Original Article

Economy

The Development of Southeast Asia's Digital Economy and China's Cross-border E-commerce in the Region[†]

Xiang Li*

Guangxi University of Foreign Languages, Nanning 530299, Guangxi, China

*: All correspondence should be sent to: Xiang Li.

†: This paper is a master's thesis of Digital Economy and Innovation Management of Maejo University in Thailand.

Author's Contact: Xiang Li, E-mail: 14380108@qq.c DOI: https://doi.org/10.15354/si.22.or017

Funding: No funding source declared.

COI: The author declares no competing interest.

Southeast Asia is one of the regions in the world with the fastest growing digital economies. Despite the pandemic's economic damage to Southeast Asia, the pandemic and subsequent economic lockdowns increased the number of internet users. The growth of Southeast Asia's digital economy bodes well for China's cross-border e-commerce enterprises. The purpose of this paper is to provide an overview of Southeast Asia's digital economy and to discuss the opportunities for Chinese e-commerce firms in this region. Additionally, suggestions are made for the development of online commerce in Southeast Asia.

Keywords: Southeast Asia; Digital Economy; Cross-Border E-Commerce; Internet User

Science Insights, 2022 April 30; Vol. 40, No. 5, pp.493-498.

© 2022 Insights Publisher. All rights reserved.



Creative Commons Non Commercial CC BY-NC: This article is distributed under the terms of the Creative Commons Attribu-Commercial 4.0 License which permits non-commercial use, reproduction and distribution of the work without further permission provided the original work is attributed by the Insights Publisher.

▼ EVERAL years ago, the concept of "cross-broader e-commerce" emerged. It is slightly different from previous terms in the field of electronic commerce in that the primary function of cross-broader e-commerce has shifted away from displaying information about online sellers and buyers and toward completing online transactions. The advancement of Internet technology has made it possible to complete a transaction at a lower cost. It has contributed to the reduction of intermediaries, thereby reducing intermediary costs and increasing the opportunities for diverse corporations to export (1). As a result, consensus has emerged that the growth of e-commerce could benefit international trade by introducing a new type of intermediary that facilitates payment and delivery of goods via e-commerce platforms. Recently, e-commerce has continued to grow in popularity due to a variety of advantages, including low product costs and ease of commerce (2). China has been implementing a top-level strategy in response to the development trend of cross-border e-commerce, utilizing the new mode of

cross-border e-commerce in international trade with multiple Southeast Asian countries.

The regional digital economy is beginning to grow as a result of improved international trade conditions between Southeast Asian countries and China. The Regional Comprehensive Economic Partnership (RCEP), which goes into effect on January 1, 2022, and the significant tariff concessions and other preferential treatment it entails, reduce the costs of cross-border e-commerce. This creates new opportunities for cross-border e-commerce in China. In this context, conducting research on the development of Southeast Asia's digital economy and China's cross-border e-commerce is critical. This article examines the current state, market size, and potential of Southeast Asia's digital economy, as well as the opportunities and challenges confronting China's e-commerce enterprises. Additionally, it makes several recommendations for advancing China's cross-border e-commerce in the region.

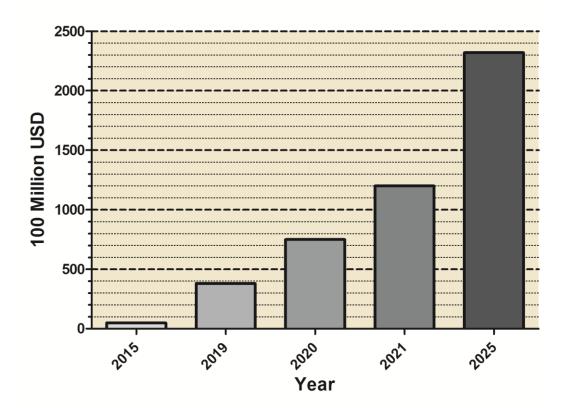


Figure 1. Southeast Asia's Market Size of E-commerce and Forecast 2015-2025 by Bain Capital.

The Status Quo of Southeast Asia's Digital Economy and E-commerce Consumption

Southeast Asia's digital economy has exploded in recent years. According to the Zhejiang Province E-commerce Promotion Association's Results of Research on the Development of Cross-border E-commerce in Southeast Asia (3), in 2020, the average daily number of e-commerce orders in Southeast Asia exceeded 5 million, the number of active e-commerce consumers increased to 150 million, and the market scale of e-commerce reached 74 billion USD; in 2021, the market scale exceeded 120 billion USD at a 62 percent year-on-year growth rate. According to Bain Capital, Southeast Asia's e-commerce market will reach 234 billion USD in 2025 (**Figure 1**).

The purpose of this study is to examine the consumer behavior of internet users in Vietnam, Thailand, the Philippines, Malaysia, Singapore, and Indonesia. The combined population of the six countries is approximately 0.589 billion, with an average internet penetration rate of 75%. The majority of new internet users are between the ages of 15 and 19, indicating a healthy demographic structure and promising a bright future for the region's digital economy.

The Features of Southeast Asia's E-Commerce Market

The Expanding Market Size

On average, the six Southeast Asian countries, whether island-based or located on the Indochina Peninsula, have a high level of urbanization. The majority of their populations reside in their capitals and major cities. For example, Manila in the Philippines, Jakarta in Indonesia, and Bangkok in Thailand, for example, have populations of 12.9, 10.3, and 9.3 million, respectively. Southeast Asia's urbanization is particularly conducive to the development of e-commerce.

Market Potential

At the moment, retail e-commerce penetration in Southeast Asia (except Singapore) is less than 5%. In comparison to China's mature market (24.9% penetration), there is still room for growth of between 800 and 1000%. At the moment, e-commerce penetration is increasing year on year in Southeast Asian countries, including Singapore, the region's most developed economy, and less developed states such as Vietnam and Indonesia. The market potential for e-commerce in Southeast Asia is enormous in the future (3).

Market Segments of Southeast Asia's E-commerce

Consumer electronics currently account for 33% of online shopping in Southeast Asia, followed by apparel (22%), household goods (12%), beauty care (6%), and groceries (1%). The propor-

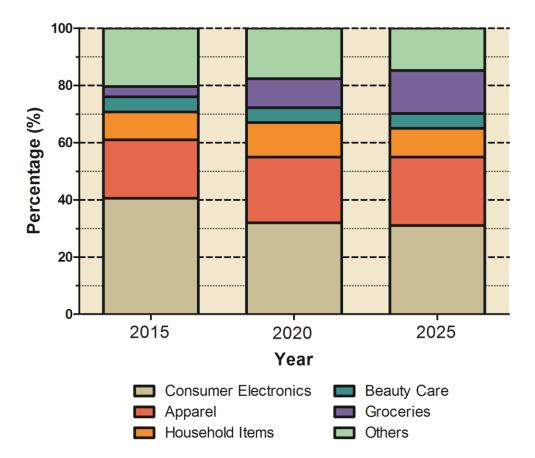


Figure 2. Market Segments of Southeast Asia's E-Commerce.

tion of groceries and apparel is expected to increase further, while the proportion of other items is expected to decrease (Figure 2) (3).

Potential of the Southeast Asian E-commerce Market

The large demographic dividend, growing economy, high investment in the digital economy, and widespread adoption of mobile devices all help lay the groundwork for Southeast Asia's projected massive market volume of cross-border e-commerce.

Due to the pandemic, social distancing persists in Southeast Asian countries, affecting residents' consumer behavior. While offline shopping is harmed, online shopping thrives as a substitute. The demand for epidemic prevention and medical supplies, as well as hoarding of daily necessities, has created a new market. Additionally, as a result of the epidemic, people spend more time online, stimulating the growth of online shopping demand; overall e-commerce sales in Southeast Asia are increasing.

Data from Southeast Asia's Major E-commerce Platforms

According to monthly traffic data from Q3 2021, Shopee is Southeast Asia's largest e-commerce platform. As illustrated in **Figure 3**, the majority of platforms offer a broad range of products, with the exception of two that focus exclusively on electronic products from Vietnam (3). China has one of the world's strongest and most comprehensive export supply chains; its e-commerce enterprises are fully capable of entering the Southeast Asian e-commerce market in order to better serve local consumers. China's cross-border e-commerce sector has a long way to go in terms of commercial development in Southeast Asia.

The Ecology of E-Commerce in Southeast Asian Countries

Southeast Asia is home to nearly 600 million people. Over half of them are under the age of 30. Southeast Asia is currently considered to have tremendous potential in the e-commerce sector due to its young population structure and rapid economic development.

Despite the epidemic's influence, bilateral trade between China and Southeast Asian countries is growing at the moment. With the improvement of the digital economy environment in

Ranking	Names	Coverage	Categories	Monthly Flow (times)
1	Shopee	Southeast Asia	All categories	419,000,000
2	Tokopedia	Indonesia	All categories	158,000,000
3	Lazada	Southeast Asia	All categories	150,000,000
4	ThểGiới Di Động	Vietnam	Electronic	51,000,000
5	Bukalapak	Indonesia	All categories	30,000,000
6	Điện Máy Xanh	Vietnam	Electronic	27,000,000
7	Tiki	Vietnam	All categories	18,000,000
8	Blibli	Indonesia	All categories	16,000,000
9	Orami	Indonesia	All categories	13,000,000

Figure 3. Data of Major E-commerce Platforms in Southeast Asia.

Southeast Asian countries, the overall performance of e-commerce has improved significantly, and there is significant growth potential for the Southeast Asian e-commerce market.

Opportunities for China's Cross-Border E-commerce Development in Southeast Asia

Global growth in internet users and online shoppers has fueled the growth of cross-border e-commerce and the establishment of overseas warehouses (4). Southeast Asia's cross-border e-commerce market has been accelerating its growth. Promoting China's cross-border e-commerce projects in Southeast Asia helps optimize bilateral investment and industry structure and enables Chinese enterprises to expand internationally.

The Sino-ASEAN Partnership

Bilateral trade has increased by more than 20% annually since the establishment of the Sino-ASEAN Free Trade Zone. ASEAN is China's third largest trading partner, while China is ASEAN's largest trading partner (5). China and ASEAN have developed a decade-long partnership strategy. China and ASEAN's institutionalized cooperation has laid a solid foundation for bilateral trade. The Regional Comprehensive Economic Partnership's (RCEP) formal agreement provides an excellent opportunity for bilateral e-commerce cooperation. The market's overall potential in Southeast Asia's digital economy provides sufficient development space for China's e-commerce enterprises (6).

The Advantages of China's Cross-border E-commerce in Southeast Asia

China's e-commerce has advanced significantly in the domestic

market, but its cross-border e-commerce remains in its infancy (7). China's development of the digital economy in Southeast Asia has a number of distinct advantages in terms of infrastructure, capital, and trade relations. Political stability and legalized regulation contribute significantly to the region's attractiveness to foreign investment. Additionally, Southeast Asia's countries, particularly Thailand, the Philippines, and Vietnam, are experiencing economic expansion. These developing countries have benefited disproportionately from China's investment in ASEAN. China has made significant and successful investments in Southeast Asia's digital industry.

Intelligence-Supported Logistics

China has the world's second largest digital economy, trailing only the United States, and the digital economy has become a critical engine of economic growth in the country. The rapid advancement of digital technologies such as big data, cloud computing, and artificial intelligence enables cross-border e-commerce businesses to provide a more personalized user experience. China's cross-border e-commerce companies and their Southeast Asian partners are constantly upgrading their logistics and distribution systems, spurring the development of bilateral cross-border logistics on an intelligence-based basis.

Limitations on Southeast Asia's Digital Economy and China's Cross-Border E-Commerce

The Divergence in Payment Methods among Asian Nations

Cross-border electronic payments are a critical component of

cross-border e-commerce transactions. However, the existing cross-border payment methods between China and other Southeast Asian countries are incompatible, posing numerous difficulties for both Chinese and Southeast Asian e-commerce enterprises in terms of payment and settlement. At present, China's e-commerce is primarily based on third-party mobile electronic payment methods such as Alipay, WeChat, and credit cards, whereas bank transfer is the most popular payment method in Malaysia; bank card is the most popular payment method in Singapore; bank card and bank transfer are both acceptable in Indonesia; Thais prefer bank transfer, cash on delivery, e-wallets, and bank cards; and Vietnamese and Filipinos prefer cash on delivery. As a result of the disparity in payment methods between China and Southeast Asian states, China's cross-border e-commerce in Southeast Asia is significantly hampered.

The High Costs of Cross-Border E-commerce Logistics

Logistics inefficiency has been a significant impediment to China's cross-border e-commerce expansion in Southeast Asia. Cross-border e-commerce businesses are confronted not only with slow speeds but also with rising logistics costs. As cross-border e-commerce has grown in popularity, a large number of logistics firms specializing in cross-border transportation have emerged. Nonetheless, cross-border transportation remains a time-consuming, expensive, and risky process for a large number of retailers.

The Disparity in the Level of Technological Development

Despite the trend toward digitalization of e-commerce in China and Southeast Asia, Southeast Asia's less developed technological level limits the development of e-commerce partnerships between China and Southeast Asian countries. Due to Southeast Asia's technological limitations, RFID, laser, non-contact power supply, and infrared detection technologies cannot be implemented, impeding the advancement of China-Southeast Asian e-commerce cooperation.

Problems Faced by Southeast Asia's Digital Economy and China's Cross-border E-commerce

The High Costs of Consumer and Retailer Mistrust

Buyers have a low level of trust in sellers in the majority of Southeast Asian countries (8). The frequent returns and low quality of goods demonstrate a lack of trust between consumers and retailers. Consumers are frequently concerned about low-quality or counterfeit goods. That is why cash on delivery is the most frequently used payment method in the Philippines and Vietnam. Mutual distrust significantly increases transactional costs.

Huge Differences among Consumers in Different Countries

There are significant consumer differences in Southeast Asia, necessitating hyperlocalization tactics on the part of e-commerce enterprises. Consumer preferences vary by country. For example,

beauty products are the most popular category in the Philippines and Thailand, while toys and baby products are the most popular in Malaysia and Indonesia. Significant differences in consumer behavior necessitate unique marketing strategies, which result in increased operating costs.

Low Platform Conversion Rate

Price remains the primary determinant of consumption among Southeast Asian online consumers. They, like Chinese consumers, have a strong preference for coupon-based purchases; they obtain discount coupons via mobile terminals. Additionally, Southeast Asian internet users are accustomed to shopping via social media, where they demonstrate a high level of acceptance of games and other forms of entertainment marketing. Despite efforts by e-commerce platforms to increase user loyalty through mini games, conversion rates remain low.

Suggestions for the Development of China's Cross-Border E-commerce in Southeast Asia

Southeast Asia's e-commerce market has enormous potential and can learn from China's successful experience. However, with the continuous entry of new businesses, it is likely that the Southeast Asian e-commerce market will face stiff competition in the future.

To Strengthen Localization Capabilities in Southeast Asia's E-commerce Market

Market conditions vary significantly between Southeast Asian countries. Establishing local teams in various countries to execute specialized strategies tailored to market conditions is an effective strategy for increasing operational efficiency and securing target customers. Marketing strategies, brand strategies, and language services are all examples of localization strategies. To increase customer satisfaction, pertinent services are to be provided to target customer groups in various countries. The practice of social media e-commerce in China's market can serve as a model, and the use of search engines and social software can serve as the next point of profit growth.

To Strictly Control the Quality of Cross-Border Goods and to Foster Consumer-Seller Trust

Cross-border online shopping is gaining traction in the global retail market. China's cross-border e-commerce enterprises must strengthen their integrity in order to expand their market share. The dishonest behavior of a few individual businesses tarnishes the reputation of the entire industry. It is suggested that relevant authorities raise the entry requirements for cross-border e-commerce in order to regulate the quality of goods available for online shopping. A positive online shopping experience should help bridge the trust gap between consumers and retailers.

To Investigate Cross-border Online Consumer Behavior and to Improve the Conversion Rate

Based on an understanding of the shopping habits and preferences of various customer segments in Southeast Asia, China's e-commerce retailers can employ a variety of promotional methods, including marketing through games, social media, and

live streaming sales. To increase consumer conversion rates, China's cross-border e-commerce firms must enhance their marketing strategies, increase advertising investment, and expand program software development.

To Promote Cross-Border E-commerce Infrastructure Construction

The RCEP provides preferential treatment to trading companies in the form of tariff concessions on relevant products, significantly lowering the costs of cross-border e-commerce enterprises. The RCEP's member states should strengthen their partnership in e-commerce and assist small and medium-sized businesses in overcoming barriers to developing an online business. Demand for cross-border e-commerce infrastructure, including logistics and warehousing, will also increase. It is worthwhile to experiment with information construction, intelligence development, and localized operation of overseas warehouses in order to facilitate China's cross-border e-commerce development in Southeast Asia (9).

Conclusions and Prospective

According to the analysis of the current state and potential risks

associated with China's cross-border e-commerce in Southeast Asia, it is predictable that the regulations and services governing novel trade activities will require additional reinforcement in light of the widespread use of new technologies such as cloud computing, big data technologies, and the Internet of Things. Additionally, Chinese practitioners of cross-border e-commerce can leverage big data technical support to conduct a seamless connection of the entire logistics process, improving visualization of flow trajectories and developing a convenient and efficient logistics system to compensate for distance-related cost losses. Gradually, an e-commerce service system will take shape, lowering barriers and costs for small and medium-sized businesses. Due to the mitigated risk associated with export trade, more medium and small-sized suppliers will engage in export with the novel electronic business model. On this basis, the capabilities of China's cross-border e-commerce agencies at all levels will be strengthened, the penetration rate of electronic business platforms will increase significantly, and trade convenience and cost reduction will be effectively ensured, thereby promoting Southeast Asia's digital economy and China's cross-border e-commerce in an orderly fashion.■

References

- He C, He W. An empirical analysis of the level of cross-border e-commerce development in China's export trade: Citing 11 countries in Southeast Asia as a case study. J Simulat 2021; 9(1):65-72.
- Ma S, Chai Y, Zhang H. Rise of cross-border e-commerce exports in China. China World Eco 2018; 26(3):63-87. DOI: https://doi.org/10.1111/cwe.12243
- Zhejiang Province E-commerce Promotion Association. The Results of Research on the Development of Cross-border E-commerce in Southeast Asia. Last access: January 17, 2022. Available at: https://www.zjepa.com.cn
- Yang J, Liu T. Problems in the development of overseas warehouses of China's cross-border e-commerce enterprises and suggestions. Modern Business Trade Ind 2019; 40(35):48-49.
- Li X, Ke Q. Sino-ASEAN cross-border e-commerce development strategy in the context of the Belt and Road Initiative. Pract Foreign Eco Relat Trade 2019;

- 2019(9):78-83.
- Zhang YK. An analysis of e-commerce consumer behavior in Southeast Asia. Last access: April 01, 2022. Available at: https://www.fx361.com/page/2020/0401/6752176.sht ml
- Zhang L. The development of China's cross-border e-commerce. Eco Res Guide 2018; 2018(25):154-155. DOI: http://dx.chinadoi.cn/10.3969/j.issn.1673-291X.2018.25.062
- Xu H, Weng DD. Opportunities and challenges of China's cross-border e-commerce enterprises in Southeast Asian market. Labor Secur World 2016; 2016(21):51-52
- Yuan JR, Qiang W, Jiang B, Xu W. The overseas warehouse: The "last mile" of cross-border logistics. People's Daily 2021-01-13.

Received: February 21, 2022 | Revised: March 23, 2022 | Accepted: March 26, 2022