

Digital Economic Transformation And Market Structure: A Systematic Literature Review

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Abstract

The rapid advancement of digital technologies has fundamentally transformed economic structures and market dynamics. This study aims to systematically examine the implications of digital economic transformation on market structure through a qualitative approach using a Systematic Literature Review. The research adopts the PRISMA framework to ensure a structured and transparent selection of relevant literature from reputable academic databases published between 2015 and 2025. The findings reveal that digital transformation significantly reshapes market structures from traditional competitive models toward platform-based and highly concentrated markets. Key characteristics such as network effects, economies of scale, and data-driven advantages contribute to the emergence of dominant firms and increasing market concentration. In addition, the study identifies a shift in competitive dynamics from price-based competition to innovation-driven and ecosystem-based competition. While digitalization enhances efficiency and expands market access, it also raises concerns regarding reduced competition and higher barriers to entry. This study contributes by providing a comprehensive synthesis and a clearer conceptual framework for understanding market structure in the digital era. The findings offer important implications for policymakers and business actors in designing strategies that balance innovation with fair competition in the evolving digital economy.

Keywords: digital economy, market structure, platform economy, systematic literature review, competition

INTRODUCTION

The rapid development of digital technology has brought about fundamental changes to the structure and dynamics of the modern economy (Li & Zhao, 2023; Litvinenko, 2020). The digital economic transformation, characterized by the integration of information and communication technology (ICT), artificial intelligence, big data, and digital platforms, has transformed the way companies operate, compete, and create value. This transformation not only accelerates economic activity but also redefines traditional market structures into more complex, platform-based ecosystems (Utama & Choiti, 2024).

In classical economic theory, market structures are generally classified into several main forms: perfect competition, monopolistic competition, oligopoly, and monopoly (Cowling & Nadeem, 2020; Shepherd, 1972). However, the emergence of digital platforms such as e-commerce, fintech services, and other digital ecosystems challenges these classifications. Digital markets tend to have specific characteristics such as network effects, high economies of scale, data-driven advantages, and a tendency toward market concentration. These conditions enable the emergence of dominant players that control a significant portion of the market share, thereby blurring the line between competition and monopoly in the context of the digital economy (Battisti et al., 2022; Nuccio & Guerzoni, 2019).

Several previous studies have examined the relationship between digital transformation and economic performance, innovation, and productivity. These studies indicate that digitalization can improve efficiency, reduce transaction costs, and expand market access (Jaloliddin, 2023; Lee, & Falahat, 2019; Wang et al., 2023). However, on the other hand, there are also findings highlighting the potential risks of digital market concentration, such as reduced competition, increased barriers to entry, and inequalities in the distribution of economic benefits (Calvano & Polo, 2021; Krämer & Schnurr, 2022; Peng, 2022). Nevertheless, the existing literature remains fragmented and tends to focus on specific sectors or contexts, thus failing to provide a comprehensive understanding of how digital transformation systematically influences market structure.

Furthermore, there remains a limited body of research that integrates theoretical and empirical perspectives in explaining changes in market structure in the digital age. Many studies address digital transformation from the perspective of technology or economic performance separately, without comprehensively linking them within an integrated analytical framework. This gap highlights the need for a systematic literature review to examine, synthesize, and integrate existing research findings.

Based on this background, the primary objective of this study is to conduct a systematic literature review on digital economic transformation and its implications for market structure. This study aims to identify key themes, theoretical perspectives, and empirical findings that explain how digitalization affects the level of competition, market concentration, and industry dynamics. Additionally, this study seeks to uncover development trends and research gaps that still require further investigation.

The contributions of this study are both theoretical and practical. Theoretically, this study provides a structured literature review and a clearer conceptual framework for understanding market structures in the digital age. Practically, the findings of this study are expected to provide insights for policymakers, regulators, and business actors in designing strategies and policies that can foster healthy competition and promote sustainable economic development in the digital age.

RESEARCH METHOD

This study employs a qualitative approach using library research combined with a Systematic Literature Review (SLR) to comprehensively analyze relevant literature on the digital economic transformation and its implications for market structures. This approach was chosen because it enables a systematic, transparent, and replicable synthesis of various findings from previous research.

The research design adheres to the principles of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA), which include the stages of identification, screening, eligibility assessment, and study inclusion. This process aims to ensure that the analyzed literature possesses high academic quality and strong relevance to the research focus.

The data sources in this study consist of secondary data obtained from various reputable scientific databases, such as Scopus, Web of Science, ScienceDirect, SpringerLink, and Google Scholar. The literature used includes international journal articles, conference proceedings, and institutional reports relevant to the research topic. The publication period focuses on the last 10 years (2015–2025) to capture the latest developments in digital economy studies.

Data collection was conducted through a systematic search using keywords such as “digital economic transformation,” “digital economy,” “market structure,” “platform economy,” and “industrial organization.” Keyword combinations were created using Boolean operators (AND, OR) to broaden and refine the search results. All search results were then documented and managed using reference management software to avoid data duplication.

The inclusion criteria for this study include: (1) articles published in reputable scientific journals, (2) having direct relevance to digital transformation and market structure, (3) being available in full text, and (4) employing theoretical or empirical approaches that can be conceptually analyzed. Meanwhile, exclusion criteria include articles that did not undergo a peer-review process, have significant methodological limitations, or are not directly related to the research focus.

The literature selection process was conducted in stages, beginning with a screening of titles and abstracts, followed by a review of the full texts to ensure compliance with the established criteria. After the selection process, the literature that met the criteria was analyzed in depth using thematic analysis. This technique aims to identify patterns, main themes, and conceptual relationships emerging from the literature.

To ensure the validity and reliability of the research, a cross-checking process was conducted on the literature sources, along with an evaluation of article quality based on journal reputation, citation count, and methodological consistency. Additionally, transparency in the literature selection and analysis process was maintained through systematic documentation at every stage of the research.

The data analysis technique used in this study is qualitative-descriptive, employing a narrative synthesis approach. The analysis focuses on grouping findings based on key themes, such as the characteristics of the digital market, competitive dynamics, market concentration, and the role of technology in shaping the industry structure. The results of the analysis are then interpreted to construct a conceptual framework capable of comprehensively explaining the relationship between digital economic transformation and changes in market structure.

By employing a structured Systematic Literature Review approach, this study aims to produce a literature synthesis that is not only comprehensive but also possesses a high level of scientific validity and is relevant to addressing the research questions.

RESULTS

This section presents the results of a systematic literature review on the digital economic transformation and its implications for market structure. The results are presented systematically

based on the analytical stages described in the methods section, beginning with the literature selection process and concluding with the key findings identified through thematic analysis.

Results of the Literature Selection

Based on a literature search using various scientific databases, several initial articles relevant to the research topic were identified. After a screening process based on titles and abstracts, as well as the removal of duplicates, the remaining literature then underwent an eligibility evaluation through a full-text review.

From this entire process, several articles that met the inclusion criteria were identified and used as the final sample in this study. The selected literature consists of articles from reputable international journals covering various perspectives—both theoretical and empirical—related to the digital economic transformation and market structures.

Characteristics of the Literature Analyzed

The analyzed literature reveals variations in research approaches, time periods, and geographical contexts. Most studies employ a quantitative empirical approach to measure the impact of digitalization on economic performance and industrial structure, while others use a qualitative approach to explore the dynamics of digital markets.

In terms of time distribution, most publications fall within the last five to ten years, indicating that the topic of digital economic transformation is a relatively new and rapidly evolving issue. Geographically, the analyzed studies cover both developed and developing countries, thereby providing a more comprehensive picture of this global phenomenon.

Table 1. Characteristics of the Literature Analyzed

No	Variable	Description
1	Publication Period	2015–2025
2	Research Type	Quantitative, Qualitative, Mixed Methods
3	Data Sources	Reputable international journals (Scopus, WoS, dll.)
4	Research Focus	Digital economy, market structure, platform economy
5	Study Area	Global (developed and developing countries)

Source: Author's analysis (2026)

Major Themes in Literature

The results of the thematic analysis indicate that several key themes consistently emerge in the literature on digital economic transformation and market structure.

First, the characteristics of digital markets, marked by network effects and significant economies of scale. Second, increasing market concentration due to the dominance of large digital platforms that possess data- and technology-based competitive advantages. Third, a shift in competitive patterns from price-based competition to competition based on innovation and digital ecosystems.

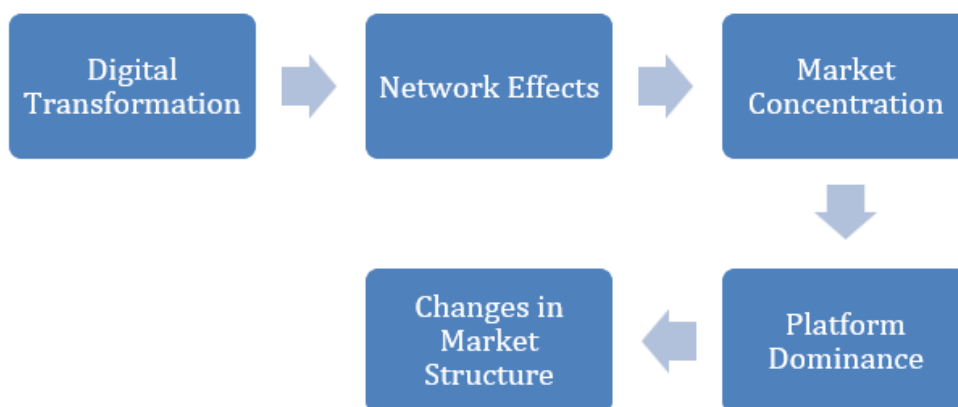
Additionally, the literature highlights the critical role of technology in creating new barriers to entry for businesses, particularly for small and medium-sized enterprises. On the other hand, digitalization also opens up broader market opportunities through easier global access.

The Relationship Between Digital Transformation and Market Structure

The results of the literature review indicate a consistent pattern of relationship between digital economic transformation and changes in market structure. Digital transformation tends to drive market concentration through network effects and economies of scale, ultimately leading to the formation of a more concentrated market structure.

Furthermore, digitalization also influences competitive dynamics by creating new platform- and ecosystem-based business models. These models enable companies to integrate various services into a single system, thereby enhancing competitiveness while strengthening their dominant market position.

Figure 1. The Relationship Between Digital Economic Transformation and Market Structure



Source: Literature review (2026)

Key Findings of the Study

Based on the overall literature review, several key findings emerged. First, the digital economic transformation has significantly altered market structures, shifting from traditional models to platform-based models. Second, there is a trend toward increased market concentration as a result

of the technological and data advantages held by large companies. Third, shifts in competitive patterns that place greater emphasis on innovation, efficiency, and the integration of digital ecosystems.

Furthermore, it was found that while digitalization offers opportunities for increased efficiency and market access, there is also a potential risk to healthy competition due to market dominance by certain players. These findings indicate that digital transformation has complex implications for market structure, presenting both opportunities and challenges.

DISCUSSION

This section interprets the research findings by relating them to the economic theoretical framework, the empirical literature, and practical implications within the context of the digital economic transformation and market structures. The discussion is organized systematically to highlight the theoretical contributions, empirical relevance, and policy implications of the research findings.

The Digital Economic Transformation and Shifts in Market Structure

Research findings indicate that the digital economic transformation has shifted market structures from traditional models toward more concentrated, platform-based structures. These findings align with modern industrial organization theory, which emphasizes that technological innovation can create exponential competitive advantages, particularly through the use of data and digital technologies.

In this context, key characteristics of digital markets—such as network effects and economies of scale—strengthen the position of large companies (Bu & You, 2020; Niemczyk et al., 2021; Vakeel et al., 2021). The more users involved in a platform, the higher the platform's value, which ultimately creates a self-reinforcing mechanism. This explains why digital markets tend to gravitate toward oligopolistic structures and even approach monopolies.

This finding expands on the classical concept of market structure by demonstrating that, in the digital economy, market power is determined not only by the number of market participants but also by control over data, technology, and the digital ecosystem.

Competitive Dynamics in the Digital Economy

Changes in market structure are accompanied by transformations in competitive patterns. Research findings indicate that competition in the digital economy is no longer solely price-based but places greater emphasis on innovation, service differentiation, and ecosystem integration.

The analyzed literature indicates that digital companies tend to build mutually integrated ecosystems, such as combinations of e-commerce, payment systems, logistics, and other digital services (Aulkemeier et al., 2019; Subramaniam et al., 2019). This strategy not only improves efficiency but also strengthens user loyalty and raises barriers to entry for new competitors.

From a competition theory perspective, this situation indicates a shift from price competition toward innovation-driven competition (Brodzicki, 2019; Keelson et al., 2024; Zhang & Sun, 2019). It also suggests that measures of market efficiency in the digital economy can no longer be assessed

using conventional methods but must instead take into account aspects of innovation and digital value-added.

Market Concentration and Its Implications for Competition

One of the key findings of this study is the increasing market concentration resulting from digital transformation. The dominance of large platforms creates an unbalanced market structure, in which a small number of companies control the majority of the market share.

This situation has dual implications. On the one hand, market concentration can enhance efficiency through economies of scale and technological integration. On the other hand, however, it has the potential to reduce the level of competition, create high barriers to entry, and diminish opportunities for small and medium-sized enterprises (Korinek & Vipra, 2025; Zou, 2024).

These findings are consistent with the literature, which indicates that the digital economy tends to give rise to a “winner-takes-all” phenomenon, in which firms with an initial advantage further consolidate their dominance (Hu et al., 2025; Pei, 2024; Yang & Tan, 2025). Therefore, a new approach to market structure analysis is needed to capture these dynamics more comprehensively.

Theoretical Implications

Theoretically, the findings of this study contribute to the development of market structure concepts within the context of the digital economy. The findings suggest that classical theory needs to be expanded to include new variables such as data, technology, and network effects as key determinants of market structure.

Furthermore, this study also underscores the importance of a multidisciplinary approach in understanding the digital economy, one that does not rely solely on traditional economic theory but also integrates perspectives on technology and innovation management.

Practical and Policy Implications

From a practical standpoint, the findings of this study have important implications for policymakers and regulators. The increasing concentration of the digital market calls for policies capable of maintaining a balance between innovation and healthy competition.

Regulators need to develop a policy framework that is adaptable to the characteristics of the digital economy, including oversight of platform dominance, data protection, and competition regulation. Additionally, policies should be designed to support small and medium-sized enterprises (SMEs) so they can adapt and compete within the digital ecosystem.

For businesses, the findings of this study highlight the importance of innovation strategies and technology integration in enhancing competitiveness. Companies that can optimally leverage digital technology will have a greater chance of surviving and thriving in an increasingly competitive market.

Limitations of the Study and Directions for Future Research

Although this study has provided a comprehensive literature review, there are several limitations that should be noted. First, this study relies solely on secondary data from the available literature,

making it highly dependent on the quality and scope of previous studies. Second, methodological variations in the analyzed literature may affect the consistency of the findings.

Therefore, future research is recommended to combine qualitative and quantitative approaches to gain a deeper understanding. Additionally, empirical research focused on the context of developing countries, particularly Indonesia, is still urgently needed to enrich the existing literature.

CONCLUSION

This study aims to systematically analyze the digital economic transformation and its implications for market structure through a Systematic Literature Review approach. The results indicate that digital transformation has significantly altered market structure, shifting from traditional models toward a more concentrated, platform-based structure. Key characteristics of the digital economy—such as network effects, economies of scale, and data-driven advantages—are the primary factors driving market dominance by specific companies.

Furthermore, this study found that competition patterns have shifted from price-based competition toward innovation-based competition and the integration of digital ecosystems. These changes not only enhance economic efficiency but also create new challenges related to market concentration and the potential for reduced competition levels. Thus, the digital economic transformation has ambivalent implications: it serves as a driver of efficiency while simultaneously acting as a potential source of market distortion.

Theoretically, this study contributes to expanding our understanding of market structure by incorporating the digital dimension as a key determinant. Practically, the findings of this study have important implications for policymakers and business actors in designing strategies that are adaptive to the dynamics of the digital economy. Balanced regulation is necessary to maintain healthy competition without hindering innovation.

Nevertheless, this study has limitations regarding the use of secondary data that relies on available literature. Therefore, future research is recommended to develop a more contextual empirical approach, particularly in developing countries, to strengthen the validity of the findings and enrich studies related to the digital economy and market structure.

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