

The Role of E-Commerce in Driving Digital Economy Growth in Indonesia

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ABSTRACT: *The development of digital technology has brought significant changes in various sectors, including the economic sector. In Indonesia, e-commerce has become one of the main drivers of digital economic growth. With technological advances and increased internet access, e-commerce has opened up significant opportunities for Indonesian people to participate in developing the digital economy. This study will explain the role of e-commerce in driving digital economic growth, as well as the challenges and strategies needed to develop e-commerce in Indonesia. Using descriptive analysis methods and relevant literature, this article identifies the various positive impacts of e-commerce on the economy, including increased market access, innovation, and the challenges and opportunities faced by the e-commerce sector in Indonesia. The results of this study indicate that e-commerce not only increases economic efficiency but also plays a role in driving financial inclusion. In addition, e-commerce also has a crucial role in driving digital economic transformation. However, to continue to grow, a comprehensive strategy is needed to overcome existing challenges. Thus, e-commerce can continue to contribute to national economic growth and improve the quality of life of the Indonesian people.*

Keywords: *Digital Technology, E-commerce, Digital Economy, Indonesia, Internet Access.*

1. INTRODUCTION

The role of e-commerce in driving the growth of the digital economy in Indonesia has become a very relevant topic in today's digital era. E-commerce not only acts as an online transaction platform, but also as a means of increasing national income and improving the quality of the country's production factors. With technological advances and increased internet access, e-commerce not only makes it easier for consumers to shop, but also opens up significant business opportunities for business actors, especially in the MSME sector.

Although many studies have been conducted on the impact of e-commerce in various countries, there is still a gap in the literature that specifically examines the role of e-commerce in the context of the digital economy in Indonesia. Most previous studies have focused more on the technological or consumer behavior aspects, while in-depth studies on the impact of e-commerce on economic growth, expansion of market access, innovation, and challenges and opportunities in Indonesia are still limited. Therefore, this study aims to fill this gap by providing a more in-depth analysis of the role of e-commerce in driving the growth of the digital economy in Indonesia.

The purpose of this study is to analyze the role of e-commerce in driving the growth of the digital economy in Indonesia, including how e-commerce contributes to expanding market access, driving innovation, and facing various challenges and opportunities. Thus, this study can provide a significant contribution in overcoming these challenges so that the e-commerce sector can continue to grow and contribute positively to national economic growth.

This research can prove the temporary hypothesis that e-commerce has an important role in accelerating digital economic transformation in Indonesia. Not only by increasing economic efficiency, but also by encouraging financial inclusion and creating new innovations that can benefit all parties in the digital economic ecosystem. It is hoped that the results of this research will provide deeper insight into the importance of e-commerce for the Indonesian economy, as well as offer practical recommendations for stakeholders in optimizing the potential of e-commerce for the future of the digital economy in Indonesia.

2. METHOD

The method of this research is to use descriptive analysis techniques, where data analysis is carried out by collecting data sourced from various journals and articles related to the topic discussed. The type of data from this study is descriptive qualitative data, where the data presented is not in the form of numbers. In addition, to strengthen the idea in analyzing the results of the study, the framework of thought that was built was supported by interviews with e-commerce actors (Faradisa et al., 2023).

2.1 Location and Time of Research

The location of this research was conducted in Sumubkidul Village, Sragi District, Pekalongan Regency, Central Java. Where the interview process was conducted with one of the e-commerce actors who is a resident of the surrounding village. The period of this research is approximately one week.

2.2 Data Source

This research uses two data sources, namely primary and secondary data sources. Primary data sources were obtained by conducting direct observations and interviews with consumers or related parties at the research location. Meanwhile, secondary data was obtained from various journals, articles and previous reports.

2.3 Data Analysis Techniques

This research was conducted using data analysis techniques obtained from qualitative research to understand the role of e-commerce in driving the growth of the digital economy in Indonesia. This data analysis technique includes the influence of e-commerce on the Indonesian economy and the challenges faced by business actors in the e-commerce ecosystem.

2.4 Case Study

This research uses several case studies to provide a real picture of how e-commerce has affected the market and the economy as a whole. These case studies include analysis of business strategies, product innovations, and business actors' contributions to the digital economy.

3. RESULT AND DISCUSSION

3.1 The Impact of E-Commerce on Economic Growth

The increase in the number of online shop members means that the value of e-commerce transactions in Indonesia has increased. Based on information published by Tempo in 2022, e-commerce users in Indonesia are projected to continue to increase, similar to the visualization results in the following graphic image.

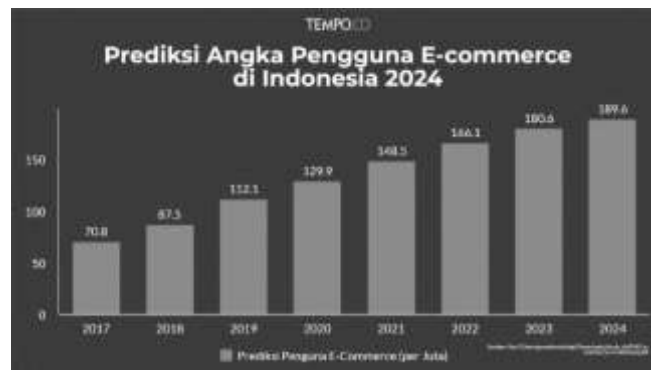


Figure 1. Prediction graph of e-commerce usage figures in Indonesia 2024

This proves that e-commerce business is increasingly promising. In addition to the increasing number of internet users every year, the rapid growth of e-commerce business is due to the habits of consumers who are starting to rely on e-commerce sites to buy various products, especially for products that are difficult to find in physical stores.

Impact can simply be interpreted as influence or consequence. Every decision taken by a superior usually has its own impact, both positive and negative. E-commerce also certainly has positive and negative impacts that influence economic growth in Indonesia. As in an interview with Mrs. Daryati, a clothes seller in a market that was affected by Covid-19 and e-commerce helped her economy improve. "At the start of the pandemic, my sales dropped drastically, turnover fell by more than 50%, to the point where I had to reduce the amount of stock because there was no income. Because of that, I tried selling online. Initially, I didn't know much about e-commerce, but I learned from my son. Started by creating an account on some e-commerce platform and posting my products. At first it was difficult, I had to learn many new things such as photographing products, writing interesting descriptions, and responding to customer questions quickly. After a few months, I started to see results, my sales slowly increased, there were even buyers from out of town who ordered clothes from me. Indeed, my sales have increased, but the profit margin is thinner because I have to offer more discounts and face commission cuts from e-commerce platforms, but it's okay, I still rely on online sales because I'm not too worried if there is a decrease in visitors to the market" (Interview dated August 28, 2024).

3.1.1. Increase in Gross Domestic Product

Internet users are increasing as the reach of internet services expands and internet connection services become faster in Indonesia, which means e-commerce is quite influencing and increasing the added value of the regional economy through Gross Domestic Product (GDP) from year to year. Internet users influence Indonesia's gross domestic product, with a coefficient of 508917.6 with a probability value of 0.0764. Which can be interpreted as every 1% increase in the internet user variable causing an increase in gross domestic product of 508917.6 million US\$. The value of e-commerce transactions on Indonesia's gross domestic product has a coefficient of 1052,073 with a probability value of 0.0962. This means that for every increase in the e-commerce transaction value variable of 1 trillion rupiah, gross domestic product increases by 1052,073 million US\$. Gross domestic product is only the production value of formal economic activities and e-commerce can encourage economic growth and development if not the production itself. The existence of an online transaction system encourages the productivity of industries and encourages domestic demand,

just as the conventional economy drives economic growth in Indonesia (Aula & Suharto, 2021).

3.1.2. Job Creation

Trading activities through the application of e-commerce are very practical. Only use electronic devices such as laptops, computers or smartphones and use the internet as an intermediary. Overall, e-commerce has made a major contribution in creating various new jobs which not only reduce the unemployment rate but also improve the skills of the workforce in the digital era (Solihat & Sandika, 2022).

3.1.3. Contribution to State Revenue

E-commerce not only drives economic growth, but also makes a significant contribution to state revenues by increasing the efficiency of tax collection. In 2022 the value of electronic commerce or e-commerce in Indonesia will reach IDR 476.3 trillion. Meanwhile, digital tax revenues in 2022 will receive 5.51 trillion. The changing behavior of consumers who are turning to online platforms for transactions creates a deep need to understand the impact of e-Commerce transactions on Value Added Tax (VAT) revenues. Data from the Ministry of Finance of the Republic of Indonesia has collected Value Added Tax (VAT) of IDR 13.87 trillion as of July 31 2023. This amount comes from savings of IDR 731.4 billion in 2020, savings of IDR 3.90 trillion in 2021, savings of IDR 5.51 trillion in 2022 and savings of IDR 3.73 trillion in 2023. This is one of the reasons why the government continues to encourage the development of the e-commerce sector in Indonesia (Fuadah et al., 2024).

3.2 The Role of E-Commerce in Expanding Market Access

3.2.1. MSMEs and E-Commerce

MSME stands for Micro, Small, and Medium Enterprises. This term refers to the business sector consisting of small to medium-scale businesses, including micro businesses, small businesses, and medium businesses. MSMEs play an important role in a country's economy because they contribute to economic growth, create jobs, and promote social inclusion. According to the Indonesian Ministry of Cooperatives and SMEs, MSMEs are business units that have characteristics of a certain amount of assets or annual sales value that meet the criteria set by the government, and have ownership and operations managed by one or more Indonesian citizens. While E-commerce is a buying and selling activity or transaction carried out electronically, usually via the internet (Vinatra, 2023).

According to the Directorate General of Small and Medium Enterprises Development and Development, MSMEs are business units that have no more than 200 employees and no more than IDR 10 billion in assets. According to the Regulation of the Minister of Cooperatives and SMEs No. 17/Per/M.KUKM/XII/2015, MSMEs are businesses that have assets of no more than IDR 500 million (for micro businesses), IDR 10 billion (for small businesses), and IDR 50 billion (for medium businesses). The government and other institutions often provide special support for MSME development, such as entrepreneurship training, access to capital, guidance, and access to markets. This is done to increase MSME growth, reduce unemployment, and strengthen a more inclusive economic sector.

During the pandemic, Micro, Small and Medium Enterprises (MSMEs) were one of the sectors negatively impacted, but on the positive side there was an acceleration in the use of digital technology and increased involvement of MSMEs in the digital market. To help and support MSMEs in dealing with the impact of the Covid-19 pandemic, the Government has issued fiscal incentive assistance in the National Economic Recovery Program (PEN). In 2020, the realization of support for MSMEs has

reached IDR 112.26 trillion. Taking into account fluctuations in economic growth and in order to support MSMEs to continue to grow, the budget allocation provided for MSMEs and corporations in 2021 is IDR 171.77 trillion.

The results of the 2019 e-commerce survey conducted by BPS, based on the results of listings in 3,504 Census Blocks, recorded 15.08% of businesses selling goods/services via the internet. Of the number recorded, 72.83% of businesses sold goods/services via the internet in 2018, while 2.76% of businesses had no sales transactions via the internet in 2018, and the remaining 25.11% of businesses only started selling goods/services via the internet in 2019. Most businesses started selling online in 2017 to 2018, which was 45.31%. During 2018, transactions from 13,485 e-commerce businesses totaled 24,821,916 transactions with a transaction value reaching 17.21 trillion rupiah. From the data, it can be said that on average, each e-commerce business made transactions during 2018 as many as 1,841 times with an average transaction value of 694 thousand rupiah (Handayani, 2022).

3.2.2. Online Store and Export

Export activities are activities where goods are produced in one country and sold to buyers in another country. Exports form international trade. Export activities are very important for the sustainability of the economy because they provide a larger market for people and businesses for their goods. Export activities can generate foreign exchange for Indonesia. The role of the government in expanding export activities to obtain foreign exchange is by working with exporters. Exporters are responsible for finding and expanding markets for export products. Exporters also play a very important role in the Indonesian economy. As a country with diverse natural resources and high-quality products, exports, especially Indonesian online store businesses, are one of the main drivers of economic growth. Exporters may be responsible for shipping domestic products abroad.

Online stores take several marketing steps to support international business, such as online store guarantees, free shipping, and lowest price guarantees. One of them is the online store's live broadcast from the online store. This live broadcast feature makes it easy for customers to ask various questions about your listing. Not only that, there are also users who try to buy products introduced in the live broadcast. In addition, all completed live broadcasts can be played and accessed through the online store's social media accounts.

The forms of online stores vary, such as participation to get something, the use of competitive strategies when conducting promotions, increasing public interest in promotions, product price discounts, and others. This brings various benefits, such as strengthening relationships with the community and building good buyer relationships. Marketing strategies that are designed in such a way must also be accompanied by a service strategy to consumers. The quality of this marketing is a determining factor in customer satisfaction. Online store applications must provide sufficient information, both in the form of product specifications, promotions, different products, and information about the payment system. Online store applications are also very good at answering customer questions quickly and serving customer satisfaction. During the ordering process, it is important for customers that the suitability of the product ordered makes them satisfied and satisfied.

In this context, online stores make it easy for consumers to order their favorite products. What online stores do is just an international marketing strategy in the context of international business activities. International marketing strategies aim to improve international marketing performance which has an impact on improving the company's reputation and building a strong brand. A well-functioning international marketing strategy brings certain marketing benefits, such as adding many new customers and reducing marketing costs when average sales increase. These

international business activities allow online stores to conduct international trade exchanges, thus creating a bridge between the domestic and global economies. When online stores penetrate the international market, they can benefit from the comparative advantages of each country (Purnamasari et al., 2024).

3.3 Innovation Driven by E-Commerce

In this increasingly developing digital era, technology is not only used to disseminate information but also used in the business world such as e-commerce which currently brings great power to the business world. The development of technology has influenced changes in consumer behavior that were previously able to interact directly but now without any interaction they can get the goods they want. The rapid growth of internet users in 2017 of 143.26 million is also a major factor in the shift in people's shopping behavior to be more dynamic, where consumers want faster product distribution with better results. All of these changes certainly have a major impact on economic growth in Indonesia. With this change, of course, various innovations have emerged from various sides of the e-commerce world.

3.3.1 Digital Payments

The rapid development of technology has an impact on the development of payment systems in business transactions, especially in maintaining the continuity of business relations between the parties. The payment system, which is one of the pillars supporting the stability of the financial system, has developed, which initially only used cash, has now expanded to a digital payment system or can be called electronic money (e-money). Technological advances in the payment system have shifted the role of cash (currency) as a means of payment into a form of non-cash payment that is more efficient and economical. The era of the industrial revolution 4.0 shows the increasing technology that has an impact on the payment system with various applications used by the public as a means of non-cash payment. Digital payment applications are currently popular in society. The rise of digital money applications certainly makes it very easy for people to make payments when purchasing goods from e-commerce (Tarantang et al., 2019).

3.3.2 Logistics

Basically, e-commerce does sourcing and delivery. The purpose of sourcing is to obtain goods from merchants or suppliers to be traded online, while delivery is the most important thing because delivery ensures that the goods ordered by customers can be sent on time. An entrepreneur who is observant in seeing opportunities will definitely cooperate with the logistics sector for the distribution of goods that will be produced or marketed.

According to the Ken Research report accessed at jurnalmaritim.com entitled "Logistics and Warehousing Indonesia According to Sector (freight forwarding, warehousing, VAS) by Domestic and International Services - Outlook 2021", the Compound Annual Growth Rate (CAGR) in the Indonesian logistics market is estimated to reach 7.9% in the next 5 years until 2021. Freight forwarding is the fastest growing segment with an estimated CAGR of 9.2% (Yasmin, 2021).

A research report released by Savills Plc in December 2017, a property consulting firm, revealed that the need for logistics warehouse space will increase by around 240,000 square meters in 2021. The increase in demand is in line with the expansion of e-commerce businesses. The expansion of e-commerce will become the new backbone for the logistics sector, which previously relied on the manufacturing industry.

Currently, with sales contributing to total retail sales of only 1%. E-commerce business has contributed 3% of the total supply of 8.1 million m² of logistics

warehouses. With a growth of 20% per year, e-commerce contribution is expected to reach 7%-8% or worth US\$14.47 billion in 2021 or an increase of 2.08 times. This means that it requires additional logistics space of two times.

3.3.3 New Business Model

In the digital era like today, there are many new business models such as the emergence of various e-commerce and e-money applications that can make human life easier. E-commerce is a trade carried out using electronic devices where all transactions of buying and selling goods and services utilize technology, especially the internet. All transactions of buying and selling are carried out virtually. With an e-commerce business, the opportunity for companies or business actors to reach the global market is very easy. Running a business with the e-commerce method will make it easier for business actors to introduce the products or services produced to the wider community. So that local products can now reach the international world more easily. With the existence of a new model in the business world, it certainly opens up very wide opportunities for entrepreneurs to be able to develop even further.

3.4 Challenges and Opportunities of E-Commerce in Indonesia

E-commerce business in Indonesia has experienced tremendous growth in recent years. The main factor driving this growth is the increasing use of the internet among the public. In addition, the increasing use of smartphones also supports the expansion of the digital market. According to reports, the number of smartphone users in Indonesia exceeds 170 million people. The availability of affordable mobile devices allows people to be more active in online shopping through e-commerce platforms.

Changing consumer behavior also plays a key role in the growth of e-commerce in Indonesia. Consumers value the convenience of online shopping with competitive prices, secure payment methods, and fast delivery. The COVID-19 pandemic has accelerated this shift, with more people turning to online shopping as a safer and more convenient alternative. Thus, e-commerce businesses in Indonesia are not only experiencing rapid growth but also promise to continue to grow in the future. This opportunity is not only profitable for business actors but also provides a positive contribution to the national economy as a whole. It is important for business actors to continue to adapt to changes in technology and consumer behavior to maintain and improve their position in this competitive market.

E-commerce businesses in Indonesia face various complex challenges and require special attention from business actors. One of the main challenges is the uneven logistics infrastructure, especially considering the geographical conditions of Indonesia which consists of thousands of islands. Shipping goods to all regions is complex and expensive, often causing delays, there are also goods that do not match what was ordered which can damage the reputation of the online store and reduce customer satisfaction.

Consumer trust issues are also a significant challenge. Many consumers are still hesitant to shop online due to concerns about transaction security and product quality. Despite the increase in the use of digital payment methods and security systems, many consumers prefer face-to-face transactions that are considered safer. E-commerce businesses must build trust with good customer service, transparency in transactions, and product quality assurance.

Changing government regulations add another layer of complexity to e-commerce businesses. New policies issued without warning can significantly impact operations and strategies, such as changes in taxes and imports that affect the price of goods and the competitiveness of digital markets. Therefore, e-commerce businesses must always stay updated with the latest regulatory developments and adjust their strategies to stay compliant.

The tight competition in the digital market also cannot be ignored. With the increasing number of new players, e-commerce businesses must continue to innovate and offer added value to stay relevant. Effective e-commerce strategies, such as personalizing customer experiences, attractive promotions, and developing technology, are key to winning the competition. However, this requires significant investment in time, money, and human resources.

Overall, these challenges affect the operations and strategies of e-commerce businesses in Indonesia. By proactively identifying and addressing these challenges, e-commerce businesses can improve operational efficiency, build consumer trust, and maintain competitiveness in an increasingly competitive market.

In e-commerce business, building consumer trust is crucial to overcome challenges and maximize opportunities. Trust is gained through a safe and comfortable shopping experience. Also, various secure payment methods increase the security of consumer transactions. Tokopedia and Shopee are successful examples of facing challenges and taking advantage of opportunities in Indonesia. Focusing on transaction security and user experience makes Tokopedia famous. Shopee optimizes logistics with various logistics partners for fast and efficient delivery (Mujab, 2024).

4. CONCLUSION

E-commerce has become a major driver of digital economic growth in Indonesia. Through its role in expanding market access, driving innovation, and creating jobs, e-commerce has made a significant contribution to the national economy. Coupled with technological advances and increased internet access, e-commerce has opened up great opportunities for people to participate in the digital economy. Although there are still some challenges to be faced, great opportunities are also available to increase national economic growth. Therefore, to maximize this potential, joint efforts are needed from the government, industry players, and the community in overcoming various existing challenges and achieving better economic development goals. Thus, e-commerce can continue to grow and become an important pillar in driving digital economic growth in Indonesia.

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