utilizing an off-the-shelf e-commerce platform software, Shopify. In addition to the benefit of not having to build an online marketplace from scratch, one of Shopify's key benefits is its ability to provide detailed customer analytics. These analytics have helped BoomGrow improve their planning capabilities with regards to future farm locations and changing customer needs and trends. Besides the data mined from the Shopify portal, data collected through their farming operations is integral to the company's continued provision of high-quality produce.

For the achievement of national digital aspirations, a more well-rounded digital ecosystem is vital.

BoomGrow is a leading example of an innovative venture, built and operated on pioneer technology in Malaysia. As it continues to grow through the expansion of machine farms in more locations around the country and through its sustained innovation drive, it is imperative for both the startup and digital ecosystems to adequately support its ambitions. Some identified gaps include the availability of funding to scale, regulations related new technology-based products and services, and the availability skills to support the digital drive, especially in highly specialist fields. To nurture future technology-driven startups, these gaps will need to be bridged through support programs that are better designed with reduced administrative bottlenecks.

raises the risk of inefficiencies, with resources spread too thinly across the programs. It could also create confusion for SMEs that seek support to adopt digital technologies. Throughout stakeholder consultations, many participating SMEs stated that they struggled to identify what support is available and to determine which program best met their needs. This aligns with the findings of a comprehensive review of all SME support programs implemented between 2016-2019, which found a very high degree of overlap and fragmentation across programs (World Bank 2022). However, the review noted a good practice involving support provided through a key account manager at MDEC to provide guidance to companies participating in an MDEC program by assisting businesses to liaise with other agencies.

Beneficiaries and impacts

Outreach and application modalities

For the most part, digitalization support programs are publicized online, with the selection of beneficiaries also being conducted through virtual channels. Almost all of the identified programs use online channels, including government websites and social media, to reach potential beneficiaries (see Figure 3.15). Similarly, website forms and email are the predominant means by which enterprises can apply for support, with only a few programs accepting in person or mail applications (see Figure 3.16). The use of online channels appears sensible, given that 85 percent of firms in Malaysia had access to the internet in 2019 (DOSM 2021). However, internet usage remains much lower amongst businesses in certain sectors (for example, only 72 percent in agriculture) and states (only 60 percent in Sabah and Sarawak). This suggests that offline channels such as roadshows or advertising in media, which are used by about half of the programs, could still play an important role in reaching businesses most in need of support to enable them to use digital technologies. While most SMEs do not find it difficult to apply online, they often struggle to contact program administrators to obtain updates regarding the status of applications, with businesses often complaining about slow response times.⁵⁰ Reports also suggest that application procedures for some initiatives implemented in response to the pandemic have been overly burdensome and time-consuming for SMEs, with this sometimes discouraging them from applying.⁵¹

SMEs cite the complicated application processes, limited application support, prolonged grant disbursement timelines, and lack of transparency regarding applications as deterrents to applying to the support programs. Participants at the private sector stakeholder consultations organized during report preparation described the processes as “long, bureaucratic, and not user friendly.” For SMEs unfamiliar with grant application processes, the process appeared to be “daunting,” particularly when taken together with the slow responses to enquiries. The quality of communications between agencies and applicants was perceived to be weak. SMEs also faced issues related to identifying the programs appropriate for their needs given the large number of programs available. Another issue raised was the prolonged grant disbursement timeline (averaging 9-12 months) from applying to receiving the funds, particularly following the introduction of the pandemic support program implemented under PENJANA.⁵² SMEs also stated that financing support was provided only

50 Source: Stakeholder consultations conducted.

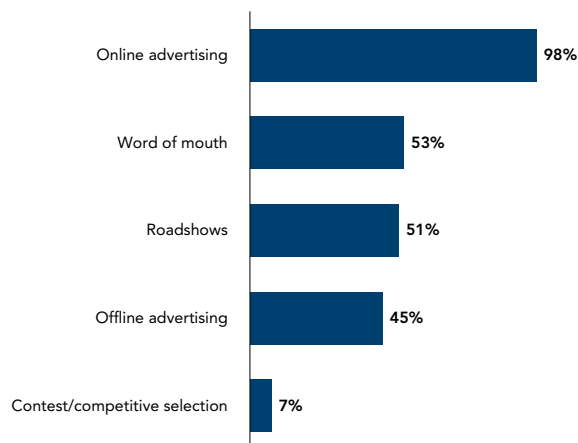
51 Source: “Industry 4.0: SME digitalization: Are government initiatives really effective?” (The Edge Markets, 22 February 2021).

52 To address the impact of the COVID-19 pandemic, the government of Malaysia issued several short-term recovery plans including PENJANA in June 2020. PENJANA focused on accelerating the growth of the digital economy and digitalization of SMEs and MSMEs through grants and loans. Of the RM700 million allocated for the digitalization, MDEC said the Government assisted by incentivizing SMEs and mid-tier companies to digitalize their operations and trade channels while continuing to provide grants and loans under the RM100 million SME Digitalization Matching Grant, RM500 million SME Technology Transformation Fund and RM100 million Smart Automation Grant initiatives. Source: “MDEC welcomes Penjana’s emphasis on growing digital economy” (New Straits Times, 12 June 2020).

after they had incurred significant expenses, which, combined with the long approval processes, created cash flow issues for the applying SMEs.

Figure 3.15: Program outreach strategies

Share of programs

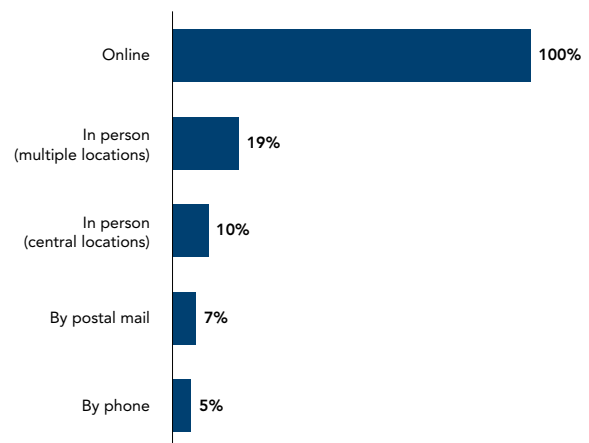


N=55

Source: World Bank, SME digitalization support survey

Figure 3.16: Application channels for firms

Share of programs



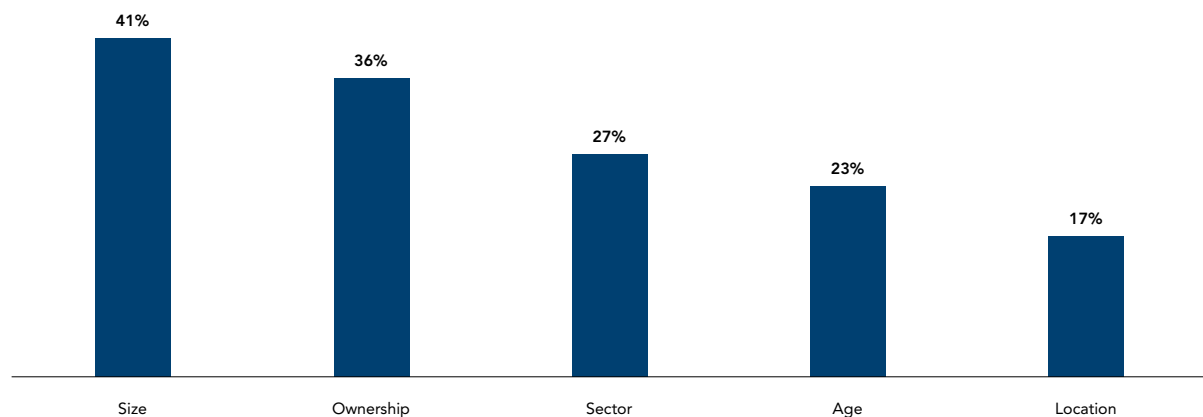
N=59

Source: World Bank, SME digitalization support survey

There is a great degree of variation in the eligibility criteria applied by different programs. By frequency, the most common criteria relate to enterprise size (e.g., micro-enterprises or SMEs), ownership (e.g., at least 50 percent Malaysian-owned), sector (e.g., manufacturing, retail), age (e.g., business with minimum two years in operations),⁵³ location (e.g., particular State, rural area) or specific target groups (e.g., Bumiputera, youth of women-owned business) (see Figure 3.17). While some programs are open to informal businesses, others require applicants to be formalized (e.g., SSM registration, manufacturing license).

Figure 3.17: Eligibility criteria⁵⁴

Share of programs



N=101

Source: World Bank, SME digitalization support survey

⁵³ In some cases, the age criteria refer to the age of the entrepreneur (e.g., above 18 or below 35 years old), not of the firm.

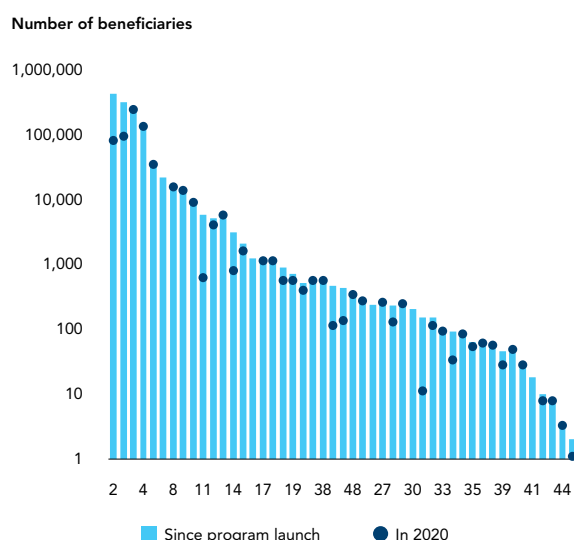
⁵⁴ In some cases, age criteria might be for digital training programs targeted to individuals.

Beneficiaries

Current programs vary widely in terms of the number of beneficiaries they target and reach. The number of enterprises supported through the identified programs ranges from just a few for some specialized programs providing substantial support to each beneficiary (e.g., MARIi, Cradle, MIDF) to hundreds of thousands for broader programs (e.g., MDEC's e-Usahawan program to train micro-digital entrepreneurs, launched in 2016, and its recent e-commerce onboarding initiatives) (see Figure 3.18). In most cases, the majority of beneficiaries obtained support in 2020, the year when most programs were established. When asked how the number of beneficiaries compared to specific targets established for each program over its implementation period, most of the agencies responded they were on target (54 percent of responses) or above target (30 percent).⁵⁵ In any case, it is clear that the vast majority of programs only reach a very small fraction of the total number of SMEs in the country, which included both about 1.2 million formal businesses at the end of 2020⁵⁶ and a large informal sector that employed 1.3 million people in 2019 (DOSM 2020).

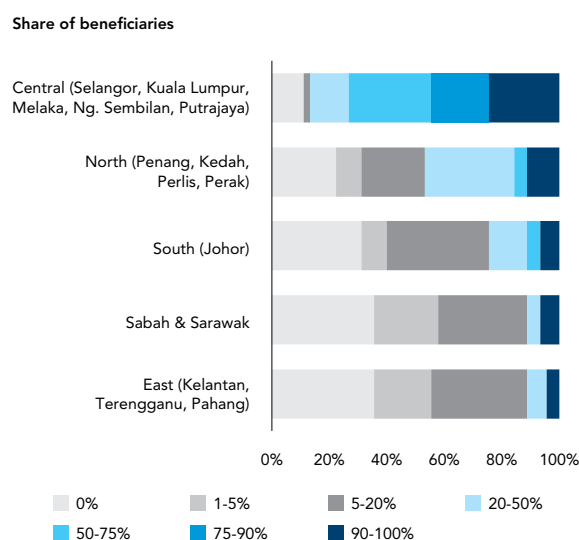
In terms of geographical distribution, the government's programs have benefited SMEs in some regions more than others. In the case of most programs, the majority of beneficiaries are located in the Central States and, to a lesser extent, the Northern States. While this partly reflects the distribution of SMEs in the country,⁵⁷ it appears that some states may have been underserved. While SMEs in Sabah, Sarawak, Kelantan, Terengganu and Pahang account for about a quarter of the total number in the country, they represent a disproportionately small share of the beneficiaries of the programs (see Figure 3.19).

Figure 3.18: Number of beneficiaries by program



N=47
Source: World Bank, SME digitalization support survey

Figure 3.19: Distribution of beneficiaries by State



N=45
Source: World Bank, SME digitalization support survey

⁵⁵ This question was answered for 37 programs.

⁵⁶ Source: <https://www.smecorp.gov.my/index.php/en/policies/2020-02-11-08-01-24/sme-statistics>

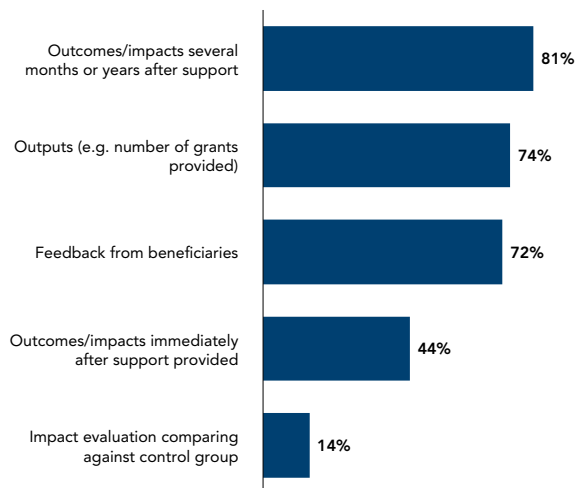
⁵⁷ According to the latest census figures, Selangor and Kuala Lumpur accounted for just over a third of SMEs in the country in 2015, and those in Perak, Penang and Kedah accounted for another fifth of the total (DOSM 2016).

Monitoring and evaluation

While many SME digitalization programs integrate monitoring and evaluation (M&E) systems into their management structure, the type of analysis conducted, and the use and publication of results could be improved. Based on responses to the survey, it was found that some form of M&E was conducted for about 70 percent of programs.⁵⁸ With these programs, respondents said that the assessment of results covered not only outputs (e.g., number of grants provided, or persons trained) or immediate effects, but also outcomes and impacts after the support was provided (see Figure 3.20). This suggests that program managers contacted beneficiaries after they had been provided with support, which is good practice. However, the results of the assessments are not publicly available, which limits the ability to evaluate the quality of the analysis performed. It should be noted that only a small number of programs appear to be subject to a rigorous impact evaluation, including a comparison of participants with a control group that does not receive support. While evaluations of this sort are expensive and complex to perform, they are the most effective means of identifying the causal impact of a program (or lack thereof). Rigorous impact evaluations should be considered at least in the case of major initiatives involving substantial public expenditures. Finally, according to survey respondents, M&E results are used to improve program design or implementation modalities only in a small proportion of cases (see Figure 3.21).

Figure 3.20: Main types of M&E carried out

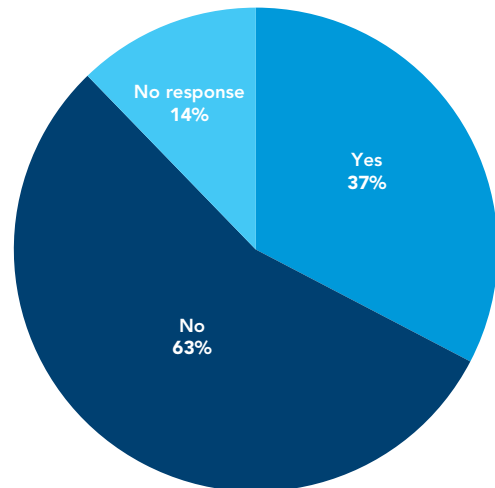
Share of programs conducting M&E



N=39

Source: World Bank, SME digitalization support survey

Figure 3.21: Share of programs modified as a result of M&E findings



N=43

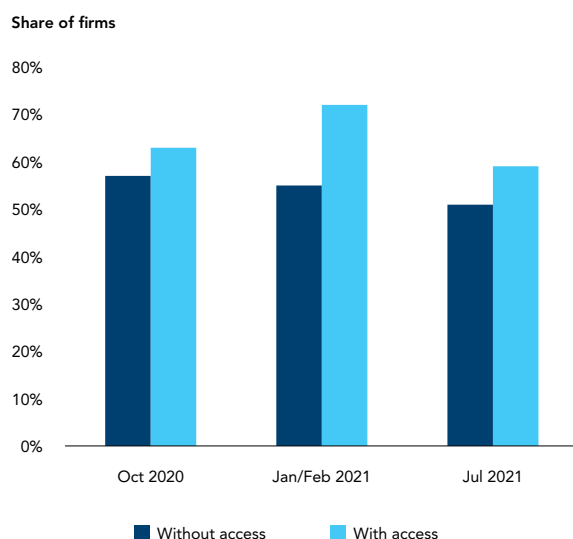
Source: World Bank, SME digitalization support survey

58 Based on 61 survey responses.

Impact

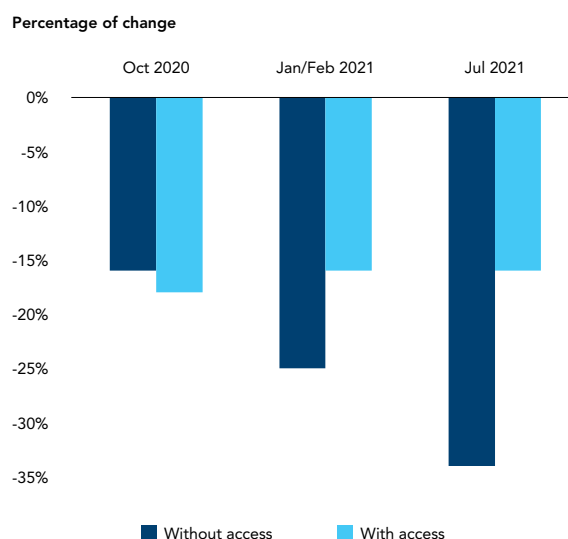
Despite the lack of data, there is some evidence to suggest that SME digitalization support programs can be effective. As previously stated, there is limited publicly-available evidence to determine the impact of such programs on beneficiaries. Likewise, the lack of data on budget allocation and expenditures for the different programs does not allow an assessment of the efficiency with which public funds are used. However, BPS data collected since the onset of the pandemic provide some indications regarding the extent to which SMEs that benefited from support programs during the pandemic have seen a positive impact compared to those that have not.⁵⁹ For instance, program participants seem to have been more likely to commence or increase their use of digital platforms (see Figure 3.22) and to have suffered less negative impacts on their sales (see Figure 3.23) than non-participants. Based on the findings from three rounds of the BPS, it has been consistently found that SMEs that participate in government digitalization support programs are more likely to increase their use of digital platforms. Of course, these findings do not necessarily indicate a causal relationship. It is possible that better managed businesses were both more likely to minimize sales loss and more likely to obtain public support. There is therefore a need for more data and in-depth analysis of impacts to determine whether current programs make a good use of public resources.

Figure 3.22: Digital platform use for firms with and without access to digitalization support



Source: World Bank, BPS

Figure 3.23: Sales performance of firms with and without access to digitalization support



Source: World Bank, BPS

⁵⁹ The BPS survey instrument included a question asking firms whether they had received different types of COVID-19 stimulus assistance, including "grants to help digitize business operations (SME Automation and Digitalization Facility, SME Digitalization Matching Grant, SME Technology Transformation Fund or Smart Automation Grant)".

Recommendations

There is an opportunity for the Government of Malaysia to further strengthen its institutional and policy framework to support MSME digitalization. While Malaysian businesses were increasingly turning to digital solutions even before COVID, the available evidence suggests there is still considerable scope to foster broader and deeper digital use through the provision of public support. In this regard, the government's sustained and long-term efforts to develop and implement a vision for the digital economy constitute a solid basis upon which to build. In some ways, the current state of the government's digitalization support programs is reminiscent of that of general SME development initiatives before the SME Masterplan (2012-2020) was introduced, when a large number of agencies implemented multiple programs, some of them overlapping and excessively small, without much oversight or evaluation of their effectiveness (World Bank 2022). While some issues remain, the SME Masterplan has facilitated the development of a more integrated, strategic and M&E-driven approach to guide program development.

The establishment of the MyDigital Corporation as the lead coordinating body for the 2021 MyDIGITAL Initiative is an opportunity for the government to strengthen the framework for SME digitalization. MyDigital Corporation is the lead coordinating body mandated to manage the implementation of MyDIGITAL Blueprint. As such, it is well positioned to develop and strengthen SME digitalization efforts, to raise awareness on its role across government institutions, to oversee programs to minimize overlaps between programs, and to monitor and evaluate program development and effectiveness.

Based on the findings presented in this chapter, the following recommendations could help the authorities enhance the effectiveness of public support for SME digitalization and the use of digital platforms:

- **Establish a strong integrated policy framework:** Under the National Digital Economy and 4IR policy strategy, the government is conducting initiatives to strengthen the institutional framework for the digitalization agenda, with a view to improving coordination between public agencies, including sub-national ones. Given the proliferation of initiatives since the onset of the pandemic, the need for improved coordination has become increasingly pressing. This improved coordination should result in more integrated policies to avoid issues such as "start/stop" support, with programs suddenly coming to a halt when they run out of allocated funds. This lack of continuity demotivates SMEs from pressing forward with the process of digitalization. Under the MyDigital Corporation governance structure, working groups consisting of stakeholders from federal and state agencies, the private sector, and academia are expected to collaborate to develop more integrated policies. It is also essential to foster public-private dialogue, with the active involvement of SME representatives and academia. The government should consider establishing more focused working groups to center on improving federal inter-agency coordination, federal-state and state-state coordination, and public-private sector coordination.
- **Strengthen program oversight mechanisms:** Linked with the previous point, the MyDigital Corporation and inter-agency coordination bodies could be tasked with conducting periodical reviews of the program landscape to identify duplications, synergies and gaps, and to assess their modalities, efficiency and impact. Based on a review of the evidence, it appears that there is a need to go beyond the current focus on online marketing and sales by providing greater support to interested SMEs to enable them to digitalize backend business functions and to conduct more complex business functions.

- **Develop and fully implement M&E frameworks:** As this chapter makes clear, there appears to be substantial scope to improve the implementation of M&E of SME digitalization programs, particularly by: (i) introducing M&E systems for the significant number of programs that still lack them; (ii) ensuring that M&E is adequate to identify programs' lasting impacts, particularly in the case of major, recurring initiatives; (iii) ensuring that M&E systems capture outcomes and impacts, rather than just output; and (iv) using the data produced through M&E processes to periodically revise program design and implementation modalities, and to scale up high-impact programs and to discontinue less effective ones. In addition, a system should be established to improve accountability by publishing data regarding the different programs' reach and impacts, as such information is currently largely unavailable.
- **Improve the provision of public information regarding available support by establishing an online one-stop center:** The authorities should strive to make it easier for interested MSMEs to identify appropriate sources of support to enable their digitalization. Under the MDE4IR framework, the MyDigital Corporation could establish an online database of all relevant support programs, with federal, state and local agencies required to enter detailed information regarding the programs they implement. This database could be leveraged to function as an online one-stop center, with SMEs able to search the database to identify programs that meet their needs. The government could enhance the functionality of the online one-stop center by integrating it with a questionnaire to capture SME details and to use the results to recommend programs suitable for their needs. This one-stop center could build on existing initiatives such as online platforms managed by SME Corp, MDEC, Halal Development Corporation and the MPC. It could also serve as a support resource, enabling SMEs to seek guidance related to the application process, to monitor the status of their applications, and to gain insights related to loan or program approvals or rejections to enable them to prepare for future applications. The one-stop center could also serve as a centralized information system for program M&E, with an aggregated dashboard to assist agencies involved in program evaluation and development.
- **Enhance application processes to facilitate greater access to public support programs:** The digitalization of government processes could facilitate more streamlined online application processes and fund distribution, thus improving the overall SME user experience. SMEs complain about current application processes, describing them as overly complex, long and opaque. They also state that government websites that facilitate online applications for digitalization programs are unstable and difficult to use. The authorities could also address lengthy application processing timelines by allocating sufficient human resources to address queries related to applications and by providing clear guidelines regarding program eligibility requirements to ensure that unqualified SMEs are not burdened with the transaction costs. In addition, SMEs could benefit from the provision of more hands-on support to navigate the application process. The deployment of a program manager or business facilitation unit to conduct relationship management could assist SMEs to complete the various application processes, thus improving access to the programs. In addition, measures to increase access to SME technology readiness tools could enable applicants to assess the level of digitalization required and to identify the tools most relevant to enable them to digitalize.
- **Develop human capital support through digitalization training:** The evidence suggests that there is scope to improve the accessibility and relevance of public support to develop the workforce skills necessary for SME digitalization (Social Economic Research Initiative 2021). The government could work with local universities to enable them to integrate curriculum on digitalization skills into their syllabi. For example, students studying accounting, finance, or human resources could also be trained to use ERP systems related to their areas of study. To address the shortages of digital skills, a key step is to retrain

the existing workforce by reinforcing digital skills training for adults. This includes giving more weight to a skill-based certification in the hiring and rewards system, regularly updating in-demand digital skills and ensuring training remains accessible and affordable (Dondi.M et. al, 2021).

- **Build Public-Private Partnerships to support digitalization:** The government could collaborate with the private sector to bridge gaps related to the provision of training and implement solutions. For private sector operators to fulfill this role effectively, the government would need to provide them with greater assistance to build digital solutions without passing the cost to SMEs. Private sector operators could partner with the government and leverage public funding to bring solutions to the market. Under the Malaysian Communications Multimedia Commission (MCMC), 600 Internet Centers (PEDis) have been transformed to serve as platforms to facilitate digitalization and to encourage the uptake of e-commerce activities through collaborations with various government agencies and private entities. The expansion of public-private partnerships could build upon MyDigital Corporation's governance structure and further improve communications between agencies and the private sector.
- **Customize support to create solutions appropriate to local conditions:** The evidence presented in this chapter suggests that current programs may underserve SMEs in the Eastern States, Sabah and Sarawak. The modalities of cooperation between federal, state and local agencies could be reviewed to ensure that programs meet the specific needs of SMEs in these areas by addressing constraints such as limited connectivity and lack of familiarity with digital tools. This could be achieved by leveraging the new State Digital Economic and 4IR Policy Council, which was established in November 2021.

CHAPTER 4

SME Digitalization in Malaysia: Regulatory Policy Analysis



Key Takeaways

This regulatory assessment is based on a comprehensive review of Malaysia's legislation, regulation and policies conducted between March and December 2021. Its findings were validated and discussed through a number of stakeholder interviews and consultations in March 2022.

The analysis helped identify areas of reform that may benefit SMEs and enable them to be more active participants in the digital economy. In particular, adequate safeguards in the regulatory landscape in Malaysia are lacking and in many cases, this can affect SMEs in a disproportionate way. Smaller businesses may be less likely to take precautions to safeguard against cybersecurity threats and personal data protection breaches, mostly attributed to the additional costs entailed, or a lack of knowledge or access to these tools. Moreover, SMEs could be the most affected if safeguarding measures are not enhanced significantly impacting business continuity due to decreased consumer trust. Any amendments to relevant legislation should be done with the consideration of the ease of SME compliance in terms of processes, know-how and costs.

Given the challenges that SMEs may face in regulatory compliance, it is important for institutional support to be relevant in addressing these key needs, providing targeted assistance to facilitate greater participation of SMEs in the digital economy. In particular, institutional support could be geared towards programs that provide financing for cybersecurity and personal data protection tools, as well as training on how to leverage these tools to promote greater e-commerce activities.

From the regulatory analysis conducted, proposed policy recommendations strive to:

- Strengthen data protection governance and finalize key amendments to the Personal Data Protection Act 2010 (PDPA 2010).
- Facilitate greater ease and security of cross-border data transfers.
- Enhance cyber security requirements to protect businesses and their customers.
- Ensure consumer protection legislation is kept up to date with latest technological and market developments.
- Set up an Online Dispute Resolution (ODR) mechanism to efficiently adjudicate and resolve small claims and facilitate greater cross-country e-commerce activities.
- Enhance the competition frameworks to reflect new dynamics in the digital economy and to finalize amendments to the Competition Act 2010.
- Monitor the status of gig economy workers to ensure their adequate financial and legal security.
- Improve the Open Data framework, expand the range of data available and include the publication of enforcement outcomes data.

Enabling Regulations

Malaysia has provided an enabling framework for electronic transactions

Electronic transactions are a core component of the digital economy, providing an efficient alternative to traditional transactions. Electronic payments can generally be transacted much more quickly than traditional methods of payments, such as cash or cheques. With the necessary safeguards in place, electronic payment systems can also be more secure, with multiple solutions available to ensure the security of payments, including encryption. Thus, electronic payments may be a convenient alternative to traditional payment systems, with multiple benefits for both the customer and the business. In particular, electronic payments can reduce processing costs, with electronic payment service providers typically imposing lower costs than for card equivalents. They can also reduce costs associated with securing and processing physical cash.⁶⁰

The Malaysian government has established a legal framework to regulate e-transactions in the digital economy. The Digital Signature Act 1997 (DSA 1997), promulgated in 1998, regulates the use of digital signatures in Malaysia and provides a legal basis to ensure the security of electronic transactions. MCMC administers and enforces the provisions of the DSA 1997 in order to monitor and oversee the activities of accredited certification authorities (CAs). Following the DSA 1997, the government introduced the Electronic Commerce Act 2006 (ECA 2006), which provides a legal framework to enable commercial transactions through electronic means, including the recognition of the legal validity of electronic messages in commercial transactions. The ECA 2006 is broad and principles-based, designed to provide a framework to enable e-commerce. It was formulated with reference to the UNCITRAL Model Law of Electronic Commerce (1996).⁶¹ While ECA 2006 does not regulate the use of specific technologies, the MCMC releases guidelines to clarify the application of the legislation with respect to specific technologies, with these including the *Guidelines for Audit of Certification Authorities and Guidelines for Recognized Date/Time Stamp Service*.

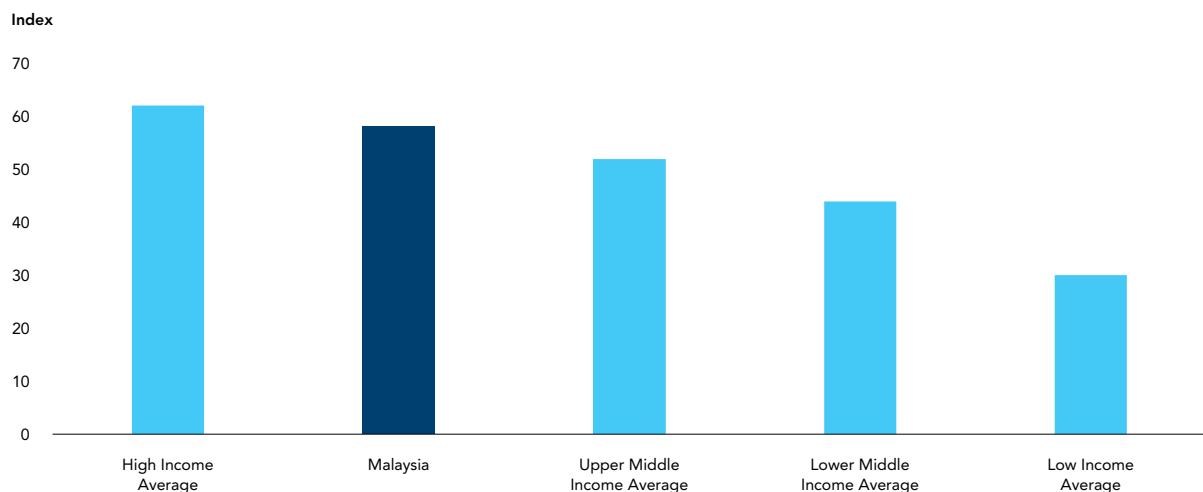


⁶⁰ Deloitte. 2013. The economic impact of online payments. <https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/about-deloitte/deloitte-uk-economic-impact-of-online-payments-tmt.pdf>

⁶¹ United Nations Commission On International Trade Law, UNCITRAL Model Law on Electronic Commerce (1996). https://uncitral.un.org/en/texts/ecommerce/modellaw/electronic_commerce/status

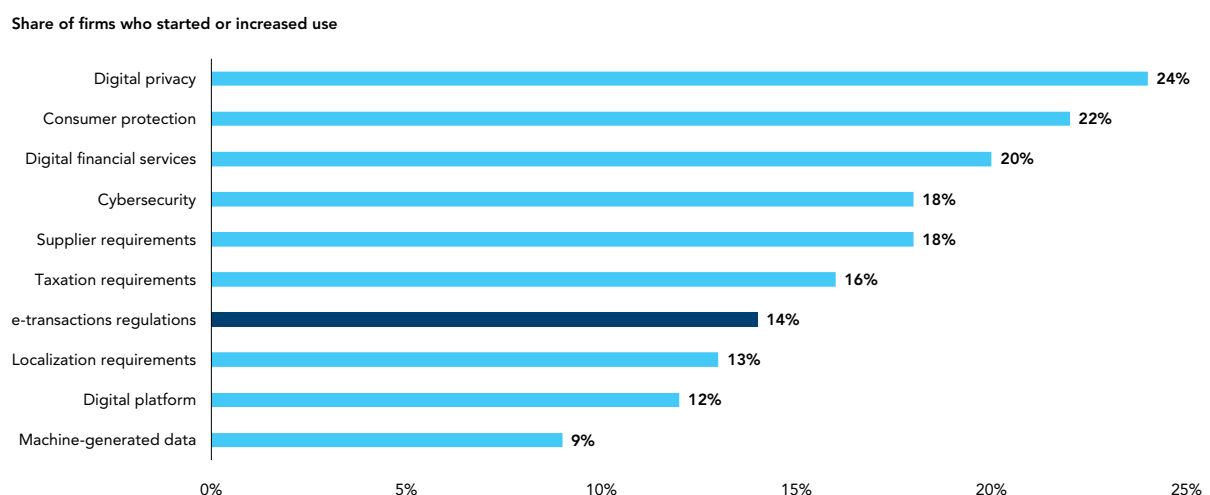
With its adaptable and permissive regulatory framework for e-transactions, Malaysia performs well in terms of indices related to its enabling regulatory environment. According to the recently compiled Global Data Regulation Index, Malaysia's enabling regulatory environment scores considerably better than the average for middle-income countries and close to the average level for high income countries. The assessment is based on a detailed questionnaire covering a range of aspects related to the regulatory environment, with scores reflecting the extent to which this environment effectively enables the digital economy. These scores are consolidated to enable cross-country comparisons of regulatory quality (see Figure 4.1). Malaysia's relatively high ranking in terms of this index reflects the perspectives of the business community, with the third round of the World Bank's Business Pulse Survey (BPS), conducted in July 2021, showing that respondents did not consider the regulatory environment as it pertains to e-transactions to be a significant constraint on the increased use of the internet or the adoption of digital technologies by Malaysia's SMEs (see Figure 4.2).

Figure 4.1: Quality of data regulation enablers



Source: World Bank, Mapping Data Governance Legal Frameworks Around the World (April 2021)

Figure 4.2: Regulatory barriers to increasing use of internet, social media and platforms



Source: World Bank, Business Pulse Survey (July 2021)

However, given that certain types of transactions and instruments still cannot be conducted electronically, the authorities could review these exclusions. The ECA 2006 specifically states that certain types of document cannot be signed electronically, including powers of attorney; wills and codicils; and those related to the establishment of trusts.⁶² The exclusions also apply to all documents requiring formal notarization, including instruments effecting any dealing with real property under the Malaysian National Land Code; statutory declarations (as defined under the Statutory Declarations Act 1960); bills of sale (Bills of Sale Act 1950); and moneylending agreements (as defined under the Money Lenders Act 1951). Given that the scope of these exclusions is relatively narrow, they are unlikely to significantly inhibit the uptake of e-transactions more widely. MCMC is currently conducting a review to determine whether and how the DSA 1997 and ECA 2006 could be better aligned to facilitate the greater use of electronic transactions. This review is slated for completion by the end of 2022 or the first quarter of 2023 at the latest. In the United States, the Uniform Law Commission, which provides states with model legislation for their adoption, has approved the Electronic Wills Act, which provides a framework for creating a will through electronic means. Based on this, several states now permit e-wills. In the United Kingdom, the Land Registry now accepts electronic signatures for legal documents pertaining to property.

The full implementation of Malaysia's National Digital ID (NDI) framework will also accelerate the adoption of an uptake of digital transactions. With the establishment of this framework, it will be possible to effectively verify an individual's identity online through the use of unique credentials. This secure and expedient identification system may play a positive role in building trust in online transactions and improving security safeguards, thereby boosting the adoption and uptake of digital transactions by consumers, businesses and the government. The authorities are currently conducting consultations to create awareness and to inform the public of the benefits of NDIs. The full implementation of the NDI framework is targeted for 2025. The initiative is being driven by the Ministry of Home Affairs, given that the NDI is intended to complement the MyKad identification card as a means of establishing proof of identity and citizenship. Although in theory the implementation of the NDI framework should reduce fraudulent transactions, it is also of utmost importance to ensure that sufficient safeguards are in place to control and minimize cybersecurity risks related to the leakage or misuse of NDI data.

Safeguarding Regulations

With the emergence of new technologies and markets creating new security risks, there is also a need for safeguards specifically intended to mitigate these risks. To encourage broad-based participation and to develop new markets, it is essential to ensure that consumers can engage in the digital economy safely. Ultimately, users are less likely to adopt digital products and services if they do not trust and have confidence in the system. While it is inherently difficult to quantify the importance of trust, research commissioned by the Open Data Institute (ODI) and conducted by Frontier Economics found that on average, a 1-point increase on a 5-point trust scale leads to a 0.27-point increase on a 5-point data sharing scale. The research concludes that improved data sharing could help to generate social and economic benefits to a value of between 0.1 to 1.5 percent of GDP in the case of public-sector data, and of between 1 to 2.5 percent of GDP when public-sector and private-sector data are combined.⁶³ In order to safeguard participants in the digital economy and to build trust amongst consumers, governments must ensure that the appropriate regulations are in place to guarantee personal data protection, cyber security and consumer protection.

⁶² First Schedule, Electronic Commerce Act 2006.

⁶³ Frontier Economics, 2021. Economic Impact of Trust in Data Systems. Report prepared for the Open Data Institute (ODI). <https://theodi.org/article/the-economic-impact-of-trust-in-data-ecosystems-frontier-economics-for-the-odi-report/>

Malaysia's legal framework for personal data protection could be strengthened to build consumers' confidence in the digital economy

With the promulgation of the Personal Data Protection Act 2010 (PDPA 2010), Malaysia has established a legal framework to regulate personal data protection. This act provides a legal framework to ensure personal data protection, mandating the appointment of a Personal Data Protection Commissioner to ensure that it fulfils this purpose effectively. The PDPA 2010 outlines seven principles according to which the collection, use and protection of personal data is to be governed (see Box 4.1). The development of this data protection legislation was informed by the practices and experiences of a number of other countries, particularly those in Commonwealth jurisdictions.

BOX 4.1

PDPA 2010 Principles

General Principle: Prohibits a data user from processing an individual's personal data without their consent.

Notice and Choice Principle: Requires a data user to provide the data subject with notice that their data is being processed and information related to that processing.

Disclosure Principle: Prohibits the disclosure, without the individual's consent, of personal data for any purpose other than that for which the data was disclosed at the time of collection, or a purpose directly related to it; and to any party other than a third party of the class notified to the data user.

Security Principle: Imposes obligations on the data user to take steps to protect the personal data during its processing from any loss, misuse, modification, unauthorised or accidental access or disclosure, alteration or destruction.

Retention Principle: Requires that personal data is not retained longer than is necessary for the fulfilment of the purpose for which it is processed.

Data Integrity Principle: Requires the data user to take reasonable steps to ensure that the personal data is accurate, complete, not misleading and kept-up to date, having regard to the purpose (and any directly related purpose) for which it was collected and processed.

Access Principle: Gives the individual the right to access and correct his/her own data where it is inaccurate, incomplete, misleading or outdated. The PDPA provides grounds on which the data user may refuse to comply with a data access or data correction request by the individual.

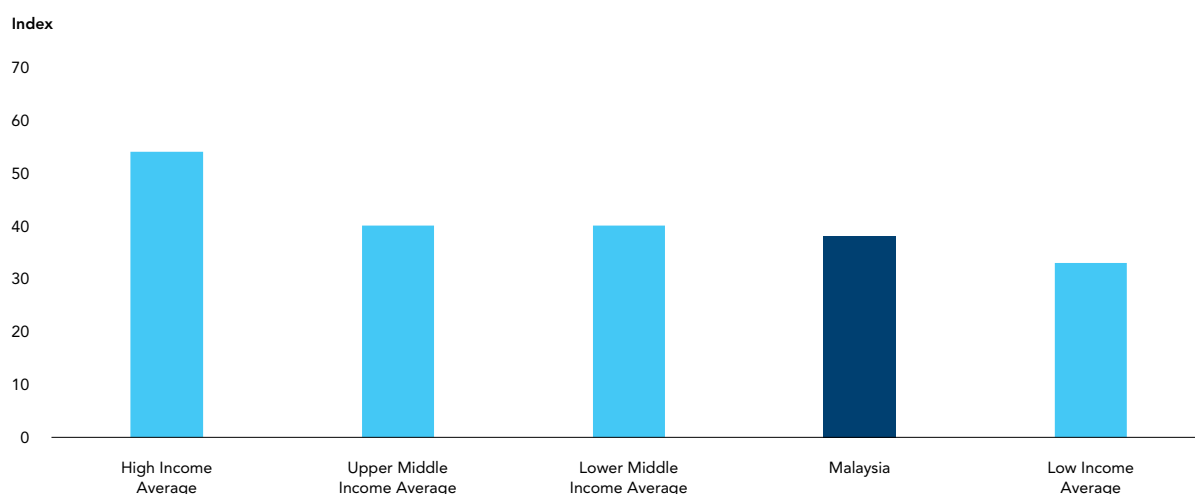
Source: PDPA 2010, Taylor Wessing (2014)⁶⁴

64 J. Chia, Data Protection in Malaysia, Taylor Wessing Global Data Hub, May 2014. <https://globaldatahub.taylorwessing.com/article/data-protection-in-malaysia>

The PDPA establishes a broad, principles-based framework for personal data protection that can be further developed through the promulgation of sector-specific codes of practice. Section 21 of the PDPA 2010 provides for the establishment of data user forums to develop further guidance on the implementation of the PDPA 2010 within specific industries. So far, data user forums have been established for the communications, banking and finance, insurance, hospitality, transport, direct sales, professional services, and utility sectors, with codes of practice for these sectors finalized in 2017.⁶⁵

Although the PDPA 2010 and associated guidelines provides a strong foundation for personal data protection, Malaysia performs relatively poorly in terms of indices related to safeguarding regulations. Together with measures related to cyber security and consumer protection, data protection forms a core component of safeguarding regulations. These measures are intended to mitigate the risks associated with the emergence of the new technologies associated with the digital economy. The recently created Global Data Regulation Diagnostic is intended to enable a comprehensive assessment of the quality of the data governance environment. According to this diagnostic, Malaysia's current level of safeguarding regulations is lower than the average for middle income countries (see Figure 4.3).

Figure 4.3: Quality of data regulation safeguards



Source: World Bank, Mapping Data Governance Legal Frameworks Around the World (April 2021)

Compared to standards in high income countries, Malaysia's standards for requirements for consent could be improved. The concept of consumer consent is central to modern data protection frameworks. Although the PDPA 2010 does include a General Principle that mandates that data subjects must provide consent (see Box 4.1), what constitutes adequate consent is not explicitly defined. The Personal Data Protection Regulations stipulate that consent must be "recorded" and "maintained" which suggests that express consent is required. However, legal analysts have argued that it is possible to interpret the regulations as stating that implied consent is sufficient, provided that the individual has been made fully aware of the purposes of the processing of their personal data and that the data user is able to demonstrate that the individual has consented.⁶⁶ As such, the requirement for consent seems to be less stringent than in more developed regulatory regimes, such

⁶⁵ The Code of Practice for the Banking and Financial Sector 2017; the Personal Data Protection Code of Practice for the Utilities Sector (Electricity) 2017; the Code of Practice on Personal Data Protection for the insurance and Takaful Industries in Malaysia 2017; and the Personal Data Protection Code of Practice for the Communications Class Data Users 2017

⁶⁶ Analysis from J. Chia, Data Protection in Malaysia, Taylor Wessing Global Data Hub, May 2014. <https://globaldatahub.taylorwessing.com/article/data-protection-in-malaysia>

as the GDPR in the EU and the Organization for Economic Cooperation and Development (OECD) Privacy Framework. The Asia-Pacific Economic Cooperation (APEC) Cross-Border Privacy Rules (CBPR) may be seen as less stringent, but this may also be considered as an attractive middle ground for encouraging smaller firms to comply with regulatory requirements. The CBPR may present a more palatable set of compliance requirements for smaller firms and hence a lower regulatory cost burden, which could in turn promote more compliance. Moreover, compared to the GDPR, the CBPR presents a regional framework that is mutually agreed between members, yet also attempts to uphold existing data privacy regulations of the respective domestic jurisdictions. Thus, these two approaches emphasize a balance that regulatory authorities must weigh between stringency and control, versus cost and ease of compliance. This remains a challenge in many jurisdictions, especially in instances of cross-border transactions.

Under the PDPA 2010, data subjects do not have a guaranteed right to transfer their data between providers. The right to transfer data (data portability) enables users to transfer data from one online service to another service, potentially reducing the cost of switching between different service providers and thus mitigating the risk that consumers may be locked in with their current providers. In turn, this could foster increased competition between providers, with incumbents losing the advantages associated with higher switching costs. This increased competition could incentivize innovation and improved service delivery, to the benefit of consumers.⁶⁷ However, the PDPA 2010 does not currently guarantee this right, reducing the scope for Malaysian consumers to switch between available services.

Under the PDPA 2010, data subjects in Malaysia do not have a guaranteed right to delete their data. Section 34 of the PDPA provides for the right of the data subject to correct personal data. However, data subjects do not have a guaranteed right to insist that their data be deleted. While under Section 38 of the PDPA the data subject has the right to withdraw consent for the data to be processed, this does not stipulate that the data must be deleted.

The PDPA 2010's definition of 'sensitive data' does not include a number of characteristics that are protected elsewhere. While Section 40 of the PDPA stipulates additional requirements for the processing of sensitive personal data, its definition of what this entails does not include a number of characteristics that may well be considered sensitive. For example, while it specifically includes religious belief, it makes no specific mention of race.

Overall, lower levels of personal data protection may undermine consumer confidence in the digital economy. Research undertaken on the impact of GDPR identified the premium that consumers place on a high standard of data rights. London Economics (2017) found that individuals are willing to forego savings of roughly 5 to 10 percent of weekly spending in order to have rights related to digital security enshrined in the GDPR.⁶⁸ A 2019 international survey conducted by Microsoft and IDC Asia/Pacific, showed that only 24 percent of Malaysian consumers trust the organizations offering digital services to manage their personal data securely and appropriately, compared to an average of 31 percent in the Asia Pacific region as a whole.⁶⁹ Low levels of trust may suppress demand for digital services and reduce the economic opportunities for SMEs presented by the digital economy.

67 Wohlfarth, Michael, 2017. "Data Portability on the Internet: An Economic Analysis," 28th European Regional ITS Conference, Passau 2017 169506, International Telecommunications Society (ITS). <https://ideas.repec.org/p/zbw/itse17/169506.html>

68 London Economics, Research and analysis to quantify the benefits arising from personal data rights under the GDPR: Report to the Department for Culture, Media & Sport, April 2017. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/635701/PersonalDataRights_LE_-_for_Data_Protection_Bill__1_.pdf

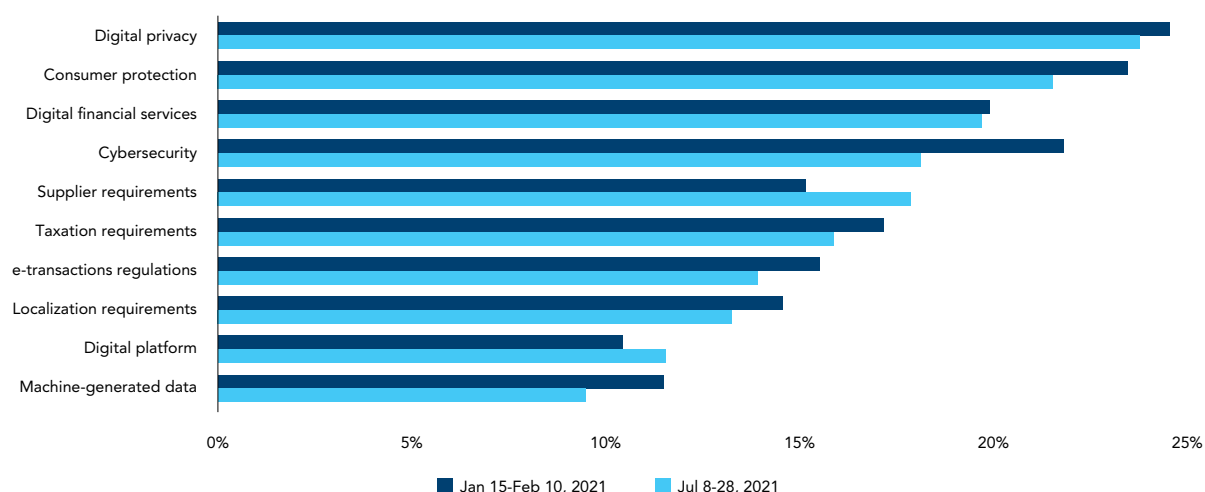
69 Microsoft, "Microsoft – IDC Study: Only 31% of consumers in Asia Pacific trust organizations offering digital services to protect their personal data". April 2019. <https://news.microsoft.com/apac/2019/04/16/microsoft-idc-study-only-31-of-consumers-in-asia-pacific-trust-organizations-offering-digital-services-to-protect-their-personal-data/>

Higher standards of protection need to be balanced against regulatory burdens

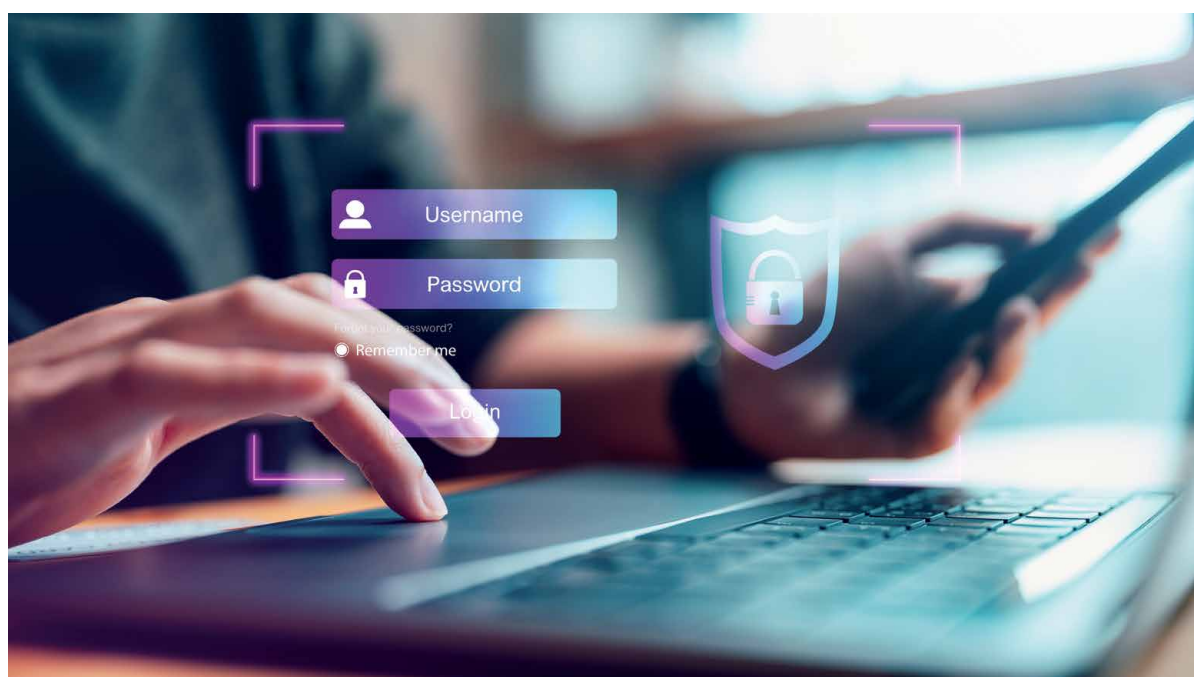
In Malaysia, SMEs state that regulatory issues related to safeguards for data protection and other matters are the most significant regulatory constraint on that increased use of the internet. According to the World Bank's Business Pulse Survey (BPS), the quality of regulations pertaining to digital privacy was considered to be the most significant barrier to increasing use of the internet among Malaysia's SMEs (see Figure 4.4).

Figure 4.4: Regulatory barriers to increasing use of internet, social media and platforms

Share among firms who started or increased use



Source: Kuriakose et. al (2021)



Lack of clarity on cross border data transfers could inhibit growth of the digital economy

The PDPA 2010 provides a legal framework for cross-border data transfers, which are a key enabler of the international digital economy. Specifically, Section 129 of the PDPA 2010 restricts the transfer of data to any place outside of Malaysia that does not have laws in place that are substantively similar to the provisions of the PDPA 2010.

More definitive ex-ante requirements regarding cross-border data transfers are needed. In practice, Malaysian citizens' personal data can be transferred to any jurisdiction with the consent of the data subject, including to jurisdictions that do not have adequate safeguards in place to handle personal data. That said, the adequacy test is not enforced which could lessen the effectiveness of this regulatory requirement and potentially put Malaysian citizens' personal data at risk. The Data Protection Agency (DPA) has conducted consultations regarding the introduction of a whitelist of countries determined to have adequate data protection regimes in place. However, the list has not been finalized, partly due to conflicting priorities related to enhancing trading relationships with other countries.⁷⁰ The DPA is also considering the introduction of a blacklist of jurisdictions to which personal data cannot be transferred, as a less restrictive alternative to the previously proposed whitelist. However, this approach may inadvertently cause frictions with the excluded jurisdictions due to its exclusive nature. Other approaches that could be considered in the revision of the PDPA 2010, would put the onus on private sector businesses with the requirements of standard contract clauses or binding corporate rules to adhere to when data crosses borders.

The safeguards established under multilateral digital trade treaties may facilitate greater cross-border data flows. Alternatively, a multilateral approach established through digital trade treaties and agreements that set safeguards to regulate the free flow of data across borders and that eliminate data localization requirements may be more effective as a means to facilitate increased digital trade activities. Under Singapore's Digital Economy Agreements (DEAs), these facilitative conditions are established with other signatories under the Cross-Border Data Flows module. In this particular area, to facilitate these flows, it would be necessary to enhance the interoperability of standards and systems between countries. Thus, enhanced regional and international collaboration on these issues should be encouraged, together with the adoption of international standards. This could be achieved through means including the greater leveraging of regional initiatives such as the Cross-Border Privacy Rules (CBPR) system of the Asia-Pacific Economic Cooperation (APEC).

In addition to multilateral agreements to facilitate data flows, the adequacy of personal data protection policies in member countries plays an equally important role. In addition to the standardization of the conditions and safeguards required to transfer data across borders, the treatment of personal data protection amongst countries is also significant. Under Singapore's DEAs, this is another key module included in all agreements. In this respect, Singapore works with the other signatories to develop mechanisms that facilitate the recognition of their respective legal approaches to data privacy. In particular, the Data Protection Trustmark (DPTM) for organizations aims to expedite the mutual recognition of certification frameworks. To hold a DPTM, an organization must demonstrate that it has applied stringent data protection practices, thus providing a safeguard to facilitate more fluid cross-border data flows.

70 Interview with Personal Data Protection Agency.

The institutional arrangement for the enforcement of data protection could be reviewed

In practice, the Data Protection Commissioner wears multiple hats, serving as the Director General of the Data Protection Agency, which is not legally separate from the government. In contrast to other statutory commissioners (such as the Malaysian Communication and Multimedia Commission, the Energy Commission, and the Malaysian Aviation Commission), the PDPA 2010 does not provide for the establishment of a statutory commission that is legally distinct from the government, with separate staff and funding. Instead, the Personal Data Protection Agency (*Jabatan Perlindungan Data Peribadi* - JPDP) is an agency under the Ministry of Communications and Multimedia. The de facto practice is that the Data Protection Commissioner wears double hats, simultaneously serving as the Director General of the PDPA. The Data Protection Commissioner and the PDPA also rely on core government funding. While the PDPA 2010 establishes the Personal Data Protection Fund, managed by the Commissioner (Section 61), in practice this is insufficient for the operation of the agency, which receives core funding from the government.

The optimal institutional arrangement to enforce personal data protection legislation is important to ensure enforcement adequacy. In Malaysia's current institutional arrangement, there are benefits to having the Personal Data Protection Agency and the Data Protection Commissioner placed under a federal Ministry as this promotes coordination of activities pertaining to personal data protection which could render enforcement actions more effective. Another advantage comes from a budgetary standpoint of not having a separate entity to fund and manage, promoting efficiency in operations and expenditure. The contrary structure to the current model would place emphasis on an independent Data Protection Commissioner in a separate statutory body, reducing potential instances of a conflict of interest. That said, the current lack of information pertaining to enforcement outcomes makes it difficult to determine which structure would be the most optimal in the Malaysia context, and future work could be conducted in this area.

The PDPA 2010 is currently under review, with MCMC having circulated a public consultation paper in 2020 to address some of the key gaps in this section. Following this consultation, the Data Protection Commissioner identified several areas for amendments to take place including (i) obligations on data processors to protect personal data, (ii) rights to data portability, (iii) the requirement for the appointment of a data protection officer within organizations, (iv) the requirement for it to be mandatory for organizations to notify the relevant authorities and customers of a data breach event, (v) the establishment of a 'do-not-call' registry, as well as (vi) civil remedies for data subjects that have been affected by these data breaches. The amended bill is expected to be tabled in Parliament in 2022 and will be a much-needed piece of updated legislation given the gaps that Malaysia's PDPA 2010 currently has, especially in the area of legal recourse and specific and enforceable obligations on the part of data processors. Another key area that has been identified as one for further reform is the extension of the applicability of the PDPA 2010 to State and Federal governments which are currently excluded. Given the vast amount of personal information that these bodies would have collected on citizens, the overall personal data protection ecosystem would be greatly enhanced with this inclusion.

Cyber Security Requirements for Business Could Be Improved

To safeguard the digital economy, the appropriate cyber security arrangements are vital. As the value of the digital economy grows, so do potential threats. Given the size of its digital economy, the economic cost of cybercrime in Malaysia is significant. A study by Microsoft and Frost and Sullivan revealed that the potential economic loss in Malaysia resulting from cyber security incidents could reach US\$ 12.2 billion, or more than 4 percent of Malaysia's total GDP.⁷¹ According to Polis Diraja Malaysia (PDRM), incidents of cybercrime in Malaysia are increasing, amounting to a total value of RM 2.23 billion during the period from 2007 to mid-2021. Of the 67,552 cases reported during the period, 23,011 of these (34 percent) involved e-commerce scams. According to MyCERT incident statistics, 5,697 incidents of cyber fraud were reported during the period from January to August 2020, compared to 4,671 incidents over the same period in 2019, an increase of 22 per cent.⁷² To note, PDPA 2010 currently does not require businesses to report incidents of data breaches to authorities or customers, and hence, the statistics reported by MyCERT could be under-stated.⁷³

Cybercrime is a major risk to SMEs engaging in the digital economy. The threat of cybercrime is a disincentive for consumers to engage in the digital economy, which can suppress demand for goods and services provided online. Moreover, businesses themselves are also directly targeted by cybercriminals, with SMEs facing a disproportionately high risk. A survey conducted by Chubb found that 84 percent of SMEs in Malaysia were victims of cybercrimes in 2019. Despite this, there remains a misconception that larger enterprises are at greater risk, with 67 percent of surveyed SMEs stating that they believed that large corporations were more at risk than SMEs.⁷⁴



71 Microsoft Malaysia, "Cybersecurity threats to cost organizations in Malaysia US\$12.2 billion in economic losses". July 12, 2018. <https://news.microsoft.com/en-my/2018/07/12/cybersecurity-threats-to-cost-organizations-in-malaysia-us12-2-billion-in-economic-losses/>

72 MyCERT. 2020. Incident Statistics. <https://www.mycert.org.my/portal/statistics-content?menu=b75e037d-6ee3-4d11-8169-66677d694932&id=4997a4a8-b05d-47d4-8e51-3c5b063a67fd>

73 Kandiah, S, "The Privacy, Data Protection and Cybersecurity Law Review: Malaysia". November 16, 2021. <https://thelawreviews.co.uk/title/the-privacy-data-protection-and-cybersecurity-law-review/malaysia>

74 The Edge, "84% of Malaysia SMEs affected by cyber incidents in past year – Chubb". October 16, 2019. <https://www.theedgemarkets.com/article/84-malaysia-smes-affected-cyber-incidents-past-year-%E2%80%94-chubb>

Malaysia's legal framework for cyber security is established by a number of different Acts. Adequate cyber security provisions are necessary to ensure that both consumers and businesses are protected from potential cybercrimes. In Malaysia, while there is no dedicated cyber security law, a number of acts contain provisions related to cyber security, including most notably the Computer Crimes Act 1997 (CCA 1997) and the Communications and Multimedia Act 1998 (CMA 1998). For example, Section 3 of the CCA 1997 criminalizes unauthorized access to any computer data.

Legislation pertaining to cybercrimes is supported by broader policies related to cyber security. While the National Cyber Security Policy (NCSP), formulated by the Ministry of Science, Technology and Innovation (MoSTI), has not been established through legislation, it seeks to address risks to the Critical National Information Infrastructure (CNII), which consists of the networked information systems of ten critical sectors. CyberSecurity Malaysia, the specialist national cyber security agency under the Ministry of Communications and Multimedia Malaysia (KKMM), provides innovative services, including vulnerability assessment and penetration testing (VAPT) and secure software development lifecycle (SSDLC) services. It also conducts programs to enhance cybersecurity capabilities and advocates for greater awareness of cyber security issues within private sector and amongst the public. The Malaysia Computer Emergency Response Team (MyCERT), which operates within CyberSecurity Malaysia, was established to provide incident response. With the involvement of these agencies, the authorities should consider whether responses to cyber security incidents could be better coordinated through a singular body or commission.

Within the financial services sector, specific sectoral cyber security policies are well advanced. Bank Negara Malaysia published guidance on Risk Management in Technology (RMiT) and on Electronic Know-Your-Customer (e-KYC) (e-KYC policy document) on 19 June 2020 and 30 June 2020 respectively. The RMiT policy document defines the responsibilities of the board and senior management of financial institutions in a number of areas, including their requirements to conduct due diligence on third-party service providers, to implement risk assessments for cloud services, and to provide training on cyber security issues. The e-KYC policy focuses on the minimum requirements for financial institutions for the identification and verification of individuals when implementing e-KYC. The Securities Commission Malaysia has also issued guidelines on the management of cyber risk, which identifies the roles and responsibilities of the board of directors and management of capital market entities in the oversight and management of cyber risk policies and procedures.⁷⁵

Cyber security provisions have also been developed for the public sector. The Cyber Security Framework for the Public Sector (RAKKSA) provides a high-level cyber security framework for all ministries and agencies in the Malaysian public sector, with requirements for all public entities to plan and implement the necessary protection measures for their respective digital infrastructure. There are also plans to introduce additional cyber security provisions for entities at the local government level.

Malaysia's cyber security provisions could be strengthened to better protect businesses and their consumers. As shown in Table 4.1, certain aspects of Malaysia's cyber security provisions could be enhanced. These aspects often overlap with personal data protection, given that cyber criminals often target this data. Therefore, the strengthening of personal data protections and cyber security provisions are mutually reinforcing. The need for these safeguards has also become increasingly important due to increased reliance on cloud storage and the Internet of Things (IoT). Thus, policies pertaining to data protection must also adequately cover the risks inherent in this form of data storage. Priority areas for consideration could include

⁷⁵ SK Chambers, 2020. In a nutshell: data protection, privacy and cybersecurity in Malaysia. <https://www.lexology.com/library/detail.aspx?g=0ed8e41e-3d2d-4d02-a30e-be6d41720ce2>

Table 4.1: Assessment of Malaysia's Cyber Security framework

| Security Provision | In Malaysia | Comment |
|--|-------------|--|
| Personal data must be stored and processed securely, protected against unauthorized or unlawful processing and accidental loss, destruction or damage | Yes | Under the Personal Data Protection Standards 2015 (Section 4) data users must "take practical steps to protect the personal data from any loss, misuse, modifications, unauthorized or accidental access or disclosure, alteration or destruction." |
| The encryption of personal data | No | There is a National Cryptography policy which encourages the encryption of personal data, but it is not a legislative requirement. |
| The pseudonymization/ anonymization of personal data | No | No legislative requirement |
| The confidentiality of data and systems that use or generate personal data | Yes | Under the Personal Data Protection Standards 2015 (Section 4) data users must "take practical steps to protect the personal data from any loss, misuse, modifications, unauthorized or accidental access or disclosure, alteration or destruction." This includes ensuring "that all employees involved in processing personal data always protect the confidentiality of the data subject's personal data." |
| The integrity of data and systems that use or generate personal data | Yes | Under the Personal Data Protection Standards 2015 (Section 7) data users must establish a data integrity standard. |
| The availability of data and systems that use or generate personal data | Yes | The Security Standard under Personal Data Protection Standards 2015 includes the requirement to maintain records which can be made available to the Commissioner. |
| The resilience of data and systems that use or generate personal data | No | The term "resilience" is not specifically used in the Personal Data Protection Standards 2015. |
| The ability to restore data and systems that use or generate personal data after a physical or technical incident | No | There is no reference to restoring data in the Personal Data Protection Standards 2015 |
| Ongoing tests, assessments and evaluation of security of systems that use or generate personal data | No | There is no reference to ongoing evaluation in the Personal Data Protection Standards 2015 |
| Adoption of other standards designed to protect from cybercrime or ensure cyber security (please specify the standards or specific requirements) | Yes | Under the Personal Data Protection Standards 2015 (Section 4) data users must "take practical steps to protect the personal data from any loss, misuse, modifications, unauthorized or accidental access or disclosure, alteration or destruction" |
| Requirements for "privacy-by design" | No | No regulatory requirement |
| Requirement to appoint Data Protection Officers | No | No regulatory requirement |

Source: Authors' analysis of legislation and policies



measures to mandate the encryption of all personal data and to establish privacy-by-design requirements to ensure that measures to address privacy issues are integrated from the very beginning of the development of products, services, and infrastructure. Under current legislative requirements, enterprises are not currently required to appoint data protection officers, although this requirement has been proposed under forthcoming amendments to the PDPA 2010.⁷⁶

The Malaysia Cyber Security Strategy (MCSS) 2020-2024 is intended to address gaps in the national cyber security framework and to better address risks emerging with the acceleration of the digital economy and its associated technological developments. The MCSS will focus on improving safeguards through initiatives enhancing cyber security preparedness, capacity and capabilities. This strategy will be built upon five main pillars, as follows:

- i. Effective Governance and Management;
- ii. Strengthening Legislative Framework and Enforcement;
- iii. Catalyzing World Class Innovation, Technology, R&D and Industry;
- iv. Enhancing Capacity and Capability Building, Awareness and Education;
- v. Strengthening Global Collaboration.

Under the second pillar (Strengthening Legislative Framework and Enforcement), a two-pronged strategy is to be employed: (i) *Enhancing Malaysia's Cyber Laws to Address Current and Emerging Threats*; and (ii) *Enhancing the Capacity and Capability of Cybercrime Enforcement*. Existing laws will be enhanced thorough review of all existing legal frameworks pertaining to cybercrimes, with this review providing the basis for an assessment of the need for a new or overarching Cyber Security Law. Given the numerous legislative instruments currently pertaining to the management of cybercrimes and cyber security issues, the promulgation of an all-encompassing law may help to streamline processes and strengthen Malaysia's cyber security framework, thus improving enforcement in the long term.

Better collection and dissemination of data pertaining to cybercrime incidents and enforcement action and outcomes can facilitate better compliance to safe-guarding legislation. As stressed earlier, the availability of data on enforcement actions and outcomes of the corresponding investigations is extremely valuable in assessing the effectiveness of the current enforcement framework. Apart from the availability of this data, the publicizing of this information by the enforcement authorities could promote the transparency of the enforcement mechanism, as well as better accountability for both firms and individuals to comply with prevailing laws (Box 4.2).

⁷⁶ Interview with Personal Data Protection Agency

BOX 4.2

Characteristics of an effective regulatory enforcement mechanism – Lessons from International Good Practice in consumer protection and privacy

A legal system is only as strong as the effectiveness of its enforcement mechanisms. Strong enforcement provides greater trust in the system and legal certainty that enables businesses to thrive. A regulatory framework that is not fully enforced causes legal uncertainty, affecting future investments. While enforcement has not been the focus of this report, authorities should make sure that this critical element is in place to help the development of digital businesses. This box highlights good practices and recommendations based on global experiences in enforcement in the areas of consumer protection and privacy.

Multi-lateral regulatory enforcement mechanisms designed to facilitate the proper functioning and compliance to safeguarding regulations, such as consumer protection and data privacy laws, possess a few salient characteristics. These include the promotion of information sharing on investigations and outcomes, capacity building and mutual assistance coordination frameworks, as well as the sharing of key resources and expertise in specialized areas of regulatory enforcement. In the OECD and EU enforcement frameworks, enforcement co-ordination amongst members relies on the transparency of processes and enforcement outcomes, through data sharing and the need for the expedient reporting of incidents of regulatory breaches. In ASEAN, good practices also involve information sharing activities amongst members. However, enforcement mechanisms in the ASEAN region strive to recognize salient differences in the culture and the social make-up between member countries and offer some flexibility in the implementation of regulations and accompanying enforcement mechanisms to account for these. It is often said that the 'ASEAN way' attempts to take a 'bottom-up' approach to regulations and enforcement. That said, in all the respective coordination frameworks analyzed in this section, a central coordinating agency is at the core of these enforcement structures. Key aspects that facilitate effective enforcement actions include the following:

1. **Central co-ordination bodies with domestic implementation agencies.** One example is the One-Stop Shop mechanism under the European Data Protection Board's Co-ordinated Enforcement Framework which regulates cross-border data processing within the EU between domestic supervisory authorities tasked with enforcement. This structure was set up to empower local authorities to act as the central point of contact to enforce data protection rights under the GDPR. Similarly, under the APEC privacy framework, the establishment and maintenance of Privacy Enforcement Authorities in respective member countries is advocated in order to exercise the necessary powers to enforce the APEC Privacy Law i.e. having powers to conduct investigations and pursue enforcement proceedings. These privacy enforcement authorities in member countries are coordinated under the multi-lateral framework known as the APEC Cross-border Privacy Enforcement Arrangement.

- 2. Information sharing and mutual legal assistance amongst enforcement agencies for investigation of cross-border cases.** Cases that involve parties in different jurisdictions are commonplace in the e-commerce context. In the OECD's Implementation Toolkit on Legislative Actions for Consumer Protection Enforcement Co-operation, Guiding Principle 7 stipulates that domestic enforcement authorities should be given the legal authority to notify foreign counterparts of breaches to consumer protection legislation and share details of the breach including information on companies or individuals under investigation. This Principle emphasizes that this should be carried out within data privacy laws and other security considerations within the jurisdiction. In the APEC Privacy Framework, member economies are encouraged to establish international collaborations and agreements to facilitate interoperability amongst privacy instruments to better expedite cross-border data flows for information sharing of enforcement activities. Information sharing and having mechanisms for cooperation with other enforcement authorities gives enforcement agencies a critical tool to pursue cross-border cases. One step beyond information sharing is mutual legal assistance agreements, that can prove critical in cross-border cases. In the Coordinated Enforcement Framework led by the European Data Protection Board, there is an obligation of mutual assistance between members when there is a requirement for assistance from one domestic supervisory authority to another regarding specialist cases by means of joint investigations and/or enforcement measures. While criminal law enforcement agencies might be more used to this type of collaboration, it has become more and more critical for civil law enforcement agencies to establish similar mechanisms of their own, to respond to the realities of the digital economy.
- 3. Capacity building, regular updating, and mutual legal assistance mechanisms.** The ASEAN High-level Principles on Consumer Protection emphasize strategic national plans for capacity building for enforcement authorities. They also advise undertaking regular law reviews to ensure their applicability for the current market trends and dynamics. In an area as fast changing as the digital economy, regular updates can help authorities stay abreast with the needed tools they need to address new realities and challenges. Further, ASEAN recommends keeping an updated database of enforcement cases to pinpoint any legislative gaps to improve upon and identify weaknesses in enforcement capabilities.
- 4. Transparency and publicizing of enforcement outcomes by authorities and businesses involved.** Enforcement actions only have deterrence power when they are widely publicized. The APEC Privacy Framework promotes cooperation between the Public and Private sectors and encourages Privacy Enforcement Authorities to report their activities publicly. On the private sector side, it is also encouraged that businesses or personal data controllers notify Privacy Enforcement Authorities of significant data breaches as and when they happen. In a similar vein, and as mentioned previously, the ASEAN High-level Principles on Consumer Protection recommends setting up a database of enforcement cases. The European Data Protection Board also maintains an up-to-date public register of decisions taken by supervisory authorities.

Consumer protections can be updated to reflect the development of the digital economy

Increased participation in the digital economy in general and in e-commerce in particular has led to an increase in consumer complaints. Complaints relating to online transactions constituted 45.2 percent of the total complaints received by the Ministry of Domestic Trade and Consumer Affairs (MDTCA) as of June 2021.⁷⁷ During the MCO, complaints relating to online purchases increased significantly, with 8,263 complaints received between March and October 2020, up from only 3,364 complaints during the same period in the previous year.⁷⁸ Over the whole of 2020, the volume of complaints received by the MDTCA increased by 112 percent compared to the previous year, driven by an increase in complaints relating to online purchases.⁷⁹

Industry research suggests that levels of customer satisfaction with e-commerce in Malaysia could be improved. Research undertaken by Blackbox Research and the consumer intelligence platform Toluna found that 43 percent of Malaysian consumers stated that they were less than satisfied with their digital commerce experience, citing delivery times, delivery costs and product prices as their top three concerns.⁸⁰ Complaints included those related to misleading advertising and product information, low quality or imitation products, and unfair return and refund policies. Complaints also relate to weaknesses in data protection and cybersecurity arrangements. Strengthening measures to reduce such unfair or harmful practices could have a wider positive impact on the digital economy, with research undertaken by the European Commission finding that measures to strengthen consumer protection within the Digital Single Market increased the number of consumers who conducted purchases online by up to 13.5 percent.⁸¹

Malaysia's Consumer Protection Act provides a legal basis for consumer rights and establishes alternative dispute resolution mechanisms. Malaysia's legal framework for consumer protection is spread across several acts of legislation. Consumer protection issues relating specifically to access to the digital economy are regulated according to the consumer protection provisions of the Communications and Multimedia Act 1998 (CMA 1998), which is enforced by the Malaysian Communications Multimedia Commission (MCMC). The Commission's mandate includes issues relating to mobile and fixed broadband packages and to internet speeds. Consumer protection issues relating to all other digital goods and services are regulated by the general Consumer Protection Act 1999 (CPA 1999), which is enforced by MDTCA. The CPA 1999 prohibits and defines misleading and deceptive conducts, false representation and unfair practices; and unfair contract terms. It also contains provisions related to the safety of goods and services; guarantees regarding the supply of goods and services; and product liability. Since its introduction in 1999, the CPA 1999 has been amended and updated several times. In 2007, an amendment explicitly incorporated provisions related to transactions conducted through electronic means, including online activities such as e-commerce. The Consumer Protection (Electronic Transactions) Regulations 2012 contain further specific provisions relating to e-commerce. The regulations require all online business operators to: i) disclose comprehensive information relating to the company, product or service and terms and condition of sale; ii) rectify any errors relating to the purchase and provide a receipt; and iii) maintain records of third-party suppliers. The CPA 1999 also established the Tribunal for Consumer Claims as a mechanism for redress. The National Consumer Advisory Council advises the Minister on issues

77 The Borneo Post. "Ministry: Almost half consumer complaints involve online transactions". July 16, 2021. <https://www.theborneopost.com/2021/07/16/ministry-almost-half-consumer-complaints-involve-online-transactions/>

78 Free Malaysia Today. "Online transaction complaints rose to 8,200 during MCO, says ministry". November 12, 2020. https://www.freemalaysiatoday.com/category/nation/2020/11/12/online-transaction-complaints-rose-to-8200-during-mco-says-ministry/?__cf_chl_jschl_tk__=pmd_Dn3_ZYPXSR7XFpa4g6W6TeLAvi7W9EtFD.6Vdx6KE8-1630044728-0-gqNtZGzNApCjcnBszQwI

79 The Malaysian Reserve. "Complaints on online transactions rise 112.5%". February 23, 2021. <https://themalaysianreserve.com/2021/02/23/complaints-on-online-transactions-rise-112-5/>

80 The Malaysian Reserve, "Most M'sians unhappy with e-commerce experience". September 24, 2020. <https://themalaysianreserve.com/2020/09/24/most-msians-unhappy-with-e-commerce-experience/>

81 European Parliament, 2019. Contribution to Growth: Consumer Protection. Delivering Economic Benefits for Citizens and Businesses. Study Requested by the IMCO Committee. [https://www.europarl.europa.eu/RegData/etudes/STUD/2019/638396/IPOLE_STU\(2019\)638396_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2019/638396/IPOLE_STU(2019)638396_EN.pdf)

pertaining to the Act, while the Tribunal for Consumer Claims adjudicates claims relating to transactions to a value of up to RM 50,000 that are referred to it. Consumer protection complaints under the remit of the CMA 1998 can be referred to the Communications and Multimedia Consumer Forum of Malaysia.

In response to the recent increase in the volume of complaints related to e-commerce, the government is introducing further measures to protect consumers. The limit on claims that can be heard by the Tribunal for Consumer Claims (TCC) has been progressively increased from the initial sum of RM 10,000. In 2019, the CPA 1999 was amended to enable the TCC to determine cases involving claims of up to RM 50,000. In 2016, the Companies Commission Malaysia (*Suruhanjaya Syarikat Malaysia* – SSM) established the BizTrust scheme for Online Traders to increase consumer confidence in the internet. Under the scheme, entities can obtain BizTrust certification, signifying their compliance with a number of trust principles and criteria defined by SSM. Awareness of the scheme remained limited, with only 4,181 registered entities as of November 2020.⁸² SSM has taken proactive measures to address this gap, including the introduction of the SSM BizTrust QR Code, which enables users to access business information by scanning the code. As of October 2021, a total of 629,678 business entities had registered with SSM BizTrust, a significant increase from the previous year. At the state level, the authorities have announced plans to introduce a new licensing system for online traders, whose numbers have significantly expanded since the onset of the pandemic.⁸³ To facilitate the adjudication of consumer complaints and to respond to the increase in consumer complaints during the COVID-19 pandemic, the government has introduced new methods to facilitate the submission of complaints, including through social media.⁸⁴

In response to the developments associated with the emergence of the digital economy, the government could consider additional steps to strengthen the consumer protection framework. Notably, MDTCA is currently in the process of formulating amendments to the Electronic Commerce Act 2006; the Consumer Protection (Electronic Trade Transactions) Regulations 1999; and the Consumer Protection (Tribunal for Consumer Claims) Regulations 1999 to ensure the suitability of these instruments in the context of the new dynamics associated with the emergence of the digital economy. These amendments are set to be gazetted in 2022. These amendments may bring Malaysia's legislation into closer alignment with those prevailing within the OECD following a similar review of legislation conducted in 2014. These include provisions to ensure that consumers are made aware of any technical or contractual constraints on digital products (such as limits to interoperability); to reflect the participatory role of consumers in some digital products (such as requiring consumer endorsements to be truthful and transparent); and to account for the technological limitations or special characteristics of the device used.⁸⁵

In response to changing market dynamics, regulatory authorities are reframing consumer protection regulations to specifically address the different entities present in digital markets. Several jurisdictions have widened the scope of their regulations to explicitly define new categories of online entities, such as online intermediary platforms. For example, Indonesia recently introduced Government Regulation No. 80 of 2019 on Trading Through Electronic Systems, which specifically defines e-commerce operators and intermediary service operators and makes them subject to regulatory obligations, including obligations related to data protection and consumer protection. Finally, unlike many other jurisdictions, Malaysia does not have a dedicated and independent consumer protection agency (CPA), with this role has been fulfilled directly

82 The Sun Daily. "More Online Businesses Surged to Register with SSM biztrust". November 16, 2020. <https://www.thesundaily.my/local/more-online-businesses-surged-to-register-with-ssm-biztrust-KA5165048>

83 The Star. "Extra steps may be required for entrepreneurs going online". December 17, 2020. <https://www.thestar.com.my/metro/metro-news/2020/12/17/extra-steps-may-be-required-for-entrepreneurs-going-online>

84 UNCTAD, 2021. Consumer law, policy and regulatory actions in response to and in the aftermath of the COVID-19 pandemic. Note by the UNCTAD Secretariat. https://unctad.org/system/files/official-document/cicplpd23_en.pdf

85 OECD, 2016. Consumer Protection in E-Commerce: OECD Recommendations. <https://www.oecd.org/sti/consumer/ECommerce-Recommendation-2016.pdf>

by the Ministry for Domestic Trade and Consumer Affairs, with dedicated divisions and units to manage consumer protection issues.

Introduction of online dispute resolution mechanisms could improve access to justice and enhance trust in the digital economy. Beyond changes to the regulatory requirements themselves, it is important to ensure that consumers have access to redressal mechanisms. According to the CPA 1999, the Tribunal for Consumer Claims (TCC) can hear and adjudicate on claims. However, despite the rise in consumer protection claims, the number of disputes referred to the TCC does not appear to be increasing at the same rate. Since its inception in 1999, the number of disputes referred to the TCC increased steadily from 263 in 2000 to a high of 10,423 in 2011. However, by 2017, this number had declined to 4,498.⁸⁶ Between January and June 2020, the TCC received 2,288 claims, suggesting that the number of referrals has not grown significantly, despite the increased use of online transactions.⁸⁷ The TCC has various positive attributes in the way that many processes such as registration, filing procedures and other notifications pertaining to the process can be done online through their portal. The procedures are also clearly articulated on the TCC website and a stipulated timeline for the appeal is also provided. That said, the results of the appeals are not documented in aggregate, that is, to show how many were successful overall and under what circumstances. Better communication strategies around this aspect could potentially help to boost the use of the TCC.

In response to the growth in online consumer transactions, several countries have introduced online dispute resolution (ODR) mechanisms, as these are deemed to be more suitable to manage the smaller claims resulting from online transaction disputes. The term ODR refers to different forms of on-line alternative dispute settlement methods. There are multiple different forms of ODR, from automatic settlement of financial claims to mediation by qualified mediators. These mechanisms can be administered and managed by private sector entities (e.g., eBay and PayPal), the public sector (e.g., Philippine Online Dispute Resolution System) or even non-governmental organizations (e.g., Vietnam's online mediation platform 'MedUp' operated by the Hanoi International Arbitration Centre). For example, the EU's ODR scheme enables consumers to engage directly with a trader to resolve a dispute or to refer their complaint to a third-party dispute resolution body.

ODR mechanisms can be constructed to facilitate cross-border dispute resolutions. In this regard, the establishment of an ASEAN Online Dispute Resolution (ODR) Network under the ASEAN Strategic Action Plan on Consumer Protection (ASAPCP) 2025 to promote e-commerce within the region is a welcome initiative. In April 2022, the ASEAN Committee on Consumer Protection published Guidelines on Online Dispute Resolution⁸⁸ to assist member states to establish ODR mechanisms or to improve existing ones. The establishment of ASEAN-wide guidelines is also intended to facilitate the more efficient interlinking of a potential ASEAN ODR Network through harmonized systems, policies and procedures. Thailand has recently launched a pilot ODR mechanism in its automotive sector, with plans to extend the service to other areas. Indonesia, the Philippines and Vietnam have also formally begun the process of establishing ODR.⁸⁹ Malaysia could consider the establishment of an ODR mechanism, which could be integrated within the emerging ASEAN ODR network, to strengthen consumer confidence in the growing digital economy.

86 UNCTAD 2018. Intergovernmental Group of Experts on Consumer Law and Policy (IGE Consumer). Agenda Item 3d. Dispute resolution and redress – Contribution 1. Access to Justice – Addressing Consumer Redress in Malaysia. Malaysia's contribution to the 3rd Session of the Intergovernmental Group of Experts on Consumer Protection Law and Policy, 9 and 10 July 2018, Geneva, Switzerland. https://unctad.org/system/files/non-official-document/cicplp3rd_c_nu_drr_en1.pdf

87 The Star. "Travel tops complaints to Consumer Claims Tribunal". July 20, 2020. <https://www.thestar.com.my/metro/metro-news/2020/07/20/travel-tops-complaints-to-consumer-claims-tribunal#:~:text=THE%20Consumer%20Claims%20Tribunal%20Malaysia%20received%202%2C288%20complaints,airline%2C%20insurance%2C%20banking%2C%20probate%2C%20land%20and%20estate%20matters>

88 ASEAN, Secretariat, 2022. ASEAN Guidelines on Online Dispute Resolution (ODR) Jakarta: ASEAN Secretariat. <https://aseanconsumer.org/file/ODR/ASEAN%20ODR%20Guidelines%20-%20FINAL.pdf>

89 ASEAN, Secretariat, 2020. Feasibility Study: ASEAN Online Dispute Resolution (ODR) Network. Prepared by: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH through the "Consumer Protection in ASEAN" (PROTECT) Project. Jakarta: ASEAN Secretariat. [https://aseanconsumer.org/file/Completed%20Projects/Feasibility%20Study%20ASEAN%20ODR%20\(GIZ\)%20Final%20ENDORSED%20-%202012Nov20.pdf](https://aseanconsumer.org/file/Completed%20Projects/Feasibility%20Study%20ASEAN%20ODR%20(GIZ)%20Final%20ENDORSED%20-%202012Nov20.pdf)

Tax and Customs

Malaysia has taken a balanced approach to taxing the digital economy



The digital economy has presented a fundamental challenge for tax authorities around the world. In particular, the ability for digital businesses to offer services from anywhere in the world, with little or no physical presence, has created challenges related to the collection of tax. This, combined with some large technology companies' huge revenues, has led to significant political pressure to change global tax rules. Efforts to identify possible rules to ensure tax is paid fairly have been led by the G20 and OECD, as through the Inclusive Framework on Base Erosion and Profit Shifting (BEPS), of which Malaysia is a member. Unlike some other jurisdictions, Malaysia has opted not to introduce new measures to tax the income or revenues of international digital businesses unilaterally but has rather signaled its intention to support the multilateral process. Systems for the taxation on digital activities within the domestic jurisdiction are well-formulated, with Malaysia being one of the few Southeast Asian countries to implement taxation on cross-border digital services, together with Singapore and Indonesia. That said, in order to accelerate such cross-border digital trade activities, it will be beneficial to ensure greater harmonization between taxation across borders to minimize ambiguities related to the tax treatment of digital services across different jurisdictions.

Malaysia has introduced legal provisions to ensure that foreign-supplied digital services are subject to consumption taxes. In contrast to the more controversial issue of taxing the income of international digital technology businesses, ensuring that all digital transactions are subject to consumption tax has become increasingly accepted international practice. In Malaysia, the provision of digital services is a taxable service according to the Service Tax Regulations 2018 (Group G, First Schedule of STR 2018), with any person reaching a defined threshold liable to be registered under Part IV of the Service Tax Act 2018 (STA 2018). Under additional amendments introduced in 2018, service taxes are also levied on any digital services provided by a Foreign Registered Person (FRP) to any consumer (Section 56A of the STA 2018), while any Foreign Service Provider (FSP) who has reached a defined threshold⁹⁰ is liable to be registered (Section 56B of the STA 2018). The taxation on FSPs came into effect on 1 January 2020, at the rate of 6 percent. In order to reduce the uncertainties surrounding the administration of this tax on FSPs, the Royal Malaysian Customs Department has issued detailed guidelines on the procedural requirements and the defined liabilities of the foreign entity. This aids in facilitating businesses' greater compliance with the digital tax compliance, rendering taxation policies less of an impediment to business operations.

⁹⁰ This threshold represents an amount exceeding RM 500,000 annual turnover based on total value of digital services provided to consumers in Malaysia.

These taxes on foreign based service providers may boost the participation of local SMEs in the digital economy. Under the tax previous arrangements, Malaysia's local digital providers, including SMEs, were at a disadvantage compared to foreign-based service providers. Under the new arrangements, all digital services in Malaysia are subjected to the same service tax, eliminating the foreign-based service providers' previous advantage. There are ongoing issues related to ensuring that operators within the digital economy are taxed fairly, including those related to broader questions pertaining to how income is generated and to new market developments, such as zero pricing. Accordingly, the government has committed to continue to refine the tax framework on the basis of established and emerging international principles under the Digital Economy Blueprint.

The Budget 2022 has introduced a number of new tax measures that may form the foundations for a digital economy tax framework. Effective from July 2022, sales tax will be levied on delivery services, including those provided by an e-commerce platform, but excluding food and beverage delivery and logistics services. Additionally, from January 2023, services tax will be levied on small-ticket purchases valued at sums of RM 500 or less that are sold online and imported through air courier services. This measure can be seen as a measure to level the playing field for SMEs competing with low-cost producers overseas.

Measures have been implemented to ensure that the new tax arrangements have only a minimal negative impact on Malaysian SMEs that import vital services. During consultations related to the introduction of measures to apply service taxes on foreign-supplied digital services, representatives of Malaysia's digital sector expressed the importance for local businesses, including start-ups, to be able to access foreign-supplied services that are currently not widely available in the local market, such as cloud computing services, with the introduction of additional taxes on related transactions increasing costs for new digital businesses in Malaysia. In order to minimize the impact on businesses procuring foreign-supplied digital services, the Ministry of Finance has introduced a business-to-business exemption, implemented through tax refunds. This exemption should minimize the impact of the new measures on Malaysia's business community. However, given the importance of cash flow to these SMEs, ensuring timely refunds will be important to ensure that the B2B exemption serves its intended purpose.

Streamlining Malaysia's customs and logistics can support development of the digital economy

The importance of efficient logistics has increased in the context of the pandemic. The pandemic introduced a major shock to logistics, particularly in its early stages. For example, in China in the period from January 24 to February 26, 2020, the volume for long-haul trucking fell below 15 percent of the level recorded in 2019, before recovering to 50 percent by the end of February and to 92 percent in March, with the rapid recovery attributed to government policy to exempt the industry from social distancing restrictions.⁹¹ Conversely, the challenges related to logistics has spurred growth and transformation, in particular, the adoption of more digital tools and processes, including the use of technologies that provide cargo visibility and traceability.⁹² Additionally, service providers have responded to the pandemic contacts by developing contact-less delivery options in several countries, including through parcel lockers and by replacing requirements for recipients to sign a receipt with alternative proofs of delivery.⁹³

91 International Finance Corporation, The Impact of Covid-19 on Logistics, June 2020. https://www.ifc.org/wps/wcm/connect/2d6ec419-41df-46c9-8b7b-96384cd36ab3/IFC-Covid19-Logistics-final_web.pdf?MOD=AJPERES&CVID=naqOED5

92 Ibid.

93 OECD, 2020. E-Commerce in the time of Covid-19. <https://www.oecd.org/coronavirus/policy-responses/e-commerce-in-the-time-of-covid-19-3a2b78e8/>

With the increase in e-commerce activities driven by the lockdowns and mobility restrictions, the wider logistics sector has also grown, including in areas not related to actual transportation activities.

The need for supporting services, including warehousing and technology to support the flow of goods, such as inventory monitoring and planning systems, have also grown in importance. Last-mile delivery remains the most challenging and costly part of the supply chain, with digital platforms facing increasing consumer demands for faster and more cost-competitive delivery services. Several digital platforms, including Lazada and Shopee, have also established their own logistics services. One reason they have done this is to have more control over this integral part of the supply chain, which is one of the most important determinants of platform competitiveness. Another reason is to leverage on the platform ecosystem of data and other network externalities that they already possess within the structure. Traditionally, this is a segment of the supply chain with high entry barriers with the presence of price controls being commonplace and at times, unclear licensing requirements.⁹⁴ The greater adoption of digital processes in the provision of these services could potentially help to alleviate some of these barriers and liberalize some of these restrictive rules.⁹⁵

Malaysia continues to underperform in the area of logistics and customs facilitation. Transport infrastructure is crucial to efficiently move goods between locations and to enable consumers to purchase goods at acceptable prices. However, according to the WBG Logistics Performance Index, Malaysia performs relatively poorly in these terms, ranking in 41st place out of 160 countries.⁹⁶ Malaysia fares less well than any of its regional comparators in terms of this indicator, with the exception of Indonesia and the Philippines. Furthermore, its performance has been declining over recent years, with it going down from 32nd place in 2016 and from 25th place in 2014. Malaysia's ranking is particularly low in terms of a number of specific indicators, including tracking and tracing (47th place) and timeliness (53rd place). Stakeholder consultations indicate that the quality of customs facilitation in East Malaysia is considerably worse than in Peninsular Malaysia, resulting in significant delays in last-mile deliveries. According to the Product Market Regulation (PMR) indicators, Malaysia's current regulations related to logistics are more restrictive than for OECD countries, which may contribute to its underperformance in this area. These regulations include limitations on foreign service providers in the freight sector and restrictions that increase the complexity of running logistics business, such as time-limited licenses.⁹⁷

Reenergized efforts to establish a fully automated e-customs regime in Malaysia could facilitate SMEs' greater engagement in the digital economy. The importance of having a fully integrated, end-to-end single window for goods clearance has become imperative to achieving greater trade competitiveness and increased trade activities through multi-lateral trade deals such as the Regional Comprehensive Economic Partnership (RCEP) and ASEAN Economic Community initiatives. In particular, the proposed uCustoms system would have created opportunities to establish a fully automated customs approvals system for use by cross border regulatory agencies (CBRAs), fully coordinated with other government agencies (OGAs) and permit issuance agencies (PIAs). Despite widespread market support for this system, it has yet to be implemented. The current customs clearance system, the *Sistem Maklumat Kastam* (SMK), or customs information system, still requires manual processes and is not fully integrated with OGAs and PIAs, rendering it less efficient. Moreover, an e-customs platform would enable greater transparency in customs processes and improved abilities to track and trace by users. Thus, the more expedient implementation of this e-customs system will not only enhance Malaysia's logistics performance, but also increase overall trade competitiveness.

94 OECD (2021), OECD Competition Assessment Reviews: Logistics Sector in Malaysia. <https://www.oecd.org/competition/fostering-competition-in-asean.htm>

95 PwC. 2016. Shifting Patterns – The Future of the Logistics Industry. PwC. <https://www.pwc.com/gx/en/transportation-logistics/pdf/the-future-of-the-logistics-industry.pdf>

96 World Bank. 2021. Aiming High: Navigating the Next Stage of Malaysia's Development. <https://openknowledge.worldbank.org/handle/10986/35095>

97 OECD, 2021. OECD Economic Surveys: Malaysia. August, 2021. <https://www.oecd.org/economy/malaysia-economic-snapshot/>

Competition and Product Market Regulations

The digital economy poses new and unique challenges for competition authorities

The digital economy creates new and dynamic opportunities for businesses to enter the market and expand. New technologies can facilitate the emergence of new markets and ecosystems that provide a range of goods and services to consumers. The digital economy also creates new and unique challenges for competition authorities, including risks associated with rapid scalability that does not align with usual regulatory timescales, the difficulty of defining markets and measuring market share in traditional terms, and so on. Competition authorities around the world are struggling to come to terms with these issues, developing new regulatory interventions to do so. These new interventions may be useful, particularly when there is limited information available on the dynamic players in the digital economy, with these players' operational activities characterized by rapid, cross-border interactions that may be hard to monitor, such as Over-The-Top (OTT) providers who provide services to users directly through the Internet, 'over-the-top' of the Internet provider.⁹⁸

New platform business models are at the center of the digital economy. Digital platforms typically operate two or multi-sided markets that connect consumers to one or more providers. Platforms fulfil this function in e-commerce, social media, and search engines, providing access to a range of services including transport, finance and health. In some cases, platforms offer their own products and services, while in others they act solely as intermediaries for goods and services offered by third parties. Platforms are principally concerned with the collection and processing of personal data, which entails high upfront costs (i.e., for data storage), but very low marginal costs. This results in high economies of scale, which increases the risk of market concentration.⁹⁹

The characteristics of platform business models create new challenges for competition. The dynamics of the platform business model may incentivize business strategies that limit competition. Large platforms may be inclined to adopt a strategy that involves the vertical integration of multiple services in order to create inter-connected ecosystems that benefit from the platforms' economies of scale and network effects. Network effects are a significant factor in the success of the platform business model, with the number of users increasing the value of using a particular platform. However, this can result in high barriers to entry for new businesses and in businesses abusing their position in one market to promote their services in another. Businesses may also prioritize accumulation strategies, prioritizing the acquisition of new users over profitability in the short and medium term. To acquire new users, they may use under- or even zero-priced products and services to achieve rapid growth. As a result, competition enforcement strategies centered on consumer welfare measured solely in terms of price are not well calibrated to identify platforms that may become dominant, with long-term negative outcomes for competition. In Malaysia, competition issues pertaining to platform business models currently fall within the jurisdiction of the Malaysia Competition Commission (MyCC). However, MCMC does collaborate with MyCC in instances where competition issues pertain specifically to new platform business models.

⁹⁸ Popular OTT providers include the likes of Netflix and Amazon Prime Video amongst other media platforms.

⁹⁹ UNCTAD, Competition Issues in the Digital Economy, July 2019. https://unctad.org/system/files/official-document/ciclpd54_en.pdf

The digital economy calls for more innovative approaches to identifying and addressing potential threats to competition

Competition authorities have developed new approaches to address issues arising out of the global reach and scalability of digital technologies. For example, Germany amended its competition law in 2017 to explicitly recognize free products or services provided by platforms as a market. The amendments also included provisions to ensure that the authorities consider a wider range of factors when assessing the market position of a platform, including barriers to entry and high switching costs. Jurisdictions across Asia are also putting in place measures to address competition in the digital economy. For example, in January 2020, the Chinese competition authority issued a draft amendment to the competition law to incorporate new measures to address the abuse of dominance in digital markets, with the measures addressing issues related to network effects, economies of scale, lock-in effects and the ability to acquire and process relevant data.¹⁰⁰ Additionally, in February 2021, the State Administration for Market Regulation issued antitrust guidelines related to the platform economy, to prevent monopolistic behavior by online platforms and to ensure their compliance with the national competition law.¹⁰¹ Japan has also introduced new legislation to manage the rise of digital platform influence and its potential adverse effects on competition. In May 2020, the National Diet of Japan promulgated the Act on Improvement of Transparency and Fairness in Trading on Specified Digital Platforms, with the act coming into force in February 2021.¹⁰² Essentially, this Act requires digital platform providers¹⁰³ to disclose specific types of information to third party sellers and consumers, in order to enhance the transparency of platform operations and to prevent unfair practices and the misuse of the data collected through the platforms. The Act also requires digital platform operators to submit annual reports on their operations to the Minister of the Ministry of Economy, Trade and Industry. In 2020, the Competition and Consumer Commission of Singapore (CCCS) released the results of a market study on e-commerce platforms. Although the study did not identify significant competition concerns, it proposed several amendments to the current competition guidelines to provide greater clarity on the conceptual, analytical and procedural frameworks implemented under the Competition Act (Cap. 50B).

Malaysia has established a clear competition enforcement framework through legislation. Malaysia established the legal basis for a generic competition enforcement framework through the promulgation of the Competition Act 2010 (CA 2010), which provides a framework for MyCC to monitor and enforce competition. The CA 2010 builds on a number of pre-existing competition regimes that were intended for specific sectors. This includes a framework for the communications market, with the framework established through the Communications and Multimedia Act 1998, which mandates the MCMC as the responsible agency. Related to the digital economy, competition issues pertaining to infrastructure (i.e., towers, spectrum allocation) fall under the remit of the CMA 1998, whereas broader market issues, including the issues specific to digital platforms, typically fall within the mandate of MyCC.

Although the CA 2010 establishes a basis for sanctions and interventions in cases of abuses of dominance, no detailed guidelines specific to the digital economy have been formulated. The CA 2010 provides a broad principle-based legal framework, including measures to prohibit the abuse of dominant market position (Section 10), which, in principle, provide the tools to mitigate the risks identified above. MyCC has published guidance on how abuse of dominance is to be assessed, including an indicative 60 percent

100 UNCTAD. 2021. Competition law, policy and regulation in the digital era, Geneva, July 7-9, 2021. https://unctad.org/system/files/official-document/ciclpd57_en.pdf

101 Ibid.

102 Japan: Ministry of Economy, Trade and Industry. 2020. Act on Improving Transparency and Fairness of Digital Platforms (TFDPA), Digital Economy. https://www.meti.go.jp/english/policy/mono_info_service/information_economy/digital_platforms/index.html

103 Specifically, online shopping malls selling goods such as Amazon Japan and providers of applications such as Google Play Store.

market share threshold.¹⁰⁴ Although not specific to the digital economy, these guidelines still apply as a basis to investigate potential abuses of dominance by operators within this economy. However, the guidelines do not include provisions that specifically address the challenges arising out of the emergence of the digital economy, particularly those posed by digital platforms.

A planned review of competition in the digital economy presents an opportunity to revise the competition enforcement framework to reflect the particularities of digital platforms. The Malaysia Digital Economy Blueprint calls for a review of existing competition laws and policies to ensure a level playing field in the digital economy. Public consultations on proposed amendments to CA 2010 will be completed in 2022 with the first round of amendments (i.e. non-merger related legislation) tabled in Parliament shortly after, with a planned implementation by the end of 2022. For the introduction of merger-related legislation, the proposed roll-out will target October 2023.¹⁰⁵ This review should draw on the emerging practices of competition authorities to respond to determine the most effective means to address the challenges posed by digital platforms (see Box 4.3). Beyond establishing the appropriate approaches to identify and mitigate abuses of dominance, the government could also pursue other measures to foster a competitive digital economy including: i) measures to address demand-side competition issues that result in high switching costs; ii) merger control (see below); and iii) targeted ex-ante regulations in specific areas of concern (see below for a discussion of the supplier-platform relationship). As part of the review process, a competition impact assessment would ideally be conducted by the authorities to serve as a baseline assessment of the issues discussed above.

BOX 4.3

Proposed measures to address abuses of dominance in the platform economy

- Developing a broader approach to assessing negative impacts of consumer welfare in the context of abuse of dominance beyond price dimensions to other areas and aligning competition policies with high standards on personal data and consumer protection.
- Removing the requirement to define markets, and instead allow market power to be inferred by the presence of anticompetitive conduct that is not disciplined by competitive pressures.
- Reversing the burden of proof so that certain conduct is presumed anticompetitive unless an incumbent can demonstrate otherwise. This could notably be introduced for interoperability issues in markets with strong network effects, self-preferencing when a platform serves as both intermediation infrastructure and supplier, or below-cost pricing.
- Applying abuse of dominance prohibitions to firms that are not yet dominant but could become dominant due to a tendency of a market to “tip” in favour of one firm.

Source: OECD¹⁰⁶

104 MyCC. 2012. Guidelines on Abuse of Dominant Position. <https://www.mycc.gov.my/sites/default/files/pdf/newsroom/MYCC%204%20Guidelines%20Booklet%20BOOK2-6%20FA%20copy.pdf>

105 MyCC, Public Consultation, 2022. <https://www.mycc.gov.my/public-consultation>

106 OECD. 2020. Abuse of dominance in digital markets. <https://www.oecd.org/daf/competition/abuse-of-dominance-in-digital-markets-2020.pdf>

Regulating mergers and acquisitions is an important part of ensuring contestable markets

In regulating competition in the digital economy, merger and acquisition control has become an important focus. Mergers and acquisitions play an important role in the strategies adopted by digital technology enterprises, given the high premium on network effects, the tendency among platforms to engage in vertical integration, and the importance of acquiring existing data and users. Ideally, merger controls should be formulated to ensure that competition authorities can identify and address potential threats to competition before the merger takes place, rather than trying to respond to anti-competitive outcomes afterwards. However, here again, the digital economy creates new challenges for competition authorities. While many authorities set turnover or asset thresholds to trigger a market review, the acquisition of digital companies (especially start-ups) may not trigger a review even though they present a potential risk to competition. In response to the new context, competition authorities are considering alternative review thresholds, including those related to transaction value. For example, the German authorities have established a new threshold for an acquisition price at 400 million euros, in order to capture the takeover of small but promising and therefore valuable businesses by large platforms.

The relationship between platforms and their suppliers needs to be scrutinized to ensure a level playing field

Due to potential abuse of market power, the relationship between platforms and their business suppliers has come under increasing scrutiny. Access to platforms offers significant opportunities for suppliers, many of whom are SMEs, to benefit from significant economies of scale and to reach a greater number of customers. However, platforms of the kind that offer the desired market reach possess significant market power relative to their business suppliers due to the relatively small number of available platforms. This can result in certain unfair or abusive practices that limit the benefits of the digital economy to smaller businesses. Over successive reports and studies, the European Commission has identified several types of unfair trading practice that can occur in the business-to-platform relationship such as lack of clarity on the full Terms and Conditions, short term prior notice about changes to these Terms and Conditions, lack of transparency regarding search and ranking methodologies and algorithms.

Globally, competition authorities are facing new and complicated challenges related to regulating digital platforms and businesses. In the assessment of abuse of a dominant position and other anti-competitive actions, ex-post investigations are increasingly being complemented by the application of ex-ante regulations, together with an assessment of the innovation impact. Most notably, the EU has introduced regulations on platform-to-business relations (P2B Regulation) that aimed to foster the emergence of a fair, transparent and predictable business environment for smaller businesses and traders participating in online platforms, including requirements to disclose key algorithmic parameters behind search or product rankings on the platform to better understand how these rankings are determined.¹⁰⁷ The European Commission's proposed Digital Markets Act will introduce additional ex-ante measures to reduce the risks related to market domination and to improve competition, including prohibitions on exclusivity requirements, self-preferencing, and measures to prevent 'killer acquisitions'.¹⁰⁸ It also establishes a quantitative framework to identify platforms,

¹⁰⁷ European Commission, 2020. Platform to Business Trading Practices. <https://wayback.archive-it.org/12090/20210728111231/https://digital-strategy.ec.europa.eu/en/policies/platform-business-trading-practices>

¹⁰⁸ When an incumbent acquires an innovative target firm solely to discontinue the target's innovation projects and pre-empt future competition.

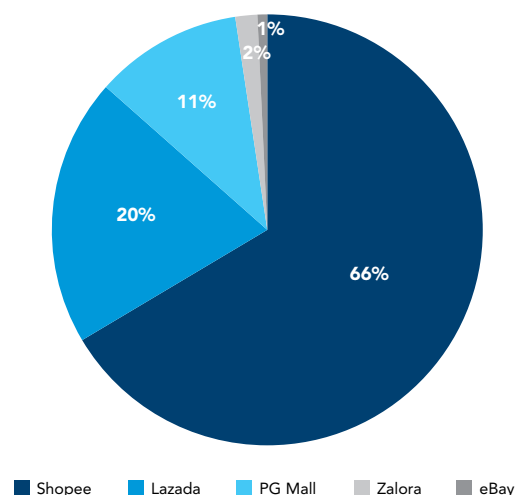
digital services and applications with 'gatekeeper' status on the basis of a market share analysis, number of markets in operation, and number of end-users, amongst other factors. These gatekeepers are identified as core digital services that are prone to engaging in unfair practices.

Requirements for greater transparency regarding digital platforms' operations and data-sharing practices can assist regulators in effectively monitoring digital platforms. For example, Japan has adopted new regulations to improve transparency and fairness in transactions between digital platforms and their suppliers, with a specific statement that regulations should not interfere with digital innovation. The Act on Improving Transparency and Fairness of Digital Platforms requires digital platforms to: i) disclose relevant information, including their terms and conditions, and pre-notify when any changes are made; ii) establish appropriate internal procedures to ensure the fairness of transactions or to settle disputes with users; and iii) submit annual self-assessment reports regarding the status of i) and ii) to the Minister of Economy, Trade and Industry.¹⁰⁹

US competition authorities have begun to consider an additional aspect to the competition assessment for digital businesses. Given that innovation activities could act as a catalyst to stimulate increased competition, an assessment of a digital business or platform's capacity to innovate and its ability to enable more innovative processes and activities should also be incorporated into a more holistic assessment of the extent to which it holds a dominant position. If put into practice by the competition authorities, while this measure could prove less disruptive and distortionary than more traditional ex-ante regulations or ex-post investigations, it may take time to determine whether or not the presence of innovation can thwart anti-competitive pressures, such as when a new platform takes over the market leader's share due to new innovations.¹¹⁰ Also, assessments of this nature may be complicated, as the demise of an incumbent may be due to factors other than the entry of an innovative new competitor into the space.

In Malaysia, there are no specific ex-ante measures to protect suppliers participating in digital platforms from potentially abusive practices. While it is possible that under the CA 2010, the practices could be determined to be abusive, this has not yet been tested. Apart from this, Malaysia has no ex-ante regulations intended to protect suppliers from such practices. The growth in the importance of intermediary platforms in key markets such as e-commerce suggest that this area should be subject to further scrutiny. A couple of large e-commerce platforms, particularly Shopee and Lazada, have emerged as winners due to the increased use of such platforms, particularly following the onset of the pandemic (see Figure 4.5). The Ministry of Domestic Trade and Consumer Affairs (MDTCA) has specifically requested two major food delivery platforms to provide clearer

Figure 4.5: Share of the top 5 e-commerce platforms by monthly visits



Source: iPrice

109 UNCTAD, Competition law, policy and regulation in the digital era, July 2021. https://unctad.org/system/files/official-document/ciclpd57_en.pdf

110 Bennett Institute for Public Policy, University of Cambridge. 2020. Practical competition implications of digital platforms. https://www.bennettinstitute.cam.ac.uk/wp-content/uploads/2020/12/Practical_competition_policy_tools_for_digital_platforms.pdf

information to traders, amongst other issues.¹¹¹ Additionally, both MDTCa and MyCC have engaged with other parties to assess whether the manner in which food delivery platform companies treat their vendors, riders and consumers creates anti-competition concerns.¹¹² This intervention could provide the basis for a broader strategy to improve the communications between platforms and their participating businesses.

Anecdotal evidence suggests the presence of unfair practices in Malaysia, suggesting a need for a further review. Compared to other jurisdictions, such as the EU, relatively few studies have been conducted to determine the extent of unfair practices by digital platforms in Malaysia. However, anecdotal reports of such practices have appeared in the media. For example, stakeholders have complained about platforms' slow response to reports of products infringing copyright on their platforms.¹¹³ Under amendments to Malaysia's Copyright Act 1987, while platforms are given safe harbor with respect to copyright infringements of offenders participating on their platform, they are required to remove listings for copyright-breaching products. Although not explicitly a competition issue, the fact that platforms do not face meaningful penalties for failure to remedy problems further strengthens their position in relation to smaller suppliers.

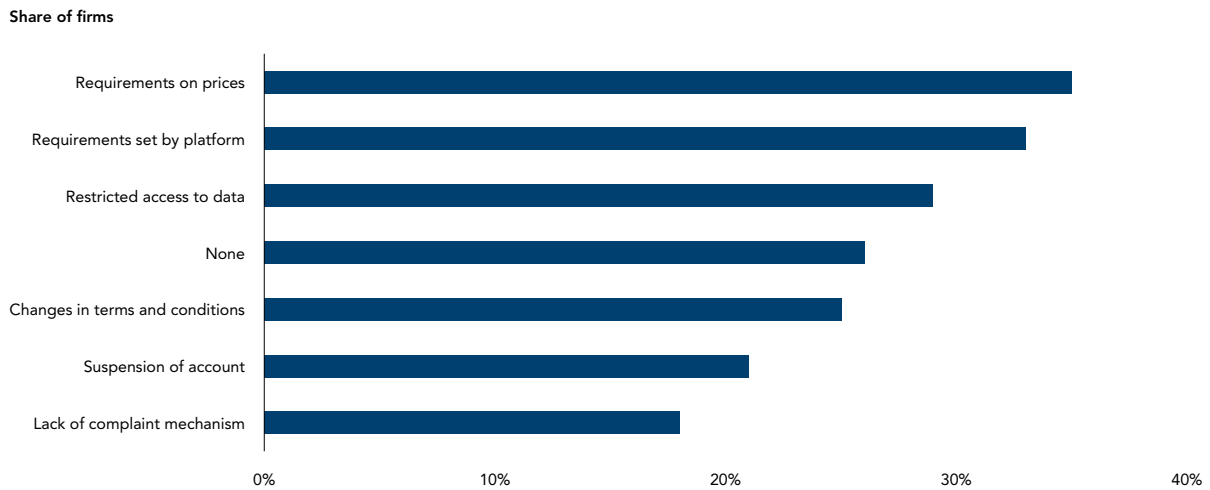
Issues related to intellectual property rights (IPR) in the digital economy are highly dynamic and difficult to monitor due to the continuously evolving nature of the technologies used. In order to enhance the enforcement of IPR on digital platforms, better coordination between the platforms, brand owners and business associations may be needed to remove IPR-infringing products or materials in an efficient and timely manner. In the Philippines, a mechanism to achieve this improved coordination is being established through a Memorandum of Agreement issued by the Intellectual Property Office of the Philippines (IPOPHL). This could be a good model to demonstrate how IPR enforcement could be conducted to foster greater responsibility and integrity in the e-commerce context. IPR law is usually domestically oriented, making the establishment of a coordinated approach to infringements across borders more challenging. That said, recent free trade agreements (FTAs) and other multilateral commitments have attempted to address these issues, helping to alleviate uncertainties between FTA signatories. In particular, both the Regional Comprehensive Economic Partnership Agreement (RCEP) and the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) lay out some of the most extensive commitments related to digital trade in their respective IPR Chapters, with these provisions being considerably more detailed than the Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreement. Malaysia ratified the RCEP agreement in January 2022, with the agreement coming into force in March 2022. Malaysia remains a signatory to the CPTPP which awaits ratification.

In addition to issues related to intellectual property (IP) infringement, instances of payment delays to vendors and coerced participation in promotional discount campaigns have also been cited as examples of anti-competitive behaviors. In the third wave of the BPS conducted in July 2021, it was found that the most cited binding regulatory constraints on businesses utilizing platforms for marketing and sales related to requirements for vendors to sell their products at certain prices (35 percent of respondents); other operational requirements set by the platform (33 percent of respondents); and the restricted access to data (29 percent of respondents) (see Figure 4.6). The Ministry of Domestic Trade and Consumer Affairs and the Ministry of Communications and Multimedia will lead a review of existing IP laws, with a particular focus on the extent to which they may impede innovative activities. The review is targeted for completion by 2023.

111 MalayMail. "Nanta: Foodpanda, Grab given 14 days to submit comprehensive policy to improve food delivery services in Malaysia". July 21, 2021. https://www.malaymail.com/news/malaysia/2021/07/31/nanta-food-panda-grab-given-14-days-to-submit-comprehensive-policy-toimpro/1994124?utm_source=pocket_mylist

112 MyCC. 2021. "P-Hailing Service Issues Attract Inquiry by MyCC". News Release July 26, 2021. <https://www.myc.gov.my/announcement/p-hailing-service-issues-attract-inquiry-by-myc>

113 Interview with SME Association.

Figure 4.6: Regulatory constraints in using platforms for marketing and sales

Source: Kuriakose et. al (2021)

Under the CA 2010, MyCC can undertake market reviews, which could provide an option for it to conduct a more comprehensive assessment of the current practices of platforms and to assess the need for further regulatory intervention. In 2017, the Competition Commission of Indonesia conducted market studies on the digital economy in Indonesia, while in 2020, the Competition and Consumer Commission of Singapore published a market study specifically on e-commerce platforms, as described in the previous section.

New markets in the platform economy are at different stages of regulation

Innovative platforms that aggregate transport and accommodation services can create both direct and indirect opportunities for SMEs. New technologies facilitating the sharing of transport and accommodation services have attracted attention from both consumers and regulators, given the significant benefits to consumers and the potential to disrupt traditional business models. The emergence of these new markets creates opportunities for SMEs, both to enter the market or to benefit indirectly as providers of complementary or supporting services. For example, research undertaken by Oxford Economics on Airbnb found that for every RM 100 spent by tourists staying at accommodation booked through Airbnb apart from the cost of the accommodation itself, they spent approximately RM 49 on shopping, activities and other related items and RM 24 on meals in restaurants.¹¹⁴ Transport-network services have provided an important logistics infrastructure, enabling SMEs to access a wider market of consumers, particularly in the context of the pandemic. To ensure that SMEs can benefit from the emergence of these new platforms, regulatory frameworks need to balance the need to support (or at least not to constrain) innovation, with the need to ensure a level playing field and consumer safety.

114 The Edge. "Airbnb contributed RM3.98b to Malaysian GDP in 2019". August 12, 2020. <https://www.theedgemarkets.com/article/airbnb-contributed-rm398b-malaysian-gdp-2019>

In 2017, the government introduced regulations to level the playing field between e-hailing services and taxi services. Following the introduction of digital e-hailing services, the government decided to establish a legal and regulatory framework for these services. Accordingly, the government passed the Land Public Transport (Amendment) Act 2017 which includes *e-hailing vehicles* in the definition of public service vehicles, together with taxis. The regulatory framework established by the Act requires that e-hailing drivers comply with certain checks and licensing requirements, in line with those applied to traditional taxi drivers. E-hailing service companies (such as Grab or Uber) are classified as *intermediation businesses* (often referred to as e-hailing operators, or EHOs) by the regulation and are also required to be licensed.

The regulation of accommodation-sharing platforms is more fragmented. The platforms themselves are subject to licensing requirements under the federal government, with the Ministry of Tourism, Arts and Culture (MOTAC) enforcing the Tourism Industry Act 1992 (TIA 1992) and implementing regulations. MOTAC has developed guidelines for the licensing of Tour Operating Business and Travel Agency Business (TOBTAB) and of Online Travel Agencies (OTA). Established under Act 482, these guidelines have been enforced to ensure that online platforms (including accommodation-sharing platforms) comply with the licensing requirements required to operate in Malaysia. In practice, these requirements are relatively light, and do not extend to issues such as the pre-screening of hosts or guests, or mandatory community guidelines. The scope of the tourism tax has also been amended to ensure a level playing field between accommodation-sharing platform and traditional accommodation businesses such as hotels. Following the introduction of the Tourism Tax (Amendment) Act 2021, a tax is levied on a tourist staying at any accommodation booked through the online booking accommodation services provided by a digital platform service provider. Accommodation hosts are subject to some general regulatory requirements, being required to ensure that the accommodation complies with the provisions of the Uniform Building By-Laws 1984 and National Land Code 1965. Otherwise, accommodation hosts are regulated at the local authority level, as determined by the Local Government Act 1976 (LGA 1976). However, local authorities do not currently implement uniform practices in the regulation of hosts participating in accommodation sharing platforms. For example, the Kota Kinabalu Municipal Council (DBKK) considers any Airbnb accommodation to be a *lodging house*, and thus subject to the Hotels and Lodging Houses By-Laws 1966. The Penang Municipal Council (MPPP) requires accommodation-sharing operators to hold a license under the 1991 MPPP By Law for Trade, Business and Industries. In Kuala Lumpur, it is legal for accommodation sharing platforms to operate only if such activities are permitted by building management.

The forthcoming guidelines will seek to ensure alignment between the practices of the different local authorities. The Malaysian Productivity Corporation (MPC) has undertaken an in-depth *Reducing Unnecessary Regulatory Burdens* (RURB) study in the area of short-term rented accommodation (i.e., accommodation sharing platforms). Based on this study, the MPC has proposed a set of non-binding guidelines to clarify the existing requirements of platforms and to provide recommendations to local authorities regarding the licensing requirements for hosts, with reference to issues including insurance, night caps (i.e., the maximum number of nights an accommodation can be rented), zoning, noise control and safety requirements. These guidelines will encourage local authorities to align their practices, while still providing them with discretionary power to regulate according to local requirements. These guidelines also seek to address the current perception that there is an uneven playing field between traditional tourism accommodation providers such as hotels and short-term accommodation options made available through online platforms. Discrepancies in the treatment of these parties in matters such as taxation policy, minimum standards and licensing requirements also need to be addressed. In 2018, China introduced regulations related online shared accommodation services that addressed many of the issues discussed above, including requirements to verify the identity of guests and to register them, and to comply with fundamental hygiene and safety standards. The authorities are currently considering how workers in the gig economy could be better protected.

The gig economy creates new opportunities for more flexible employment. The OECD defines gig economy platforms as “two-sided digital platforms that match workers on one side of the market to customers (final consumers or businesses) on the other side on a per-service (gig) basis.”¹¹⁵ These new platforms offer flexible employment opportunities for workers and competitively priced goods and services for consumers. From an MSME perspective, the gig-economy creates opportunities to offer services through different platforms, or to enter the market as platform providers.

However, work in the gig economy can also be precarious. The entry of gig-economy platforms generally has positive effects on overall employment, creating new and more flexible types of work that complement more traditional forms of employment, which may be especially beneficial for secondary income earners, and which may encourage greater female labor force participation.¹¹⁶ However, they may also have ambiguous effects on dependent employment and wages. Dependence on the gig-economy for income may offer workers less security in terms of employment rights and longer-term financial benefits. Surveys undertaken in 2017 showed that 66 percent of freelancers did not have a retirement plan, 33 percent did not have a personal financial plan, and 55 percent had less than three months financial buffer.¹¹⁷

Malaysia has extended mandatory social security provisions to the self-employed, including certain categories of gig economy workers. Unlike ride-hailing and accommodation-sharing platforms, other service-based gig-economy platforms are not subject to a specific regulatory regime in Malaysia. However, in response to concerns regarding the financial security of gig-economy workers, the authorities have expanded social security provisions. On 1 June 2017, Social Security Organisation (SOCSO) promulgated the Self-Employment Social Security Act 2017 (Act 789) to protect self-employed workers. The protection provided under the Self-Employment Social Security Scheme (SESSS) was intended to cater to the self-employed in the passenger transportation sector, including taxi, e-hailing, and bus drivers. Effective as of 1 January 2020, the SESSS had been extended to 19 other sectors, including the goods and food transport sector. As of 1 October 2021, the government made registration in and contribution to the SESSS compulsory for all gig economy workers in this sector. As of 8 October 2021, 326,545, self-employed workers from various sectors had registered under this scheme.¹¹⁸ Amongst these measures was *Skim Jaminan Kredit Perumahan*, with an allocation of RM 2 billion, with this being essentially a guarantee scheme provided by the government to banks to improve gig workers access to finance for home purchases. It also included a job incentives guarantee scheme (*JaminKerja*) for employers of these workers, providing benefits of up to RM 600/month for up to 6 months for those who have lost their jobs or who are placed on work furloughs. Moreover, this base amount will be topped up by RM 200/month if gig economy workers earn more than RM 2,500/month in a job that occupies them for more than 120 hours a month.

However, in terms of labor protections, gig-economy workers are still at a disadvantage compared to traditional employees. Apart from extending the social security net to self-employed, the government is not currently planning to regulate gig-economy workers in other areas under the SESSS. The Digital Economy Blueprint emphasizes the need to develop a social security system that includes gig economy workers, with the government aiming to provide all gig workers with some form of social protection by the end of 2025. Malaysia’s Economic Planning Unit has also embarked on a study to determine the status of informal employment in Malaysia. This should provide valuable inputs to enable policy amendments to increase the productivity and to ensure the protection of informal workers, such as gig workers.

115 Schwellnus, C., et al. 2019, Gig Economy Platforms: Boon or Bane? May 2019, OECD. <https://www.oecd-ilibrary.org/docserver/fdb0570b-en.pdf?expires=1661403104&id=id&accname=guest&checksum=6F6E4BB728B0AC1B79634BA38E865DBD>

116 World Development Report 2019 – The Changing Nature of Work (World Bank)

117 INTI International University and Colleges. “INTI Survey Uncovers the Realities of the Malaysian Freelancing Economy”. November 3, 2017. <https://newinti.edu.my/inti-survey-uncovers-the-realities-of-the-malaysian-freelancing-economy/>

118 The Star. “Socso wants self-employed M’sians to sign up”. January 4, 2020. <https://www.thestar.com.my/news/nation/2020/01/04/socso-wants-self-employed-msians-to-sign-up>

While there has been some traction in this area, actionable policy amendments still require further development. At present, only minimal details are available regarding the proposed actions to extend other legal protections to gig workers. Indeed, a recent judicial ruling has confirmed that gig-economy workers are not employees.¹¹⁹ As such, e-hailing drivers continue to be categorized as contractors, without recourse to certain labor market protections, albeit with certain social security obligations and entitlements and with certain protection specific to the e-hailing sector, such as statutory limits on the commissions that can be imposed by e-hailing platforms. Under current legislation, there remains a significant gap in the scope of labor protections. This could create the risk that the growth of the gig-economy undermines the legal position of workers in Malaysia. That said, the government is continuing to engage with relevant stakeholders and industry players in order to gain input and insights into how best to protect gig workers. Table 4.2 provides a summary of the different types and extent of labor regulation coverage afforded to formal and informal workers in Malaysia.

Table 4.2: Labour regulations coverage of formal and informal workers in Malaysia

| Labor Regulation | Employees | Informal Workers |
|--|-----------|------------------|
| Employment Act 1955 | Yes | No |
| Industrial Relations 1946 | Yes | No |
| Employees' Social Security Act 1969 | Yes | Yes |
| National Skills Development Act 2006 | Yes | No |
| Occupational Safety and Health Act 1994 | Yes | No |
| Minimum Wages Order 2012 | Yes | No |
| Minimum Retirement Age 2017 | Yes | No |
| Self-Employment Social Security Act 2017 | No | Yes |
| Contract Act 1950 | Yes | Yes |
| Employment Insurance System Act 2017 | Yes | No |

Source: Adapted from The Centre¹²⁰ and stakeholder consultations

The private sector could also play an integral role in ensuring the social and legal protection of gig workers. It has been argued that the onus to establish mechanisms for gig workers for contingency costs such as work injury expenses and to ensure their professional development through the provision of training schemes for providing this protection could also fall on the employers, rather than exclusively on the government. Malaysia's Social Security Organisation (SOCSSO) is in talks with a number of digital platforms to discuss the establishment of a contribution scheme for gig workers to provide support in the event of work-related contingencies such as injuries. This scheme will also be structured to provide relevant training. That said, it remains challenging to ensure that effective safety nets are established and that gig workers are treated equally with employees in the formal sector, given that gig economy workers are recognized as workers neither under the Employment Act 1955 nor under the Labor Ordinances of Sabah and Sarawak. Thus, private sector initiatives may present a means to establish a nation-wide legal ruling, so long as the schemes are sustainable and offer continuous protection for gig workers throughout their tenure. The success of these schemes also depends to a considerable extent on buy-in and commitment on the part of the platform business. As previously mentioned, Budget 2022 has also introduced several initiatives to address social security gaps and to enhance the financial wellbeing of gig economy workers, which may help in the interim.

119 Malay Mail. "Gig economy workers not included under definition of workers, says deputy minister". November 18, 2021. <https://www.malaymail.com/news/malaysia/2021/11/08/gig-economy-workers-not-included-under-definition-of-workers-says-deputy-mi/2019292>

120 Goh, E. and Omar, N. 2021. "The Case for Fair Work Act", The Centre, April 15, 2021. <https://www.centre.my/post/the-case-for-a-fair-work-act-part-1>

At a global level, the legal treatment of gig workers is still a matter of great contention. In the United States, there are still disagreements regarding the status of gig workers, with e-hailing platforms (such as Uber and Lyft) maintaining that their drivers are independent contractors, while some state legislators hold that gig workers are in fact employees, and thus eligible to employee benefits such as health insurance, medical leave and other benefits. In 2019, California legislators made it legally binding for e-hailing companies to employ their drivers. Since then, there have been various tussles between both coalitions of drivers and e-hailing platform companies regarding the validity of this ruling. More recently, at the end of 2021, the European Commission ruled that e-hailing companies must treat their gig workers as employees, thus giving them the right to minimum wage and other worker-related legal protections. Although this ruling has not been officially promulgated as regulation and is not expected to come into effect before 2024, the platforms are expected to push back against this ruling going forward. Given this contention, a potential middle ground could be to provide gig workers with certain rights to social security and legal recourse in the case of unfair practices, without classifying them as employees.

Open Data

Increased government transparency and accountability can be an important driver of the digital economy

Open government data can create important commercial opportunities and encourage citizen participation. Open data enhances citizen participation and collaboration and enables the inclusion of marginalized groups. Effective policies to ensure open data on public services enable citizens to make better-informed decisions and empowers them to contribute to policies that are better designed to meet their needs. In turn, this can result in improved public service delivery and potential cost savings for governments.¹²¹ Open data can also result in significant economic opportunities, with businesses exploiting available data sets for commercial uses. Research commissioned by the European Commission has found that the open data market size for the EU27+ will stand at €199.51 billion (~US\$ 210 billion) in 2025, with the number of direct and indirect open data employees potentially growing to 1.97 million under an optimistic scenario.¹²²

The Malaysian Administrative Modernization and Management Planning Unit (MAMPU) has championed the establishment of an open data framework. Under General Circular Number 1 of 2015: Open Data Implementation, the authorities adopted a comprehensive Open Data Policy. As a central agency with a mandate to modernize and transform Public Service Administration, MAMPU is responsible for the implementation of open data policies across government ministries and agencies. MAMPU has developed the Open Data Portal (data.gov.my) as the government open data platform, with large datasets available through this portal. The datasets in the Open Data Portal are available in open format and divided into 18 clusters, ranging from government expenditure to information on company registrations.

However, despite progress towards the adoption an open data policy, Malaysia's level of openness remains relatively low by international standards. According to the Global Data Index, Malaysia ranks in 87th place out of 94 countries in indices related to data openness, with a transparency score of 10 percent.¹²³ In terms

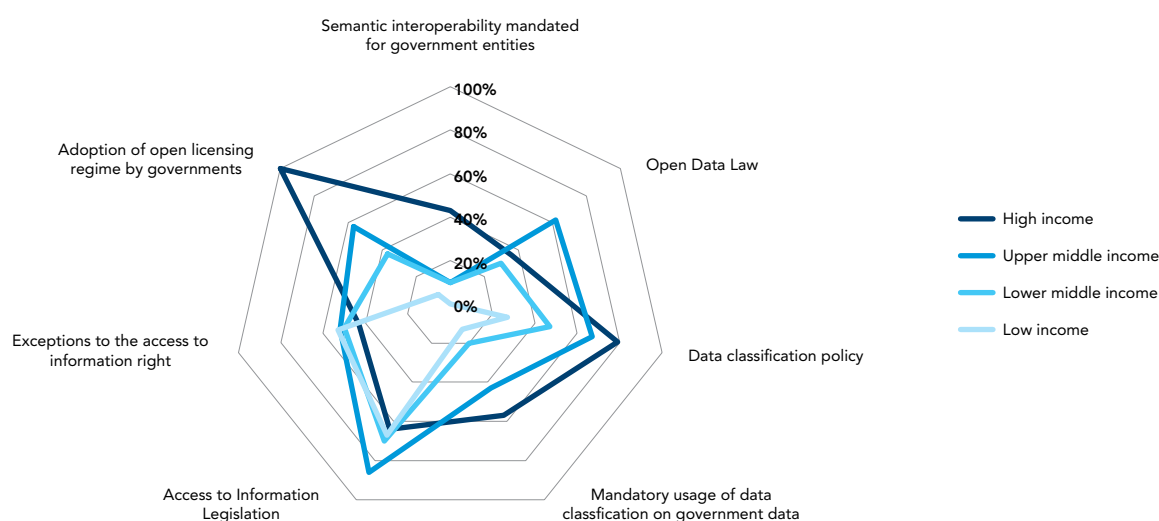
121 European Data Portal. 2015. Creating Value Through Open Data. https://data.europa.eu/sites/default/files/edp_creating_value_through_open_data_0.pdf

122 European Data Portal. 2020. The Economic Impact of Open Data. <https://data.europa.eu/sites/default/files/the-economic-impact-of-open-data.pdf>

123 Global Open Data Index. <https://index.okfn.org/place/>

of access to information and data relating specifically to the government's budget, the Open Budget Survey gives Malaysia a score of 47 out of 100, which means that only "limited information is available."¹²⁴ According to the Global Data Regulation diagnostic, Malaysia exhibits mixed results in terms of enabling regulations pertaining to public intent data against its middle income country peers. One enabler, namely, "semantic interoperability mandated for government entities", which is not common in upper middle income countries, is an aspect that Malaysia possesses (see Figure 4.7). On the flipside, there are other enabling characteristics with respect to public intent data, such as an open data law and access to information legislation that are present in the majority of upper middle income countries, and currently not present in Malaysia. Other issues of concern related to current state of the Open Data Portal include the lack of data granularity and updates, with data only being available in formats that are not user-friendly (e.g., data files only being available in PDF formats).¹²⁵

Figure 4.7: Percentage of adoption of regulations for public intent data



Source: WDR21 Global Data Regulation Diagnostic

Strengthening the legal force of open data policies may result in greater disclosure by the government.

There is no single law or regulation that governs the use of public sector data as a whole. The General Circular on Open Data permits agencies to determine for themselves whether or not to release or publish data to the public, based on their specific regulatory context. The General Circular is an administrative directive and has no statutory force. Moreover, when any government data or information of a third party is classified as an official secret under the Official Secrets Act 1972, it may not be shared with any unauthorized party. A peer review conducted by APEC into Malaysia's public consultation processes suggested that the Official Secrets Act 1972 was being overused, to the detriment of public disclosure. The authorities are considering the introduction of Freedom of Information (FOI) Act, subject to a review by the Legal Affairs Division of the Prime Minister's Department, which is due to report before December 2023. Steps are being taken to strengthen the framework through the proposed establishment of Open Data guidelines, with this targeted for implementation by 2025. One requirement stipulated in these guidelines is that at least 50 percent of government data should be machine-readable, with access to the data available through Application Programming Interfaces (APIs).

¹²⁴ International Budget Partnership, Open Budget Index 2019. <https://www.internationalbudget.org/open-budget-survey/rankings>

¹²⁵ The Edge. "Tech Talk: Much room for improvement in open data policy". November 2, 2020. <https://www.theedgemarkets.com/article/tech-talk-much-room-improvement-open-data-policy>



The scope of exemptions for public sector agencies from personal data protections could undermine citizens' control of their data. Under Section 3 of the PDPA 2010, government entities are fully exempt from provisions related to personal data protection. Recent surveys suggest that citizens' level of trust in how governments use their personal data is generally low, which in turn could undermine their willingness to engage with the digital economy.¹²⁶

The PDPA's categorization of characteristics that could be considered as sensitive excludes some whose disclosure could expose vulnerable groups to risk. While the PDPA provides stricter controls on data that is deemed to be sensitive, the definition of this term does not include certain characteristics – including race and sexual orientation – that might be considered as such given the potential vulnerabilities of certain groups.

Another area where transparency could be promoted as a best practice would be public procurement. Malaysia does not currently have a specific act of legislation to regulate public procurement. Instead, public procurement procedures and activities are governed by a number of instruments, including the Financial Procedure Act 1957 and the Government Contract Act 1949, amongst others. Broadly, these acts and circulars pertaining to the public procurement framework aim to ensure adherence to five main principles, these being public accountability, transparency, value for money, open and fair competition and fair dealing. The government does maintain an official online portal for government procurement activities, known as ePerolehan, which presents tender notices and enables suppliers to register as a potential contractor. As of October 2021, there were a total of 145,318 active suppliers registered on this portal.¹²⁷

126 IPSOS, 2019. <https://www.ipsos.com/en/ignorance-and-distrust-prevail-about-what-companies-and-governments-do-personal-data>

127 Ministry of Finance, ePerolehan Statistics. <https://www.eperolehan.gov.my/en/ep-statistic>

Recommendations

Malaysia's regulatory environment is generally conducive to support the digital economy, with key legislations in place to facilitate well-functioning, online business activity. That said, the current legislation pertaining to safeguards (including personal data protection and cybersecurity) could be strengthened to stimulate increased economic activities in the digital space by increasing consumers' and vendors' confidence in the associated transactions. On a positive note, the relevant ministries and agencies are currently conducting reviews of the legislation in order to bridge gaps and to closer align them with international standards. Given the rapidly evolving state of the digital economy, regulations will need to be dynamic in order to ensure the sustainability of economic activities in this space. Amendments to online consumer and supplier protection laws, competition policy and new areas of regulation related to issues such as the gig economy, will need to be developed in order to ensure that Malaysia does not lag behind its international peers. The proposed amendments should strive to:

- 1. Strengthen data protection governance and finalize key amendments to the PDPA 2010.** The proposed amendments to the PDPA 2010 address the majority of gaps in personal data protection legislation in Malaysia when benchmarked against major international laws such as the GDPR and the OECD Privacy Law. Thus, the expedient roll-out of these important amendments would ensure Malaysia's laws are not trailing international best practices. For SMEs, the successful compliance to these strengthened regulations will provide customers a sense of security regarding their personal data. In particular, more rigor on the obligations of data processors should be prioritized and data breach incidents should be acted upon with urgency. The proposed requirement to appoint a Data Protection Officer could help ensure that all the proposed safeguards under the responsibility of organizations are upheld. In order to facilitate greater SME compliance, regulatory requirements should be easy to understand with minimal administrative processes. SMEs should also have access to an institution that can facilitate queries and provide capacity building assistance for SMEs to build up compliance capabilities. A phase-in period for complete compliance by smaller firms, that may need more time to adjust to these amendments, could also be considered. Finally, data subjects should also be afforded more rights over the control of their data, such as the deletion of this data upon request.
- 2. Facilitate greater ease and security of cross-border data transfers.** The proliferation of e-commerce over the course of the pandemic has made cross-border data transfers more commonplace and in some respects, a necessity for cross-border business operations. That said, the PDPA 2010 in its current form permits the transfer of personal data across borders if the data subject consents to it, regardless of the personal data protection regulations in the jurisdiction that it is transferred to. The definition of consent under the PDPA 2010 is not as stringent as in other similar international regulatory frameworks, posing a possible security risk for personal data. Although both whitelists and blacklists have been proposed under the PDPA 2010 amendments, adequacy tests could also be considered. However, this would require a well-functioning system to monitor cross-border transfers and would depend on the capacity of the enforcement agencies involved. In cases where enforcement capacity may be weak, another option which centers responsibility on data processors and owners would be to enforce standard contract clauses or binding corporate rules in contracts in cases which would require the need to transfer personal data to other jurisdictions. In implementing these regulations, the ease of compliance, especially for smaller firms, should be considered a priority. There are plans under the National Data Sharing Policy to provide standard guidelines and develop a code of practice for data breach management, privacy

enhancing technologies, cloud computing, and cross-border data sharing. For SMEs, the development of standardized templates are especially beneficial to allow them to collaborate with overseas partners in digital platforms, while instilling trust in a data sharing environment.

It may also be useful to enhance regional and international collaboration on these issues which could be achieved through means including better leveraging regional initiatives such as the Cross-Border Privacy Rules (CBPR) system of the Asia-Pacific Economic Cooperation (APEC). Additionally, for potential digital trade agreements in the future, mechanisms to facilitate the recognition of member countries' legal approaches to data privacy could be considered, in order to facilitate a smoother flow of data.

3. **Enhance cyber security requirements to protect businesses and their customers.** Current laws that deal with cybercrimes are numerous and the agencies and statutory bodies involved in enforcement are not centralized. This may make enforcement less efficient. An overarching Cyber Security Law that is currently being assessed under the Malaysia Cyber Security Strategy, could help strengthen coordination. Other than improvements to the coordination framework for enforcement, the full implementation of Malaysia's National Digital ID framework will also help lessen the risk of cyber fraud crimes.

Besides the regulatory framework, there should also be an explicit onus on businesses to take the necessary preventive measures to prevent cybercrimes from occurring. Thus, the requirement for organizations to conduct periodic testing of security systems to demonstrate their effectiveness should be encouraged, along with clear guidelines on how cyber security breaches will be resolved. Given that many cybercrimes entail the theft of personal data, the expedient promulgation of the amendments to the PDPA 2010 will help in this regard. Ideally, businesses should formulate security strategies based on 'privacy by design' considerations which could include the anonymization of personal data, in-built into security systems. Both encryption and anonymization of personal data is not a strict requirement in the current PDPA 2010 legislation. Lastly, the efficient reporting of personal data-related cybercrimes as and when they occur, should also be made mandatory.

4. **Ensure consumer protection legislation is kept up to date with latest technological and market developments.** The Consumer Protection Act 1999 (CPA 1999), which is enforced by MDTCA and complemented by the Consumer Protection (Electronic Transactions) Regulations 2012, explicitly cover transactions conducted through electronic means, including online activities such as e-commerce. This legislation includes the need for sellers to disclose information on the product or service, terms of sale and to rectify any errors relating to purchases. To note, most of the complaints received pertaining to online purchases were related to misleading advertising and product information, low quality or imitation products, and unfair return and refund policies, which are areas covered by the prevailing legislation. Thus, potential gaps in enforcement could be due to capacity constraints or the more complicated dynamics that digital platform marketplaces present for the enforcement authorities to effectively monitor. Some amendments to the current CPA 1999 are also being considered which may make regulations clearer for both buyers and sellers of digital products. These include the requirements to notify consumers of any technical or contractual constraints on digital products (such as limits to interoperability); to reflect the participatory role of consumers in some digital products (such as requiring consumer endorsements to be truthful and transparent); and to account for the technological limitations or special characteristics of the device used, which are based on OECD's suggested best practices. This could assist in making regulations less ambiguous for transactions of digital products. Lastly, amendments that would further

lend to the strengthening of consumer safeguards would be highly beneficial to SMEs as it may give consumers more confidence to test out less established brands, given some level of adequate consumer protection.

- 5. Set up an Online Dispute Resolution (ODR) mechanism to efficiently adjudicate and resolve small claims and facilitate greater cross-country e-commerce activities.** The establishment of an ODR mechanism in Malaysia could be seen as an enhancement to the existing Tribunal for Consumer Claims (TCC) in terms of complexity and the types of disputes it can handle. Currently, the TCC has the jurisdiction to primarily hear claims for redress for the purchase of goods and services. An ODR system could not only widen the scope of the types of disputes heard, such as asset ownership issues, but also the means by which they can be resolved which can include more efficient means such as automatic settlement of financial claims or mediation by qualified mediators.

ODR mechanisms can facilitate cross-border dispute resolutions and as such, the establishment of an ASEAN Online Dispute Resolution (ODR) Network under the ASEAN Strategic Action Plan on Consumer Protection (ASAPCP) 2025 is a welcome initiative. Thus, the more expedient establishment of an ODR mechanism in Malaysia could help foster more cross-border e-commerce activities through the integration within the emerging ASEAN ODR network. Both domestic and cross-border ODR mechanisms should be made easy for SMEs to effectively leverage, by means of straightforward processes which are also cost-effective. The online, accessible aspect of the ODR mechanisms may help facilitate greater use by smaller businesses.

- 6. Enhance the competition frameworks to reflect new dynamics in the digital economy and to finalize amendments to CA 2010.** Malaysia has introduced a generic competition enforcement framework through the Competition Act 2010 (CA 2010) which provides a legal framework for monitoring and enforcing competition and is under the purview of MyCC. There are, however, no specific measures or references to the digital economy and moreover, a market review of digital businesses including platforms has not been conducted yet. The proposed amendments to CA 2010 are forthcoming and they will include the much needed introduction of merger control legislation. That said, effective amendments that pertain to the better enforcement of anti-competitive behavior in the digital economy may only come after a thorough market review exercise. This will help the competition authorities better understand the market, how it functions and where risks could emanate from.
- 7. Monitor the status of gig economy workers to ensure their adequate financial and legal security.** Malaysia extended its mandatory social security provisions to the self-employed, including various categories of gig economy workers under the Self-Employment Social Security Scheme (SESSS) in 2020 including food transport and e-hailing sectors. Undoubtedly a good start to affording gig workers some form of social security coverage, these schemes remain sustained by individual contributions which may not be forthcoming as gig work remains less stable compared to employee salaried work arrangements. Apart from social security coverage for accidents incurred through work under SESSS, the social security framework should be reviewed to provide more robust legal rights to gig workers (including the coverage eligibility of schemes such as the occupational safety and health administration (OSHA) standard). The private sector could also play a more integral role in ensuring the social and legal protection of gig workers. This would include establishing mechanisms for gig workers to cover contingency costs such

as work injury expenses and to ensure their professional development through the provision of training schemes. On a more fundamental level, ensuring that digital platforms comply with the stipulations of the Self Employed Social Security Act 2017 to ensure the gig workers employed are adequately protected would be a good starting point for the private sector to demonstrate commitment to their gig workers.

The establishment of these provisions would be mutually beneficial for both workers and employers and could be potentially co-funded by the government for a limited period, much like how SESSS was initially introduced, but co-funded with the private sector in this instance. The sustainability of such schemes will still depend on the legal treatment of gig workers which is still a challenging issue for gig worker networks and governments across the world. The Digital Economy Blueprint emphasizes the need to develop a social security system that includes gig economy workers, with the government aiming to provide all gig workers with some form of social protection by the end of 2025.

- 8. Improve the Open Data framework, expand the range of data available and include the publication of enforcement outcomes data.** The World Bank Group's Open Data Toolkit stipulates two main aspects of data openness - (i) data must be legally open – placed in a public domain or having ease of use and with minimal restrictions and (ii) data must be technically open – published in electronic formats that are machine-readable and non-proprietary¹²⁸. Besides easy access, it is also important for data users to be able to locate the open data available and hence, another best practice proposed by the Toolkit is for organizations to create and manage Open Data catalogs. In Malaysia's case, some of these best practices are not currently in practice, including the availability of data in electronic formats. This Toolkit could provide a useful checklist of aspects that open data would ideally have, when improving the current framework. Apart from the quality of data, the relative availability of datasets would also be an important aspect to consider in the review of open data policy.

More data being made available provides greater economic opportunities for businesses by alleviating uncertainties and helping them leverage potential prospects. This recommendation is in line with the Government's plan for Open Data, which is a priority area under the Public Sector Digitalisation Strategic Plan (PSPSA). Under the Government Open Data framework being proposed, efforts are being made towards unlocking high impact and high value data sets that can be beneficial for SMEs to build insights and impactful use cases that may translate to better business decisions. Based on the National Data Sharing Policy, the Government together with the private sector will develop guidelines for organizations on standardized technology and infrastructure to facilitate data sharing and develop trust amongst organizations to increase data sharing through trusted platforms.

An additional area of enhancement could be the publication of enforcement outcomes data pertaining to the prosecution of cybercrimes, personal data breaches and consumer complaints. This could help enhance transparency of enforcement actions and help promote accountability of businesses operations. Providing evidence of the consequence of legal recourse in these areas when legislation is breached can help strengthen the environment for the private sector to adhere to the prevailing laws and regulations to safeguard both consumers and businesses in the digital economy.

128 For more information about Open Data Toolkit, refer to World Bank's website at <http://opendatatoolkit.worldbank.org/en/essentials.html>

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Annex



Annex 1: List of selected SME digitalization programs in Malaysia (as of June 2021)

| Implementing Organization | Program Name | Type | Period/ Launch Date | Objective |
|--|--|---------------------------|---------------------|---|
| BNM (Bank Negara Malaysia) | SME Automation and Digitalization Facility (ADF) | Financing | 2020 | The SME Automation and Digitalization Facility (ADF) aims to encourage SMEs to automate processes and digitalize operations to increase productivity and efficiency. Under ADF, eligible SMEs are able to purchase equipment, machinery, computer hardware and software, IT solutions and services, technology support services and other intangible assets to enhance their productivity and efficiency. |
| CEDAR (Centre for Entrepreneur Development and Research) | HalalXcess | Diagnostic | 2021 | HalalXcess a one-stop digital platform offers to facilitate SME Entrepreneur readiness to obtain JAKIM Halal Certification on their business and products. The Halal consultation will be delivered through i-Consult , a comprehensive guide supported by the following AI-powered digital tools. |
| CEDAR (Centre for Entrepreneur Development and Research) | ODELA | e-commerce | 2020 | Implemented by SME Bank subsidiary CEDAR. ODELA is the first bank-backed e-commerce platform designed for informal SMEs as a centralized resource for business operations, smart financing and business development training. ODELA encourages digital adoption and entrepreneurship by facilitating access to finance and capacity building. |
| CEDAR (Centre for Entrepreneur Development and Research) | SME Technology Transformation Fund | Financing | 2019 | The SME Technology Transformation Fund (STTF) aims to provide financial assistance to SMEs to adopt digitalization and/ or automation in their business operations in achieving higher productivity, process efficiency, efficient cost management and greater market penetration. STTF is part of SME Bank's PENJANA response to provide financial support to eligible SMEs affected by the pandemic. |
| CEDAR (Centre for Entrepreneur Development and Research) | ScoreXcess.my | Financing | 2020 | An all-in-one solution that simplifies the application process and assists with increasing loan efficiency. The system integrates an advanced and secure platform which includes our Artificial Intelligence (AI), Machine Learning (ML) and alternate credit score that provide another angle of an SME's credit worthiness. The scoreXcess AI capability facilitates data-driven decisions while delivering lean and fast approval process. |
| CEDAR (Centre for Entrepreneur Development and Research) | Cradle Investment Program - Accelerate | Financing | 2020 | Financial support for the development and commercialization of tech-based products and services |
| CEDAR (Centre for Entrepreneur Development and Research) | Boost Your Business with Powerful Digital Marketing Strategies | Training/Digital Adoption | One-off program | Implemented by SME Bank subsidiary CEDAR, in collaboration HRDF, offers a Digital Marketing Training program designed especially for entrepreneurs and executives who wish to master the art of digital marketing. |
| CEDAR (Centre for Entrepreneur Development and Research) | Penjana Komuniti@ SME Bank | Training/Digital Adoption | 2020 | This program, Implemented by SME Bank subsidiary CEDAR, will cover the Fundamentals of Entrepreneurship, Accounting and Digital Marketing modules, as well as help businesses transition towards digital business by using digital marketing platforms and social media in promoting and increasing business sales. Grants will be provided to participants who successfully attend the entire program and meet the eligibility criteria. Target group includes B40, MSMEs, and others. |

| Implementing Organization | Program Name | Type | Period/ Launch Date | Objective |
|---|---|---------------------------|---------------------|---|
| CIDB IBS (Construction Industry Development Board - Industrialised Building System) | IBSWare | e-marketplace | 2021 | CIDB will leverage digital Industrialised Building System (IBS) factory as the platform for construction players promote their services & products. Through this CIDB, this initiative aims to spur the adoption of online design tool Building Information Modelling (BIM) and IBS to reduce construction time, increase safety standards and reduce wastage. |
| Cradle Fund | Cradle Investment Program - Ignite I, Ignite II | Financing | 2020 | Financial support for the development and commercialization of tech-based products and services |
| Digital Perak | SMART Niaga@ Perak | e-commerce | 2020 | In partnership with Shopee, Lazada, and Aziata Digital, the Perak State Government expanded its online platform where traders can now sell clothes, cookies, beauty products, and house decorations. |
| Digital Perak | Entrepreneurship Initiatives | Training/Digital Adoption | | An initiative to help the local entrepreneurs to shift from traditional business method and to guide them to utilize technology as ways to promote their products. Digital Perak will facilitate them with series of trainings and exhibition. |
| FAMA (Federal Agricultural Marketing Authority) | Agrobazaar | e-marketplace | 2014 | Market agricultural products via online platform - Agrobazzar Online ensures sustainability and growth of the e-market for agro food products within the local and international communities. This online marketplace provides access to new and sustainable markets for agro products grown in Malaysia. |
| HDC (Halal Development Corporation) | Digital Augmented Reality of Showcase Halal Malaysia (DASH) | e-marketplace | 2021 | The DASH app is an integrated digital platform that delivers Augmented Reality capabilities through 3D enabled presentations of Malaysian Halal products and services. DASH was developed to on-board halal exporters to promote their products and services with direct communication with potential buyers. |
| HDC (Halal Development Corporation) | Halal Integrated Platform (HIP) | e-marketplace | 2020 | The Halal Integrated Platform (HIP) developed by Halal Development Corporation (HDC) is an SME-focused online trading platform that connects industry players to global halal payers, equipping businesses with the competitive edge to tap into the ever-growing halal market while expanding market reach globally. This data pool of halal products and services provides industry players with access to global halal players, giving businesses a competitive edge to tap into the growing industry. |
| HDC (Halal Development Corporation) | eHalal.com | e-marketplace | 2016 | Publish halal supplier and product information to buyers world-wide through eHalal.com's B2B portal and with partners' B2C portals. |
| HDC (Halal Development Corporation) | e-ReHal (e-readiness for halal certification) | Training/Digital Adoption | 2021 | HDC Mudahcara E-coaching will help you to understand and assist you in Halal certification process in Malaysia. We are presenting a new approach for our award winning program - Mudahcara Pensijilan Halal to the ecoaching platform; E-ReHal. Mudahcara Pensijilan Halal is our award winning program in facilitating local SMEs in understanding and implementing Halal certification in their business. Now, we bringing this program into the e-coaching platform as part of IR4.0. |
| INSKEN (Institut Keusahawanan Negara) | E-Board (Online Onboarding Program) | e-commerce | 2020 | E-Board is a 4-month program to provide aspects of training, intensive coaching and hand-holding from online sales experts in the above platforms to ensure SMEs successfully digitize their business and online marketing and sales. Participants select a digital platform for their business, and a platform specific coach will be assigned to coach them for 3 months with target to increase their sales by 20%. |

| Implementing Organization | Program Name | Type | Period/ Launch Date | Objective |
|---|---|---|------------------------|--|
| Invest Selangor | Program Digitalisasi Urus Tadbir Tenaga Kerja (PRODUKT) | Training/Digital Adoption - includes Backend | 2020 | PRODUKT is an initiative by the State Government of Selangor towards the digitalization of businesses thus helping SMEs in Selangor in the adoption of Industry 4.0 technologies. Through this Program, SMEs will be able to subscribe to a workforce management system at no expense at all. This would help SMEs to save on their operational costs, thus enabling them to operate more productively. |
| KPLB (Ministry of Rural Development) | DesaMall@Online | e-marketplace | 2017 | Desamall@KPLB is an e-commerce platform for rural entrepreneurs to program in order to grow their business, including expanding into international markets collaborations with e-commerce platforms to expand into international markets Lazada, Shopee, and the United States, the United Kingdom and Australia. |
| Malaysia Investment Development Authority | Industry4WRD DISF | Digital Adoption - but more advanced function | 2019 | Provide matching grant for modernization and upgrading of facilities and equipment for firms who have undergone Industry4WRD Readiness Assessment in the manufacturing sector to adopt Industry 4.0 related technology. |
| MARII (Malaysia Automotive, Robotics and IoT Institute) | Digital Studio | Training/Digital Adoption | 2020 | Provide a platform for SMEs to utilise comprehensive digital platform facilities for webinar, marketing, and etc. |
| MARII (Malaysia Automotive, Robotics and IoT Institute) | MARII Kerja | Training/Digital Adoption | 2020 | Digital platform for youth that looking for upskilling program and job placement |
| MARII (Malaysia Automotive, Robotics and IoT Institute) | MARII Industry4wrld Technology Platform (MITP) | Training/Digital Adoption | 2019 | MITP is a one-stop advance production management solution to further drive the country's industry 4.0 adoption. The objectives is to provide affordable solution to the industry and also to develop homegrown technology related to IR4.0. |
| MARII (Malaysia Automotive, Robotics and IoT Institute) | MARII Enterprise Resource Planning | Training/Digital Adoption - includes Backend | 2021 | The MARII ERP system, developed by the institute, can automate the manual administration process through digitalization of record keeping, centralization of information, and consolidating sales orders until delivery in a system that can be accessed and used by various company operations |
| MARII (Malaysia Automotive, Robotics and IoT Institute) | Technopreneur Development Program Xpress (TEDx) | Training/Digital Adoption - includes Backend | 2020 | To accelerate the implementation of digital technologies and customized to equip SMEs with digital solutions to migrate their business to online platforms -- TDP and TDP Xpress serve as an important platform for SMEs to enhance their business performance and marketability through digital technologies, infusing data-driven decisions to manage in their daily operations. |
| MARII (Malaysia Automotive, Robotics and IoT Institute) | Technopreneur Development Program | Training/Digital Adoption - includes Backend | 2020 | TDP and TDP Xpress were developed in collaboration with Fintech Lab to provide SMEs with the requisite knowledge and digital tools to enhance their business operations, with the end goal of establishing an ecosystem revolving around technology, fully utilized by SMEs on a shared common platform engineered by MARII. Through this TDP, participants will also adapt to and adopt Industry 4.0-related technologies and services into their businesses. -- TDP and TDP Xpress serve as an important platform for SMEs to enhance their business performance and marketability through digital technologies, infusing data-driven decisions to manage in their daily operations. |
| MATRADE (Malaysia External Trade Development Corporation) | eTrade Program 2.0 | e-commerce | 2014 (2.0: 2021) | Boost the adoption of eCommerce among SMEs through technical and financial assistance (under 11th Malaysia Plan). eTrade2.0: Collaboration with Amazon to educate Malaysian sellers on e-commerce opportunities in the US and Singapore. Specifically with the objective of enhancing exports by SMEs through e-commerce websites |

| Implementing Organization | Program Name | Type | Period/ Launch Date | Objective |
|---|--|---------------------------|----------------------|--|
| MATRADE (Malaysia External Trade Development Corporation) | BuyMalaysia | e-commerce | 2010 | Set up in 2010 under the National ICT Initiative to champion e-commerce for SMEs in the country to digitize and expand into international markets. BuyMalaysia is recognized by MATRADE as an e-marketplace partner that is well positioned to facilitate cross border commerce for Malaysian goods and services. |
| MDEC (Malaysia Digital Economy Corporation) | Digital Xccelerator (under 100 Go Digital) | Training/Digital Adoption | 2020 | The aim of this DX initiative is to assist SMEs' embarking on business digitalization journey. Essentially, DX was designed to be the first touchpoint for SMEs to gain access to available programs, funding and incentives as well as matching SMEs to digital solutions that best match their digitalization needs. |
| MDEC (Malaysia Digital Economy Corporation) | Go-eCommerce | e-commerce | 2020 | Go-Ecommerce is an online learning platform that enables youth and MSMEs to learn more about using eCommerce for their existing or future businesses. The platform provides self-paced learning modules to guide eCommerce onboarding. |
| MDEC (Malaysia Digital Economy Corporation) | WeChat Mini Program | e-commerce | 2020 | The MDEC WeChat Mini Program is an initiative by MDEC to help Malaysian eCommerce merchants leverage on the WeChat ecosystem and grow their business globally. The MDEC WeChat Mini Program will serve as a repository of Malaysian eCommerce merchants for export to China. Market access of Malaysian eCommerce merchants to China and to facilitate: business matching; promotion and marketing campaigns; and Information gathering and analytics. |
| MDEC (Malaysia Digital Economy Corporation) | PENJANA #Shop MalaysianOnline | e-commerce | 2020 | As part of the PENJANA recovery initiatives, MDEC partnered with Shopee to encourage e-commerce onboarding and growth among MSMEs. Through this initiative, customers were provided vouchers to incentivize purchases from local sellers. |
| MDEC (Malaysia Digital Economy Corporation) | #MYCyberSale | e-commerce | 2014, annual program | #MYCyberSale aims to establish and accelerate Malaysia's e-commerce ecosystem through an annual cybersale event to boost e-commerce and encourage cross-border trade within ASEAN. |
| MDEC (Malaysia Digital Economy Corporation) | Digital Free Trade Zone | e-commerce | 2017 | The Digital Free Trade Zone aims to drive seamless cross-border trade through digitalization and to facilitate access of local SMEs to opportunities in global markets via e-commerce. This initiative aims to increase SME exports through e-commerce and attracting investment to set up regional e-commerce fulfillment hubs in Malaysia. |
| MDEC (Malaysia Digital Economy Corporation) | PENJANA Micro & SMEs E-Commerce Campaign | e-commerce | 2020 | Through its partnership with e-commerce platforms, eligible MSMEs will be on-boarded onto e-commerce platforms to shift towards business digitalization. Participating e-commerce platforms will support MSMEs in on-boarding training, seller subsidy and sales support. Platform partners include Boost, Fave, foodpanda, Grab, Lazada, Maybank, Shopee, Touch 'n Go, and Zalora. |
| MDEC (Malaysia Digital Economy Corporation) | Perkhidmatan e-Dagang Setempat (PeDAS) | e-commerce | 2019 | Perkhidmatan e-Dagang Setempat (PeDAS) across rural internet centres to enable digital transformation amongst MSMEs in rural areas, in line with the rapid development of the e-commerce industry. Services offered by PeDAS include business profiling to assist MSMEs to identify the marketability and viability of their business; training and coaching on e-commerce marketing; as well as consultation on related areas such as business plans, administration, licensing, registration and branding. |
| MDEC (Malaysia Digital Economy Corporation) | SME Business Digitalization Grant | Financing | 2020 | Matching grant to encourage SMEs to digitalize their business operation -- The Government will provide a 50% matching grant of up to RM5,000 per company for the subscription of the above services. This matching grant will be worth RM500 million over 5 years, limited to the first 100,000 SMEs applying to digitalize their business operation. |

| Implementing Organization | Program Name | Type | Period/ Launch Date | Objective |
|---|---|---------------------------|-----------------------|---|
| MDEC (Malaysia Digital Economy Corporation) | PENJANA Digital Content Grant | Financing | 2020 | The PENJANA Digital Content Grant aim to support local digital creative companies in developing, producing, co-producing, and marketing their digital content in animation, digital games, and interactive media content. Its main objectives include (i) create and develop sustainable ecosystem for job creation and business and market expansion; (ii) develop and enhance local creative competencies through international partnerships; and (iii) create Malaysian-owned or Malaysian-shared intellectual property. |
| MDEC (Malaysia Digital Economy Corporation) | Digital Transformation Acceleration Program Pilot | Financing | 2018 | In partnership with Malaysians Investment Development Authority (MIDA), the DTAP Pilot Grant assists companies to leverage on Digital Transformation Lab's expertise and assistance in addressing pain points and exploit opportunities in the digital space, while adopting emerging technologies. |
| MDEC (Malaysia Digital Economy Corporation) | eBerkat Marketplace | Financing | 2020 | To enable more digitally-powered businesses, eBerkat Marketplace provides easy access to digital financial services especially to the B40 community and Micro Small and Medium Enterprises (SMEs). |
| MDEC (Malaysia Digital Economy Corporation) | UOB Jom Transform Digital 2020 | Training/Digital Adoption | 2020, one-off program | Supported by MDEC and UOB's FinLab, this business transformation program helps local SMEs digitalize their operations for productivity and revenue growth |
| MDEC (Malaysia Digital Economy Corporation) | PENJANA Smart Automation Grant | Financing | 2020 | Provide financial support for services companies to automate their business processes and move towards digitalization. Targets SMEs and mid-tier companies in services. Recipients will receive up to 50% of the total project cost, subject to a ceiling limit up to RM200,000 or, whichever is the lowest, through this matching grant. |
| MDEC (Malaysia Digital Economy Corporation) | e-Usahawan | Training/Digital Adoption | 2015 | e-Usahawan aims to increase exposure to digital entrepreneurship among Malaysian youth and SMEs. e-Usahawan provides training in digital entrepreneurship online, as well as through partnerships with vocational and higher education institutes. |
| MDEC (Malaysia Digital Economy Corporation) | 100 Go Digital | Training/Digital Adoption | 2019 | Enable traditional Malaysia businesses in key sectors move towards digitalization. Initiatives under 100 Go Digital include webinars, virtual conferences like SME Digital Summit, and accelerators like Digital Xccelerator. Over 100,000 SMEs nationwide were engaged and encouraged to participate. |
| MDEC (Malaysia Digital Economy Corporation) | Business Continuity Digitalization #BCD | Training/Digital Adoption | 2020, one-off program | Business Continuity Digitalization is a strategic partnership between Digi and MDEC to equip SMEs with training and digital tools to reap the benefits of digitalization. Training includes webinars and online clinics to address critical areas for business' digital transformation. |
| MDEC (Malaysia Digital Economy Corporation) | HSBC Illuminate Series | Training/Digital Adoption | 2020, one-off program | HSBC in collaboration with MDEC and RISE hosting a series of programs focused on essential digital technologies |
| MDEC (Malaysia Digital Economy Corporation) | SME Digital Quick Wins | Training/Digital Adoption | 2020 | As part of the SME Digital Quickwins initiative, #DigitalVsCOVID movement focuses on (i) facilitate the process of connecting technology solution providers with SMEs to help overcome challenges of MCO and (ii) guidance for SME for post-MCO recovery around sustainability (talent retention, ecosystem growth). |

| Implementing Organization | Program Name | Type | Period/ Launch Date | Objective |
|---|---|---------------------------|-----------------------|--|
| MDEC (Malaysia Digital Economy Corporation) | eLadang | Training/Digital Adoption | 2018 | eLadang is a digital agriculture program enabled by MDEC and CIMB to better understand farmer needs. The program aims to pilot digital technology use cases in transforming traditional farming into a high-income digital economy profession. Farmers have a selection of digital tools and services from MDEC partners in smart farming, eMarketplaces, logistics and warehousing/ storage. |
| MDEC / KBS (Ministry of Youth and Sports) | eUsahawan Youth Digital Program (Young Heroes) | Training/Digital Adoption | 2019, one-off program | Provide centralized platform for training (online marketing, business opportunities and support services) to B40 youths to gain practical exposure and online business techniques |
| MDV (Malaysia Debt Ventures Berhad) | Liquidity Financing for Tech Start-ups (LIFTS) (Technology Start-ups Funding Relief Facility (TSFRF)) | Financing | 2020 | Aims to provide immediate and targeted cash flow support for VCs or Government agency-backed technology start-ups to sustain their business operations. |
| MEDAC (Ministry of Entrepreneur Development and Cooperatives) | Assistance for Women, OKU Owned Businesses | Training/Digital Adoption | 2021 | MEDAC focusing on assisting women-owned, OKU businesses to go digital and help businesses to adopt, adapt and embrace technology. Under 5-year strategy, targeting minimum of 5,000 financing approvals to entrepreneurs which is expected to expand the franchise portfolio by 400% from RM178mil to RM700mil. |
| MEDAC / PNS | Program Jom Ubah Minda Peniaga (JUMP) | e-commerce | 2020 | Intensive training for e-commerce and digital marketing to onboard Pybli, Perbadanan Nasional Berhad (PNS)'s online platform |
| MIDA (Malaysian Investment Development Authority) | Industry4WRD Intervention Fund | Financing | 2021 | Industry4WRD Intervention Fund is a financial support facility designed to assist SMEs in manufacturing and related services sectors to embrace Industry 4.0. The fund is intended to support companies in implementing intervention projects based on recommendations of the Industry4WRD Readiness Assessment Report, which focuses on shift factors of people, process and technology. |
| MIDA (Malaysian Investment Development Authority) | MIDA Smart Automation Grant (SAG) | Financing | 2020 | The Smart Automation Grant (SAG) is offered to Malaysian SMEs and Mid-Tier Companies in Manufacturing and Services Sector. SAG aims to help these companies automate their business processes and move toward digitalization. The grant will be used solely for the purpose of kickstarting the development and implementation of projects that push the adoption of technologies to automate business operations. |
| MIDF (Malaysian Industrial Development Finance Berhad) | Soft Financing Scheme For Automation & Modernisation | Financing | 2007 | Soft Financing Scheme for Automation & Modernization (SFSAM-i) aims to (i) assist manufacturing companies to automate and modernize processes and (ii) minimize dependence on labor and upgrade production capability and capacity. Financing available to SMEs and non-SMEs. |
| MIDF (Malaysian Industrial Development Finance Berhad) | Soft Financing for Digitalization & Technology | Financing | 2020 | Soft Financing for Digitalization & Technology (SFDT) aims to encourage and increase the utilization of digital technologies among local SMEs across all sectors as a means to escalate competitiveness, efficiency, and marketability. SFDT aims to increase SME products into national and global markets, as well as encouraging local SMEs to adopt digitalization and e-commerce. |

| Implementing Organization | Program Name | Type | Period/ Launch Date | Objective |
|--|--|---------------------------|---------------------|--|
| Ministry of Domestic Trade and Consumer Affairs | Retail Digitalization Initiative (ReDI) | Training/Digital Adoption | 2020 | Advocate to MSMEs on e-Wallet usage and benefits |
| MPC (Malaysia Productivity Corporation) | Industry4wrdr Readiness Assessment | Diagnostic | 2020 | Industry4WRD Readiness Assessment (Industry4WRD-RA) is a comprehensive program to help firms assess their capabilities and readiness to adopt Industry 4.0 technologies and processes. The assessment uses a pre-determined set of indicators to understand their present capabilities and gaps, from which will enable firms to prepare feasible strategies and plans to move towards Industry 4.0. |
| MIDA (Malaysian Investment Development Authority) | MIDA Smart Automation Grant (SAG) | Financing | 2020 | The Smart Automation Grant (SAG) is offered to Malaysian SMEs and Mid-Tier Companies in Manufacturing and Services Sector. SAG aims to help these companies automate their business processes and move toward digitalization. The grant will be used solely for the purpose of kickstarting the development and implementation of projects that push the adoption of technologies to automate business operations. |
| MIDF (Malaysian Industrial Development Finance Berhad) | Soft Financing Scheme For Automation & Modernization | Financing | 2007 | Soft Financing Scheme for Automation & Modernization (SFSAM-i) aims to (i) assist manufacturing companies to automate and modernize processes and (ii) minimize dependence on labor and upgrade production capability and capacity. Financing available to SMEs and non-SMEs. |
| MIDF (Malaysian Industrial Development Finance Berhad) | Soft Financing for Digitalization & Technology | Financing | 2020 | Soft Financing for Digitalization & Technology (SFDT) aims to encourage and increase the utilization of digital technologies among local SMEs across all sectors as a means to escalate competitiveness, efficiency, and marketability. SFDT aims to increase SME products into national and global markets, as well as encouraging local SMEs to adopt digitalization and e-commerce. |
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| MPC (Malaysia Productivity Corporation) | Industry4wrdr Readiness Assessment | Diagnostic | 2020 | Industry4WRD Readiness Assessment (Industry4WRD-RA) is a comprehensive program to help firms assess their capabilities and readiness to adopt Industry 4.0 technologies and processes. The assessment uses a pre-determined set of indicators to understand their present capabilities and gaps, from which will enable firms to prepare feasible strategies and plans to move towards Industry 4.0. |
| MPC (Malaysia Productivity Corporation) | Productivity through Digitalization (P1010) | Diagnostic | 2020 | Productivity through Digitation (PRODUCTIVITY1010) is a 'Digitalization Self-Diagnostic and Prioritization Matrix' tools to help businesses to embark on digitalization journey. After completing the PRODUCTIVITY1010 self-assessment, additional training and mentoring are available through Business Virtual Advisory Mentoring (BVMA) to further assist companies. |
| MPC (Malaysia Productivity Corporation) | Business Virtual Advisory Services (BVAS) | Training/Digital Adoption | 2020 | Virtual Advisory Clinic consists of 5 strategic approaches namely Business Webinars, Virtual Advisory Clinics, Business Advisory Mentoring, Business Advisory Coordination and Virtual Training. Areas of consultation include marketing and branding; human resources; finance; technology and digitalization; incentives; business operations; supply chain; and management. |

| Implementing Organization | Program Name | Type | Period/ Launch Date | Objective |
|---|--|--|---------------------|--|
| MPC (Malaysia Productivity Corporation) | Digital Victory Virtual Business Clinic | Training/Digital Adoption | 2020 | Digital Victory provides consultation clinics conducted by selected industry experts and specialists as the mentor and advisor. Digital Victory focuses on strategic positioning, financial consultation, legal and regulatory advice, innovative business operation, business development and marketing solutions and technical solutions. |
| MPC (Malaysia Productivity Corporation) | IoT Plugfest | Training/Digital Adoption - includes Backend | 2019 | The Plugfest 1.0 Industrial Internet of Things (IIOT) is a unique hands-on program aimed toward building an internal talent pool within the manufacturing sector by applying the benefits of Industry 4.0 (I4.0) via the integration of equipment/systems and visualization of data using IIoT to improve productivity. |
| MRC (Malaysian Rubber Council) | SBIM19 - Technology Adoption Program (Covid-19 Stimulus Package) | Financing | 2020 | SME Capacity Development Financing -- a matching grant up to a maximum of RM5,000.00 per company to purchase relevant software/s to implement digital solution for the following areas: Customer Management, Finance Management, HR Management, Inventory Management, Workflow Tracking and Management |
| MTDC (Malaysian Technology Development Corporation) | Adoption of Digital Solutions (ADS) | Training/Digital Adoption | 2020 | Customized digital solutions, trainings and handholding for micro-sized firms to adopt with aims to increase their capacity and capability to use digital technology and software in their business operations. Jointly with MEDAC (Ministry of Entrepreneur Development and Cooperatives) |
| MTDC (Malaysian Technology Development Corporation) | Recovery Initiative for Social Enterprise (RISE) | Training/Digital Adoption | 2020 | Customized digital solutions, trainings and handholding for social enterprises and cooperatives to adopt with aims to increase their capacity and capability to use digital technology and software in their business operations. Jointly with MEDAC (Ministry of Entrepreneur Development and Cooperatives) |
| MTDC (Malaysian Technology Development Corporation) | i4.0 Technopreneurship Accelerator Program (i-TAP) | Training/Digital Adoption | 2020 | A capacity building program to develop Industrial 4.0 technology skills and knowledge among young graduates which has potential for employment opportunities and drive them to venture into the field of technology entrepreneurship Jointly with MEDAC (Ministry of Entrepreneur Development and Cooperatives) |
| MTDC (Malaysian Technology Development Corporation) | i4.0 Accelerator Program (ACE) | Training/Digital Adoption - includes Backend | 2020 | Customized industry 4.0 solutions, trainings and handholding for small and medium-sized firms to adopt automation technology in their operation thus increasing sales and productivity Jointly with MEDAC (Ministry of Entrepreneur Development and Cooperatives) |
| MyCreative Ventures | Digital marketing and promotion grant | Financing | 2020 | The Digital Marketing and Promotions Grant (DMPG) has been specially designed to support and to assist creative industry players in marketing his/her creative products/services/talents on the internet, via applications, display advertising and any other digital mediums such as Media Prima Digital, Astro or other platforms agreeable with MyCreative namely Facebook, Instagram, Google, Tik Tok, Snapchat, Twitter, YouTube, LinkedIn and Pinterest. |
| MyCreative Ventures | Digital Velocity Program | Training/Digital Adoption | 2020 | The Digital Velocity Program is an effort to assist the creative industry players to incorporate a digital or online dimension to their creative business or activity as well as to guide them in adapting to the new normal through training in digital distribution methods and promotion, development of new businesses models and connectivity. |

| Implementing Organization | Program Name | Type | Period/ Launch Date | Objective |
|---|--|---------------------------|---------------------|--|
| MYNIC (Malaysia Network Information Centre) | SMEs Go Online | Training/Digital Adoption | 2018 | SME's Go Online aims to provide an all-rounded support to help SMEs' overall level of digital readiness and offers technology to stay ahead of global challenges. The packages are designed specifically for business entity to progress towards digital evolution in terms of marketing and business features. This program was created for entrepreneurs to further expand their potential and achievement through enabling their business and online presence by leveraging on IT solutions |
| MYNIC (Malaysia Network Information Centre) | PRIME (Program Realisasi Impian Ekonomi Digital) | Training/Digital Adoption | 2020 | Partnership with MDEC, Ministry of Rural Development and Ministry of Agriculture and Food Industries. Program to drive digital adoption among SMEs and increase competitiveness of small businesses in Malaysia. In conjunction with the PRIME launch, MYNIC will be offering 20,000 free .BIZ.MY subscriptions worth RM1.6mil to eligible micro-SMEs (MSMEs). |
| MYNIC (Malaysia Network Information Centre) | Sama-Sama Digital | Training/Digital Adoption | 2019 | Malaysian cloud and digital solutions provider Exabytes launched Sama-Sama Digital to help Bumiputera SMEs digitalize their businesses post-movement control order. This solution includes tailor-made online business strategy for bumiputera SMEs in digital marketing; corporate and eCommerce website design; and online customer management. |
| MYNIC (Malaysia Network Information Centre) | OKU Digital Outreach | Training/Digital Adoption | 2020 | Initiative to accelerate digital adoption focused on increasing the adoption of digital presence by transforming businesses from offline to online for the among differently abled (OKU) people in Malaysia |
| MYNIC (Malaysia Network Information Centre) | Digital Market Mastery Training Program (Program Latihan Penguasaan Pasaran Digital) | Training/Digital Adoption | 2019 | Training program targeting rural entrepreneurs to move business online and develop digital marketing. Training around website construction, SEO, social media marketing and improving marketing content |
| Pahang State Government | PahangMart | e-marketplace | 2020 | Traders in Pahang can advertise and coordinate delivery through online grocery portal PahangMart |
| Penang Island City Council (MBPP) | Jom Beli Online | e-marketplace | 2020 | Online delivery platform to help hawkers and small-time traders operating at Penang Island City Council complexes to sell their food during MCO period. Jom Beli Online has since expanded to also include groceries, produce, meat and seafood. |
| PUJB (Perbadanan Usahawan Johor) | Johor E-Marketplace | e-commerce | 2020 | In partnership with Shopee, microsite featuring by Johor traders from August 9 - December 31, 2020 aimed to help 3,000 entrepreneurs in the state |
| Sabah Ministry of Industrial Development | Digitalization Initiatives | e-marketplace | 2019 | Collaboration with private sector to help SMEs in Sabah place home-made products on online marketplaces like E-pasar Sabah, Shopee, BorneoKaki, ShopDirect, Tamuku, My Borneoshop, GoNet and others. |
| Seberang Perai City Council (MBSP) | Ramadan e-Bazaar | e-marketplace | 2020 | Seberang Perai City Council (MBSP) set up an e-portal to help Ramadan bazaar traders conduct business online |
| Selangor State Government | Selangor E-Kitchen | e-commerce | 2020 | Selangor e-Kitchen is a business digitalization initiative to ensure that the state economy can provide new value creation to citizens. This initiative helps hawkers / small business owners (Micro SMEs) to continue operating online to expand their market reach. |

| Implementing Organization | Program Name | Type | Period/ Launch Date | Objective |
|---|---|---------------------------------------|---------------------|---|
| SIDEC (Selangor Information Technology & Digital Economy Corporation) | Selangor Accelerator Program | Accelerator, incubator, hub, coaching | 2017 | A structured 4-month program that aims to assist startups in the early stage, defined as startups that have not gone for Series A funding. The SAP wishes to help these startups in polishing not only their product and business, but their core team as well, through workshops and mentors that will share knowledge, experience, and advice that will help the teams with their soft skills and pitching styles as well. |
| SIDEC (Selangor Information Technology & Digital Economy Corporation) | Jelajah Usahawan Digital | e-commerce | 2020 | Implemented in partnership with major e-Commerce companies (Shopee, Lazada, Boost, Avanam, Youbeli), the program aims to train to local MSMEs who want to start an e-commerce business. Focus is on upskilling entrepreneurs, especially those in 2nd tier cities, with the requisite e-commerce and digitalization skills they will need to compete and be successful in the digital economy. |
| SIDEC (Selangor Information Technology & Digital Economy Corporation) | Selangor Online 100 and Brands 100 Program | e-commerce | 2021 | This program provides full e-Commerce solution and support for SMEs to embrace digitalization and expand their brand and business online (e.g. free E-commerce website, 2 Years free domain and web hosting, help to set up a marketplace web-store, management training class |
| SIDEC (Selangor Information Technology & Digital Economy Corporation) | Selangor EC Class | e-commerce | 2015 | Provide E-Commerce Class online, how to advertise, how to sell on E-Commerce, how to use social media with ticket price normally at RM150 |
| SIDEC (Selangor Information Technology & Digital Economy Corporation) | Selangor E-Bazaar (Raya, Chinese New Year, 11.11) | e-marketplace | 2020 | Online bazar for SMEs to sell products |
| SIDEC (Selangor Information Technology & Digital Economy Corporation) | Selangor SME Digitalization Matching Grant | Financing | 2021 | SMEs in Selangor can receive a 50 per cent matching grant or up to RM5,000 from the Selangor government to subscribe to 5 major fields of digitalization services (e-commerce; HR and payroll systems; cloud accounting; digital marketing; and e-PoS and payment gateway). The grant, worth a total of RM5 million, aims to help Selangor SMEs to digitalize their businesses in weathering the Covid-19 storm. |
| SIDEC (Selangor Information Technology & Digital Economy Corporation) | SME Digital Accelerator (under 100 Go Digital) | Training/Digital Adoption | 2020 | This initiative by SIDEC is linked to MDEC's 100 Go Digital national program. SME Digital Accelerator assists SMEs by providing a structured approach to adopt digitalization with outcome-based results. Digital adoption requires SMEs to go through a journey to implementing the right digital solutions for their business. Through the program, participants will be exposed to various methods of digital adoption, aiming to solve their business pain points via digitalization. |
| SIDEC (Selangor Information Technology & Digital Economy Corporation) | Digital Marketing Advanced Course | Training/Digital Adoption | 2020 | Digital marketing course for SMEs |

| Implementing Organization | Program Name | Type | Period/ Launch Date | Objective |
|--|--|---------------------------------------|-----------------------|--|
| SMA (Sarawak Multimedia Authority) | Go Digital Sarawak Program | Training/Digital Adoption | 2020 | As part of regional Go Digital ASEAN program, Partnership among Google, Pustaka Negeri Sarawak, and Sarawak Multimedia Authority to equip MSMEs and emerging workforce, particularly those in rural and isolated areas, with digital skills and tools |
| SMA (Sarawak Multimedia Authority) | Digital Marketing Training Program | Training/Digital Adoption | 2021 | Digital marketing training program |
| SME Bank | BID-it | Accelerator, incubator, hub, coaching | 2017, one-off program | Support innovative business ventures that incorporate digitalization and cross border transaction through technology and e-commerce. |
| SME Corp (Small and Medium Enterprise Corporation) | Warongku Initiative (under Micro Connector) | e-commerce | 2021 | Under the Micro Connector program, the Warongku Platform aims to help hawkers, small traders, and entrepreneurs from the informal sector adapt to digital technology and market their products online. Warongku also offers training or courses to entrepreneurs who lack technical exposure and digital marketing literacy. |
| SME Corp (Small and Medium Enterprise Corporation) | SMEs Go Global | Financing | 2015 | The SMEs Go Global Program focuses on internationalization of local SMEs, including participation in e-marketplace. The initiative provided under this program is in the form of financial assistance to support internationalization activities. |
| SME Corp (Small and Medium Enterprise Corporation) | SME Technology Financing Program | Financing | 2021 | Implemented jointly with HP, the SME Technology Financing Program aims to provide SMEs with access to digital and technology financing solutions. Through its collaboration with Hewlett Packard Enterprise Malaysia, this program will support the digital transformation of impacted businesses by providing various innovative financing structures to reduce the upfront cash expenditure required during these uncertain times. |
| SME Corp (Small and Medium Enterprise Corporation) | SME Adopt and Innovate (SME AI) program | Financing, Training/Digital Adoption | 2020 | This program, implemented in partnership with Huawei, aims at deepening SME digitalization. Besides providing a matching grant together with Huawei solutions for SMEs to use it in their business under the adoption program, the collaboration will also engage with local digital innovation by using Huawei Cloud and AI to assist SMEs to create their innovative product. Huawei will also help to promote and bundle SME digital solutions from the program to telco. |
| SME Corp (Small and Medium Enterprise Corporation) | Micro Connector Program | Training/Digital Adoption | 2019 | The Program aims to provide simplified early-stage assistance for microenterprises to set up and run a business as well as to train the inclusive group including youth, women, B40 and others community to gain new skillset for income generation through entrepreneurship. It includes training on online applications, mobile e-commerce and e-payment & ICT applications; |
| SME Corp (Small and Medium Enterprise Corporation) | Bumiputera Enterprise Enhancement Program | Training/Digital Adoption | 2015 | The Bumiputera Enterprise Enhancement Program (BEEP) aims to create and develop competitive, resilient and dynamic Bumiputera SMEs through integrated assistance with hand-holding approaches including strengthening SMEs core business, building capacity and capability, increasing productivity and facilitating access to financing. Within its scope, BEEP offers digitalization exposure to e-Commerce, e-Payment and ICT applications. |
| SME Corp (Small and Medium Enterprise Corporation) | Women Netpreneur Program (under Micro Connector) | Training/Digital Adoption | 2013 | Under the Micro Connector program, the Women Netpreneur Program aims to ensure women entrepreneurs are continuously kept up to date in the dynamic business landscape, especially around digitalization and technology convergence. The program was revived in 2017 to focus on assisting women entrepreneurs to start and grow their businesses online. |

| Implementing Organization | Program Name | Type | Period/ Launch Date | Objective |
|--|---|---------------------------|------------------------|---|
| SME Corp (Small and Medium Enterprise Corporation) | Enabling ePayment for SMEs and Microenterprises | Training/Digital Adoption | 2012 | Enabling ePayment for SMEs and Microenterprises is a Project under the Digital Malaysia initiative aimed to increase the adoption of ePayment among SMEs. Due to the cost constraint and intricate process of ePayment, SMEs and Micro Enterprises are facing difficulties in acquiring ePayment capability. With this initiative, SMEs and Microenterprises are being enabled to accept ePayment via means of simplifying the acquisition process and lowering its cost. It will also accelerate the adoption of ePayment with the distribution of affordable Point-of-Sale (POS) terminals. |
| Tekun Nasional | Pemasaran Online TEKUN | Training/Digital Adoption | 2020 | A capacity building to transform micro entrepreneurs from conventional way of doing business to digitalization. TEKUN collaborates with MDEC for digital marketing module under eUsahawan and PeDAS programs. |



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