



THE INFLUENCE OF THE DIGITAL ECONOMY ON ECONOMIC GROWTH IN INDONESIA

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Abstract

Technological and digital developments that happening right now are rapidly growth and this condition encourages the competition in the business world become more intense. The rapid development of technology and digitalization has presented a digital business marked by the high development of technology-based business and trade transactions. Based on these, digital business has great potential to drive economic growth. Digitalization is an interesting topic to research in encouraging technological progress and stimulating economic growth. Economic activities nowadays cannot be separated from the use of information & communication technology through telecommunications networks and the use of internet by conducting e-business transactions. E-business or digital business is a projection of new talents that can inspire competitiveness. Digital business is currently growing rapidly around the world, including Indonesia, proven by the increasing number of internet users. The Indonesian Internet Service Providers Association (APJII) announced that the number of Indonesian internet users in 2024 reached 221,563,479 people from a total population of 278,696,200 people in Indonesia in 2023. This condition is also followed by the increasing number of e-commerce users in Indonesia which has continued to increase since 2020, until in 2023 the number of e-commerce users in Indonesia is 58.63 million users. The research method used is descriptive qualitative research, a method that been used by researchers through a literature study approach and analyzing all information regarding the research topic. This research intends to find out how does the impact of digital business on Indonesian economy. The results show that digitalization has changed many aspects of Indonesian society, including the economy. The development of technological advances and digitalization give positive impact on Indonesia's economic growth.

Keywords: Digital Business, Economic Growth, Technology

1. INTRODUCTION

In today's technological era, we can see that business competition is getting tighter. This intense business competition is triggered by the rapid development of technology and digital. This technological and digital development presents a new innovation, namely digital-based business which is characterized by the high development of business and trade transactions using technological media. When viewed from an economic point of view, this digital business development has great potential to encourage economic growth in Indonesia.

In the last few decades after the Covid-19 outbreak attacked almost the entire world including Indonesia, the government has been very concerned about the development of economic growth in Indonesia which was shaken by the outbreak. However, the development of information and communication technology, especially in this digital era, has brought significant changes in the way of interacting, namely changing people's behavior in various activities, such as working, buying, and selling goods and services, which were originally carried out face to face now evolve into screen to face. This change is not only in terms of marketing communication but also triggers transformations in the structure and dynamics of a country's economy.



In Indonesia, the roadmap for economic growth has experienced many shifts to better conditions with the development of the digital economy as the main catalyst. This research will discuss how digital businesses that emerge and develop in Indonesia affect Indonesia's growth from various aspects of buying and selling goods and services.

Progress in economic growth cannot be separated from the influence of technological advances. The current technological era is the empowerment of the role of digital integration in the industrial sector, better known as the Industrial Era 5.0. Overall, the Industrial Revolution 5.0 is expected to provide many benefits to industry, customers, workers, and society in general, such as improving productivity, quality, and safety of production, as well as creating new job opportunities and reducing negative environmental impacts. The concept focuses on the merging of technology and people, and the need to develop systems that are more adaptive and responsive to changes in the production environment. The Industrial Revolution 5.0 focuses more on the integration of advanced technologies such as AI, IoT, and robot technology with human expertise and innovation that can drive the development of more efficient, flexible, sustainable, and welfare-enhancing production systems. It aims to create a production system that is more adaptive to changes in market demand, focuses more on customer experience, and optimizes the use of limited natural resources.

Digital business also called online business is a type of business that utilizes digital media and the internet to create, market, and distribute various kinds of goods and services. This digital business or online business is a real business that uses the advantages of technological development and the Internet in its operations, both internally and externally.

In the era of globalization and increased connectivity, digitalization is an interesting topic to research, because in Indonesia digital-based business processes provide a new opportunity or innovation for sustainable economic growth. Digitalization is the transformation of business processes, activities, and operational models into digital form. With digitalization, many aspects of human life have become more efficient, connected, and automated. It enables faster access to information, increased productivity, and better innovation. Digitalization relates to the provision of Information Technology infrastructure that is the means of economic activities and business processes.

This rapidly growing technological advancement and digitalization bring about a digital economy that is characterized by the high development of technology-based businesses and trade transactions. According to the Central Bureau of Statistics (2023), the goal set by the Indonesian government is for the country's digital economy to reach Rp1,700 trillion by 2025. To achieve this goal, the government has developed various policies to support the growth of the digital economy. Among these are advances in digital infrastructure, such as the Internet, data centers, and digital payment systems.

The internet in today's digital era can be said to be so practical, easy, and efficient amidst the busy daily routine. In product marketing both through screen-to-face and face-to-face marketing, a marketing communication strategy is needed. The existence of the right marketing communication strategy can prevent companies from losing ineffective and efficient promotions. Internet stands for Interconnected Networking, which when interpreted in Indonesian means a series of computers connected in several series of networks.

The Internet is a computer network that is interconnected throughout the world without recognizing territorial, legal, and cultural boundaries (Supardi, 2019). The Internet is one of the results of the sophistication and progress of man-made science and technology. The Internet is a global communication network that is open and connects many computer networks of various types and types using types of communication such as telephone, satellite, and so on (Mohammad, 2021). Internet means the connection of computers of various types that form a network system that covers the entire world through telecommunications lines such as telephones, radio links, satellites, and others (Gani, 2016). Internet in a broad sense and explained in a global sense, the definition is a network of computers around the world that are all interconnected using the standard internet protocol suite to be able to access information and also be able to exchange information and data with each other (Nurbaiti et al., 2022).



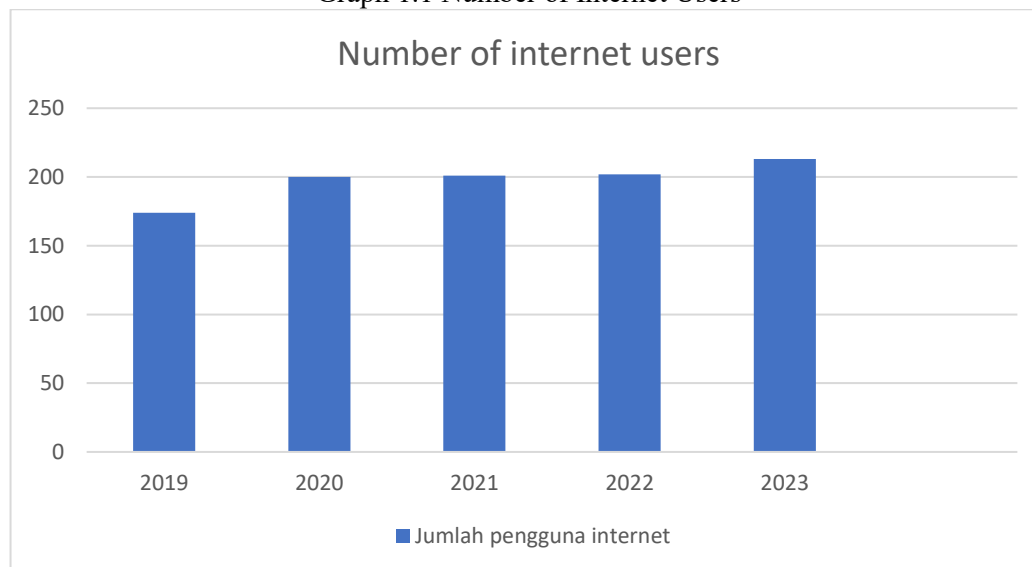
From the various expert opinions above, it can be concluded that the Internet is a global network connecting millions of computers and devices around the world that allows the sharing of information, data, and communication between users from various regions. The Internet serves as the basic framework for various types of services and applications such as the world web, email, social networking sites, and others.

With the help of the internet, users can search for information, communicate with others, download or upload files, play games, and even conduct business or attend classes online. The internet is now considered a ubiquitous feature of modern life and has a significant impact in almost every area of life such as in education, commerce, entertainment, and government.

In the digital business sector, with the help of internet development, people can now buy goods through cell phone applications and the purchased goods will arrive at home safely. Likewise with the service sector, for example, people can go somewhere without having to go to a travel agent but can order tickets through a cell phone application. Likewise, payment transactions have also shifted from cash to non-cash. Digitalization is changing economic behavior globally.

The development of digital technology and business is directly proportional to the increase in the use of the Internet by Indonesians, we can see this trend in the number of users increasing from year to year. According to the We Are Social report, the number of internet users in Indonesia has reached 213 million people as of January 2023. This number is equivalent to 77% of Indonesia's total population of 276.4 million people at the beginning of this year. The number of internet users in the country increased by 5.44% compared to the previous year (year-on-year/yoy). In January 2022, the number of internet users in Indonesia was only 202 million people (databoks, 2023).

Graph 1.1 Number of Internet Users

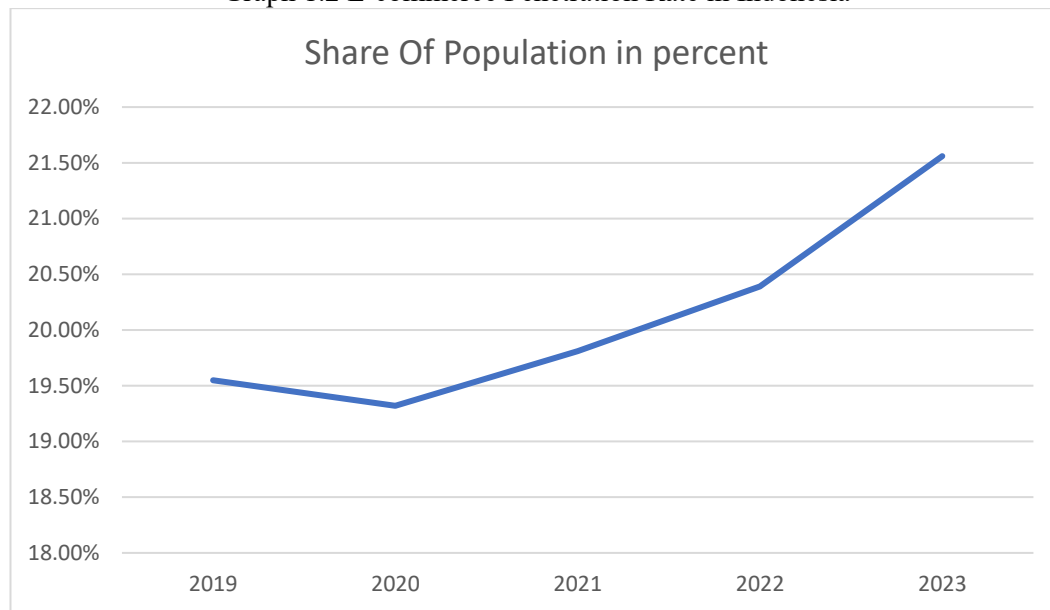


From the graph above, it can be seen that there is an increase in the number of internet users in Indonesia, 2019 The number of internet users is at 174 million users, 2020 there was a 14.9% jump in users, from 174 million internet users to 200 million internet users. According to the author, the increase in internet users was also triggered by the condition of Indonesia and even the world at that time affected by the COVID-19 outbreak, which required people to keep their distance from other people to break the chain of COVID-19 transmission. This condition changes the way of communication and interaction of the global community, which was originally done face to face, turning to screen to face.



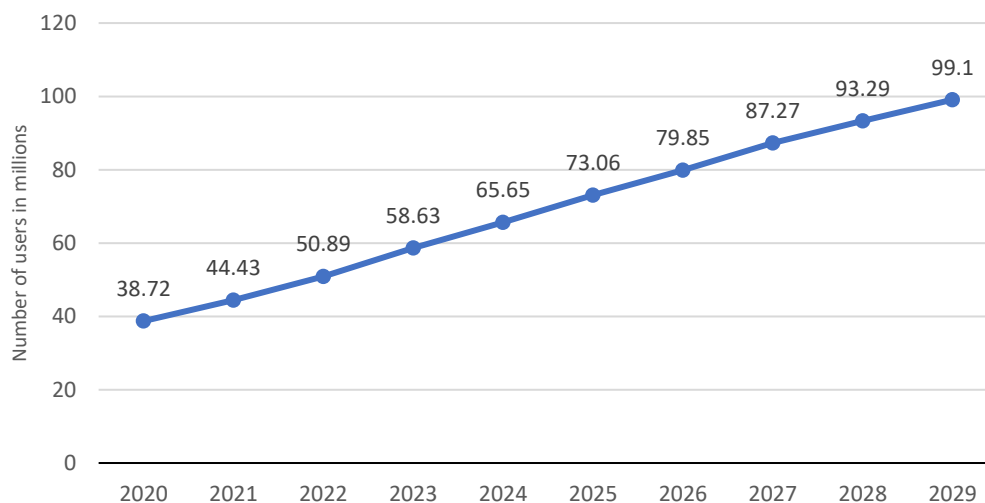
The increase in the number of internet users is also directly proportional to the e-commerce penetration rate in Indonesia, which continues to increase from year to year until in 2023 the e-commerce penetration rate in Indonesia is 21.56%. The number of e-commerce users in Indonesia continues to increase until 2023 the number of e-commerce users in Indonesia is 58.63 million users (PSDI Ministry of Trade of the Republic of Indonesia, 2024).

Graph 1.2 E-commerce Penetration Rate in Indonesia



From the graph above, it can be explained that the increase in the number of penetrations in the e-commerce world has increased from 2021. Why was there a decrease from 2019 to 2020? According to the author, this is also due to the COVID-19 condition which has a negative impact on the Indonesian economy. However, internet usage has increased dramatically this year, it can be concluded that this year people use the internet more for long-distance communication while, after the COVID-19 outbreak decreased and the economy improved, people who are used to interacting using technology made the digital business world experience a significant increase in 2021.

Graph 1.2 Number of E-commerce Users in Indonesia



The number of e-commerce users is increasing from year to year as illustrated in the graph above, even the Ministry of Trade has predicted that it will continue to increase every year, of course, this situation



will greatly encourage Indonesia's economic growth supported by increased technological progress and digitalization as the main catalyst.

The background of the rapid progress and development of technology and digitalization followed by an increase in the number of internet users and e-commerce users will certainly have an influence and contribution to Indonesia's economic growth. Thus this research is expected to provide and add insight into how technological developments and digital businesses have a positive impact on Indonesia's economic growth.

2. RESEARCH METHOD

The research methodology used in this study is descriptive qualitative with a literature study approach and examines all information related to the research topic. According to Yaniawati (2020), library research is a type of research used by collecting information and data comprehensively through various sources such as literature, books, notes, the internet, and other references, as well as the results of relevant previous studies in order to obtain answers and theoretical foundations regarding the problem to be studied. The data sources used come from various journals, and articles, the Information System Data Center of the Ministry of Trade of the Republic of Indonesia, and the Central Bureau of Statistics.

3. RESULTS AND DISCUSSION

The digital economy first emerged in Indonesia with the development of electronic commerce and the information and communication technology industry in the 1980s. The technologies used for business efficiency at the time were personal computers and the Internet. The digital economy is an economic concept that uses digital technology for various economic activities, such as e-commerce, fintech, and other online services.

According to Wikipedia, the concept of digital economy was first introduced by Don Tapscott in 1996 in his scientific paper entitled *The Digital Economy: Promise and Peril in the Age of Networked Intelligence*.

Digital business is part of the digital economy where a company or organization utilizes digital technology to run operations and sell products or services online. The digital business focuses on the application of digital technology in business activities, such as digital marketing, online sales, customer data management operational automation, and so on.

The first digital business company in Indonesia was IndoNet, which emerged in the 1990s as an Internet Service Provider (ISP). Digital business companies which are also commonly called E-Commerce are currently growing very rapidly, both from companies providing product or goods sales services known as Marketplaces such as Shopee, Lazada, Blibli, Tokopedia, and so on. In addition, there is E-Commerce engaged in the field of Online Travel Agent (OTA) such as Traveloka, Tiket.com, Nusatrip, TripAdvisor, and so on.

According to Kenneth C. Laudon and Carol Guercio Traver, known as experts in information systems and e-commerce, e-commerce or electronic commerce are defined as commercial transactions conducted over electronic networks, especially the Internet. In their book entitled *E-Commerce: Business, Technology, Society*, they explain e-commerce from various perspectives, including business, technology, and society.

Here are some key concepts of e-commerce according to Laudon:

1. Business Perspective

Business models used in e-commerce, such as Business-to-Consumer (B2C), Business-to-Business (B2B), Consumer-to-Consumer (C2C), and Consumer-to-Business (C2B). E-commerce generates revenue through various means, including direct sales, subscriptions, advertising, affiliates, and transaction fee models.

2. Technology Perspective

Laudon emphasizes that e-commerce relies on technological infrastructure such as the internet, software, and hardware that make online transactions possible. This includes digital payment systems, data encryption, web servers, and telecommunication networks. E-commerce requires security



technologies to protect sensitive data, such as payment information, which includes the use of SSL (Secure Socket Layer), encryption, and digital certificates to ensure transaction security.

3. Social Perspective

Laudon discusses the social impact of e-commerce, including privacy, consumer protection, and changes in shopping patterns. E-commerce has changed the way consumers interact with products and services, and created new regulatory and ethical challenges, such as personal data protection and consumer behavior on digital platforms.

E-commerce allows businesses to reach global markets at a lower cost than physical stores. It brings challenges in terms of cultural differences, international laws, and diverse tariff and tax policies.

With this view from Laudon, e-commerce is not only seen as an online buying and selling process, but also as a complex ecosystem involving interrelated business, technology, and social aspects.

E-commerce has several important roles for parties, both from business actors, consumers, and the government as the owner of digital business regulations in Indonesia, including:

The role of e-commerce in the economy in Indonesia based on the website of the Directorate General of State Property, namely:

1. The role of e-commerce for businesses
 - a. E-commerce provides wider market access for businesses, especially MSMEs, to market their products
 - b. E-commerce opens new markets for products and services offered by businesses
 - c. E-commerce makes company operations more efficient because businesses do not need physical offices and stores
 - d. E-commerce can minimize cost and time expenditures because work implementation is more flexible
 - e. E-commerce allows businesses to reach global markets without having to open physical stores in certain countries
 - f. E-commerce allows businesses to see feedback from their buyers, such as ratings or reviews
2. The role of e-commerce for consumers
 - a. Make shopping easier Consumers can buy various goods from various manufacturers at one time through the application.
 - b. Reduce the burden of expenses Consumers can better manage household expenses.
 - c. Compare products Consumers can compare products easily to get prices that match their quality.
 - d. Buying goods across regions Consumers can buy products that are only available in certain areas.
 - e. Complete catalog Consumers can see a product catalog provided by the seller, which is equipped with photos and product descriptions.
 - f. Cheaper prices Consumers can buy goods needed cheaper than in physical stores.
3. The role of e-commerce for the government
 - a. Provide a platform for the controlled development and progress of society
 - b. Creating a fair and healthy trade ecosystem
 - c. Help MSME players get equal opportunities
 - d. Help reduce poverty by creating new job opportunities

E-commerce is a form of digital business that has several positive impacts on the Indonesian economy, among others:

- a. Increase economic growth

Based on the results of a study entitled eConomy SEA 2022 published on the Kominfo website, it is written that the value of the digital economy in Indonesia is predicted to reach USD 77 billion by 2022. This value represents a growth of 22 percent on an annual basis. From this explanation, the contribution of E-Commerce in Indonesia is valued at USD 59 billion and has the potential to grow to USD 95 billion by 2025.
- b. Increasing state revenue

E-commerce in Indonesia, which is growing more rapidly, also has a positive impact that results in benefits for the government, namely contributing to state revenue from the value-added tax (VAT) sector.
- c. Increase domestic consumption



The convenience obtained by the community in conducting online buying and selling transactions can help increase people's purchasing power so as to encourage economic growth. In addition, e-commerce also provides options for efficiency and a wider variety of products and services offered, so that it can help increase domestic consumption.

d. Increase employment

E-commerce is able to create new employment opportunities, including digital marketers, data analysts, application developers and so on which can help reduce unemployment and poverty levels in Indonesia.

e. Increasing market access for small and medium enterprises

E-commerce has the opportunity to help improve the competitiveness of MSME businesses and help MSME businesses survive in the increasingly fierce competition in the business world, where business actors are given wider market access to market their products. In addition, the buying and selling process in e-commerce can be done automatically and faster, so as to increase efficiency in terms of time and costs, and can increase productivity in buying and selling activities.

In addition to the positive impacts above, e-commerce also has negative impacts, among others:

a. Increasing excessive consumptive behavior

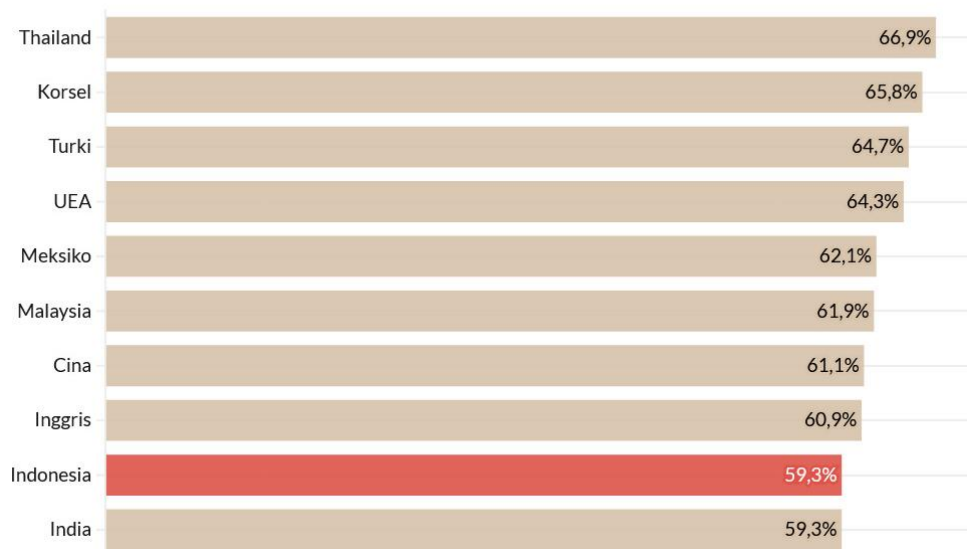
The convenience offered in e-commerce for online buying and selling transactions can lead to consumptive behavior such as spending that cannot be controlled so it has a negative impact on individual financial conditions, especially among young people who often do online shopping transactions, and even someone can make transactions to purchase goods that are actually not very useful for themselves.

b. Causing unfair competition

In Indonesia, regulations related to e-commerce or online buying and selling transactions are still not clear enough or difficult to explain. This causes unhealthy business practices such as sales fraud, products sold that are not in accordance with those listed in e-commerce, unreasonable prices, and so on which create unhealthy business competition. This can be detrimental both in terms of business actors and consumers.

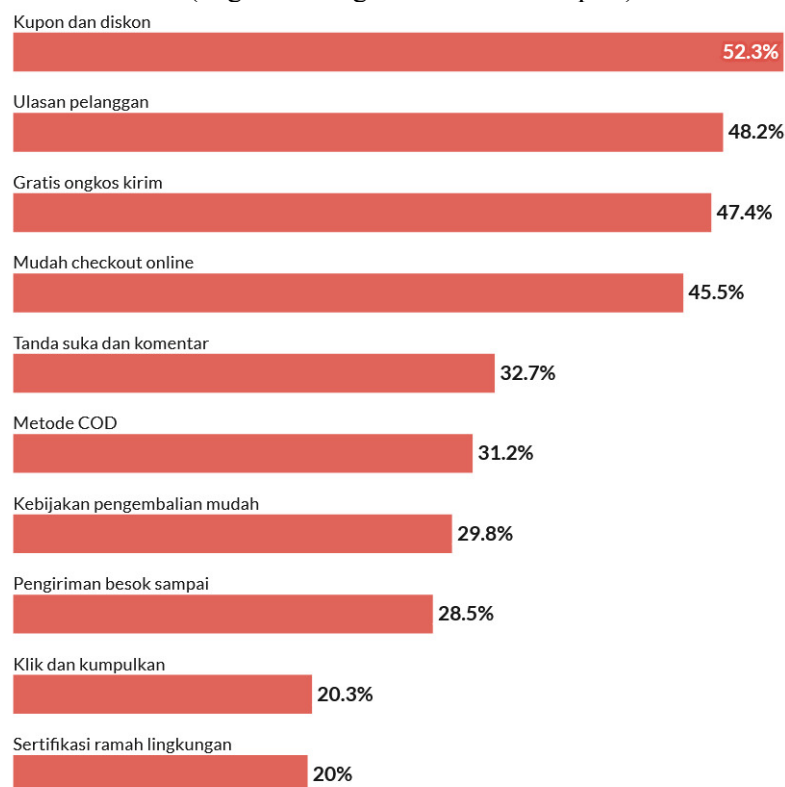
Bank Indonesia (BI) noted that the value of e-commerce transactions in 2023 touched 453.7 trillion, a fourfold increase compared to 2019, which amounted to 105.6 trillion. According to market research conducted by We Are Social and Meltwater, as many as 59.3% of internet users in Indonesia are recorded to often do online shopping. This figure makes Indonesia ranked 9th in the list of countries with the most frequent internet users shopping online.

Graph 3.1 List of countries with the most frequent internet users shopping online
(Digital 2024 global overview report)



From the data above, Indonesia is included in several developed countries in Asia as an online shopping enthusiast, this is triggered by several main factors that encourage internet users in Indonesia to be interested in shopping online, both for products in e-commerce and digital content. The most important factor is related to discounts and coupons, as stated by 52.3% of consumers. In addition, reviews from consumers are also considered a significant factor in encouraging internet users in Indonesia to shop online. Other factors include free shipping and simple online shopping mechanisms.

Graph 3.2 Key Factors Driving Online Shopping in Indonesia
(Digital 2024 global Indonesia report)



The digital economy in Indonesia also directly affects economic growth in Indonesia, data from the Central Statistics Agency shows the amount of Gross Domestic Product (GDP) in 2023 amounting to



IDR 20,892.4 trillion or 1.4 trillion USD, and from this figure, the digital economy contributed 82 billion USD or 5.85% of Indonesia's GDP in 2023. The growth of the digital economy in Indonesia also grows twice as much as economic growth in Indonesia, as reported on the Kemenparekraf website, the growth of the digital economy from year to year grows 8-10%, while Indonesia's economic growth in 2023 is 5.05%.

From the data above, the Director of Digital Economy at the Directorate General of Aptika of the Ministry of Communication and Information Technology, Bonifasius W Pujianto, said that the contribution of the digital economy in Indonesia has not had a significant impact on Indonesia's overall economic growth. The Indonesian government itself targets that by 2045, the contribution of the digital economy to Indonesia's economic growth will reach 20%. For this reason, the Government of Indonesia is preparing several regulations governing the digital economy, which are expected to encourage the growth rate of the digital economy in Indonesia.

4. CONCLUSION

In general, business digitalization has a positive impact on economic behavior in Indonesia. From the business side, it helps the marketing process of goods and services and minimizes business operational costs because it does not require a physical store. Meanwhile, from the consumer side, consumers can easily choose and compare product quality with prices according to quality and can get goods or services cheaper than shopping in physical stores.

The contribution of the digital economy to economic growth in Indonesia as a whole has not been very significant, this, according to the author, can be caused by several factors, including the development of information technology infrastructure or the quality of internet networks that are still uneven in Indonesia, the lack of digital literacy or education/training to business actors, especially SMEs, to be able to conduct digital buying and selling transactions through E-Commerce, not yet optimal financing and capital sectors for digital business actors in Indonesia, and not yet strong regulations governing consumer protection in online transactions. To achieve the digital economy contribution target in 2045 of 20%, steps are needed to overcome these inhibiting factors, including:

1. Accelerate the development of IT infrastructure, especially in areas that still lack internet access or with poor internet network quality.
2. Increase digital literacy, by creating formal and informal education or socialization programs related to digital transactions, both to business actors, especially SMEs, and to the public as consumers.
3. Strengthen regulations related to digital transactions, especially rules related to financing and capital to digital business actors both from banks and non-banks, and strengthen consumer protection regulations in digital transactions, especially in personal data security.

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