



CHAPTER 5

POLICY RECOMMENDATIONS

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This chapter should be cited as:

Chen, L. (2023), 'Policy Recommendations' in Chen,L.,K.Ramli,F.F.Hastiadi, and M.Suryanegara (eds.), *Accelerating Digital Transformation in Indonesia: Technology, Market and Policy*. Jakarta: ERIA, pp.101-106.

Indonesia is generally in good shape to harness the digital society. The next step is to complete a digital-friendly development ecosystem to facilitate digital transformation and create opportunities to realise the potential of data-driven growth. Given the country's stage of digitalisation and economic vision, here are four policy priorities for Indonesia.

1. IMPROVING CONNECTIVITY

Digital connectivity covers both connections in the physical world and the free flow of data in cyberspace. These two 'worlds' influence each other.¹ Digital infrastructure – both hardware and software – is the key to connectivity. In addition to investment in physical infrastructure, improvement in the quality of services is directly linked to the quality of overall connectivity. Connectivity cannot function well without well-constructed infrastructure and the input of qualified services.

Chen (2020) identified five typical development gaps in information and communication technology infrastructure in many Asian countries, including Indonesia: (i) uneven network coverage, (ii) different internet connection speeds, (iii) gaps in affordability,² (iv) gaps in online content and services, and (v) gaps in the security and reliability of the network.

There is a risk that existing development gaps may exacerbate to a digital divide within the country. In this regard, actions to improve digital connectivity should aim at reducing the divide by increasing the supply of public goods, in both quantity and quality. This may require public sector leadership, but it is equally important to involve the private sector to sustain the development of the digital economy. Public–private collaboration will help not only in building infrastructure, but also in establishing rules and legislation that regulate the whole digital ecosystem.

¹ For instance, the performance of fibre-optic cables will determine the speed of data flow on the internet, whereas major cyberattacks may lead to chaos in the real world.

² Poorer people may need to spend larger percentages of their income on mobile data.

2. PRIORITISING DEVELOPMENT OF THE SMARTPHONE ECONOMY

Indonesia could and should focus on new technologies that can facilitate its digital transformation, particularly development of the smartphone economy.

A smartphone can replace many other devices and integrate their functions by simply adding applications (apps) to its memory chip. In Indonesia, technical conditions on using smartphones are maturing – both in terms of the functionality and affordability of phones, and the variety and reliability of apps to be installed. Market conditions are also favourable – having dramatically driven down both the price of devices and the cost of mobile data use. With this, smartphones and mobile apps provide a powerful platform for Indonesian users to make the most of the internet.

Policy efforts to promote the development of smartphones and mobile apps in Asian countries could come through the following channels (Kimura and Chen, 2017; Chen, 2019):

- i. Emphasise the supporting infrastructure of smartphones, such as increasing wireless bandwidth and the number of internet exchange points (IXPs).
- ii. Keep driving down the cost of mobile data use, of which market competition will be the main driver. Rules and regulation help prevent either monopoly or destructive competition of the market.
- iii. Care about low-income people who cannot afford smartphones. The government should consider providing subsidies (or encouraging business donations) to help them obtain devices and, moreover, provide them with the necessary training on how to use the apps.
- iv. Encourage creation and incremental innovation, especially customising digital services to meet the needs of Indonesian users.

3. LIBERALISING THE DIGITAL ECONOMY

In Indonesia, one big obstacle facing digitalisation may be its capacity limits in terms of capital and technology. Therefore, it is important to keep the door open and get involved in international production sharing. New technology, know-how, and modern management skills go hand in hand with foreign inward investment and global value chain participation. Opening the domestic market to international competition would facilitate technology diffusion and accelerate the country's catching-up process, which could be vital for human capital development.

In addition to liberalisation of trade, services, and investment, free flow of data in the online marketplace will be one of the components of an open economy in the digital age. The consequent concerns, such as privacy, consumer protection, competition, and cybersecurity, call for international rules and norms on data governance that will affect not only the cross-border flow of data, goods, capital, and services, but also regulation in the domestic market.

According to ECIPE (2018), Indonesia is one of the countries with the most restrictive digital policies based on its score on the Digital Trade Restrictiveness Index.³ To most foreign investors, the host country's information technology policies that affect business operations and competitiveness are indeed barriers to companies' efficiency improvements or entry to the new markets (Deloitte and AmCham China, 2019). Indonesia could consider promoting foreign investment by lowering restrictions on access to online tools, the use of virtual private networks (VPNs), internet censorship and restrictions, or data localisation requirements.

³ The Digital Trade Restrictiveness Index lists China, Russia, Indonesia, India, and Viet Nam as the top 5 in the world in terms of the most restrictive digital policies.

4. SUPPORTING SKILLS DEVELOPMENT

Indonesia has a large amount of young labour, with a high literacy rate. This could be a bonus for development if they have the skills to meet market needs. In the digital era, this includes capacity for using digital tools, understanding data-driven business, and managerial skills in global value chain coordination.

With advances in artificial intelligence, robotics can handle not only routine operations, but more and more non-routine jobs such as new product design and production process optimisation. Digitalisation also tends to shorten the metabolising cycle of knowledge – high skills that only experts used to have become common knowledge or basic skills needed to enter the job market. For that reason, human capital that is competitive in the digital economy must be able to learn quickly about new technologies and business models that continuously emerge in the market. Free movement of skilled labour will be helpful for knowledge diffusion.

Different conditions and facilities for lifelong learning and training could also create a digital divide in Indonesia. Embracing new technology in the country's education and training system, such as online learning and teleconferences, would help narrow such differences.

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