

# THE IMPACT OF THE DIGITAL ECONOMY ON MACROECONOMIC GROWTH AND STABILITY POST-PANDEMIC FOR SOCIETY

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## ABSTRACT

*The COVID-19 pandemic has catalyzed the acceleration of the digital economy globally. Mobility restrictions and disruptions to conventional economic activities have forced governments, businesses, and the public to rapidly adopt digital technology. This article aims to analyze the impact of the digital economy on economic growth and macroeconomic stability during the pandemic. The method used is a library study, examining academic literature, reports from international institutions, and policy publications related to the digital economy and the pandemic. The study's results indicate that the digital economy plays a crucial role in maintaining economic growth amidst the global contraction by increasing productivity, sustaining business activity, and promoting digital financial inclusion. However, the "forced" acceleration of digitalization also creates new risks to macroeconomic stability, particularly in the employment sector, income inequality, and financial system stability. Therefore, adaptive macroeconomic policies and digital regulations are needed to ensure the sustainability of the digital economy's benefits during the crisis.*

**Keywords:** digital economy, COVID-19 pandemic, economic growth, macroeconomic stability, digital transformation

## A. INTRODUCTION

The COVID-19 pandemic, which began in early 2020, has caused significant global economic disruption. Social restrictions, lockdowns, and a decline in economic activity have led to growth contractions in many countries. In these circumstances, the digital economy has emerged as an adaptive solution to maintain economic continuity. (Fuadi et al., 2021; Juergensen et al., 2020)

During the pandemic, the digital economy no longer developed gradually but instead experienced a forced acceleration of digitalization. Activities such as e-commerce, remote work, online education, digital healthcare, and cashless payment systems became essential. This phenomenon has made the digital economy a pillar of economic growth and a crucial factor in maintaining macroeconomic stability.

Digitalization according to Rakhmawati et al., (2025) has significantly impacted the financial administration industry because nearly all financial transactions are now data-driven. This significant impact is also due to the fact that nearly all cycles in the financial administration industry are conducted online, such as web-based installments or stock exchanges. The rapid development of data technology has driven a digitalization cycle that has led to broader process automation, but has also represented a fundamental shift in the financial administration value chain.

The growth of the digital economy is seen as an opportunity for business actors to develop innovative business models that can help Indonesia advance as a developed nation. This fosters stronger relationships between economic sectors and improves the structure of existing economic activities. The concept of the digital economy has evolved alongside advances in information and communication technology and has contributed significantly to Indonesia's overall economic growth. The digital economy is expected to better address the challenges of economic instability by increasing

the number of entrepreneurs who drive the economy and create new job opportunities. Furthermore, the adoption of digital technology is also expected to increase Indonesia's economic competitiveness on a global scale.(Pratama, Hidayah, et al., 2025; Yuliani et al., 2023)

However, the uneven acceleration of digitalization has also given rise to various structural issues. Inequality in access to technology, labor market disruption, and risks in the digital financial sector pose serious challenges to macroeconomic stability. Based on this background, the author is interested in conducting research to determine how the digital economy impacts macroeconomic growth and stability in the context of the pandemic.

### **Digital Economy**

The digital economy is a recent phenomenon and is crucial for predicting double-digit economic growth. One crucial factor driving economic growth is developments in technological innovation. In the 1990s, economic change began to be linked to the internet, which became the foundation for digital economic growth. With the advent of technology, accessibility has increased, enabling rapid economic growth(Jung et al., 2020). The digital economy according to Ramadhani & Trisnawingsih, (2022) is defined as a new, and still largely unrealized, transformation across all economic sectors powered by computers. However, this transformation has not yet been realized in all economic sectors. This emphasizes understanding the digital economy from the perspective of macroeconomics, competition, workforce, and organizational change. The definition of the economy encompasses three main components. First, e-business infrastructure, which is part of the total economic infrastructure used to support electronic business processes and conduct trade. Second, e-business is any process carried out by an organization through a computer-mediated network. Third, e-commerce refers to the value of goods and services sold through computer-mediated networks. Meanwhile, the digital economy is defined as a phenomenon that enables the exchange of goods and services through online commerce. This definition relates to competition and regulation in digital markets, with interactions or discussions on open versus closed networks and platforms.(Maula et al., 2023; Setiawan et al., 2025)

The digital economy is defined as economic activity that utilizes digital technology as a primary factor in production, distribution, and consumption(Andreeva et al., 2019). During the pandemic, the digital economy served as a shock absorber, mitigating the negative impact of the economic crisis. The digital economy continues to show rapid growth, with everything from primary, secondary, and even tertiary needs being offered online. Many businesses have also begun utilizing digital technology to conduct their operations. Subsidiary companies from this new economic activity are also growing, including delivery and cargo services, online motorcycle taxis, and all types of delivery services, all experiencing the development and creativity of Indonesian youth. Although some shares are already owned by foreigners, growth is rapid, and each company competes with others, leading to the term "burning money" in promotions. No one knows for sure whether they are profitable or not, as on the one hand, the costs incurred are enormous in marketing, while on the other hand, we can see a shift from offline to online, with online transactions reaching hundreds of billions.

### **Economic growth**

Economic growth is briefly defined as the process of increasing output per capita over the long term. Economic growth according to Arifin et al., (2025) is a process, not a single snapshot of the economy. The dynamic aspect of an economy is viewing an economy as something that develops or changes over time. It is a long-term increase in a country's ability to provide a wider variety of economic goods to its population. This ability grows in accordance with technological progress and the institutional and ideological adjustments it requires. Technological change is considered the most important factor in the process of economic growth. This change is related to changes in production methods that are the result of innovation or new research techniques.(Odilia et al., 2025; Puspitasari et al., 2025)

Increasing public income is essentially the primary driver of economic growth, a process of economic change that occurs gradually and sustainably over the long term. One of the most frequently used indicators to assess a region's economic growth rate is Gross Regional Domestic Product (GRDP). GRDP represents the net value added from various production activities of final goods and services produced within a region during a specific period. This indicator directly reflects the performance of regional economic development.(Kim & Lee, 2023; Melo et al., 2023)

### **Macroeconomic Stability**

Macroeconomics is a branch of economics that studies economic events and issues comprehensively, as a whole. These events and issues encompass aspects of national income and production, employment levels, including unemployment, and price fluctuations within the economy(Cerdeiro et al., 2021). Macroeconomics deals with broad aspects of economic activity. When discussing producers, we are referring to producers across the entire economy. When discussing consumer behavior, we are analyzing the overall behavior of consumers who use their income to purchase goods and services produced within the economy. Furthermore, macroeconomics focuses on the role of the government in regulating economic activity.(G. Harb et al., 2023; Musyafa & Hendra, 2023)

Macroeconomic variables play a crucial role in determining the direction and speed of a country's economic growth. For example, high inflation can reduce people's purchasing power, while low interest rates can encourage investment. By analyzing the relationship between these variables and economic growth in Indonesia, we can gain better insight into the factors that influence societal well-being. Economic growth is often considered a solution to poverty reduction; however, not all economic growth positively impacts all levels of society. In the Indonesian context, further research is needed to determine how economic growth contributes to poverty reduction and whether certain groups are being left behind.

## **B. RESEARCH METHODS**

This study adopts a qualitative research design using a systematic literature review approach. A qualitative approach was chosen because it provides deeper and more comprehensive insights into complex social phenomena(Arifin et al., 2023). This method is suitable for researching issues that involve the interconnectedness of various social, economic, and religious aspects, thus yielding a more comprehensive understanding. Academic journals, policy reports, and publications from international organizations such as the World Bank, OECD, and IMF were reviewed. The selection criteria included relevance to the digital economy, economic growth, and macroeconomic stability, as well as publication credibility.(Pratama, Anisa, et al., 2025)

The analysis was conducted through thematic synthesis, focusing on three main dimensions: (1) the impact of the digital economy on productivity and growth, (2) labor market and income distribution effects, and (3) implications for price stability and financial systems. This method allows for an integrative understanding of existing evidence without relying on primary quantitative data.

## **C. DATA ANALYSIS AND DISCUSSION**

Economic growth is briefly defined as the process of increasing output per capita over the long term. Economic growth is a process, not a single snapshot of the economy. The dynamic aspect of an economy is viewing an economy as something that develops or changes over time. According to Simon Kuznets, economic growth is a long-term increase in a country's ability to provide increasingly diverse economic goods to its population. This ability grows in accordance with technological progress and the institutional and ideological adjustments it requires. Technological change is considered the most

important factor in the process of economic growth. This change is related to changes in production methods that are the result of innovation or new research techniques.(Isqak et al., 2025; Kohle, 2022)

The digital economy is one of the fastest-growing economic sectors in Indonesia. This is evidenced by the increasing number of internet users, the use of digital devices, and digital transactions(Kumalasari et al., 2025). The impact of the digital economy on economic growth in Indonesia can be seen in various aspects, including:

1. Increased productivity

The digital economy can increase economic productivity in various ways, including: Digital technology can help businesses increase efficiency in running their businesses, such as through automation of production, distribution, and marketing processes. Digital technology can drive innovation in various areas, such as products, services, and business processes. Innovation can increase economic productivity by creating new, more efficient and effective products and services.

2. Job creation

The digital economy can create new jobs in various sectors, such as information technology, e-commerce, online transportation, and logistics.

3. Increased competitiveness

Digital technology can help businesses increase their competitiveness in the global market. This is because digital technology can help businesses access global markets more easily and affordably.

4. Increasing economic equality

Digital technology can help improve economic equality in Indonesia. This is because digital technology can be used by anyone, regardless of location or background.

The positive impact of digital economic development also has an impact on the behavior of social media users:

1. Economic growth is increasing and advancing along with the increasing number of industrial centers in a region, which can easily develop a country's information and communication media, contributing to its economic growth rate.
2. A country's economic productivity is increasing due to increased demand and faster production management to meet market needs, managed by telecommunications media and the presence of social media. Technological developments can have an impact that can open up new business opportunities and employment opportunities.
3. Facilitating workers to remain active in improving their skills and broadening their communication knowledge to boost the economy.(Altohami & Omar, 2024)

The continued development of the digital economy not only facilitates economic transactions but also positively impacts Indonesia's economic growth. In 2017, the digital economy made a significant contribution to Indonesia's GDP, reaching 7.3 percent. Although Indonesia's economic growth rate is only

5.1 percent, if managed properly, the growth of Indonesia's digital economy will exceed the country's economic growth. The current high economic growth rate demonstrates that technological advancements have a significant impact on expanding economic growth. Like the Solow growth theory, also known as the Solow modeling theory, this theory emphasizes the crucial role of technological advancement in a country's economy. In all growth theories, technological advancement is maintained at certain strategic points in time. Therefore, technological advancement is crucial for economic growth.(Pratama & Utomo, 2024)

Income and macroeconomic stability are the main foundations for driving economic activity, including the digital sector. While endogenous theory emphasizes the importance of technological innovation and digital infrastructure, the empirical findings in this study indicate that Indonesia is still

in a transitional phase where macroeconomic influences dominate over technological factors. This means that despite rapid digitalization, technology's contribution to cross-border trade has not yet been fully realized, likely due to uneven digital readiness, logistical gaps, and the suboptimal adaptation of cross-border payment systems.

Technological innovation has also been shown to be a key driver of inclusive growth. The adoption of digital technology, R&D investment, and increased innovation capacity in the industrial and service sectors increase productivity, expand employment, and strengthen the integration of the domestic economy with global value chains. These findings emphasize that technological innovation strategies must be directed equitably to ensure that the benefits of growth are felt by all levels of society.

#### D. CONCLUSION

The COVID-19 pandemic has accelerated the digital economic transformation in a forced and massive manner. The digital economy has proven to play a crucial role in supporting economic growth and maintaining macroeconomic stability amidst the crisis. However, this acceleration also brings new risks that need to be managed through adaptive macroeconomic policies and digital regulations. The digital economy plays a strategic role in driving economic growth and reshaping macroeconomic dynamics. While it offers substantial opportunities for productivity enhancement and innovation-led growth, it also presents new challenges related to labor markets, inequality, and financial stability. Policymakers must therefore design adaptive and inclusive strategies to harness the benefits of digital transformation while maintaining macroeconomic stability.

Future research may incorporate quantitative analysis to empirically measure the magnitude of digital economy impacts across countries or regions. With the right strategy, the digital economy will not only be a short-term solution during the pandemic, but also the foundation for sustainable and stable economic growth in the post-pandemic era.

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