

## The Impact of Digital Transformation on National Income: A Systematic Literature Review (SLR)

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<p><b>Abstract:</b> This study aims to analyze the impact of digital transformation on national income and identify the contribution of e-commerce, fintech, and digital infrastructure in supporting national economic growth. The study used the Systematic Literature Review (SLR) method with a qualitative descriptive approach. Research data were obtained from the Scopus database using the Publish or Perish (PoP) application with a publication range of 2020–2025. The article selection process was carried out using the PRISMA method through the stages of identification, screening, eligibility, and inclusion. The initial search results obtained 399 articles, then selected until 15 articles were obtained that met the inclusion criteria and were used as the main sources of the study. The results show that digital transformation has a positive impact on economic growth and national income. The development of e-commerce increases digital trading activities and contributions to GDP, fintech increases financial inclusion and the efficiency of economic transactions,</p>	<p><b>Abstrak:</b> Penelitian ini bertujuan untuk menganalisis dampak transformasi digital terhadap pendapatan nasional serta mengidentifikasi kontribusi e-commerce, fintech, dan infrastruktur digital dalam mendukung pertumbuhan ekonomi nasional. Penelitian menggunakan metode <i>Systematic Literature Review</i> (SLR) dengan pendekatan deskriptif kualitatif. Data penelitian diperoleh dari database Scopus menggunakan bantuan aplikasi Publish or Perish (PoP) dengan rentang publikasi tahun 2020–2025. Proses seleksi artikel dilakukan menggunakan metode PRISMA melalui tahap identification, screening, eligibility, dan included. Hasil pencarian awal memperoleh 399 artikel, kemudian diseleksi hingga diperoleh 15 artikel yang memenuhi kriteria inklusi dan digunakan sebagai sumber utama penelitian. Hasil penelitian menunjukkan bahwa transformasi digital memiliki dampak positif terhadap pertumbuhan ekonomi dan pendapatan nasional. Perkembangan e-commerce meningkatkan aktivitas perdagangan digital dan</p>
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while digital infrastructure and internet penetration support people's economic productivity. Furthermore, the use of digital technology can create efficiency, expand markets, and increase national economic competitiveness.

**Keywords:** Digital Transformation; Revenue National; Digital Economy.

kontribusi terhadap GDP, fintech meningkatkan inklusi keuangan dan efisiensi transaksi ekonomi, sedangkan infrastruktur digital dan penetrasi internet mendukung produktivitas ekonomi masyarakat. Selain itu, penggunaan teknologi digital mampu menciptakan efisiensi, memperluas pasar, dan meningkatkan daya saing ekonomi nasional.

**Kata Kunci:** Transformasi Digital; Pendapatan Nasional; Ekonomi Digital.

### A. Introduction

Economic growth is one of the main indicators of a country's development success because it reflects an increase in production capacity and long-term social welfare (Rahayu, 2023). In the era of globalization, economic growth is no longer solely influenced by capital, labor, and natural resources, but also by the development of digital technology, which is changing the way society produces, distributes, and consumes goods and services (Wibowo, 2018). Digitalization has become a driving force of modern economic activity because it can increase efficiency, productivity, innovation, and national competitiveness (Syata, 2026). Therefore, digital transformation has become a crucial issue in macroeconomic studies, particularly in relation to increasing national income.

The development of digital technology has brought about major changes in the global economic system. Digitalization has not only impacted communication patterns and social interactions but also transformed the economic structure and business activities of modern society. The presence of the internet, artificial intelligence, big data, cloud computing, and digital platforms are key factors driving economic transformation in various countries. According to research by Nagy K. Hanna, digital transformation has become a crucial part of modern economic development because it

can create innovation, efficiency, and technology-based economic integration (Hanna, 2020).

Digital transformation is the process of shifting economic activity from conventional systems to digital technology-based systems. This shift has created various economic innovations such as e-commerce, digital banking, financial technology (fintech), and a digital platform-based economy. This transformation enables economic activity to be carried out more quickly, efficiently, and broadly (Ardianto et al., 2024).

In Indonesia, the development of digital transformation has shown very rapid growth in recent years. Increased internet usage, digital transactions, marketplaces, and digital financial services have driven the growth of the national digital economy. According to a Bank Indonesia report, digital economic and financial transactions continue to increase along with the increasing use of digital technology in people's economic activities. Furthermore, Indonesia is also one of the countries with the fastest digital economic growth in the Southeast Asian region. This development demonstrates that digitalization has become a crucial factor in supporting national economic growth (Bank Indonesia, n.d.).

National income is the total value of goods and services produced by a country during a specific period. National income is usually measured by Gross Domestic Product (GDP) (Sukirno, 2016). Increased digital economic activity can stimulate production, investment, and public consumption, thereby increasing national income (Todaro & Smith, 2015).

In a macroeconomic context, digital transformation impacts economic growth and the structure of national income. Digital economic activity can increase productivity, create new job opportunities, and drive growth in the creative economy and technology sectors (Purba et al., 2025). A country's national income can increase through increased production output, public consumption, digital investment, and technology-based trade (Dewi, 2024).

However, the development of digital transformation also presents various social and economic challenges. Not everyone has equal access and ability to utilize digital technology. Inequality in internet access, low digital literacy, and the dominance of large technology companies can create new economic disparities in society. Furthermore, automation and the use of digital technology are also changing the structure of the workforce. Some traditional jobs are starting to be replaced by machines and automated systems, while new digital-based jobs are increasingly emerging. This situation demonstrates that digital transformation not only has a positive impact on economic growth but also influences income distribution and the structure of the national economy.

Previous research has largely addressed digital transformation in the context of economic growth, e-commerce development, or the Fourth Industrial Revolution. Meanwhile, research specifically examining the impact of digital transformation on national income structure through a Systematic Literature Review (SLR) approach is still relatively limited. Therefore, this study offers a new approach by integrating various previous research findings to comprehensively analyze the impact of digital transformation on changes in national income structure. This study aims to analyze the impact of digital transformation on national income structure and identify the opportunities and challenges of the digital economy in modern economic development.

Based on the research background, the formulation of *the Research Question* (RQ) in this research is as follows:

RQ1 How does digital transformation affect national income growth?

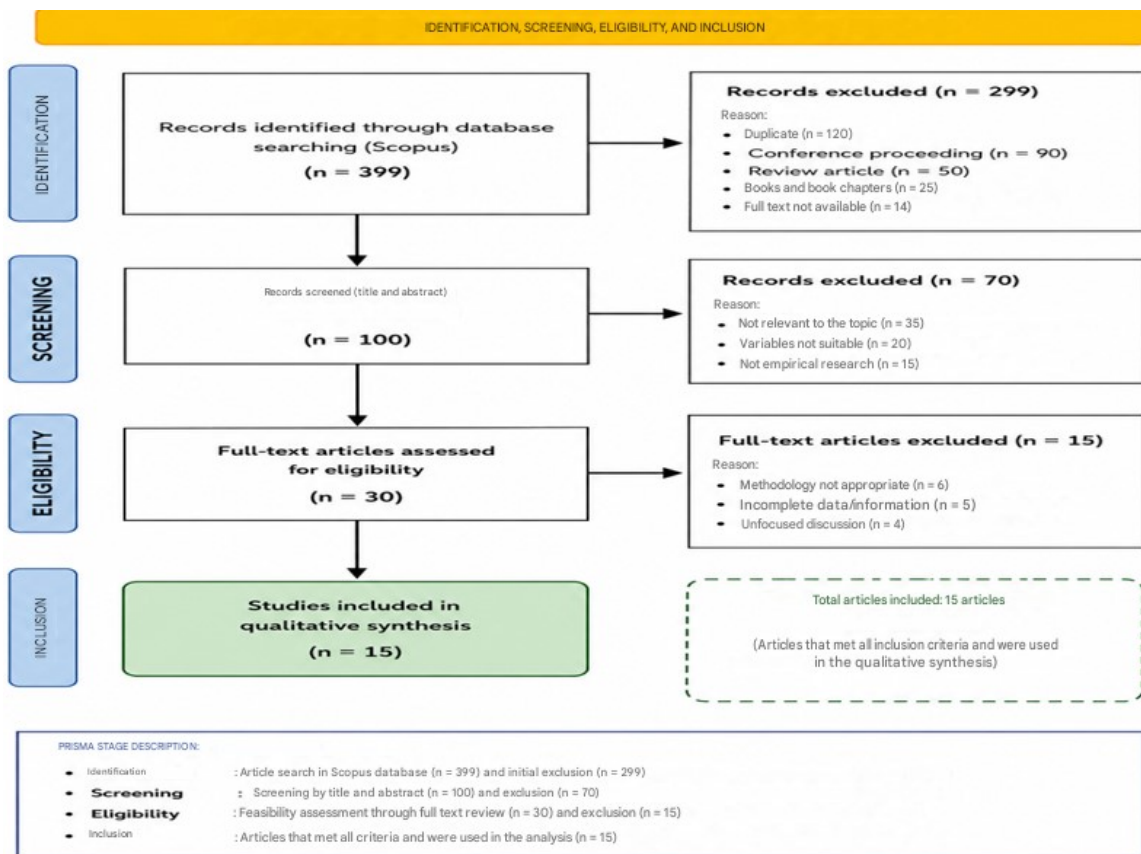
RQ2 How do e-commerce, fintech, and digital infrastructure contribute to national income growth?

## **B. Research Method**

This study employed **the Systematic Literature Review (SLR) method** with a qualitative descriptive approach. The SLR method is used to systematically and

structuredly identify, review, evaluate, and synthesize various scientific articles relevant to the research topic to provide a comprehensive overview of research developments on the topic under study. The data used in this study are secondary data in the form of scientific articles obtained through the Scopus database. Scopus was selected because it is a reputable international database that provides high-quality, widely indexed scientific articles and has high credibility in scientific research publications.

**DIAGRAM PRISMA FLOW-SYSTEMATIC LITERATURE REVIEW (SLR)**



**Figure 1.1 PRISMA Flowchart in the Selection Process Article Research**  
 Source: Results processed researchers based on PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) method, 2026.

## **Inclusion and Exclusion Criteria**

### **1. Inclusion**

Inclusion criteria are the criteria used to determine which articles are eligible for inclusion in a study. According to Barbara Kitchenham , inclusion criteria serve to ensure that selected articles are relevant to the research objectives and possess appropriate scientific quality (Kitchenham, 2004) . In this study, selected articles must address topics relevant to the research focus, be from scientific journals, be indexed by Scopus, be published between 2020 and 2025, be available in full-text format, and have clear and accountable research methods.

### **2. Exclusion**

Exclusion criteria are criteria used to exclude articles that do not align with the research objectives so that the research results are more focused and relevant. According to Barbara Kitchenham , exclusion criteria serve to filter articles that do not meet research standards or requirements so that the quality of the analysis can be maintained. In this study, articles were excluded if they were not relevant to the research topic, such as *conference proceedings, review articles, book chapters, or editorials. This included duplicate articles*, articles not available in full text, and articles whose discussion did not focus on the research variables. With these exclusion criteria, the article selection process becomes more systematic and helps researchers obtain sources that truly match the research topic.

## **Research Stages**

### **1. Identification ( Identification) Article )**

The first step was to identify relevant scientific articles using Publish or Perish (PoP) software, using data from the Scopus database . Article searches were conducted using keywords such as "*digital transformation.*" and "*national income* " for the 2020–2025 publication period. The initial search yielded 399 articles, which were then compiled as raw research data. All of these articles are preliminary and have not yet

undergone a selection process, requiring further filtering according to the PRISMA stages of screening, eligibility, and finally, articles deemed suitable for analysis.

2. *Screening* (Article Screening)

During the screening stage, a selection process was conducted based on the title and abstract to assess the relevance of the articles to the research topic. Articles that did not align with the research focus, were irrelevant to digital transformation and national income, and included duplicate articles, conference proceedings, review articles, and book chapters were eliminated. After the screening process, 100 articles were deemed relevant.

3. *Eligibility* (Article Eligibility)

A total of 100 articles were then assessed for eligibility through a *full-text review process*. At this stage, articles that did not meet the research methodology criteria and did not focus on the topic of digital transformation and national income were eliminated. After the eligibility selection process, 30 articles met the research criteria.

4. *Included* (Included Articles)

The final results showed that 15 articles met all inclusion criteria and were used as primary data in the study. These articles were then analyzed to examine the relationship between digital transformation and national income using a qualitative descriptive approach.

### C. Results And Discussion

Based on the results of *the Systematic Literature Review* (SLR), 15 articles met the inclusion criteria and were used as primary sources in this study. These articles were published between 2020 and 2023. The most prevalent publication year was 2021, indicating that research on digital transformation and national income has increased with the development of the digital economy and information technology during that period.

**Table 1.1. Summary of Research Literature on the Impact of Digital Transformation on National Income**

No	Article Title	Year	Method Study	Research Focus
1.	Digital Transformation and Economic Growth	2020	Quantitative	Digital economic growth
2.	The Impact of Digital Economy on National Income	2021	SLR	National income
3.	E-Commerce Development and GDP Growth	2021	Quantitative	Contribution of e-commerce to GDP
4.	Artificial Intelligence and Economic Productivity	2022	Literature Review	Productivity economy
5.	Financial Technology and National Economic Growth	2021	Quantitative	Fintech And growth economy
6.	ICT Adoption and National Income	2021	Quantitative	ICT and income national
7.	Digital Economy and Employment Growth	2020	Quantitative	Digital economy and power Work
8.	Industry 4.0 and Economic Growth	2021	Literature Review	Digital industry
9.	Economic Impacts of Digitalization	2020	Quantitative	Impact digitalization economy
10.	Digital Trade and Economic Development	2023	SLR	Trading Digital
11.	The Role of Internet Penetration on GDP	2022	Quantitative	Internet and GDP
12.	Digital Infrastructure and Economic Growth	2021	Quantitative	Fintech And economy
13.	Digital Infrastructure and Economic Growth	2021	Quantitative	Digital infrastructure
14.	The Impact of E-Commerce on National Economy	2022	Quantitative	Economy National
15.	Technological Innovation and National Income Growth	2023	Quantitative	Technology And Income National

**Source: Scopus 2020-2025**

Based on the research methods used, quantitative methods were the most frequently used in the articles analyzed. Most studies used a quantitative approach to

measure the impact of digital transformation on economic growth, GDP, and national income. Furthermore, several articles used the *Systematic Literature Review* (SLR) method and *literature reviews* to examine the development of the digital economy from various previous studies.

The most frequently discussed topics in articles are digital economic growth, e-commerce, fintech, digital infrastructure, the internet, and national income. Research focuses on digital transformation as a significant factor in the transformation of economic activity in modern society. The most frequently discussed topics in articles are digital economic growth, e-commerce, fintech, digital infrastructure, the internet, and national income. Research focuses on digital transformation as a significant factor in the transformation of economic activity in modern society. The study Vu Khuong Manh, 2020 "*Digital Transformation and Economic Growth* " explains that digital transformation can increase economic efficiency and productivity through the use of digital technology. The study Erik Brynjolfsson et al. "*Economic Impacts of Digitalization*" also shows that digitalization has a positive impact on national economic activity by increasing the effectiveness of production and distribution processes.

Furthermore, the development of e-commerce is a key topic in the analyzed research. The study lina sun et al. "*E-Commerce Development and GDP Growth* " shows that the development of digital commerce contributes to GDP growth through increased online economic transactions. These findings are supported by the study Ziaul Haque Munim et al "*The Impact of E-Commerce on the National Economy* " which states that e-commerce can expand markets and increase national economic activity. This demonstrates that the digitalization of commerce provides significant influence on economic growth and national income.

In the financial sector, the study Ross P. Buckley et al. (2021) "*Financial Technology and National Economic Growth* " explains that the development of fintech can increase public financial inclusion and accelerate digital economic activity. Fintech

makes it easier for people to conduct financial transactions, thereby making economic activity more effective and efficient. This research is related to the articles Carol Corrado et al. (2021) "*ICT Adoption and National Income*" and "*Digital Infrastructure and Economic Growth*", which explain that digital infrastructure and the use of information technology play a crucial role in supporting national economic growth.

Other studies Robert J. Gordon (2022), such as *The Role of Internet Penetration on GDP*, show that increased internet usage impacts a country's economic productivity and GDP. Furthermore, the article *Artificial Intelligence and Economic Productivity* (2022) explains that the use of Artificial Intelligence (AI) technology can increase work productivity through automation and efficiency of economic processes. The study Klaus Schwab (2021) *Industry 4.0 and Economic Growth* also states that the development of the digital industry has a positive impact on modern economic growth.

Based on the relationship between studies, all articles show similar results, namely that digital transformation has a positive impact on economic growth and national income. This similarity is evident in the increase in productivity, economic efficiency, market expansion, and acceleration of economic activity due to the use of digital technology. However, there are some differences in the focus of the studies. Some articles focus more on e-commerce and fintech, while others focus on digital infrastructure, the internet, Artificial Intelligence (AI), and Industry 4.0. Differences are also evident in the research methods used, namely quantitative, SLR, and *literature review*. Nevertheless, all studies still lead to the same conclusion. the same that digital transformation contributes to improving the national economy.

The synthesis results indicate that there are three main mechanisms explaining the impact of digital transformation on national income. First, digitalization increases productivity through automation of production processes, data utilization, and operational efficiency. Companies are able to produce greater output at lower production costs, thereby increasing economic value added. This condition aligns with

Solow's growth theory, which explains that technological progress is a crucial factor in increasing productivity and long-term economic growth.

Second, the development of the digital economy expands market access through e-commerce platforms. Digitalization enables businesses, particularly MSMEs, to reach a wider consumer base without being limited by geographic location. The impact not only increases sales volume but also increases the trade sector's contribution to Gross Domestic Product (GDP). These findings demonstrate that digitalization can create new economic opportunities while strengthening national competitiveness in the global economic era.

Third, the development of financial technology (fintech) increases public financial inclusion. Various studies show that digital payment services, technology-based loans, and easier financial access encourage increased consumption and investment activities. Ease of transactions also reduces economic costs (transaction costs), accelerates the circulation of money, and improves the efficiency of the financial system. Thus, digitalization not only impacts the technology sector but also strengthens overall economic stability and growth.

While all studies indicate a positive relationship, there are differences in the magnitude of the influence of digital transformation on economic growth. These differences are influenced by the level of digital infrastructure readiness, the quality of human resources, government policies, the level of digital literacy, and the economic conditions of each country. Countries with better internet infrastructure, regulations that support innovation, and high levels of technology adoption tend to reap greater economic benefits than countries that still face limited digital access.

In the Indonesian context, studies show that the development of e-commerce, fintech, and the digitalization of the public and private sectors have positively contributed to increased economic activity. However, the benefits of digital transformation are not fully distributed. There are still disparities in internet access between regions, low digital literacy among some communities, and limited ability of

MSMEs to adopt digital technology. Therefore, digital transformation needs to be supported by infrastructure development, improved human resource quality, and government policies that can create an inclusive digital ecosystem.

Overall, the results of this study not only confirm that digital transformation has a positive impact on national income but also explain the mechanisms of this influence through increased productivity, market expansion, increased financial inclusion, and strengthened innovation. This synthesis demonstrates that digital transformation is a strategic factor supporting sustainable economic growth, provided it is supported by appropriate policies and equitable access to technology across all regions.

The results of this study are supported by modern economic growth theory, which states that technology is a crucial factor in increasing productivity and economic growth. Furthermore, the theory of technological innovation explains that the use of digital technology can create efficiency, expand markets, and increase a country's economic competitiveness. From a digital economic perspective, information technology is a primary driver of change in the economic activities of modern society.

Based on the researchers' analysis, digital transformation has become a primary requirement for national economic development in the modern era. Digitalization not only increases economic efficiency and productivity but also opens up new business opportunities and broadens public access to digital economic activities. Therefore, the government needs to increase digital infrastructure development, expand internet access, and improve public digital literacy so that the benefits of digital transformation can be felt evenly, increasing national income and public welfare.

#### **D. Conclusion**

Based on the results of a *Systematic Literature Review* (SLR) of 15 scientific articles, it can be concluded that digital transformation has a positive impact on economic growth and national income. Developments in digital technologies such as e-commerce, fintech, the internet, Artificial Intelligence (AI), and digital infrastructure

can increase productivity, economic efficiency, and expand trade and transaction activities. These conditions contribute to increased GDP and national economic growth.

The research also shows that e-commerce plays a role in increasing digital trade activity and expanding the community's economic market. Furthermore, fintech can increase financial inclusion and simplify economic transactions, making economic activity more effective and efficient. Digital infrastructure and internet penetration are also crucial factors in supporting the development of the digital economy and increasing national income.

Based on the interrelationships between studies, most articles show similar findings, indicating that digital transformation positively contributes to the national economy. Despite differences in research focus and methods, all studies consistently demonstrate that the use of digital technology can increase economic competitiveness, productivity, and growth in the modern economy.

However, digital transformation also presents challenges such as disparities in technology access, low digital literacy, and unequal use of technology within society. Therefore, the government needs to increase digital infrastructure development, expand internet access, and improve digital literacy among the public so that the benefits of digital transformation can be felt equally and support increased national income and public welfare.

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