



Technology, Innovation and Digitalisation

Chapter

4



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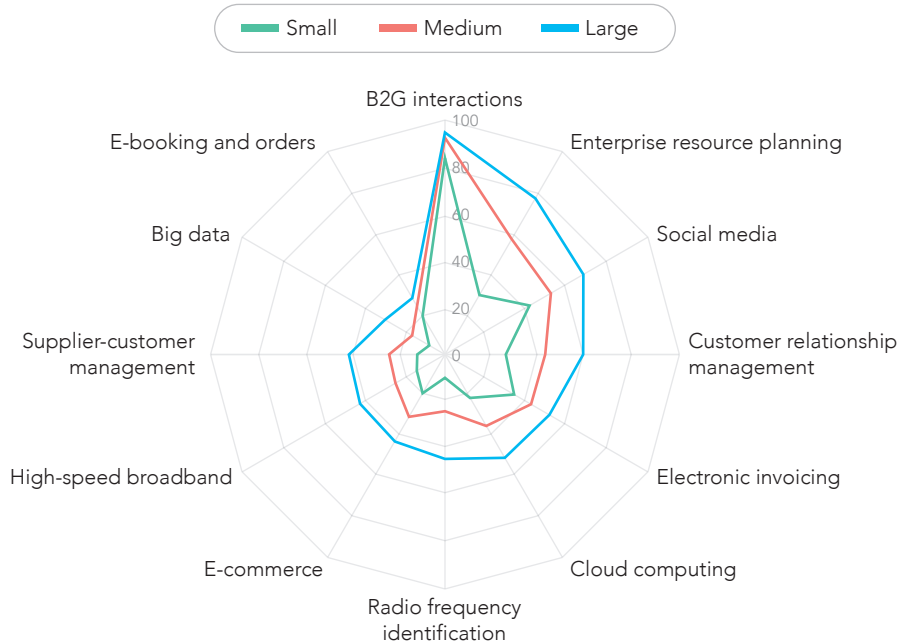
DIGITALISATION THE GAME CHANGER

Digital tools bring many significant benefits for firms. Digitalisation reduces transaction costs by providing better and quicker access to information and communication between workers, suppliers and networks. It can help micro, small and medium-sized enterprises (MSMEs) integrate into global markets, through reductions in costs associated with transport and border operations and it significantly enhances the scope to trade services. It facilitates access to resources, including finance (e.g. peer-to-peer lending), training, and recruitment channels, including Government services, which are increasingly being made available online. It also supports innovation, and greater access to innovation assets, as well as the potential for firms to generate data and analyse their own operations in new ways to drive improved performance.

The biggest challenge is the first step for many firms. Once an initial transition is made to digital technologies, there are strong complementarities in technologies that can drive further adoption. For example, digital platforms such as social media and e-commerce marketplaces provide significant scope to optimise certain operations at very low cost through business intelligence and data analytics services.

SME gaps in adoption of technology are large in many areas

Diffusion rate, median OECD, based on country average percentages of enterprises using the technology over 2015 - 2018



Source: *SME Digitalisation to Build Back Better*, OECD

Closing this productivity divide between large and other firms therefore holds a key to permanently boosting wider economic growth, prosperity and reducing income inequalities globally. One of the best and most often cited ways to boost the overall labour productivity potential in MSMEs could be through digital transformation.

Digitalisation can be a game changer for MSMEs, introducing smart contracts and automating many back-office functions. It can for example, reduce late payments and improve business cash flow. Going online and trading across borders can also allow MSMEs to reach a similar number of customers as larger rivals. MSMEs that have digitalised are more likely to have found new business opportunities during the pandemic, double the rate of the least digitalised according to Vodafone. Other reports have shown how digitalisation has built long term business resilience, increasing earnings before interest and taxes (EBIT) by 12.0 - 20.0% in the first year and increasing speed to market by 40.0 - 50.0% on average.

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MALAYSIA'S DIGITAL ECONOMY LANDSCAPE

There has been a significant growth in the Malaysia's digital economy landscape following the COVID-19 pandemic which has paved the way for new digital businesses, at the same time, encouraged traditional businesses to shift online to survive.

Based on the e-Economy SEA 2021 Report released by Google, Temasek and Bain & Company, Malaysia is taking a step towards a new normal after the pandemic by leading a permanent shift in digital consumption. The country's digital market growth which sharply increased by 47.0% from RM59 billion (USD14 billion) in 2020 to RM88 billion (USD21 billion) in 2021 was driven by the significant jump of 68.0% in e-commerce and is expected to reach RM147 billion (USD35 billion) by 2025.

The pandemic has led to a permanent shift in digital adoption in Malaysia where 94.0% of consumers are found to still use digital services and 98.0% intend to continue post-pandemic. In addition, businesses are also becoming more competent in technology where 43.0% of digital entrepreneurs in Malaysia believe that they will not be able to survive a pandemic without a digital platform. This has accelerated digital acceptance by merchants, with 98.0% now accepting digital payments and 72.0% using digital lending solutions.

Based on Information and Communication Technology Satellite Account 2020 published by Department of Statistics, Malaysia, contribution of information and communication technology (ICT) to GDP increased to 22.6% (2020: 19.2%), recorded a double-digit growth of 10.4% in 2020 compared to 7.3% in the previous year. Meanwhile, the contribution of e-commerce to GDP in 2020 was at 11.5% (2019: 8.5%), amounting to RM163.3 billion from RM129.2 billion in 2019. Manufacturing sector remained as the major contributor to gross value added of e-commerce with a share of 54.5% followed by services sector at 41.7%. The closing of physical stores due to lockdown and restricted movement nationwide has driven consumers to speed up online shopping, which in turn accelerated the e-commerce market growth in Malaysia.



For the education sector, digital assistance has facilitated learning sessions that have been disrupted by the pandemic. The use of an alternative system, namely Pengajaran dan Pembelajaran di Rumah (PdPR), is the best example of how digital adoption contributes to a higher standard of living.

Rancangan Malaysia Kedua Belas (RMKe-12) has outlined several key focuses that emphasise the important contribution of the digital economy to Malaysia's economic growth. For example, national digitisation initiatives are expected to help achieve the target of 25.5% contribution of the digital economy to the country's GDP by 2025.

The Government has also identified sub-sectors such as gig economy that will be an important source of economic growth in the country. This sub-sector is expected to open wider opportunities to the people as it offers digital-based services and platforms.

ACCELERATING THE DIGITAL ECONOMY: INTRODUCTION ON THE MALAYSIA DIGITAL ECONOMY BLUEPRINT (MyDIGITAL)

Malaysia's digital economy is driven by the Malaysia Digital Economy Blueprint (MyDIGITAL), the country's digital economy roadmap until 2030. MyDIGITAL sets out the country's vision to be a regional leader in the digital economy as well as to develop an inclusive and sustainable socio-economy based on three main policies driven by six thrust and 22 strategies.

The three objectives are:



In line with these objectives, the Government has introduced various initiatives on digital talent development, with emphasis on ICT innovation in schools, strengthening the delivery of science, technology, engineering and mathematics (STEM) subjects across the education system (Malaysia Education Blueprint) and upskilling and reskilling of the existing workforce.

Other national initiatives include the National eCommerce Strategic Roadmap (NESR) launched in 2014 and the Malaysian Productivity Blueprint in 2017 to boost uptake of digitalisation by MSMEs through participation in e-commerce and the adoption of innovative technologies.

INNOVATION IN MANUFACTURING AND SERVICES SECTORS

Innovation is one of the key determinants of productivity and long-term growth. Supporting innovation in established MSMEs can foster inclusive growth by reducing productivity gaps and wage gaps between MSMEs and large companies. Malaysian Science and Technology Information Centre (MASTIC) conducted National Survey of Innovation (NSI) 2018 which covers innovation activities over the period 2015 - 2017. The NSI-2018 examined a total of 2,020 firms whereby 717 firms (35.5%) were in manufacturing sector and 1,303 firms (64.5%) in services sector. In terms of size, small and medium-sized firms represented almost 73.0% of the firms in the manufacturing sector and 78.0% in services sector.

Table 4.1: Firms Size by Sector

Size of Firms	2018	
	Manufacturing (%)	Services (%)
Small	35.2	43.8
Medium	37.5	34.5
Large	27.3	21.7
Total	100	100

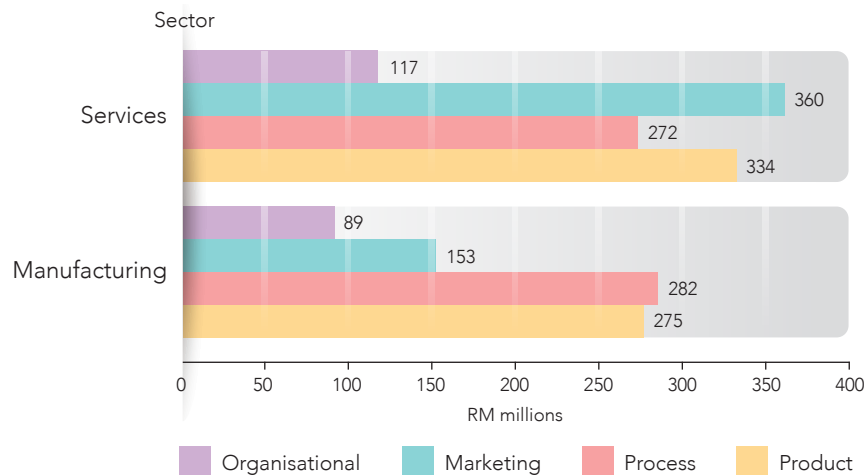
Source: National Survey of Innovation 2018 cited in Malaysian Science, Technology & Innovation Indicators Report 2020, MASTIC

The NSI-2018 survey revealed that 65.0% of the respondents can be categorised as innovative firms while 35.0% are non-innovative firms. The survey found that the most important objectives of innovation activities for both manufacturing and services sectors firms were to:



The NSI-2018 also examined four types of innovation activities namely product, process, marketing and organisational innovation. Marketing innovations is the most prominent in the services sector followed by product, process and organisational innovation. In contrast, the manufacturing sectors focus is on process, product, marketing and organisational innovation respectively (refer to Chart 4.1).

Chart 4.1: Categorisation of Innovation Activities Based on Type and Business Sector



Source: National Survey of Innovation 2018 cited in Malaysian Science, Technology & Innovation Indicators Report 2020, MASTIC

Despite the increasing participation of firms in innovation-related activities, majority of the respondents continued to report on lack of awareness on Government incentives and support available for innovation activities. They also cited that the process and procedures involved in getting the incentives are complicated and time consuming. Hence, it is important to develop an effective and inclusive national innovation system. This involves Triple Helix collaboration which focuses on the joint-effort between the Government, private sector and higher education institutions (HEIs).

Box Article

SME Digital Guidebook

The SME Digital Guidebook was launched by MDEC in August 2021 which serves as the first point of reference for SMEs interested to embark on digital adoption. Beyond providing a guide for SMEs to kickstart their journey, the Guidebook also lists down the latest trends that will impact SMEs, lay down the importance of digitalisation and direct SMEs to available initiatives within Malaysia that they could leverage on. The Guidebook was co-developed with International Data Corporation (IDC) who provided analysis of the market and technology insights.

The Guidebook are targeted towards small and medium size firms, especially traditional businesses looking to embark on their digital journey. Businesses looking to enhance or improve their businesses via digital means will also find the Guidebook as a useful repository of ideas and suggestions. Currently, the SME Digital Guidebook are focused on the retail and F&B industry, and comes in two reference guides for each sector.



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SME Digital Quick Guide

Easy-to-read document for quick reference, providing a high-level view for businesses.

SME Digital Guidebook

A full document that will take a more structured approach in mapping digital needs, technologies, business goals and best practices to guide SMEs in elevating their digital capabilities.

Box Article

192

MSME Insights 2021

MyAssist MSME



The MyAssist MSME programme is a Government initiative through SME Corp. Malaysia under the Pelan Jana Semula Ekonomi Negara (PENJANA) that is designed to help MSMEs navigate through the economic uncertainties amid the COVID-19 pandemic. The programme was launched virtually on 30 June 2020.

MyAssist MSME offers advisory services and business information, guidance and digital marketing opportunities, technology support and innovation facilities, business matching and online multi-channel initiatives. As at December 2021, the platform has 1,073 registered users and, to date, has received 50,467 visitors.

The four main components of MyAssist MSME are an information centre, advisory service, three platforms comprising MeetMe, MatchMe and e-Pameran, and an interactive feedback medium. The services provided by these components are as follows.

The Information Centre on incentives under PENJANA and other stimulus packages as well as MSME development programmes.

MeetMe provides online and offline business advisory services with the support of certified business counsellors, Government agencies and financial institutions. Users of the platform can seek advice and consultation on business, financial facilities, trade facilitation as well as matters related to human resource, branding and technology. Through MeetMe, a total of 143 business advisory sessions were held throughout the year 2021.

MatchME is an online business-matching service with participation by various anchor companies from multinational, Government-linked and overseas firms, hypermarkets and e-commerce platform providers. In 2021, 22 anchor companies and 228 MSMEs participated in the platform. The platform held 52 business-matching sessions which had the potential to generate RM9.7 million in sales.

e-Pameran is an interactive 3D platform which showcases MSME products and services via virtual exhibitions. The platform also features a shopping cart facility to encourage online purchasing. In 2021, SME Corp. Malaysia in collaboration with 45 Ministries & agencies & financial institutions, provided 520 booths for virtual exhibitions which drew the participation of 506 MSMEs. The platform received 29,022 visitors during the year. For e-commerce purposes, MyAssist MSME is integrated with the WarongKu platform to enable MSMEs to market their products digitally.

A total of 73 webinar sessions were organised at the platform which has attracted a total of 54,469 viewers.