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## Digital Economy: New Opportunity in Technological Era

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### Abstract

The Digital Economy has become one of the main driving forces in global economic development. Bringing new opportunities that were previously unreachable by the traditional sector. This study aims to analyze the opportunities and challenges that arise in the digital economy in the technological era. Through a qualitative descriptive approach, this study identifies the development of the digital economy, covering key sectors such as e-commerce fintech, and industry, and its impact on the global economy. Key findings show that the digital economy offers great potential for growth and efficiency, and expanding market access and financial inclusion. However, challenges such as infrastructure gaps data security, and digital literacy need to be addressed to maximize this potential. Collaboration between government, the private sector, and society is essential to create policies that support innovation and protect privacy and personal data. With the right approach, the digital economy can contribute to more inclusive and sustainable economic development.

**Keywords:** *Digital Economy, Opportunity, Challenge, Technology, E-Commerce, Fintech, Industry, Financial Inclusion*

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### INTRODUCTION

The development of information and communication technology in recent decades has changed the way we live, work, and interact. One of the major impacts of this technological advancement is the emergence of the concept of a digital economy. An economic model that utilizes digital technology as the main driver in carrying out various economic activities. The digital economy covers various sectors, from electronic commerce (e-commerce), digital financial services (fintech), to innovation in the manufacturing and education industries. In the early 21st century, the digital economy began to grow rapidly thanks to advances in internet infrastructure and increasing smartphone penetration. According to the McKinsey report (2016), the digital economy is expected to contribute 25% of global GDP by 2025, showing the great potential of this sector in driving global economic growth. In addition, technological developments such as the Internet of Things (IoT), artificial intelligence (AI), and blockchain introduce new business models that increase efficiency, transparency, and accessibility (Brynjolfsson & McAfee, 2014). Indonesia, as the fourth most populous country in the world, has great potential to utilize the digital economy as a driver of economic growth. The digital

economy has become a major driving opportunity in global transformation. The integration of digital technology into various aspects of life has changed the way we work, interact, and do business. Progress in economic growth cannot be separated from the influence of technological advances (Lubis and Efendi 2023).

On the other hand, the digital economy is growing into a new force that accelerates economic growth based on innovation and efficiency. Digital platforms, big data, artificial intelligence, and the Internet of Things (IoT) open up great opportunities for business actors, governments, and communities to create sustainable added value. When these two paradigms are synergized, collaborative space opens up to create an inclusive, intelligent, and environmentally friendly development model.

The digital economy is very important for sustainable economic growth in Indonesia because the development of the digital economy encourages continuous innovation, produces better, and more efficient products and services.

The synergy between the digital economy and the green economy is not only relevant, but also a strategic need in responding to future challenges. This article will review the opportunities that arise from the intersection of these two forces in the technology era, and how Indonesia can use this momentum to realize sustainable and highly competitive economic growth.

## **METHOD**

This study aims to analyze the influence of factors that are challenges and opportunities for the digital economy in driving economic growth in Indonesia

### **Research Population**

The population in this study is conceptual and documentary, because the study uses a descriptive qualitative approach based on literature studies. Therefore, the research population includes all documents, scientific literature, policy reports, articles, and secondary data sources that discuss:

1. The development and application of the digital economy in various sectors, both at the national and global levels.
2. Concepts, implementation, and policies related to the green economy as an approach to sustainable development.
3. Studies that integrate digital technology with environmentally friendly initiatives, including case studies, government policies, and best practices from the private sector or international institutions.

### **Research Sample**

The sample in this study was taken by purposive sampling, namely the deliberate selection of samples based on criteria of relevance and relevance to the topic of study. The samples used include:

1. Documents and reports from national institutions such as the Ministry of Communication and Information, the Ministry of Environment and Forestry, and the Coordinating Ministry for Economic Affairs that discuss digitalization strategies and green economy policies.
2. Academic publications from scientific journals that discuss the integration of digital technology with sustainable initiatives, both from Indonesia and abroad.
3. Case studies from companies, startups, or organizations that have implemented environmentally-based digital economy practices, such as the application of environmentally friendly technology, IoT-based energy efficiency, or circular economy business models.
4. International reports from organizations such as the World Economic Forum (WEF), United Nations Environment Programme (UNEP), and the International Telecommunication Union (ITU) that review global trends in the digital economy and green economy.

### **RESULTS AND DISCUSSION**

The results of the analysis show that the synergy between the digital economy and the green economy has great potential to create an inclusive, efficient, and sustainable development model. Several important findings from the literature and documents analyzed include the following:

1. The Role of Digital Technology in Supporting Environmentally Friendly Practices

Digital technologies such as the Internet of Things (IoT), artificial intelligence (AI), big data, and blockchain have been used in various sectors to improve energy efficiency, reduce waste, and monitor environmental impacts in real time. For example, the use of smart sensors in the agricultural sector helps save water and fertilizer, while in the logistics sector, digital technology helps optimize shipping routes and reduce carbon emissions.

2. Transforming Business Models Towards a Digital-Based Green Economy

Many companies are now starting to integrate sustainability principles into their digital business models. For example, e-commerce platforms implement sustainable logistics systems and environmentally friendly packaging, and encourage the use of local and recycled products. In the energy sector, digital

startups provide energy consumption monitoring services and application-based renewable energy solutions.

### **3. Government Policy Support and Initiatives**

Several countries, including Indonesia, have begun to design policies that encourage digitalization while supporting the green agenda. Programs such as Making Indonesia 4.0 and Low Carbon Development Indonesia reflect

One of the pillars of the digital economy is connectivity that allows information and data to be easily accessed throughout the world. In a globally connected economic system, information becomes a very valuable asset, and data management becomes one of the important elements in improving operational efficiency. Davenport and Kirby (2016).

The digital economy also presents complex challenges. Cybersecurity threats, for example, are one of the biggest risks in the digital era. The increasing number of online transactions and personal data stored digitally has increased the risk of hacking and data leakage. Study by Pew Research Center (2018).

Overall, the digital economy is an unavoidable phenomenon, and it is important for all parties to adapt to this change. Both governments, companies, and society need to understand the opportunities and risks presented by the digital economy, and how they can play an active role in shaping an inclusive and sustainable future.

## **CONCLUSION**

The synergy between the digital economy and the green economy opens up great opportunities for the creation of efficient, innovative, and sustainable development in the technology era. The digital economy provides support through the use of technologies such as IoT, AI, and big data that can increase resource efficiency, reduce emissions, and create new environmentally friendly business models. On the other hand, the green economy is a strategic direction for maintaining environmental sustainability amidst increasing economic growth.

The results of the analysis show that the application of digital technology can accelerate the transition to a green economy in various sectors, from agriculture, energy, transportation, to manufacturing. However, this synergy also faces challenges such as the digital infrastructure gap, limited regulations, and low technological literacy among small business actors.

Therefore, holistic policy support is needed, collaboration between the government, private sector, and society, as well as continuous investment in the development of digital-based green technology. Thus, Indonesia has the opportunity to become a pioneer in the integration of the digital economy and the green economy that can increase competitiveness while maintaining environmental sustainability.

Overall, the digital economy not only plays a role in accelerating economic growth, but also in driving broader structural changes in the Indonesian economy. The transformation towards a digital economy demands synergy between the

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government, the private sector, and the community in overcoming the various challenges that arise. With good cooperation, the digital economy is expected to bring a sustainable positive impact on Indonesia's economic development.

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