ISEAS YUSOF ISHAK INSTITUTE

ISSUE: 2021 No. 102

ISSN 2335-6677

PERSPECTIVE

RESEARCHERS AT ISEAS – YUSOF ISHAK INSTITUTE ANALYSE CURRENT EVENTS

Singapore | 2 August 2021

E-Commerce in Indonesia: Impressive Growth but Facing Serious Challenges

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Gojek riders wait for their delivery orders at a distribution centre in Surabaya on 17 May 2021. Gojek and Tokopedia unveiled a merger to form GoTo Group, creating the largest tech firm in the world's fourth most populous country. Picture: Juni Kriswanto, AFP.

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ISSUE: 2021 No. 102
ISSN 2335-6677

EXECUTIVE SUMMARY

- E-commerce has been given a significant boost during the COVID-19 pandemic, with transactions increasing by 23 per cent, and gross merchandise value (GMV) projected at US $32 billion.

- With the recent merger between Gojek and Tokopedia, competition in Indonesia's e-commerce market is set to intensify.

- At the same time, the e-commerce industry faces serious challenges such as policy and regulation uncertainties, relatively low internet penetration, poor logistics infrastructure, low quality in human resources, and shallow digital payment penetration.

- Relevant authorities have enhanced regulatory efforts to ensure data protection, quality assurance, and protect local industries against unfair competition from imported products. Yet, overprotection by restricting online imports would harm both domestic consumers and micro-retail enterprises.

- Moving forward, the authorities will have to be adaptable and nimble in updating regulations to keep pace with the rapid advancement of digital innovation and technology.

INTRODUCTION

The COVID-19 pandemic has turned out to be a boon for e-commerce in Southeast Asia, including Indonesia. The physical distancing requirement during the pandemic has paved the way for a more home-centric lifestyle. The pandemic has also prompted many micro, small and medium enterprises (MSMEs) to shift to online platforms. According to the Minister of Cooperative and SME, the number of SMEs using online platforms has risen to 10.2 million during the pandemic.[1]

It has been reported that the number of online transactions for groceries and takeaway food has grown significantly, especially during the lockdown period. Some marketplaces reported a significant increase in demand for essential products. For example, Bukalapak, one of five unicorn startup companies in Indonesia, has seen demand for essential food products jump significantly since more consumers now have to stay at home.[2] Moreover, some e-commerce merchants have revealed increased sales of basic food products, cleaners, sanitation, health masks, vitamins, cooking utensils, video games, and sports equipment during the pandemic. Some e-commerce businesses had their gross merchandise value (GMV) increased by at least 50 per cent from March to May 2020, the peak of the lockdown period.[3]

A consulting company, Redseer, reported that online shoppers in Indonesia grew from 75 million pre-COVID-19 to 85 million people during the pandemic.[4] It projected the country's e-commerce GMV to reach US$ 40 billion in 2021, the third-highest in the world after China and India. Meanwhile, the 2020 e-Conomy SEA report by Google, Temasek, and Bain & Company projects that e-commerce transactions in Indonesia are expected to increase by almost 160% in the next five years, with GMV projected at US$ 83 billion in 2025, up from US$ 32 billion in 2020.[5]

Given this huge prospect, not only small and medium companies but big retailers such as PT Matahari Department Stores, are moving to the online market. The digital platform MatahariStore.com has being launched,[6] and more and more big players are taking advantage of online market platforms to boost their market base.[7] This indicates a heightening competition in the country's digital economy. The recent merger between Gojek and Tokopedia signal how big startups are strategising to dominate Indonesia's lucrative but uncertain market.[8] The government, at the same time, is trying to balance between regulating and facilitating the sector's development.

This paper examines the trends and development of e-commerce in Indonesia. Specifically, it looks at how the COVID-19 crisis has accelerated e-commerce growth and how policymakers have responded to this trend. The next section discusses Indonesia's e-commerce development in comparison to select countries in ASEAN. The subsequent section examines the implications of the COVID-19 crisis on the e-commerce industry in Indonesia, while the fourth section studies the recent developments in the regulatory framework.

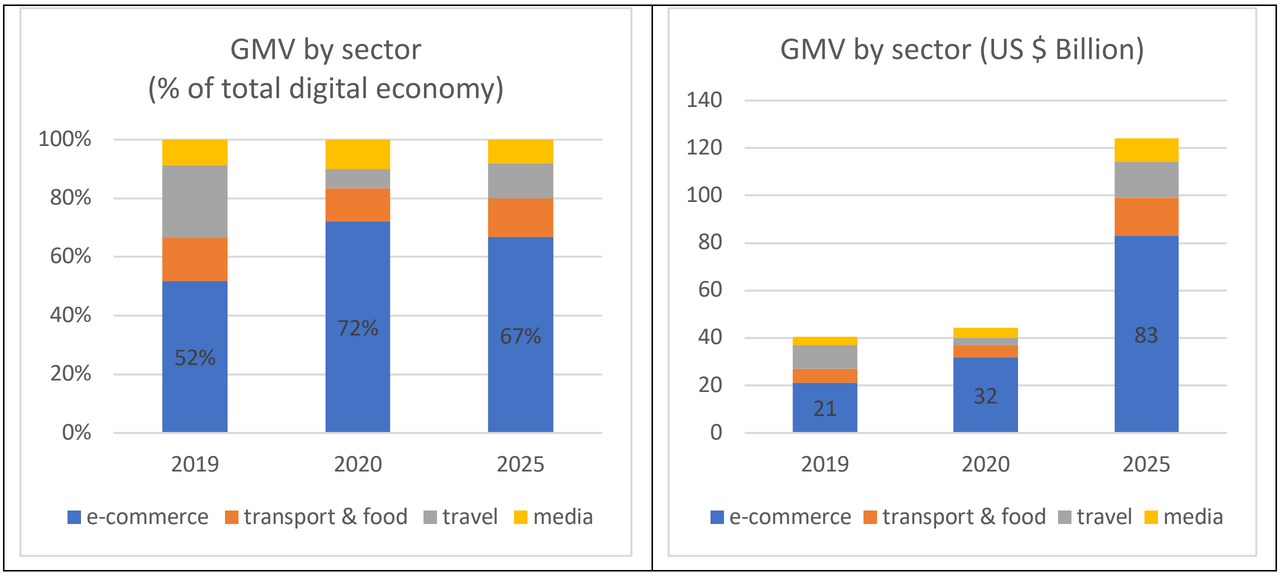
RECENT DEVELOPMENTS

In Southeast Asia, Indonesia has the largest digital economy[9] with approximately 40 per cent of the total regional market share. It is home to five 'unicorns', i.e., Gojek (ride hailing), Tokopedia (e-commerce), Bukalapak (e-commerce), Traveloka (ticketing), and OVO (digital payment).[10] These unicorns have been spearheading the country's digitalisation and have attracted investors from all over the world, specifically large tech companies seeking traction in the region.

In 2020, total online market sales in Indonesia reached US$ 44 billion, while the e-commerce sector accounted for 72 per cent of the total value of the digital economy (Figure 1).

During the COVID-19 pandemic, the online market in Indonesia has continued its expansion to reach US$ 44 billion (Figure 1). A similar trend is also apparent in other ASEAN economies, except for Singapore, which has seen its GMV decline, driven by a massive contraction (-70% YoY in 2019-20) in the online travel sector (Figure 2). Nevertheless, Singapore continues as the regional hub for e-commerce unicorns (Lazada, SEA group) and internet-related industries such as FinTech.

Figure 1: Gross Merchandise Value of the Digital Economy in Indonesia



Source: Google, Temasek, and Bain &Co 2020

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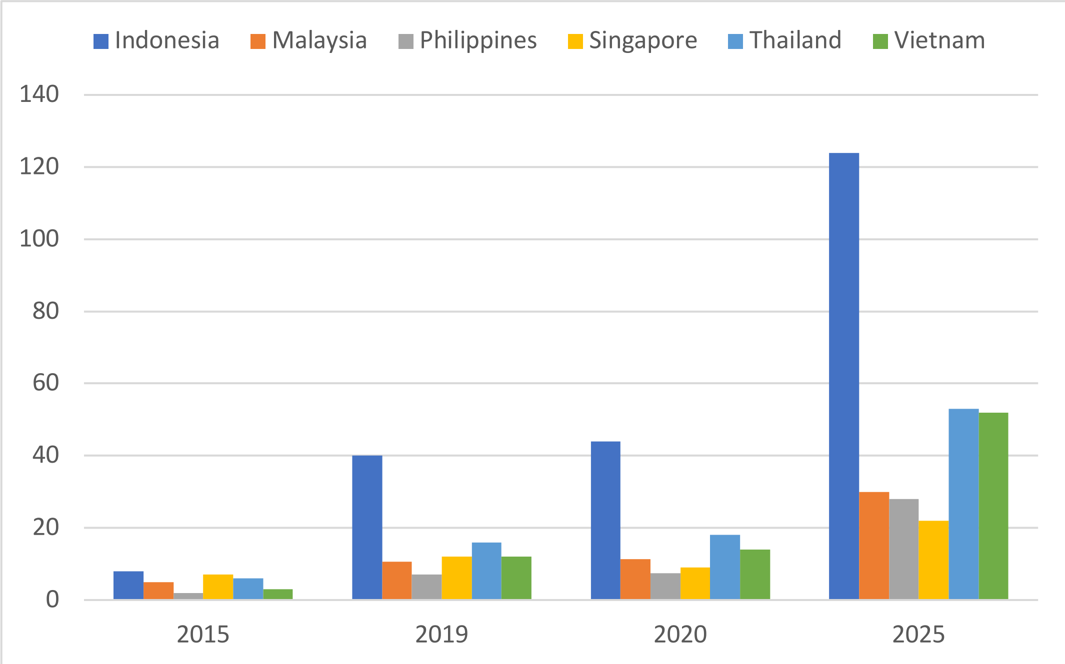
Figure 2: Southeast Asia's Digital Economy Gross Merchandise Value (US$ Billion)



Note: 2025 is a projected figure adjusted for the COVID-19 crisis.

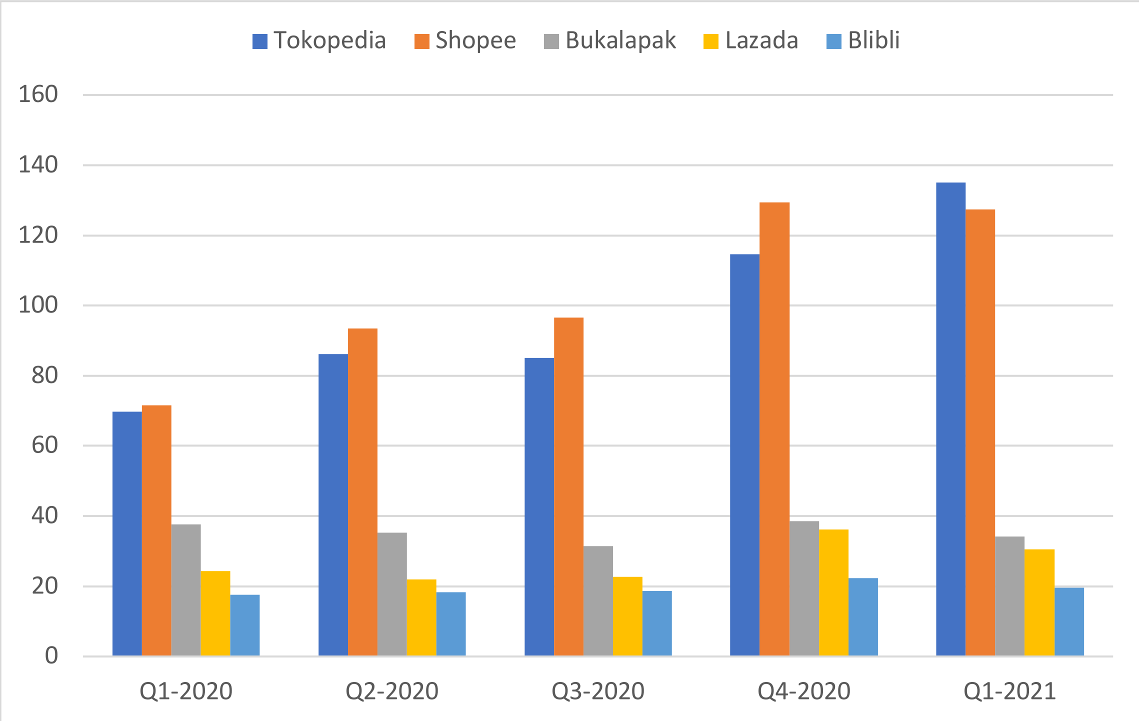
Source: https://storage.googleapis.com/gweb-economy-sea.appspot.com/assets/pdf/e-Conomy_SEA_2020_Report.pdf

Several factors have contributed to rapid growth in the e-commerce industry in Indonesia. Rising smartphone and internet penetration and growing middle-class consumers, combined with a young, tech-savvy population, are among the key determinants for its e-commerce growth.[11] Moreover, international investors such as Sequoia Capital, SoftBank, East Venture, Alibaba, and Tencent, have been investing in local startups, and supporting their growth. More recently, the e-commerce sector in the country has been further boosted by the rapid development of non-cash payment infrastructures such as Ovo, GoPay, DANA, and ShopeePay.

Figure 3 shows five leading e-commerce companies in Indonesia. Shopee (under SEA Group) and Tokopedia have been competing to dominate the Indonesian market in terms of web traffic. In the second tier, local company Bukalapak competes with Singapore-based Lazada.

ISSN 2335-6677

Figure 3: Five Most Visited E-commerce Sites in Indonesia (million visitors)



Source: https://iprice.co.id/insights/mapofecommerce/ Accessed 27/07/2021

Shopee has gained high popularity among Indonesian consumers due to its attractive offers, e.g., cashback, free delivery, and discounts. In Q2-2020, its website saw a significant increase in merchandise transactions of 130% compared to the same quarter the previous year (pre-COVID-19). In that quarter, Shopee posted 260 million transactions, or an average of 2.8 million transactions per day.[12]

Tokopedia, a local marketplace, has seen its market domination being taken over by Shopee during the pandemic.[13] Part of the reason is the massive promotion campaign mounted by Shopee during the lockdown period.[14] In a market where the price level is a critical factor for shoppers, aggressive cashback promo offers for new buyers can easily boost the number of visitors in the respective marketplace. However, a disadvantage to this approach is that customers who are lured by aggressive promotions are unlikely to stay loyal.

It is important to note that the rankings on the marketplace change frequently, depending on several factors, such as capital injection, promotion and marketing strategy, among others.[15] In Q1-2021, Tokopedia regained its number one position as the most popular market platform (Figure 3). This was after it received an injection of funds from Google and Temasek in Q3-2020.[16]

To compete against their main rivals, i.e., Shopee and Grab, Gojek and Tokopedia decided to merge in May 2021 into a new entity called GoTo Group. This new company is now Indonesia's highest valued startup, at an estimated US$ 18 billion.[17] It remains to be seen if the merger will significantly tilt the market position to the advantage of GoTo. But for sure, there will be heightened competition in the industry.

In addition to Tokopedia and Shopee, there are other second-tier marketplaces, such as Bukalapak and Lazada. Bukalapak was Indonesia's third most visited e-commerce website behind Tokopedia and Shopee. It started as an e-commerce platform but was one of the first startups to move into the business of digitalising warung, mom-and-pop stores in local parlance, and business-to-business online procurement services. E-warung sells online products and services such as phone credits. Then there is Lazada, another Singapore based e-commerce company that receives financial backing from Chinese-Alibaba, which is another key player in Indonesia's fast-growing e-commerce market. Like Shopee, Lazada has expanded its networks in various Southeast Asian countries. In Indonesia, this marketplace was ranked fourth in e-commerce in 2020.

Finally, there is Blibli, an e-commerce marketplace owned by Djarum Group. In June 2020, the number of visits to their website decreased to 16.6 million from 21.1 million visits a month earlier.

CHALLENGES

Despite its massive potential, several challenges are facing the industry. First, the internet user penetration in Indonesia remains relatively low compared to neighbouring countries (Table 1). While a 5G commercial network has been launched in a few urban areas,[18] many islands and rural areas have poor or non-existent access to the internet. Based on the Village survey data conducted by Statistics Indonesia (BPS), around 12,000 villages in 2018 had yet to be covered by the internet, and even those already covered by the internet experience frequent connection glitches.[19]

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Table 1: Market features, E-commerce Activity and Payment Methods in Select ASEAN Countries

	Indonesia	Malaysia	Philippines	Singapore	Thailand	Vietnam
Market features						
Internet users (million)	87.9	24.5	76	4.7	37.1	47
Internet user penetration (%)	36.2	82.3	63.5	86.2	56.6	53.4
Mobile phone ownership (%)	56.5	74.4	52.7	69.5	60	58.4
Use of mobile phone to access the internet (%)	14.1	85.3	36	76	33.3	55
E-commerce activity						
Retail e-commerce sales* (USD billion)	4.3	2	1	2	2.3	2.2
2013-18 total growth (%)	196.7	308.4	162.7	138.9	97.6	379
Share of total retail sales (%)	2.82	3.74	1.44	8.32	2.04	2.02
e-commerce spend per capita (USD)	41	110	25	889	358	65
Payment method						
Card payment (%)	8	28.4	20	63.3	26.3	17.7
Electronic transfer/ACH transactions (%)**	25.9	12.9	9	16.5	10.5	10.3
Cash (%)	66.1	57.3	67	11.3	60.8	72
Other paper-based payments	0	1.4	4	8.9	2.4	0

Note: *Retail e-commerce sales exclude online services such as travel, software and deliveries. ** ACH: Automated clearing house

Source: Euromonitor Passport database; Hootsuite/We Are Social compiled by Austrade "E-commerce in ASEAN" (2019)

Table 1 also indicates that there is much room for improving access to smartphones. Going forward, as smartphones and internet access become more affordable, more people could join e-commerce. Based on the network readiness index of the World Economic Forum, Indonesia ranks 105 of 139 countries under the infrastructure and digital content pillar. This pillar grades ICT infrastructure (including the mobile network coverage, international internet bandwidth, secure internet servers or electricity production) as well as the availability of digital content. To be on par with its neighbouring countries, such as Thailand (67), Malaysia (71), the Philippines (87), and China (90), constant improvements will be needed.[20]

The government has built the Palapa Ring broadband network, a billion-dollar fibre-optic development programme, for boosting internet-enabled economic opportunities across the archipelago. Moreover, the government has plans for a Rp 21.4 trillion (US$ 1.5 billion) satellite project, which should become operational by 2023; this will bring internet connection to 149,000 locations, most of which are outside of Java.[21]

Second, logistics infrastructure remains problematic in a country with around 17,000 islands and a vast sea area. "Too few roads, berths and systems, too many ships, cars and grasping hands", as summarised by the Economist (2016), is Indonesia's infrastructure problem in a nutshell. [22] This bottleneck makes for high logistics costs and slows product delivery. [23] With the continuous growth of e-commerce, the demand for faster and more efficient logistics increases. Startups, such as Gojek, have had to overcome such problems through their motorcycle delivery networks. Some companies, like Lazada and Zalora, have built distribution centres in major cities outside Jakarta to control delivery costs and improve service reliability. But this solution comes with high financial costs to investors and customers.[24]

Third, the quality of Indonesia's workforce is essentially not in line with the needs of the digital industry. The August 2020 BPS (Statistics Indonesia) survey recorded that of Indonesia's 138.2 million in the workforce, 77.4 million (around 56 per cent) had only finished junior high school.

Workers with senior secondary education account for about 32 per cent (44.2 million) of the total workforce. Those with academy/university education make up only 13 per cent (18 million). Thus, about 87% of the workforce has only primary and secondary school education. Most of them work in the agricultural and trade sectors, and have limited digital literacy.

The digital economy requires workers with specific skills such as graphic designers, programmers, data analysts, etc., alongside people with multi-dimensional skills, and who possess creativity, analytical thinking and entrepreneurial spirit. However, progress in developing these skills through the education curriculum is slow. As Ministry of Education data reveal, many schools in rural and remote areas do not even have internet access.[25] Given the lack of qualified human resources in the country, many tech companies have had to hire foreign workers to fill the gap. [26]

Another major challenge is the still-nascent online payment system. Indonesia's non-cash payments are still relatively undeveloped compared with other ASEAN countries (Table 1). According to Bank Indonesia, the number of unbanked population remains high, at 91.3 million as of 2020.[27] As a result, 66 per cent of e-commerce transactions are conducted with cash. Electronic payment systems in the country have however been given a boost during the pandemic as people avoided using cash.[28] The challenge lies in improving broadband infrastructure and digital security related to internet transactions. [29]

Finally, the regulatory uncertainty in the country stands as another hurdle in the way of e-commerce development (Table 2). As Moore (2016) has pointed out, "Indonesia's fickle approach to foreign investment and its ill-developed institutions meant that the country was late to develop an indigenous technology industry" (p. 272). While the government has shown reform intentions, it faces difficulties changing some inward-looking policies. The regulatory regime is therefore expected to remain unpredictable.

CURRENT DEVELOPMENT OF E-COMMERCE REGULATORY FRAMEWORK AND ECOSYSTEM

Since the e-commerce roadmap was launched in 2017, not many new regulations have been put in place to guide the sector.[30] To some extent, the regulations can barely catch up with the rapid development in the industry. One important government regulation was issued in November 2019, which states general requirements concerning e-commerce activities,[31] covering areas such as business licenses, technical permits, company registration certificates, taxpayer-identification numbers, among others.

Table 2: Key Regulations on E-commerce Sector

	Regulations	Main aspects
1	Law (Undang Undang) No 7/2014 on Trade	Chapter VIII on electronic trade, article 66 prepares for follow-up government regulations in the sector
2	Government Regulations (Peraturan Pemerintah or PP) No 74/2017 on Roadmap of e-commerce 2017-2019 (Perdagangan Melalui Sistem Elektronik or PMSE)	Provides strategic direction for the e-commerce industry's growth
3	Government Regulations (Peraturan Pemerintah or PP) No 71/2019 on e-commerce transaction electronic system and transaction management	Replaces Government Regulation Number 82/2012 regarding the Operation of Electronic Systems and Transactions. Rapid technological development in the sector requires a new legal basis to support the industry and protect the community
4	Government Regulations (Peraturan Pemerintah or PP) No 80/2019 on e-commerce transaction	Provides the legal framework for many aspects of e-commerce, buying and selling activities and delivery mechanisms, payments, advertisements, electronic contracts, etc. It also provides general requirements that must be fulfilled by every business actor conducting e-commerce activities. This includes business licenses, technical permits, company registration certificates, taxpayer-identification numbers, business conduct (code of practices), and product standardisation of goods and services.
5	Minister of Trade Regulation (Peraturan Menteri Pedagangan) No. 50/2020 concerning business licensing, advertising, advocating, and supervision of businesses in electronic commerce	This is a derivative regulation for PP 80/2019 concerning Trade through the Electronic System. It stipulates regulations concerning Provisions for Business Licensing, Advertising, Preparing, and Supervision of Business Actors in Trading through Electronic Systems

Source: Authors' compilation

Critics argue that the regulation very much favours consumers and can be a disadvantage for traders and market platforms. For instance, domestic and foreign traders and market platforms are required to provide at least two working days to exchange goods and services, or cancellation of purchases, as of the time consumers receive them. It stipulates that if

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merchants' activities harm consumers, consumers can report to the Trade Minister. Henceforth, the reported business actor must respond to the report, on the pain of being included in the priority list for supervision by the minister, which is made accessible to the public.

PP 80/2019 also requires all business actors to have an operating licence and tax number. This will be challenging for MSMEs in general as many are in informal set-ups, i.e., without tax numbers and business permits. In addition, MSMEs must obtain a Business Identification Number (NIB). The government claims that this NIB can be easily obtained by filling out the Online Single Submission (OSS) form, free of charge. Yet, in practice, this process is not a simple one; as specific permits require additional prerequisites from various institutions and local governments. Then after getting a permit, there are tax consequences for MSMEs, both in reporting and paying. There is, therefore a need to facilitate MSMEs to cover this additional bureaucratic process and to provide them with tax advice. [32]

Another criticism concerning PP 80/2019 is the requirement for domestic and foreign market platforms to use Indonesian high-level domain names (dot id) for their internet sites. This can be problematic for existing platforms that already have a domain. Currently, the provision is stated as "preferred"; however, this regulation might become a strict requirement in the future.

Another key regulation concerning e-commerce is Minister of Trade Regulation (Permendag) No. 50/2020 concerning provisions for business licensing, advertising, guidance, and supervision of business actors in trading through electronic systems. The regulation requires domestic and foreign market platforms to submit data and information to Statistics Indonesia (BPS). In addition, the government requires foreign market platforms to appoint representatives domiciled in Indonesia and who are under Indonesian jurisdiction.

Since the issuance of the Permendag No 50/2020, there have been several complaints about unfair competition due to the flood of cheap imported products through cross-border e-commerce. To protect domestic producers, three ministers (Minister of Cooperatives and Small and Medium Enterprises, Minister of Communication and Information, and Minister of Trade) have decided on new rules for trading imported products on the e-commerce platform. This revised regulation provides indicators related to predatory pricing so that e-commerce players have legal references regarding unfair trading practices, e.g., price subsidy, dumping, etc.[33] In addition, the new rule also aims to level the playing field between offline and online business actors by regulating product legality and requiring the Indonesian National Standard (SNI). While the intention is to create fair competition between foreign and local manufacturers who sell their products through online platforms, the government should avoid overprotection that might harm both domestic consumers and micro-retail enterprises.

CONCLUSION

Indonesia's e-commerce industry has been growing remarkably during the COVID-19 pandemic. Be that as it may, there are major challenges facing it, including policy uncertainties, low and uneven internet penetration, and lack of skilled workforce. A conducive ecosystem supported by a clear regulatory framework is needed.

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The government has been trying to improve regulatory certainty, and currently, there are two critical regulations concerning the legal operation of the e-commerce industry, i.e., the government regulation (PP) No. 80/2019 and Trade Ministerial Regulation (Permendag) No. 50/2020. These aim to provide regulatory certainty, consumer protection, and data security. In addition, there is a plan to revise Permendag No 50/2020 to protect local industries from unfair competition from imported goods. It is reasonable to protect local industries against unfair competition, yet it is also essential to understand the downsides of overprotection.

With a population of 270 million and an internet-savvy youth demographic, Indonesia has the necessary scale to transform startups into unicorns. It is already home to some important technology companies that have attracted major global companies seeking to strengthen their position in the region. In particular, these multinational companies have been investing significantly in local startups. The rapid advancement of digital innovation and technology will require flexibility and adaptability, which means regulations should not become bottlenecks and should be constantly updated. [34]

Finally, it is essential to provide technical support and facilitation measures for MSMEs to adopt digital technology and to improve the quality of their products and services. Many MSMEs do not feel confident about joining e-commerce and prefer to stay in traditional brick and mortar commerce. [35]

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ISSN 2335-6677