
INTERNATIONALISATION REPORT STUDY

Republic of Indonesia



Commissioned by



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1. Introduction

This market report on the Republic of Indonesia was commissioned by the Singapore Business Federation (SBF). The report provides insights and perspectives to businesses on prevailing opportunities and challenges across selected industries, market access strategies and socio-economic considerations, amongst others.

The COVID-19 pandemic brought about global economic disruptions. The Indonesian market was no exception. These disruptions, however, also brought about new opportunities for Singapore companies to invest, collaborate and build synergistic partnerships to deepen their participation in the Indonesian economy, especially in priority industries and activities identified by the Indonesian government.

This study was conducted in mid-2022 when the global economy was just beginning to find its footing post COVID-19 pandemic.

2. Overview and Economic Outlook on Indonesia

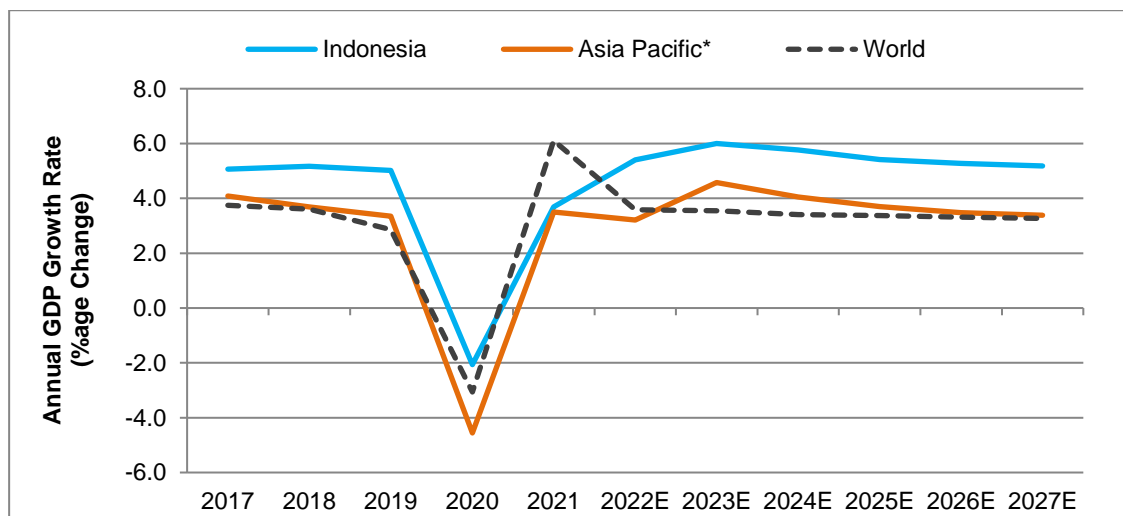
Indonesia and Singapore enjoy strong cooperation across many industries, including manufacturing, energy, logistics, education, culture, defence, and the environment. In 2021, Singapore's investment in Indonesia stood at USD9.2 billion (Yulisman, 2022)¹. Among the completed projects was the establishment of solar farm projects in Indonesia, where energy produced in these solar farms is exported to Singapore. Another example in which both countries also enjoy broad cooperation can be found in the educational sphere, wherein competitions are held in the area of e-commerce solutions among students from various institutions in Singapore and Indonesia, such as the Republic Polytechnic of Singapore, Indonesia's College of Logistics Management Indonesia (STIMLOG) and Politeknik Pos Indonesia (POLTEKPOS).

Economic Overview

Growth in the Indonesian economy is expected to return to pre-crisis levels by 2022, following a dip in the period 2019-2020, arising from the COVID-19 pandemic. Growth in the country's Gross Domestic Product (GDP) for 2020 contracted by 2.1%, but rebounded to expand by 3.7% in 2021.²

Due to improving household spending and private investment, as well as the lifting of COVID-19 restrictions on public activities boosting domestic demand, growth in GDP is projected to rise to 5.2% in 2022 and 5.6% in 2023 (UNESCAP, n.d.). This is higher than the average global GDP growth, which is projected to come in at 3.2% for 2022 and 2.9% for the year 2023³.

Figure 1: Economic growth trend for Indonesia, compared to regional and global averages



Source: International Monetary Fund, Frost & Sullivan Analysis

¹ <https://www.straitstimes.com/asia/se-asia/singapore-to-pump-124-billion-in-indonesias-green-economy-logistics-port-hub>

² <https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=ID>

³ <https://www.imf.org/en/Publications/WEO/Issues/2022/07/26/world-economic-outlook-update-july-2022>

Impact of COVID-19

COVID-19 has provided the impetus for many companies to pivot their business operations to other industries, resulting in a focal shift within the industries. In West Java, for example, the textile and garment industry became more focused on the production of health equipment such as masks and other personal protective equipment.

Broadly, the health industry also saw an increase in the issuance of business permits in the production of masks, herbal drinks, and other health-related products.

The telecommunications services industry has also grown due to an increase in online activities during the COVID-19 pandemic, as residents remained at home under strict quarantine regulations. The number of internet users in Indonesia increased to 220 million from 175 million between 2020 – 2021, according to a study conducted by the Indonesian Internet Providers Association (APJII)⁴.

Outlook

The economic outlook in Indonesia looks positive. Consumer spending is expected to grow in 2022 as the economy gradually recovers post-pandemic. There is less likelihood of disruptive global lockdowns in 2022 compared to the last two years. By the end of 2022, growth in consumer spending may look to stabilise as the economy continues its recovery. Fitch Solutions predicts that household spending is projected to increase by 7.6% in 2022, to a total of IDR9.9 trillion (USD692 billion). This is an improvement from the initial 4.1% growth estimated for the year 2021.⁵

⁴ <https://en.tempo.co/read/1600176/indonesian-internet-users-jumped-by-45-million-due-to-pandemic-survey>

⁵ <https://ycpsolidiance.com/article/recommendations-indonesia-consumer-spending-2022#:~:text=An%20Overview%20of%20Indonesia%20Consumer,estimated%204.1%25%20growth%20in%202021>

3. Business Outlook in the Manufacturing Industry

Food, chemicals, textiles, and apparels are prioritised under the 'Indonesia 4.0' initiative.

The manufacturing industry contributes nearly 20% of the country's GDP and provides 14.2% of job opportunities.

The food industry is expected to grow at a CAGR of 6.8% between 2022 and 2026.

3.1 Industry Overview and Performance

The manufacturing industry is the leading contributor to Indonesia's economic growth, owing to the abundance of raw materials and large labour pool. Since the 1970s, government reforms in Foreign Direct Investments (FDI), easing of domestic regulations, and trade facilitation have reshaped the economy, making the manufacturing industry the main source of export revenue, investments, and job creation.

In 2021, the manufacturing industry accounted for 19.3% of Indonesia's GDP. Food products and beverages; chemicals, pharmaceuticals and botanical products; coal and refined petroleum products; metals and electronics; textiles and apparel; and basic metals are the main sub-industries accounting for nearly 15.4% of the manufacturing industry's GDP in 2021⁶.

In the same year, the manufacturing industry received approximately USD20.6 billion in FDI, with 56% directed towards the sub-industries of basic metals (USD7.7 billion) and food (USD3.8 billion). The chemicals, paper products, motor vehicles, and textiles industries received USD4.8 billion in FDI.

On the employment front, the non-oil and gas manufacturing industry employs nearly 14.2% of all workers in Indonesia. Over 40.6% of them work in the food manufacturing industry while 17.0% work in the apparel and textile industry.

3.2 Key Segments in the Manufacturing Industry

The following is a list of Indonesia's key prioritised manufacturing industries:

3.2.1 Food

The food industry is one of the most important industries in Indonesia. There is a significant need to be met in the world's fourth most populous country. The food industry has been prioritised by the government in the 'Making Indonesia 4.0' roadmap.

There is huge market potential and plenty of opportunities to be reaped for the Indonesian food market owing to its large population. The food market, which includes fresh and processed food, grew at a CAGR of 6.0% between 2017 and 2021, reaching USD258.5 billion in 2021. Following a sluggish growth of 3.0% in 2020 due to the pandemic, growth in the food industry rebounded and experienced a 10.7% increase in 2021. From 2022, the industry is expected to grow at a CAGR of 6.8%, to reach USD360.5 billion by 2026⁷.

⁶ National Income of Indonesia 2017-2021, BPS. Accessed on July 22nd, 2022.

<https://www.bps.go.id/publication/2022/06/09/1bc66f2a7c2e8fccbfa1580f/pendapatan-nasional-indonesia-2017-2021.html>

⁷ Statista Consumer Market Outlook – Food Market, March 2022. Accessed on July 20th 2022.

3.2.2 Apparel

The apparel industry contributed to nearly 2% of the country's exports in 2020 and is among its largest foreign exchange earners⁸. Indonesia is among the top 10 textile producers in the world⁹, in part supported by its Indonesian Muslim fashionwear which is in high demand in the Middle East and North Africa.

The textile and apparel industry is expected to see a modest growth, at a CAGR of 2.7% between 2022 and 2026.

The revenue from the apparel manufacturers grew at a CAGR of 2.4% between 2017 and 2021, reaching approximately USD22 billion in 2021. However, job losses and a decline in consumer savings during the pandemic led to a 4.6% decline in market revenue in 2020.

The government's efforts to reduce import substitution from China have increased investment opportunities in Indonesia. The demand for apparel increased at a CAGR of 6.1% in 2021 as the economy strengthened. CAGR is expected to be 2.7% between 2022 and 2026, with an expected value of USD25.2 billion in 2026¹⁰.

3.2.3 Chemicals and Chemical Products

'Chemicals and chemical products' constitutes a critical component of the manufacturing industry because it supplies and supports other manufacturing sub-industries such as plastics, construction, and textiles.

The industry, which includes both organic and inorganic raw materials used to make chemical products, is valued at USD34.6 billion in 2021. During the pandemic, the revenue fell 8.1% between 2019 and 2020, to USD33.5 billion in 2020, from USD36.5 billion in 2019.

With the economy expected to improve, the industry is forecasted to grow at a CAGR of 0.9% between 2022 and 2026, reaching USD36.3 billion by 2026¹¹.

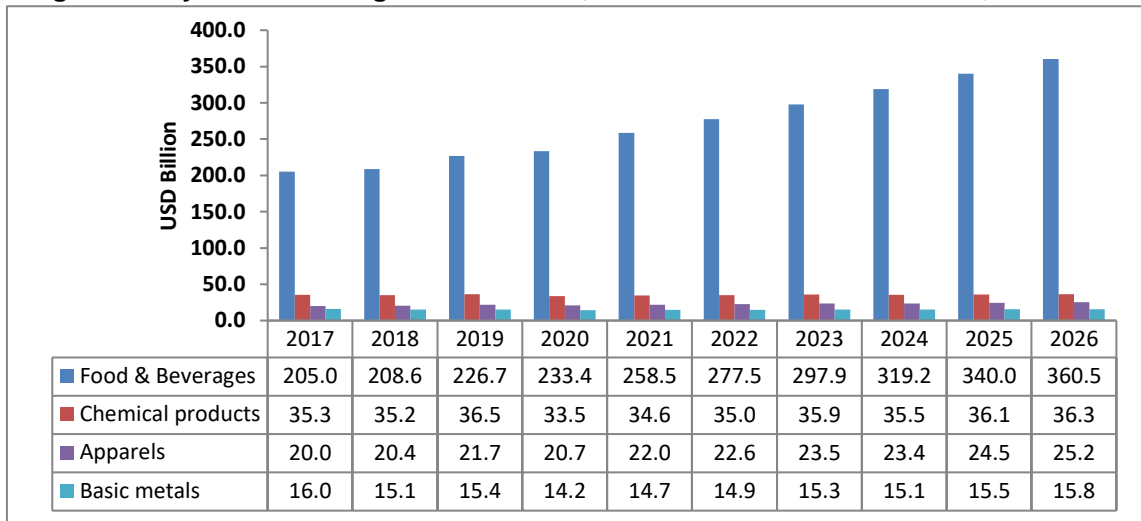
⁸ Exports, BPS, Published in 2022.

⁹ Indonesia Textiles Industry - Growth, Trends, Covid-19 Impact, And Forecasts (2022 - 2027), Mordor Intelligence, Accessed on 11th October, 2022. <https://www.mordorintelligence.com/industry-reports/indonesia-textiles-industry>

¹⁰ Statista Industry Outlook – Apparel Market, April 2022. Accessed on July 20th 2022

¹¹ Statista; Statista Industry Outlook – Chemicals and Chemical Products, April 2022. Accessed on July 20th 2022.

Figure 2: Key Manufacturing Sub-Industries, Market Revenue in USD billion, 2017-2026



Source: Statista Consumer Market Outlook, 2022 and Frost & Sullivan estimates

3.3 Impact of COVID-19

COVID-19 had a detrimental impact on the manufacturing industry in Indonesia. The movement restrictions which were imposed led to a decline in consumer demand, the scaling down of businesses, and in some cases, closing of operations.

The impact was felt more significantly by the Small and Medium Enterprises (SMEs), which constitute most of the manufacturers in Indonesia. Among the factors that exacerbated this situation was the disruption to the global supply chain which caused a temporary halt in production. This is on top of the pre-existing challenges faced by SMEs such as the lack of raw materials and other components, low productivity, reliance on traditional and non-virtual marketing channels, skills shortages, inadequate access to supporting infrastructure and financing options, among others. These were amplified during the COVID-19 pandemic.

3.4 Market Potential and Challenges

Despite having a strong foothold in the manufacturing process, Indonesian SME manufacturers continue to face challenges.

Opportunities lie in providing raw imports, modernising the manufacturing process, assisting with logistics and branding of local Indonesian products.

1. Reliance on raw material imports

There are opportunities for Singapore businesses to provide and process the abundant availability of raw materials to meet the demands of the Indonesian manufacturing industry – particularly footwear, chemicals, pharmaceuticals, and electronics. To encourage raw material imports, the Indonesian Ministry of Finance has lifted and reduced tariffs for imports on intermediate products for over 19 industries, including food, textile, and chemicals, to diversify the sources of raw materials. This move addresses the issue of raw material capacity constraints, and manufacturers’ negative perception of the quality of local raw materials.

2. Traditional manufacturing process

Indonesia SMEs rely primarily on traditional manufacturing processes due to cheap labour and a lack of funds to invest in technology and automation. Further, the budget for research and development (R&D) activities for technology and automation is in decline, with less than 0.2% of Indonesia's budget for 2020 allocated to this area.¹² The adoption of technology to enhance productivity is sorely needed.

Industry participants opine that Indonesia's growing population and rising incomes are two key advantages that will likely help ensure the continuation of high local demand for its manufactured products.

Furthermore, with companies relocating from China to lower cost countries such as Vietnam and Indonesia, opportunities for foreign investment and trade may look to expand. The country's labour-intensive manufacturing industry presents opportunities for foreign companies, with strong technology experience, to invest. A market entry strategy would be through partnership with local companies.

3.5 Strengths, Weaknesses, Opportunities and Threats (SWOT)

	Favourable	Unfavourable
Internal	<ul style="list-style-type: none"> • Large consumer base. • Increase demand for consumer goods like food, apparels, footwear, and electronics. • Low cost of production. • Large labour pool. 	<ul style="list-style-type: none"> • Inadequate infrastructure, such as ports and cold storage facilities outside of Java's main island. • Slower adoption of technology and innovation. • Regulations such as Government Regulation 28/2021 might delay the process in the setup of businesses.
External	<ul style="list-style-type: none"> • Policy reforms under the 'Making Indonesia 4.0' roadmap expand investment opportunities. • Given the US-China trade war and need to reduce reliance on raw materials from China, there is room for foreign investments to increase capacity and substitute import partners. The trade war has resulted in a surge of factories relocating to ASEAN such as Vietnam and Thailand. This presents an opportunity to allow new entrants and raise exports revenue. • SMEs with strong innovation and technological capabilities can find a niche market role within Indonesia's labour intensive manufacturing value chain. 	<ul style="list-style-type: none"> • Highly competitive business landscape. • While the government insists on Standar Nasional Indonesia (SNI) standards, trading partners are also required to adhere to other international standards such as those pertaining to International Electrotechnical Commission (IEC), and International Organisation for Standardisation (ISO), at the same time.

Source: Frost & Sullivan Analysis

¹² In comparison, Thailand and Vietnam allocated more than 1% and 0.5% of their budgets, respectively.

Key Takeaways

Some points to note as foreign SMEs look to participate in the Indonesian manufacturing industry:

1. Innovation and productivity

With less than 0.5% of Indonesia's GDP spent on R&D, most SMEs in the manufacturing industry lack innovation in their business operations. Nonetheless, there remains opportunities for firms that possess innovative manufacturing expertise and capacity.

2. Raw materials capacity

Though Indonesia has abundant natural resources, the country still relies on raw materials imports. For instance, in the case of its footwear industry, nearly 40% of the raw materials are imported. The injection of foreign investments that facilitate the increase of raw materials production will help reduce the country's reliance on imports.

3. Digital platforms

The pandemic has accelerated the need for digital tools in almost all industries. The 'Indonesia 4.0' initiative opens avenues for technologically more advanced manufacturers to enter the market and seize opportunities within the country's still broadly labour-reliant value chain.

4. Trade war between US and China

There are opportunities for Indonesia to attract investors to setup manufacturing facilities to support trade to the US as trading partners from the US are increasingly looking at ASEAN and other countries that can enable lower production costs, as substitutes for the Chinese market.

4. Business Outlook in the Education Industry

The education industry has consistently been the 10th largest contributor to Indonesia's economy.

4.1 Industry Overview and Performance

The Indonesian education industry comprises over 50 million students, 4 million teachers and more than 250,000 schools. It also comprises stakeholders in the following sectors: (i) Primary; (ii) Junior Secondary Education (JSE); (iii) Senior Secondary Education (SSE); and lastly, (iv) Tertiary Education. Primary and JSE are 'basic education' in the Indonesian context.

Indonesia's education system is dominated by state educational institutions, especially at the basic educational level (primary and junior secondary levels). The private industry also plays a significant role, representing over 48% of the schools in the country. There are also many private higher educational institutions (HEI) in Indonesia. Over 96% of all HEIs are private.

Education has been consistently ranked 10th in terms of its contribution to the Indonesian economy, with a relatively stable contribution rate from 2017 to 2021. In 2021, education services contributed 3.3% to the economy. The nominal Gross Value Added (GVA) grew from IDR447 billion (approximately USD30 billion) in 2017 to IDR566 billion (approximately USD38 billion) in 2021.

4.2 Key Segments in the Education Industry

4.2.1 Religious and Non-Sectarian Schools

Most of the schools and HEI are religious oriented.

The Indonesian state educational system is mostly non-sectarian but the private educational system, especially schools and the HEIs, are mostly religious-oriented. The religious oriented schools are mostly associated with Indonesia's two major Islamic social organisations, Muhammadiyah and Nahdlatul Ulama. These institutions also have non-religious commercially oriented institutions - especially in higher education.

The Primary, Junior Secondary Education and Senior Secondary Education are managed by districts, with the Ministry of Education and Culture (MOEC) responsible for the overall system governance. Islamic schools are centrally managed and governed by the Ministry of Religious Affairs (MORA). The Ministry for Research, Technology and Higher Education (RISTEKDIKTI) is however responsible for matters pertaining to HEIs.

4.2.2 Digital Education

Due to the increase in online learning, the internet penetration rate among Indonesian students aged 5 to 24 years has increased steadily from 2016 to 2020, peaking at 59.3% in 2020.

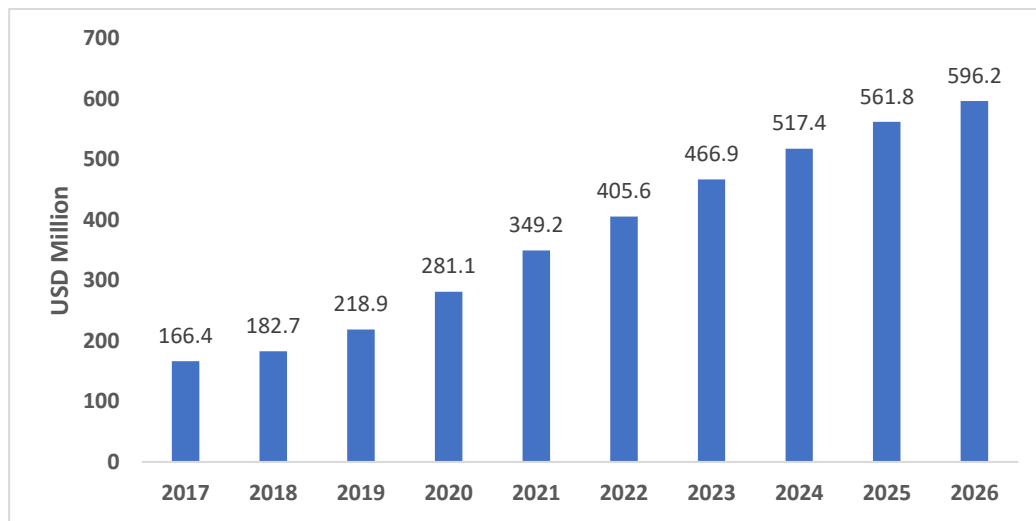
Online learning platforms to grow at 10.1% between 2022 and 2026.

Year	Penetration %
2016	34.0
2017	41.0
2018	45.8
2019	53.1
2020	59.3

Source: Badan Pusat Statistik Indonesia, 2021¹³

Revenue generated from online learning platforms, excluding professional certificate programmes and non-accredited sources, is expected to grow at a CAGR of 10.1% between 2022 and 2026, to reach USD596.2 million in 2026¹⁴.

Figure 3: Indonesia's Digital Education Market (Revenue in USD Billion), 2017-2026



Source: Statista Online Learning Platforms, Indonesia, 2022

¹³ *Statistik Pendidikan*, Badan Statistik Indonesia, 2020, Page 69, accessed 27 July 2022, from <https://www.bps.go.id/publication/2020/11/27/347c85541c34e7dae54395a3/statistik-pendidikan-2020.html>

¹⁴ Statista Online Learning Platforms, Indonesia published in June 2022.

4.3 Impact of COVID-19

The most significant effect of COVID-19 was the shift towards online learning. Over 530,000 schools were closed, and over 68 million students¹⁵ were transitioned to virtual and distance learning following the government’s quarantine regulations. Nonetheless, there were challenges in its implementation due to various infrastructural and adaptability issues. This led to a wider learning gap, especially in the rural areas.

The pandemic has opened opportunities for online distant learning programmes.

4.4 Market Potential and Challenges

There is potential for businesses to enter the market by filling the void for virtual and online learning.

According to UNICEF, more than 57%¹⁶ polled were unaware of the government-provided digital educational platform ‘Rumah Belajar’. Hence, social media platforms were used instead for virtual learning. With the rise of digital education quickly becoming appealing, it is critical to bridge the gap between traditional and online learning. However, an immediate challenge in penetrating the market is the readiness and availability of infrastructure to support the implementation of virtual learning, especially in rural areas.

Interviews with key players in the education industry revealed that the demand for education has indeed increased, as the perception of its importance continues to grow. Government policies have also made it easier for foreign investments. Infrastructure has also been enhanced. Engaging the local authorities is also key in keeping abreast on industry changes.

Broadly, there remains difficulty in hiring individuals with the right skillsets. An alternative arrangement that may work around the issue will be to source individuals with the appropriate aptitude through a local head-hunter. This also allows for greater transparency when communicating in Bahasa Indonesia.

4.5 Strengths, Weaknesses, Opportunities and Threats (SWOT)

	Favourable	Unfavourable
Internal	<ul style="list-style-type: none"> • Opportunities to offer digital education services. • An increase in the demand for education at all stages (primary, secondary, and tertiary). 	<ul style="list-style-type: none"> • Sourcing support staff for HEIs can be challenging since only 9% of the population has attended tertiary education, and there is a lack of suitable skills to meet the demands of the education industry. • Infrastructure weakness and lack of resources to support the demands that may be required for digital learning. • The local authority has power over education institutions – this may cause possible mismatches in demand as there is no centralisation for the provision of education in Indonesia.

¹⁵ UNICEF, "Strengthening Digital Learning across Indonesia: A Study Brief", 2020, accessed 20 July 2020, from <https://www.unicef.org/indonesia/media/10531/file/Strenqthening%20Digital%20Learning%20across%20Indonesia:%20A%20Study%20Brief.pdf>

¹⁶ *Strengthening Digital Learning across Indonesia Study Brief*, UNICEF, (2020), accessed 27 July 2022, from <https://www.unicef.org/indonesia/media/10531/file/Strenqthening%20Digital%20Learning%20across%20Indonesia:%20A%20Study%20Brief.pdf>

External	<ul style="list-style-type: none"> • There are opportunities to invest and form partnerships at the tertiary level of education. Examples of these include faculty and student exchange programmes, grants and scholarships, dual degree programmes, joint research, training, and publications. • There is the opportunity in providing resource for English-taught programmes as local Indonesian universities offer scholarships to foreigners to attract them to the Indonesian universities. 	<ul style="list-style-type: none"> • Non-governmental organisations (NGOs)'s role in narrowing the education gap in Indonesia can impact the market demand for businesses. • Inconsistent regulations also affect the ease of doing business in Indonesia. • General regulations, such as the not-for-profit requirement imposed, may hinder and make investments more challenging when making entry into the industry.
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Source: Frost & Sullivan Analysis

Key Takeaways

Indonesia's education industry leaves much room for improvement, especially in narrowing the gap in access to education. Following the COVID-19 pandemic, virtual learning was introduced and there is now an opportunity to provide education to those who live in the rural and relatively more inaccessible areas using digital means. Provision of education in this regard presents an opportunity for businesses to capitalise on.

5. Business Outlook in the Information and Communications Technology (ICT) Industry

5.1 Industry Overview and Performance

The ICT industry is growing rapidly in Indonesia due to the growth of the digital economy. The digital economy is expected to reach USD146 billion by 2025.

Indonesia has a large population of 273 million and an equally high penetration rate of smartphones, at 72%. In this regard, Indonesia's digital economy holds great promise. The pandemic has further necessitated the need to go digital for businesses and households alike. Indonesia's digital economy is expected to reach USD146 billion by 2025¹⁷.

Several initiatives such as 'Indonesia 4.0', 'Go Digital Vision 2020', 'e-Smart IKM' and '100 Smart City Movement' were launched under the National Digital Transformation programme. These initiatives play a role in encouraging SMEs and local start-ups to adopt digital technologies.

Hence, there is a big market for the development of various hardware, software, and services. New technologies facilitate growth in demand in areas such as the Internet of Things (IoT), data analytics, data centre management and managed services.

In addition, Indonesia is also striving to develop an innovative ecosystem and the fostering of a favourable environment for technology investment. The government has kick-started a large infrastructure development initiative,

¹⁷ https://www.bi.go.id/en/publikasi/ruang-media/news-release/Pages/sp_2417522.aspx

known as the Palapa Ring Project, which will provide 4G network to all Indonesian cities to support the growth of its ICT industry.

5.2 Key Segments in the ICT Industry

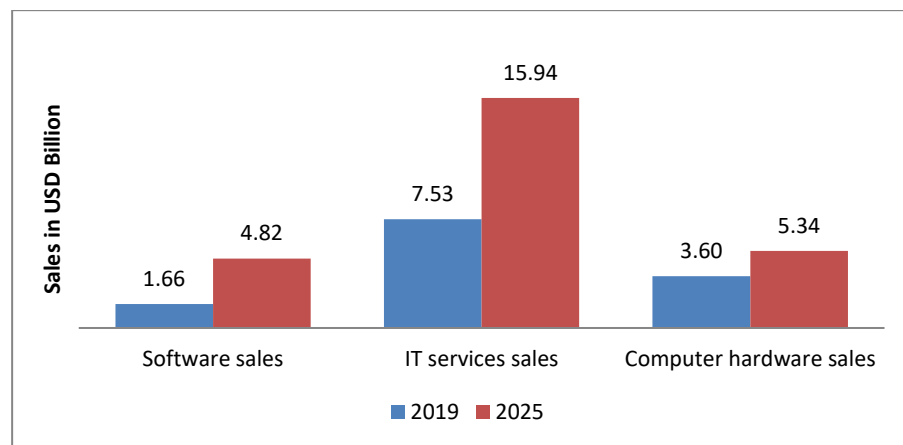
Indonesia's ICT market grew from USD8.6 billion in 2016 to USD12.8 billion in 2019, and is expected to grow to USD26.1 billion in 2025. The digital economy is one of the government's priorities and it is expected to contribute USD146 billion to its GDP by 2025.¹⁸

The ICT industry in Indonesia is focused on three key areas where opportunities lie: the provision of IT hardware, software, and services.

In recognising the importance of ICT in accelerating economic growth, Indonesia is prioritising the following:

1. Telecommunications equipment and services, such as mobile devices, computer products and 5G network, to support digital transformation.
2. 'Industry 4.0' technologies such as IoT, machines and tools in five priority sub-industries which are F&B, Textiles and Apparel, Automotive and Electronics, Chemicals, and Pharmaceuticals.
3. IT services such as software, cloud, mobile and computer services, social media, big data/analytics, and management of data centres. Facility-related components or activities that support the implementation, maintenance, operation, and enhancement of data centres, for example, present opportunities for IT vendors or service providers.

Figure 4: Indonesian ICT Sales in USD Billion



Source: Frost & Sullivan analysis

5.3 Impact of COVID-19

COVID-19 has accelerated digital transformation in many areas of the business and lifestyle segments in Indonesia. Moving forward, Indonesia looks set in developing its digital ecosystem. The country's top priorities lie in the development of digital infrastructure, operations, and services.

¹⁸ https://www.bi.go.id/en/publikasi/ruang-media/news-release/Pages/sp_2417522.aspx

The ICT industry's market potential in digital ecosystem is dependent on foreign resources. Nonetheless, this dependence on foreign companies creates competition. Along with the lack of digital adoption by local companies, these may pose obstacles to the penetration of the market.

5.4 Market Potential and Challenges

Indonesia's current digital ecosystem is dependent on foreign companies. This is due partly to the lack of local production in meeting current demands. As a result, most high-tech products are imported, and this creates competition among foreign companies looking to venture into Indonesia.

Indonesian companies are also seen lagging their foreign counterparts in the implementation of cloud computing and cloud-based infrastructure due to concerns over data breach, high costs of technology adoption and the lack of skilled labour. The amount invested by businesses and the government on digital transformation, technology infrastructure and adoption are still at a relatively nascent stage. This is also apparent within the start-up ecosystem. These inadequacies hinder the growth of the ICT industry.

Engagement with experts in the Indonesian ICT industry has provided insights into the country's current efforts and conditions. The government is making a concerted effort to attract foreign investments by accelerating its plan for digital transformation making it easier for ICT players to collaborate. It is helpful that the Indonesian government is supportive of ongoing ICT activities nationwide, especially those related to IoT such as smart homes, smart cars, and smart cities. There are now more opportunities for foreign investment and ICT companies, especially with the launch of the Smart City initiative and the construction of a new capital city in Kalimantan.

There are, however, some challenges. Given the cultural and language barriers, it is easier to partner with locals who already have existing licenses rather than applying for new licenses. It was also observed that Indonesians need to reskill and upskill in order to fill talent shortfalls. The government is making an effort to address the issue by encouraging upskilling through e-learning, despite experiencing resistance from some who may be less willing to pick up digital skills.

5.5 Strengths, Weaknesses, Opportunities and Threats (SWOT)

	Favourable	Unfavourable
Internal	<ul style="list-style-type: none"> Potential growth in cyber security, artificial intelligence (AI), cloud computing, IoT, industrial automation, financial technology (fintech), 5G and smart mobility solutions creates opportunities for Singapore companies. Indonesia's ICT strength lies in the processing and distribution of data and information using the appropriate equipment (software and hardware). Other areas of strength include the use of technology in business activities related to publishing, film production, telecommunications, and computer programming. 	<ul style="list-style-type: none"> Lack in highly skilled IT personnel may hinder Singapore firms in the hiring of appropriately skilled human resource. Lack of strong product innovation and R&D capabilities, and therefore the need to rely on foreign capabilities to lift standards in these areas. This may hinder the growth prospects for potential firms looking to enter the market.

External	<ul style="list-style-type: none"> Indonesia's strategic decision to develop its digital economy and IoT creates opportunities for collaboration. 	<ul style="list-style-type: none"> Weak regulations and protection of intellectual property (IP) and patent rights. Strict controls on cross-border data flow impede the use of online trading platforms. Strong competition from established larger players that already have a regional presence.
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Source: Frost & Sullivan Analysis

Key Takeaways

Indonesia's ICT industry is rapidly expanding, and the government is supporting the enhancement to the country's digital infrastructure with the Palapa Ring Project. Following the COVID-19 pandemic, which brought to the fore the need for an acceleration in the adoption of digital tools, there are pockets of opportunities for the introduction of ICT products and services, particularly in the areas of cyber security, artificial intelligence (AI), cloud computing, IoT, industrial automation, financial technology (fintech), 5G and smart mobility solutions.

6. Business Outlook in the Energy Industry

6.1 Industry Overview and Performance

The energy industry remains crucial as Indonesia is rich in commodity resources like coal, natural gas, metals and other various mining and agricultural products. In 2019, the country produced 616 million tons of coal, 2.8 million standard cubic feet of natural gas and 272 million barrels of oil. Indonesia is also a net exporter of energy.¹⁹

Coal is Indonesia's principal energy export, accounting for 11.2% of its total value of energy exports.²⁰ This is followed by palm oil, at 8.8%.²¹ As for renewable energy sources, non-fossil energy resources include hydro, geothermal, bioenergy, ocean, and other renewable sources such as solar and wind. The most promising of which is solar, with a potential output of 207.8 gigawatts (GW), compared to the actual utilisation rate that currently stands at 0.07%, while the estimated hydro potential stands at approximately 75GW while the utilisation rate is at 6.7%.²²

In Indonesia, the energy industry is highly dependent on State-Owned Enterprises like PT Pertamina²³ which focuses on oil and gas, and PT Perusahaan Listrik Negara (PLN), for electricity. The private sector enjoys a substantial presence in the industry and is involved in almost all segments of the power generation value chain. Over 27% of the country's electricity is generated by independent power producers (IPPs).

The energy industry contributed a total of IDR461 trillion (approximately USD31 billion) to its GDP in 2021, an increase from IDR332 trillion (approximately USD21 billion) in 2020 and IDR439 trillion (approximately USD29 billion) in 2019²⁴. Data from 2017 indicated that energy from fossil fuels contributed an equivalent of 1.8% to the economy, while energy from oil and gas extraction contributed 3.7%. Coal mining contributed 2.1% to its GDP.²⁵

¹⁹ *Indonesia Energy Industry Assessment, Strategy and Road Map Update*. Asian Development Bank (ADB), (December 2020), assessed 31 July 2022, from <https://www.adb.org/sites/default/files/institutional-document/666741/indonesia-energy-asr-update.pdf>

²⁰ *ibid*

²¹ *ibid*

²² *Clean Energy Finance and Investment Policy Review of Indonesia*. OECD Library, (June 2021), assessed 1 October 2022, from <https://doi.org/10.1787/0007dd9d-en>.

²³ PT Pertamina (Persero) is the holding company for all oil and gas State-Owned-Enterprise (SOE) and dominates both the upstream and downstream segments.

²⁴ *RIMF Data: Access to Macroeconomic and Financial Data: Regional Economic Outlook: Asia and Pacific*. International Monetary Fund (IMF), (2022, April 4), assessed 20 July 2022, from <https://data.imf.org/?sk=abff6c02-73a8-475c-89cc-ad515033e662&sid=1462204389301>

²⁵ *Beyond Fossil Fuels: Indonesia's fiscal transition*. International Institute for Sustainable Development (IISD). (2019, January). Accessed July 24, 2022, from <https://www.iisd.org/system/files/publications/beyond-fossil-fuels-indonesia-fiscal-transition.pdf>

6.2 Key Segments in the Energy Industry

Between 2010 and 2020, Indonesia's total national primary energy consumption increased by 16%. Petroleum, the second largest contributor, contributed 32% of the energy mix in 2020, despite a decline in its share since 2018. Coal consumption has more than doubled between 2010 and 2019. It has surpassed natural gas as the least expensive fuel source.²⁶

Indonesia has set the target of acquiring 25% of its energy from renewable sources by 2025. To meet this target, the Indonesian government may undertake additional measures to attract private investors.

6.2.1 Renewable Energy

Currently, only 1.6% of Indonesia's energy consumption comes from renewable energy²⁷. The Indonesian government has put in significant efforts to ensure progress in its climate commitments. One of the most significant moves made in the energy industry is its declaration to phase out coal. The nation has declared that no more coal-fired plants will be built after 2022.

The government plans to increase the use of renewable energy, with a share contribution of 23% within its total energy mix by 2025²⁸. It has set aside USD2 billion annually, between the years 2021 to 2025, to invest in the industry²⁹. However, in 2021, the country was only able to realise USD1.5 billion in such investments. Therefore, to meet the 2025 target, it is likely that the government will adopt additional measures to attract private players with larger investments. More recently, in January 2022, both Indonesia and Singapore signed a Memorandum of Understanding (MoU) on Energy Cooperation, to boost deeper collaboration between both countries.

Projected GDP Contributions: Power Industry Scenario in 2030

In 2020, the Global Green Growth Institute analysed the income generating potential of Indonesia's renewable energy industry. It studied the potential of two power industry scenarios using the General Plan of National Electricity (RUKN) and the Power Supply Business Plan of the PLN. Following the RUKN scenario, its renewable energy target would require direct investments of around USD49 billion and is projected to value-add approximately USD24 billion directly to the Indonesian economy. On the other hand, the PLN plan would need around USD26 billion of direct investments, which could possibly generate around USD10 billion worth of value-add to its GDP.³⁰

²⁶ U.S. Energy Information Administration - EIA - independent statistics and analysis. International - U.S. Energy Information Administration (EIA). (2021, September 24). Accessed July 22, 2022, from <https://www.eia.gov/international/analysis/country/IDN>

²⁷ BP Statistical Review of World Energy 2022, page 43, Accessed on 30th September 2022

²⁸ RUPTL 2021-30: PLN steps up ambitions to accelerate clean energy investments in Indonesia. RUPTL 2021-30: PLN steps up ambitions to accelerate clean energy ... - OECD. (2021, November 16). Accessed July 22, 2022, from <https://www.oecd.org/environment/cc/cefim/indonesia/RUPTL-2021-30-PLN-steps-up-ambitions-to-accelerate-clean-energy-investments-in-Indonesia.pdf>

²⁹ IISD, Accessed on 30th September, 2020. <https://www.iisd.org/articles/indonesia-annual-renewable-investment-target#:~:text=Press%20release-,Indonesia%20Must%20Quadruple%20its%20Annual%20Renewable%20Investment%20Target%20to%20Reach,private%20investment%20in%20renewable%20energy.>

³⁰ GGGI. (2020, May). *Employment assessment of renewable energy: Indonesian power industry pathways*. Indonesia Green Growth Program. Accessed July 22, 2022, from <http://greengrowth.bappenas.go.id/wp-content/uploads/2020/07/Employment-assessment-of-renewable-energy-Indonesian-power-industry-pathways-NEAR-NDC.pdf>

6.3 Impact of COVID-19

The quarantine measures introduced by the government have led to closures and put the brakes on industrial activities in Indonesia. This directly affected PLN's demand for electricity, which saw a 15% decrease in 2020³¹.

The increase in demand for energy by households (with more residents staying home) were not able to mitigate the drop in the industrial demand. Data from 2011 indicated that 43% of the total energy consumption came from industries while only 12% was attributed to households³².

6.4 Market Potential and Challenges

Indonesia aims increase the share of renewable energy in its total energy mix to 31%, by 2050. The potential for investment in solar energy is therefore substantial, with the potential for solar energy capacity estimated at 207.8GW, compared to its installed capacity which currently stands at 0.154GW³³.

Indonesia has also been identified as one of the top five countries in Asia-Pacific with significant renewable energy capacity generated from hydropower (8%) and geothermal plants (5%). There are, however, pertinent challenges that exist:

- The highly fragmented nature of the grid, with operational issues within the off-grid areas.
- The readiness of infrastructures such as old industrial buildings that lack adequate design structures, as well as the low level of awareness in the community on the potential of renewable energy.
- Continuous fossil fuel subsidies introduced by the government hinders the growth of renewable energy. The government needs to make a drastic change to lead the switch to renewable energy.
- The high cost of depending on renewable energy - the average cost per megawatt of solar PV capacity in Indonesia is 65%, above that of neighbouring Thailand (55%).
- Constraints, such as conflicting national policies and prevailing organisational structures for the industry, pose as challenges for the growth of the industry.

6.5 Strengths, Weaknesses, Opportunities and Threats (SWOT)

	Favourable	Unfavourable
Internal	<ul style="list-style-type: none"> • Attractive incentives for local or foreign investors, which include financial and fiscal facilities.³⁴ • Fast-growing demand for energy given the projected growth in population numbers. 	<ul style="list-style-type: none"> • Language barrier may add to the challenges in obtaining licenses. • Complexities in expectations when working jointly with local Indonesian partners in entering the industry, especially when there are little written and formal regulations that address this area.
External	<ul style="list-style-type: none"> • International organisations provide an additional push as Indonesia looks to fulfil its COP26 (26th UN Climate Change Conference of the Parties) commitments and targets³⁵. In this 	<ul style="list-style-type: none"> • Largely limited to small engineering companies.³⁶ • Fossil fuels still dominate investments in the power industry.³⁷

³⁴ Why Invest In Indonesia's RE Industry?. RE Invest Indonesia (n.d.). Retrieved July 22, 2022, from <https://reinvestindonesia.com/why-invest?title=Why%20Invest?&path=1&parent=0>

	<p>regard, the government must accelerate investment in the renewable energy industry.</p> <ul style="list-style-type: none"> • Rapidly growing demand for energy provides opportunities for foreign companies as the government develops its renewable energy industry. 	
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Source: Frost & Sullivan Analysis

Key Takeaways

Indonesia is endowed with vast resources in renewable energy, such as hydropower and solar power. The country's introduction of policies and initiatives to attract and encourage investments in renewable energy is a plus point for businesses seeking opportunities in this area. Notwithstanding, the state of infrastructure readiness is one key challenge.

³² Asian Development Bank (ABD), *Summary of Indonesia's Energy Industry Assessment*, (December 2015), assessed 26 September 2022 from <https://www.adb.org/sites/default/files/publication/178039/ino-paper-09-2015.pdf>

³³ Murtiani Hendriwardani, Anna Geddes, Theresia Betty Sumarno, Laura Hohenberger, *Using Public Funding to Attract Private Investment in Renewable Energy in Indonesia*, February, 2022, accessed 26 September 2022 from <https://www.iisd.org/system/files/2022-02/indonesia-private-investment-renewable-energy.pdf>

³⁴ *Why Invest In Indonesia's RE Industry?*. RE Invest Indonesia (n.d.). Retrieved July 22, 2022, from <https://reinvestindonesia.com/why-invest?title=Why%20Invest?&path=1&parent=0>

³⁵ Ministry of Energy and Mineral Resources Republic of Indonesia. *Speaking at COP26, Energy Minister Gives Indonesia's Commitment to Net Zero Emission* [Press Release]. Retrieved July 15, 2022, from <https://www.esdm.go.id/en/media-center/news-archives/speaking-at-cop26-energy-minister-gives-indonesias-commitment-to-net-zero-emission#:~:text=Indonesia's%20commitment%20to%20climate%20change,Emission%20by%202060%20or%20sooner>

³⁶ *Improving investment conditions could make Indonesia a world leader in clean energy, says OECD*. OECD (2021, June 28). Retrieved July 20, 2022, from <https://www.oecd.org/environment/improving-investment-conditions-could-make-indonesia-a-world-leader-in-clean-energy-says-oecd.htm>

³⁷ *Ibid*

7. Business Outlook in the Healthcare and Social Services Industry

7.1 Industry Overview and Performance

Healthcare is one of the fastest growing industries in Indonesia. The current health expenditure in Indonesia has grown from 1.8% of its GDP in 2000, to 2.9% in 2019.³⁸ Its healthcare expenditure is expected to show an annual growth rate of 14.3% between 2022 – 2025.³⁹ Indonesia's healthcare offers significant investment and growth potential, in part due to gaps in the provision of healthcare services and facilities. In comparison to Malaysia with 1.9 beds per thousand population, Thailand's 2.1 beds per thousand population and Vietnam's 2.6 beds per thousand population, Indonesia currently has a low hospital bed to population ratio of 1.4 beds per thousand population. In addition, the physician-to-patient ratio in Indonesia is also low, with approximately 4 doctors and 15 nurses for every 10,000 people.

Healthcare is a fast-growing industry in Indonesia, as its health expenditure grew from 1.8% of GDP in 2000, to 2.9% in 2019. Its healthcare expenditure is forecasted to grow by 14.3% between 2022 – 2025.

The government's liberalisation of the healthcare industry saw the rise of domestic healthcare conglomerates like the Lippo group's Siloam hospitals and EMC healthcare (previously known as the OMNI group). The increased demand for healthcare created investment opportunities for the private sector, which plays an important role in the healthcare system. From the years 2014 to 2018, the number of private hospitals in Indonesia increased by 24% from 1,476 to 1,830 following a rise in investments from foreign firms, including those from Singapore.⁴⁰

In 2020, the number of privately owned healthcare facilities grew to approximately 60%.⁴¹ While no percentage breakdown has been provided, it illustrates the reliance on private healthcare vis-à-vis public healthcare.

Due to Indonesia's geography, access to healthcare varies from region to region. Most of the facilities are in West Java Island cities like Jakarta. There is huge investment potential in providing healthcare accessibility across the archipelago, particularly in provinces like Surabaya, Semarang, Makassar, Bandung and other islands.

7.2 Key Segments within Healthcare and Social Services

7.2.1 Primary Healthcare Services

Primary clinics are the initial point of contact for patients in the Indonesian healthcare industry. There are various types of clinics in both the public and private sectors, including Puskesmas, Pratama, and Utama clinics. Puskesmas primarily serves low and lower middle-income Indonesians, offering basic care and acting

³⁸ World Health Organisation Global Health Expenditure database, "Current health expenditure (% of GDP) – Indonesia, 30 January 2022, accessed 12 October 2022, from <https://data.worldbank.org/indicator/SH.XPD.CHEX.GD.ZS?locations=ID>

³⁹ Statista, *Healthcare (Indonesia)*, 2022, accessed 12 October 2022 from <https://www.statista.com/outlook/dmo/ecommerce/beauty-health-personal-household-care/health-care/indonesia>

⁴⁰ <https://www.pwc.com/asia-practice/assets/asia-taskforce-discussion-paper05.pdf>

⁴¹ Oxford Business Group, *Public and private measures boosting Indonesia's health sector*, 20120, accessed 29 September 2022, from <https://oxfordbusinessgroup.com/overview/universal-coverage-public-and-private-initiatives-are-supporting-sector-growth>

as a referral point to secondary and tertiary care hospitals. The Pratama and Utama clinics are outpatient clinics that are either privately or publicly owned.

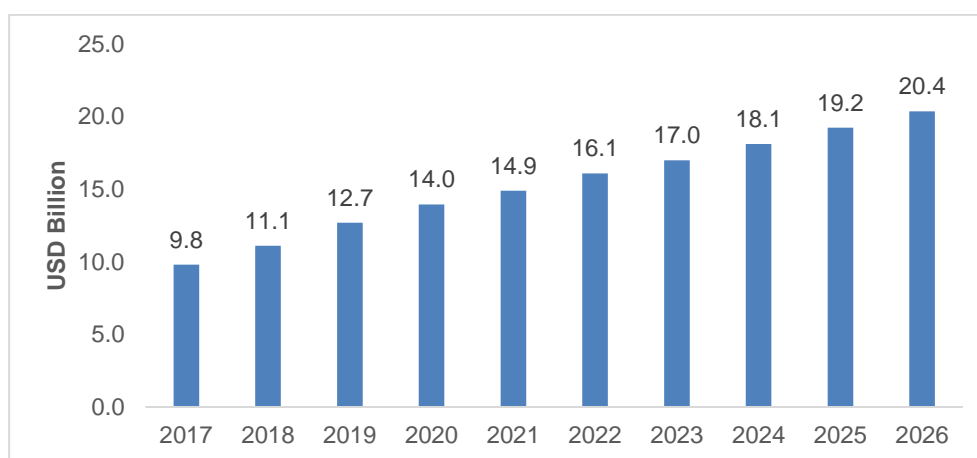
7.2.2 Secondary and Tertiary Healthcare Services

The overall market size for private hospitals is expected to grow at a CAGR of 6.0% between 2022 and 2026, to reach USD20.4 billion.

The secondary and tertiary healthcare services market includes medical, clinical labs and diagnostic imaging services provided in both public and private hospitals.

To establish a foreign-owned general hospital, there are requirements imposed for either the Class A category (with a minimum number of 250 inpatient beds), or a Class B category (with a minimum of 200 inpatient beds). Foreign-owned specialist hospitals must provide a minimum of 100 inpatient beds. However, dental hospitals, specialist eye hospitals, hospitals specialising in ear, nose, and throat (ENT) treatments, and head and neck surgery hospitals are exempt from these requirements.

Figure 5: Private Hospital Market Size, Indonesia, 2017-2026



Source: Frost & Sullivan estimates

7.3 Impact of COVID-19

Healthcare spending increased by 8% to IDR186 trillion (approximately USD12 billion), with more healthcare workers hired to treat COVID-19 patients during the pandemic. With cases exceeding 50,000 per day in the country, temporary field hospitals were set up in many cities, including Jakarta, to deal with the surge.

The government also pledged to boost testing and speed up its vaccination campaign in 2021. As of October 2022, nearly 62.4% of its population were fully vaccinated and 74.6% have received at least one dose⁴².

⁴² https://ourworldindata.org/COVID-vaccinations?country=OWID_WRL

7.4 Market Potential and Challenges

There has been an increase in public awareness on the importance of healthcare, the need to expand the capacity of public and private hospitals, and the implementation of Indonesia's public health insurance system known as "BPJS-Kesehatan" (Jaminan Kesehatan Nasional, or JKN). The rise in healthcare needs has also led to the increased demand for more advanced modern medical devices.

Currently, there remain challenges for Indonesia in complying with the World Health Organization (WHO) recommendations in the provision of healthcare services, such as meeting the recommended ratio of hospital beds, and the absence of hospitals in over ten districts. Compounding these challenges are restrictions on foreign ownership and investments in some areas, including small basic clinics (Pratama clinics) and certain medical specialisations such as maternal and infant health.

Industry participants opine that the demand will be robust going forward. Foreign investment in technical areas is highly needed, and partnering with local entities that are lacking in healthcare experience but willing to delve into providing healthcare services may be a good option to consider.

7.5 Strengths, Weaknesses, Opportunities and Threats (SWOT)

	Favourable	Unfavourable
Internal	<ul style="list-style-type: none"> • Singapore companies have the expertise and network to procure high-quality medical devices and instruments for the delivery of premier healthcare services in Indonesia. • Well-trained medical experts with extensive medical knowledge is in high demand. • Singapore companies enjoy a trusted reputation for providing high-quality healthcare services. 	<ul style="list-style-type: none"> • Establishing good local connections is important to navigate the healthcare environment and facilitate the various aspects of operations. Relationship building in this respect takes time. • Ensuring price competitiveness is a challenge because higher operational costs may be expected in the delivery of higher quality services. • In rural areas with lower population density, profit margins may be affected due to higher start-up costs. • For urban areas like Jakarta, the market is more saturated, and hence greater competition over market share.
External	<ul style="list-style-type: none"> • The healthcare market is expected to see an increase in demand as incomes rise. • Recent moves by the government have improved the ease of doing business and significantly reduced unnecessary delays caused by routines or processes that businesses must comply with. • The ease on foreign ownership for specific sub-industries of healthcare services provides opportunities for foreign companies in expanding and gaining entry into the market. 	<ul style="list-style-type: none"> • Conglomerates dominate the private healthcare market, which is mainly concentrated in Jakarta. New entrants may find it difficult to compete for market share, especially if they lack local connections. • Companies will find it difficult to hire healthcare workers due to a limited pool of medical staff and strict restrictions on the number of foreigners working in the healthcare industry, especially in regions outside of Jakarta.

	Favourable	Unfavourable
	<ul style="list-style-type: none"> Relaxation of travel restrictions following the pandemic has allowed Indonesians to travel to nearby countries, such as Singapore, for medical treatment, allowing the companies to reclaim market share at potentially lower operating costs. 	<ul style="list-style-type: none"> Lack of medical resources, especially in regions outside of Jakarta, may hamper business operations.

Source: Frost & Sullivan Analysis

Key Takeaways

Indonesia's healthcare industry is growing rapidly due in part to the support from the government and the increase in awareness on the importance of healthcare especially considering the COVID-19 pandemic. There are opportunities for foreign healthcare service providers in areas related to the provision of skilled personnel, and the provision of medical devices and equipment.

8. Conclusion

Indonesia has one of the youngest populations in Southeast Asia. Its growing population numbers and rising affluence help to fuel demand for goods and services in sectors such as ICT, healthcare, food and beverages, housing, and energy, amongst others. Considerable investments in infrastructure and other enabling developmental activities are also slated to be made. These initiatives form part of the government's strategic plans and the 'Indonesia 4.0' roadmap, as the country strives to attain its advanced economy goals outlined in "Visi Indonesia Tahun 2045."

Indonesia's manufacturing industry, being a key driver of its economy, presents abundant investment opportunities as it looks to enhance productivity across its value chain through the adoption of digital tools and processes. The country also aims to draw investments to its downstream industries such as those pertaining to chemicals and pharmaceuticals, food and beverages, education, healthcare, transportation, warehouses, and telecommunications. The country's rising energy demands and the push towards fulfilling its COP26 commitments have also opened up opportunities in its emergent renewable energy sector.

Even as opportunities avail themselves, operational challenges remain. These include underdeveloped infrastructure hampering accessibility and communications, limited access to skilled labour, and unfamiliarity with local conditions and regulations, amongst others. Access to financing for SMEs may also be more expensive due to its high interest rate environment. According to Bank Indonesia, in 2020, only 19.6% of SMEs were able to access credit, and the interest rate for loans in the same year, as published by IMF, reached as high as 9.9% compared to Thailand's 3.6%, Malaysia's 4.4% and Vietnam's 7.9%.

Through in-depth interviews and focus group discussions held with industry participants, the identification of a suitable local partner is deemed to be key. Doing so affords significant advantages, key among which are the expeditious learning of local business culture, overcoming local operational challenges and the fulfilment of regulatory requirements that may vary by province. Moreover, collaborating with companies that are already in the market may help avoid common but unique local pitfalls.