

Realising the potential of Indonesia's digital economy

With predictions suggesting that Indonesia's digital economy is poised to grow to size of about USD133 billion in 2025¹¹, realising its full potential has become a priority for both the government and businesses in recent months, especially as the COVID-19 pandemic continues to drive digitalisation across all sectors.

¹¹ "Jokowi: Ekonomi Digital Indonesia Terbesar di Asia Tenggara", Kompas.com, 27 February 2020.

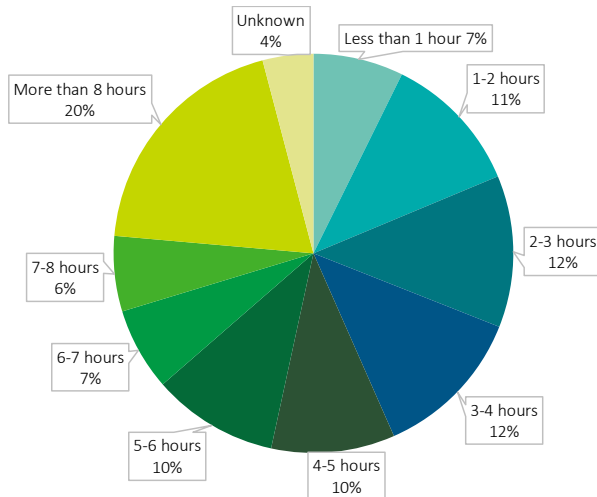
Given its digitally savvy consumers, accelerating e-commerce market, and vibrant technology start-up scene, Indonesia's digital economy appears to be poised for take-off. To enable this, however, Indonesia must make a concerted effort to support micro, small, and medium enterprises (MSMEs) in their digital transformation efforts.

Specifically, while MSMEs are the backbone of Indonesia's economy, they continue to face challenges in migrating their operations online, including but not limited to connectivity and infrastructure issues, data privacy and cybersecurity issues, as well as a lack of adequate digital talent.

In this report, we will take a brief look at Indonesia's e-commerce market; discuss how digital transformation can help businesses, and MSMEs in particular, become more resilient; and finally, suggest a few priorities that businesses and government alike should consider in their efforts to realise the full potential of Indonesia's digital economy.



Figure 1: Daily usage of the Internet in Indonesia



Source: Indonesia's Internet Service Provider Association (APJII), 2020.

Poised for take-off

Home to 268 million people, Indonesia has the world's fourth largest number of Internet users of around 185 million¹². Notably, Millennials and Generation Z consumers – the young, digital natives who came of age or are coming of age in today's technological era – account for a significant proportion of Indonesia's population, and are increasingly becoming the main drivers of growth for its digital economy. According to the National Socioeconomic Survey (SUSENAS), Millennials and Generation Z individuals are estimated to account for about 34 percent and 29 percent of the total population respectively¹³.

At the same time, Indonesian consumers also appear to be avid Internet users. One study, for instance, revealed that some 58 percent of users spend between two to eight hours, and nearly one-fifth or about 20 percent of them spend eight hours or more on the Internet on a daily basis (see Figure 1)¹⁴.

¹² "Internet Usage in Indonesia – Statistics and Facts". Statista. 15 June 2020.

¹³ "Generasi Milenial dalam Industri 4.0: Berkah bagi Sumber Daya Manusia Indonesia atau Ancaman?" Deloitte. September 2019.

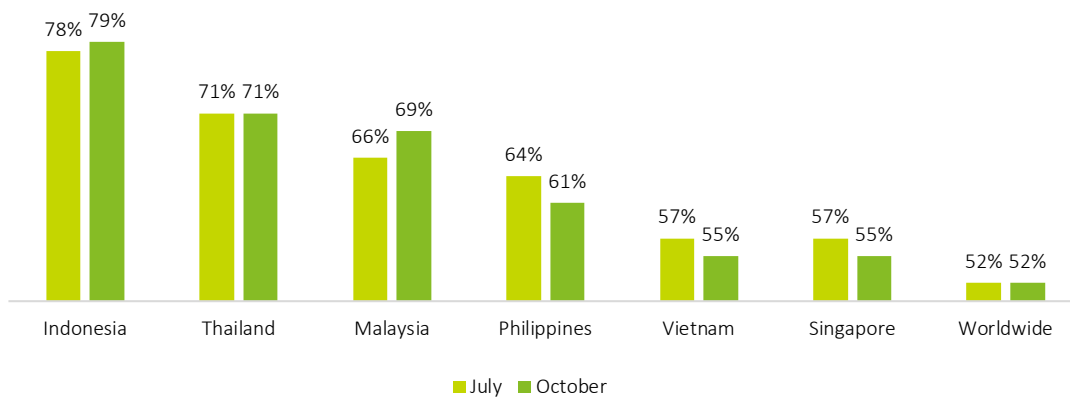
¹⁴ "Laporan Survei Internet APJII 2019-2020 (Q2)". Asosiasi Penyelenggara Jasa Internet Indonesia. 2020.

Accelerating e-commerce market

Given Indonesia’s sheer market size and digitally savvy consumers, it is perhaps not surprising that its e-commerce market has emerged as the largest in Southeast Asia, accounting for nearly 50 percent of the region’s total market size¹⁵.

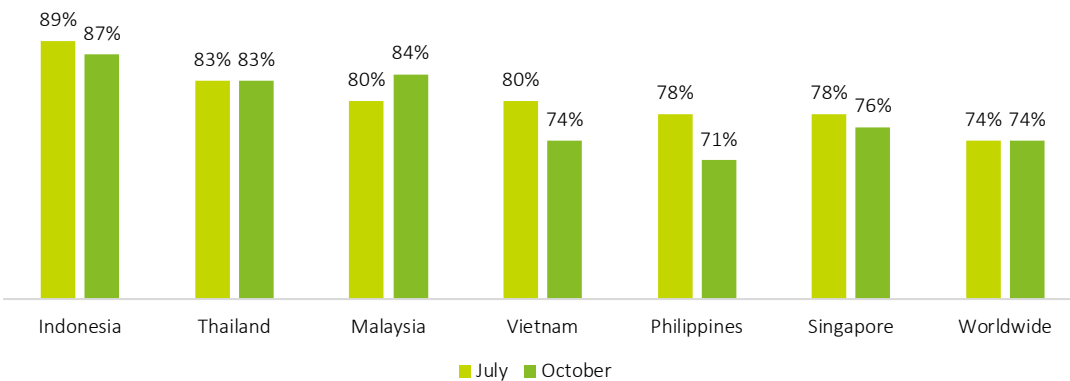
This shift towards e-commerce was further underscored during the COVID-19 pandemic, when Indonesia also emerged as one of the region’s highest adopters of e-commerce and mobile e-commerce: in the month of October, approximately 78% of Indonesia’s Internet users bought something online using a mobile device; when this is extended to any device, the figure goes up to 87%^{16,17} (see Figure 2 and 3).

Figure 2: Mobile e-commerce adoption across selected Southeast Asian countries in July and October 2020



Source: We Are Social, 2020.

Figure 3: e-Commerce adoption across selected Southeast Asian countries in July and October 2020



Source: We Are Social, 2020.

A resilient digital economy

In 2019, Indonesia’s digital economy contributed to about 2.9 percent of its Gross Domestic Product (GDP). This figure is higher than most Southeast Asian economies, with the exception of Singapore (3.2 percent) and Vietnam (4 percent)¹⁸.

Increasingly, Indonesia’s dynamic and innovative technology start-up sector is also becoming a hotbed of investments as its decacorns and unicorns continue

to attract the attention of global technology giants and venture capitalists¹⁹. One of the largest e-commerce operators, Tokopedia, for example, has an estimated company valuation of about USD7.5 billion, and counts Google and Temasek amongst its shareholders²⁰.

Even amidst the pandemic, these investment flows continue. For instance, homegrown agriculture technology start-up TaniHub Group, which operates an e-marketplace that enables consumers to buy fresh

¹⁵ “e-Commerce connectivity in ASEAN”. Economic Research Institute for ASEAN and East Asia (ERIA). April 2020.
¹⁶ “Digital 2020: October Global Statshot”. We Are Social. October 2020.
¹⁷ “More than half of the people on earth now use social media”. We Are Social. July 2020.
¹⁸ “Ekonomi Digital Menyumbang 2,9% PDB Indonesia”. Katadata. 4 September 2019.
¹⁹ “Indonesia’s unicorns lure US tech giants from Google to Facebook”. Nikkei Asia. 4 December 2020.
²⁰ “Ada Kode Keras, Tokopedia Siap IPO & Ini Valuasinya”. CNBC. 23 October 2020.

produce directly from farmers, managed to secure an investment of about USD17 million earlier in April 2020 to expand its services to up to 100,000 farmers by 2021²¹.

Indeed, for many business, participation in the digital economy is the key to greater resiliency: while 42 percent of MSMEs operating offline were forced to halt operations at some point in time during the pandemic, only 24 percent of online MSMEs had to cease operations²².

Anecdotally, many businesses have also shared that migrating their operations online even before the onset of the pandemic enabled them to remain resilient even during the crisis. For example, a Yogyakarta-based social agriculture was able to maintain its sales turnover through the use of social media campaigns, where its founders were able to engage potential customers by sharing their views on topics such as farmer empowerment, and organic-natural ingredients²³.



Supporting the backbone of Indonesia's economy

MSMEs have been the subject of a growing discourse within Indonesia's digital economy. Given that they account for some 60 percent of Indonesia's GDP²⁴, it should therefore be a priority that MSMEs are active participants in the digital economy, and embrace digital transformation to keep up with the evolving times.

Prior to the onset of the pandemic, only about 8 million or 13 percent of the nation's 64 million MSMEs had digital operations in place²⁵, and this lack of a digital presence has resulted in especially trying times for many MSMEs: the Ministry of Cooperatives and Small and Medium Enterprises estimates that Indonesia's MSMEs have experienced a 23.4 percent decrease in demand as a result of COVID-19²⁶.

While there have been some promising signs that MSMEs are increasingly going digital – estimates suggest that about 15 to 20 percent of them migrated online during the pandemic²⁷ – there remain a number of barriers that continue to hinder their progress. Businesses in more rural areas, for example, may lack access to technology that is not only affordable, but also simple to understand and use.

In response, the government recently launched a series of initiatives to support MSMEs in building their digital presences. These include:

- **Pasar Digital (PaDi):** Established by the Ministry of State Owned Enterprises (SoEs), PaDi aims to encourage four SoEs – PT Telkom Indonesia (Persero) Tbk, PT Pertamina (Persero), PT Waskita Karya (Persero) Tbk, and PT Wijaya Karya (Persero) Tbk – to utilise their budgets on expenditures with 540,000 MSMEs in Indonesia²⁸.
- **Belanja Pengadaan (BELA):** Launched by the Government Goods and Service Procurement Agency (LKPP), this program aims to include MSMEs in the government's procurement process²⁹.
- **Laman UMKM (MSMEs Page):** Introduced by the Ministry of Cooperatives and Small and Medium Enterprises, this initiative consists of an e-catalogue portal that has been designed to support MSMEs operating digital businesses³⁰.

²¹ "JaniHub Group raises \$17m to expand services to 100,000 farmers by 2021". The Jakarta Post. 2 April 2020.

²² "Online MSMEs can reduce economic burden: Report". The Jakarta Post. 10 July 2020.

²³ Interview with Asri Saraswati, Co-Founder of Agradaya, 6 December 2020

²⁴ "Di Tengah Pandemi, Kontribusi UMKM terhadap PDB Diperkirakan Naik". Media Indonesia. 12 November 2020.

²⁵ "Jokowi: Potensi Ekonomi Digital Harus Dipercepat di Indonesia". Antara. 18 November 2020.

²⁶ "Kemenkop UKM Bidik 10 Juta UMKM Go Digital Akhir 2020". CNN Indonesia. 11 August 2020.

²⁷ "Accelerating MSMEs' digital transformation supports RI economy". The Jakarta Post. 10 October 2020.

²⁸ "UMKM Ingin Ikutan Pengadaan Barang dan Jasa Pemerintah? Simak Ini". Kompas.com. 12 November 2020.

²⁹ Ibid.

³⁰ Ibid.

Realising the potential

In order for Indonesia to realise the full potential of its digital economy, we believe that there are a few priorities that businesses and government alike should consider. Firstly, addressing connectivity issues should be at the top of Indonesia's to-do list. Despite the nation's rapidly increasing Internet penetration rates, Indonesia ranks only 57th out of 100 countries in the Economist Intelligence Unit's Internet index based on its combined scores on Internet availability, affordability, relevance, and readiness³¹.

This issue is particularly acute in many disadvantaged communities in the outermost frontier of the archipelago, where some 12,500 villages continue to lack reliable access to the Internet³². Estimates suggest that only around 43 percent of businesses in villages are able to market their products online, as compared to 57 percent in the cities³³, as the low reliability of telecommunications networks, including cellular phone signal strengths and Internet connections, continue to present major stumbling blocks for MSMEs trying to take full advantage of growing online platforms and the wider marketplaces that they offer.

It must be noted, however, that the government currently has plans to resolve some of these connectivity issues by building base transmission stations in 5,000 villages, while also expanding the 4G network and increasing Internet connection speeds nationwide.

Secondly, there is also the need to address the issue of logistics and high shipping costs in Indonesia. As an archipelago with a massive land mass, Indonesia has highly complex logistic networks, and the nation also faces some of the highest shipping costs in the region³⁴. In the World Bank's logistic performance index, for instance, Indonesia was ranked 46th place out of 163 countries, with a total score of 3.15 that was relatively far behind that of other Southeast Asia markets, such as Malaysia (3.22), Vietnam (3.27), Thailand (3.41), and Singapore (4.0).³⁵

Enabling digital players to more efficiently reach their end markets or suppliers will therefore require the support of a more streamlined logistics infrastructure, including reliable and affordable transport networks. Towards this end, the government is also targeting to reduce overall

logistics costs from 24 percent of GDP in 2016 to 19 percent of GDP by 2024³⁶.

Thirdly, data privacy and cybersecurity issues continue to present roadblocks. As the increasing integration of MSMEs into the digital economy increases the probabilities of these risks, merchants and consumers alike must be better informed and protected. Currently, phishing issues are some of the most common e-commerce-related complaints received by the National Consumer Protection Agency (BPKN)³⁷.

An upcoming, long-awaited bill addressing personal data protection issues is also expected to require the mandatory establishment of data protection officers in companies, amongst other measures³⁸. Looking ahead, these steps should go some way towards strengthening the governance of data held by e-commerce players, and in building consumer trust in the sector.

Finally, we must not neglect the all-important issue of human capital. According to the Minister of Cooperatives and Small and Medium Enterprises, Teten Masduki, the technology gap is one of the main contributing reasons for MSMEs' failures in the digital economy. After all, for MSMEs to embrace the digital potential, they must first possess the know-how of using digital platforms, be able to analyse market needs, and possess knowledge of how to run an online business. In fact, statistics show that only about 15 percent of MSMEs who ventured online have managed to successfully conduct their operations³⁹.

To accelerate the digital economy, Indonesia needs some 9 million individuals to step up to the role of what is known "digital talent"⁴⁰. While digital talent may comprise many specific roles, Indonesia is focusing on developing an adequate pool of talent in the fields of science, technology, engineering, and mathematics (STEM), with a target to produce about 3.7 percent of global STEM graduates by 2030⁴¹.

Editorial Team

³¹ "The Inclusive Internet Index 2020". The Economist Intelligence Unit.

³² "12.538 Desa di Indonesia Belum Tercover Jaringan Internet 4G". Kompas.com. 9 November 2020.

³³ "Lack of Awareness, Infrastructure Limit Business Digitalization in Rural Areas". The Jakarta Post. 22 September 2020.

³⁴ "Indonesia's e-commerce landscape: Bigger market, bigger challenges". TechWire Asia. 16 August 2018.

³⁵ "Logistic Performance Index: Global Rankings 2018". The World Bank. 2018.

³⁶ "e-Commerce connectivity in ASEAN". Economic Research Institute for ASEAN and East Asia (ERIA). April 2020.

³⁷ "BPKN: Pengaduan dari Sektor E-Commerce Melonjak di Masa Pandemi". Kontan. 2 November 2020.

³⁸ "The significance of Personal Data Protection Law". ELSAM. 2 September 2019.

³⁹ "Banyak Soal Membeli UMKM sehingga Hanya 15% yang Sukses Masuk Digital". Katadata. 8 October 2020.

⁴⁰ "Jokowi Sebut Percepatan Ekonomi Digital Perlu Dukungan SDM". Merdeka. 18 November 2020.

⁴¹ "Innovate Indonesia: Unlocking Growth through Technological Transformation". Asia Development Bank and Ministry of Finance of the Republic of Indonesia. March 2020.

Highlights on Indonesia's copper industry

1. In 2017 Indonesia was the 11th largest copper mining producer in the world with production capacity equivalent to 600 thousand tons per annum.
2. However, Indonesia's copper production has been decreasing gradually since 2016, from 695,900 metric tons to 400,200 in 2019 (according to the World Bureau of Metal Statistics)
3. The Grasberg minerals district in Papua, which is operated by PT Freeport Indonesia, includes open-pit and underground mines. It has produced 528 billion ounces of copper, including more than 432 billion ounces of copper from the Grasberg open pit between 1990 and 2019.
4. Extraction of ore from the Grasberg Block Cave underground mine commenced in the second quarter of 2019, which is the same ore body mined from the surface in the Grasberg open pit. The mining of the final phase of the Grasberg open pit was completed in Q4 2019 and the mine transitioned from open-pit mining to large-scale underground mining. Grasberg Block Cave is estimated to contain proven and probable reserves of 275.2 billion ounces of copper and 14.2Moz of gold as of December 2019.
5. Other than Grasberg, Indonesia's copper deposits include Amman's Batu Hijau mine and the nearby Elang copper-gold deposit in Sumbawa, and PT Merdeka Copper Gold Tbk's Tujuh Bukit which is located in Banyuwangi, East Java. The Elang copper-gold resource is in the exploration stage. It has an estimated deposit of 12,945 billion lbs of copper. Potential annual production could be 300-430 million.
6. PT. Freeport Indonesia and Tsingshan Steel have agreed in principle the development of a new USD1.8 billion smelter in Teluk Weda, Halmahera. A definitive agreement is expected to be signed before March 2021.

Editorial team in collaboration with Paulus Miki Kurniawan

Paulus Miki Kurniawan is a Merger and Acquisition Transaction Services, Energy, Resources and Industrials Associate Director at Deloitte Indonesia.

Source:

- Deloitte Indonesia: Hotcakes, Deals for Giant Copper Mines" Ac-Cu-mulating Growth, September 2018, unpublished.
- mining technology.com
- Kontan.co.id
- Medcoenergy.com
- World Bureau of Metal Statistics
- Liputan6.com, 14 December 2020



Deloitte Indonesia Publications

Are you interested in our Deloitte Indonesia Publications?

We have three Publications on Indonesia's Business and Industry Updates as in the following. You may find other issues in our website.

If you have any queries, please contact us at iddttl@deloitte.com

The new Mining Law No. 3/2020 has been enacted on 10 June to amend Mining Law No.4 /2009. The law paves the way for several changes including on matters related to mining areas determination, centralization of authority as well as licensing of mining businesses, among others. Given the changes along with potential impacts that follow, mining companies may soon need to revisit their licensing, business structures, and operational practices to ensure that they are in full compliance with the law. Please contact us if you are interested to receive a copy of this report.

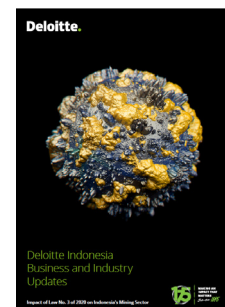
<https://www2.deloitte.com/id/en/pages/tax/articles/id-mining-law-2020.html>

The Indonesian food and beverage industry has shown its support to the economy growth during the COVID-19 pandemic. The sector is facing many challenges including food safety issues. In this article some of the key impacts of COVID-19 on the food and beverage sector in Indonesia, and the pivotal role of trust in future-proofing businesses will be discussed to make sure that they thrive in the new normal. Please contact us if you are interested to receive a copy of this report.

<https://www2.deloitte.com/id/en/pages/consumer-business/articles/id-consumer-covid19-2020.html>

COVID-19 pandemic encourages Indonesia's consumers to favor the use of digital payment. This opens more opportunities for micro, small, and medium enterprises (MSMEs) to adopt cashless payment systems through Quick Response Code Indonesia Standard (QRIS), which was introduced by Bank Indonesia earlier in 2019. This article discusses how QRIS is universalising digital payments in Indonesia by enabling interoperability amongst different digital payment system service providers while highlighting its other potential use cases. Please contact us if you are interested to receive a copy of this report.

<https://www2.deloitte.com/id/en/pages/technology-media-and-telecommunications/articles/accelerating-digital-payments-landscape-in-indonesia.html>





Contact us

To learn more about how your organization can become secure, vigilant, and resilient, please contact:

Claudia Lauw Lie Hoeng

Deloitte Indonesia Country Leader
e: clauw@deloitte.com

Rosita Uli Sinaga

Assurance Leader and Financial Services
Industry Leader
e: rsinaga@deloitte.com

Elisabeth Imelda

Audit Leader
Imelda & Rekan
e: eimelda@deloitte.com

Iwan Atmawidjaja

Consulting Leader
PT. Deloitte Consulting
e: iatmawidjaja@deloitte.com

Budiyanto

Deloitte Private Desk
e: budiyanto@deloitte.com

Edy Wirawan

Financial Advisory Leader and Government & Public
Services Industry Leader
PT. Deloitte Konsultan Indonesia
e: ewirawan@deloitte.com

Cornel B. Juniarto

Senior Partner of Hermawan Juniarto & Partners
e: cbjuniarto@hjplaw-deloitte.com

Brian Johannes Indradjaja

Risk Advisory Leader and Technology,
Media & Telecom Industry Leader
PT. Deloitte Konsultan Indonesia
e: bindradjaja@deloitte.com

Melisa Himawan

Tax Leader
Deloitte Touche Solutions
e: mehimawan@deloitte.com

John Lauwrenz

Tax Deputy Leader
Deloitte Touche Solutions
e: jlauwrenz@deloitte.com

Roy David Kiantiong

Tax Deputy Leader
Deloitte Touche Solutions
e: rkiantiong@deloitte.com

Maria Christi Pratiwi

Consumer Industry Leader
e: mchristi@deloitte.com

Cindy Sukiman

Energy, Resources & Industrials Leader
e: csukiman@deloitte.com

Steve Aditya

Life Science & Health Care Industry Leader
e: staditya@deloitte.com

Dennis Yu Ying Li

Chinese Services Desk
e: yuyli@deloitte.com

Tenly Widjaja

Japanese Services Desk
e: twidjaja@deloitte.com

Bang Chi Young

Korean Services Desk
e: bangchiyoung@deloitte.com

Mark Woodley

US & European Services Desk
e: marwoodley@deloitte.com



Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited (“DTTL”), its global network of member firms, and their related entities (collectively, the “Deloitte organization”). DTTL (also referred to as “Deloitte Global”) and each of its member firms and related entities are legally separate and independent entities, which cannot obligate or bind each other in respect of third parties. DTTL and each DTTL member firm and related entity is liable only for its own acts and omissions, and not those of each other. DTTL does not provide services to clients. Please see www.deloitte.com/about to learn more.

Deloitte Asia Pacific Limited is a company limited by guarantee and a member firm of DTTL. Members of Deloitte Asia Pacific Limited and their related entities, each of which are separate and independent legal entities, provide services from more than 100 cities across the region, including Auckland, Bangkok, Beijing, Hanoi, Hong Kong, Jakarta, Kuala Lumpur, Manila, Melbourne, Osaka, Seoul, Shanghai, Singapore, Sydney, Taipei and Tokyo.

About Deloitte Indonesia

In Indonesia, services are provided by Imelda & Rekan, Deloitte Touche Solutions, PT Deloitte Konsultan Indonesia, PT Deloitte Advis Indonesia and KJPP Lauw & Rekan.

This communication contains general information only, and none of Deloitte Touche Tohmatsu Limited (“DTTL”), its global network of member firms or their related entities (collectively, the “Deloitte organization”) is, by means of this communication, rendering professional advice or services. Before making any decision or taking any action that may affect your finances or your business, you should consult a qualified professional adviser.

No representations, warranties or undertakings (express or implied) are given as to the accuracy or completeness of the information in this communication, and none of DTTL, its member firms, related entities, employees or agents shall be liable or responsible for any loss or damage whatsoever arising directly or indirectly in connection with any person relying on this communication. DTTL and each of its member firms, and their related entities, are legally separate and independent entities.