Opportunities and Challenges of Digital Transformation for Creative Economy Development: Study Literature Review

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ABSTRACT
Digital transformation has become a global trend that affects all aspects of human life. In Indonesia, digital transformation can accelerate economic growth, especially in the creative economy sector. One of them is efficiency in the use of technology, investment in digital infrastructure and increasing financial access. The aim of this research is to analyze the opportunities and challenges related to the policy of accelerating digital transformation in the development of the creative economy in Indonesia. The research found that there are various opportunities that can be exploited in developing the creative economy in Indonesia through accelerated digital transformation policies, challenges that must be overcome, such as low technological accessibility and inadequate infrastructure. Research shows that accelerated digital transformation policies can be a driver of creative economic growth in Indonesia which must be adapted to local conditions and accompanied by efforts to increase technological accessibility and adequate infrastructure. This article was prepared based on the results of a literature study to answer the main research questions about transformation digital and how to implement strategies in various business and government sectors.

Keywords:
Digital Transformation, Creative Economy

INTRODUCTION
Currently, digital transformation is a main topic in many countries, including Indonesia. Digital transformation is the process by which organizations or societies adopt digital technologies to change the way they do business, interact and innovate. It involves the use of technologies such as artificial intelligence, data analytics, Internet of Things, cloud computing, and other technologies to increase efficiency, productivity, and add value in various aspects of life and business. In a business context, digital transformation can change the way companies interact with customers, improve operational efficiency, enable product and service innovation, and open new opportunities for growth and expansion (Hou and Yang, 2024). Meanwhile, in the context of society, digital transformation can increase access to health, education, financial and other infrastructure services, as well as create economic opportunities for individuals and communities. Overall, digital transformation has become a strategic necessity for organizations and society in this digital era to remain relevant and competitive in an increasingly connected and rapidly changing market. Several factors that are driving attention to digital transformation today include 1) Technological Change where inevitable technological advances such as artificial intelligence (AI), Internet of Things (IoT), cloud computing, and blockchain have changed the way business is run and interactions between individual (Wang and Wang, 2024). Companies and individuals need to adapt to these
developments to remain competitive. 2) COVID-19 Pandemic, The pandemic has accelerated the adoption of digital technology in various sectors. Many companies were forced to shift from offline to online business models, while governments accelerated digital transformation to support health systems, distance education and work from home. 3) Economic Potential, digital transformation is considered a bridge for economic growth in the digital era. Countries that successfully utilize technology to increase productivity and innovation will have a competitive advantage in the global market. 4) Digital inclusion, there is increasing awareness of the importance of digital inclusion, namely ensuring that everyone has access and skills to use digital technology. This will increase economic opportunities for all levels of society (Ayu et al., 2022) . Regulations and Policies. The government plays an important role in driving digital transformation through creating policies that support innovation, protect consumers, and facilitate the growth of digital industries (Wang et al., 2024) .

Digital transformation is not just about replacing manual processes with digital technology, but also about creating new business models, better customer experiences and increasing competitiveness in the market. It involves cultural, organizational, and process changes that impact the entire ecosystem of a company or society (Li et al., 2024) . Digital transformation in Indonesia is one of the government’s policies to encourage society and business people to make optimal use of digital technology. In the current digital era, the use of information and communication technology has a major and important role in increasing a country’s competitiveness (Tian and Shi, 2024) . The development of Society 5.0 or Industrial Revolution 5.0, previously Industrial Revolution 4.0, has an inevitable impact. Therefore, many governments in various countries have developed information and communication technology (ICT) and digital technology to see opportunities and take advantage of them (Firmansyah et al., 2022) . One sector that is recognized as having great potential in supporting national economic growth in Indonesia is the creative economy sector. Although the creative economy sector in Indonesia is recognized as having great potential to support national economic growth, this potential has not been fully explored, especially in the use of digital technology. Insufficient technological infrastructure, limited funding, lack of digital awareness and skills among business people and the public, as well as regulations that are not sufficiently supportive are factors that weaken the development of the creative economy. For this reason, the Ministry of Communication and Information of the Republic of Indonesia has issued a Digital Transformation Acceleration Policy in 2019 as an effort to accelerate digital transformation in Indonesia, especially in the creative economy sector. However, the successful implementation of this policy is still faced with a number of challenges, such as inadequate infrastructure, inadequate regulations, and a lack of digital awareness and skills in society (Zhao, 2024) . As a result, optimal efforts need to be made to utilize digital technology to encourage sustainable creative economic growth. The new view related to the novelty of this paper involves an in-depth analysis of the policy of accelerating digital transformation in Indonesia for the development of the creative economy in a specific context. Apart from that, the emphasis is also on identifying and analyzing opportunities and challenges that arise in implementing policies for accelerating digital transformation and developing the creative economy (Qiao and Ao, 2024) . This article also aims to
provide strategic thinking and innovative policy recommendations in an effort to accelerate digital transformation and develop the creative economy. Thus, this approach can provide a new and significant point of view, as well as identify approaches, strategies or models that have not been widely explored in the existing literature. Thus, this paper has the potential to provide new contributions in terms of solutions or policy recommendations that can be implemented.

METHOD

1. Research design.
   This study uses the principle of content analysis, namely focusing on findings from various studies that have been published in scientific journals in Indonesia. The research method used is similar to that used by Fauzi & Pradipta (2018). With this approach, the research explores various information that has been presented in the scientific literature related to the topic under study.

2. Data source
   Data was collected from the results of content analysis of articles with the title digital marketing transformation. The content analysis method is a powerful approach to investigate and understand the text content of various articles. By focusing on the theme of digital marketing transformation, this research aims to explore and analyze current developments, trends and issues related to this topic in the Indonesian context. All articles are taken from journals that have been accredited by Scopus and Sinta.

   Table 1. List of selected journals, publishers, and number of articles

<table>
<thead>
<tr>
<th>Journal</th>
<th>Publisher</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Journal Of Business Research</td>
<td>Elsevier</td>
<td>1</td>
</tr>
<tr>
<td>Technological Forecasting &amp; Social Change</td>
<td>Elsevier</td>
<td>2</td>
</tr>
<tr>
<td>Journal of International Management</td>
<td>Elsevier</td>
<td>1</td>
</tr>
<tr>
<td>Procedia Computer Science</td>
<td>Elsevier</td>
<td>3</td>
</tr>
<tr>
<td>DigitalBusiness</td>
<td>Elsevier</td>
<td>1</td>
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Source: Data processed by the author (2024)

The stages of the research process are sequential and detailed, the stages of this research process are carried out as follows:

1. Planning a literature review. This initial stage begins with determining keywords which are then used to identify related articles. This research is motivated by the conditions of digital transformation disruption that occur from time to time, originating from international journals with appropriate title and keyword requirements.

2. Formulation of research objectives based on background. Objectives are formulated based on the topic raised, relevant to the needs of current conditions.

3. Strategy for finding literature. Literature articles obtained via sciencedirect.com. This site provides peer-reviewed journal articles, including open access content, so it is easy to find articles related to the topic. All articles that will become supporting literature are published by Elsevier to maintain uniform standards.

4. Random selection, quotation and sampling. There are more than 100 relevant articles obtained through a keyword search process. Manually selected as study material. Selected articles are presented in Table 1.
5. Identify important points through reading the abstract. The aim of reading the abstract is to see the originality and reliability of the research results.
6. Review and analyze the entire content of the article. For this need, articles are downloaded. The aims, conclusions and contributions of each article are presented in Table 2.
7. Select the main articles and those that support the literature review. Researchers look for the best articles that are relevant to the topic of discussion.
8. Monitoring. Look back at the articles that have been selected for evaluation.

RESULT AND DISCUSSION

The results of the research in the form of a literature review can be seen in detail in Table 2:

<p>| Table 2. Concept Themes, Authors, Objectives, Methodology and Conclusions |
|-----------------------------|---------------------------------------------------------------------------------|
| 1. Concept Theme            | Digital creative economy and trade: strategic options for developing countries   |
| Writer                      | A. Wong, et al. (2020)                                                          |
| Objective                   | The aim is to explore the integration of digital innovation into the cultural sector to drive economic growth and overcome challenges in the face of the global economic crisis. |
| Methodology                 | The Digital Economy presents a number of opportunities and challenges for the cultural sector including standardizing and professionalizing the digital delivery of cultural content, finding new economic models through digital, monetizing digital content, and building digital knowledge, skills and resources in the sector. |
| Conclusion                  | The abstract discusses the impact of the global economic crisis on the cultural sector, the transition to the 'Digital Economy' for economic growth, the challenges and opportunities of the Digital Economy for the cultural sector, the need to rethink cultural and economic systems, and the potential of digital culture and arts despite reduced funding. |
| 2. Concept Theme            | Digital transformation in culture and arts: new opportunities and challenges     |
| Writer                      | Kateryna Bannikova, et al. (2023)                                               |
| Objective                   | The aim of this article is to search for new principles in the process of digitizing cultural and arts clusters in the current conditions of development of the socio-cultural space. The task of scientific research is to highlight the features of digital formats of artistic provision, expressed in creative and organizational dimensions. |
| Methodology                 | The methodology in Kateryna Bannikova (2023) involves common scientific and cultural methods, as well as synergistic methodological principles, and is based on a modern model of cultural and artistic creativity using digitalization processes, with a focus on stakeholder feedback on their reactions to digital transformation. |
| Conclusion                  | This paper explores the relevance of digital transformation in culture and arts, aiming to discover new principles for digitalization in culture and arts groups, highlighting new opportunities in technical, organizational and creative aspects. |
| 3. Concept Theme            | Digitalization of Cultural and Creative Industries and Their Economic and Social Impacts |
| Writer                      | Marek Prokůpek, et al. (2020)                                                   |</p>
<table>
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<tr>
<th>Concept Theme</th>
<th>Writer</th>
<th>Objective</th>
<th>Methodology</th>
<th>Conclusion</th>
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| **Objective** | The aim in Marek Prokůpek (2020) is to provide an understanding of digitalization in the cultural sector and creative industries and its social and economic impacts .. | The methodology used includes the use of statistical data, analytical methods, correlation analysis, and qualitative analysis of survey and interview data to understand the impact of digital technology on the development of the creative industry .. | This paper discusses the significant impact of digitalization on the cultural and creative industries, highlighting the economic and social impacts, the growth of these industries, and the need to adapt to technological change. | **4.** Concept Theme  
Digital Transformation Career Guidance Model in the Cultural and Creative Industries  
**Evita Pilege, et al (2023)** | **5.** Concept Theme  
Creative Economy in the Development of Modern Industry and Entrepreneurship  
**AP Starkova, et al. (2022)** | **6.** Concept Theme  
Creative Natives in the Digital Age: How Digital Technology is Revolutionizing Creative Work  
**Patrick Kabanda, et al (2016)** | **Writer** | Evita Plege, et al (2023) | **Objective** | The aim of this paper is to analyze the impact of digital transformation on workforce requirements in the cultural and creative industries and to develop a career guidance model that meets these requirements. | The methodology includes analysis of various sources on digital transformation and career guidance in the cultural and creative industries to develop a digital transformation model and digital-based career guidance. | This paper emphasizes the importance of investment in human capital for the digital transformation of the cultural and creative industries, highlighting the need for a successful, digitally based, accessible and inclusive career guidance system, in response to the skills shortage and precarious nature of the sector .. with a proposed model to support professionals in their career development and increase digital competence. | **Writer** | AP Starkova, et al. (2022) | **Objective** | The aim is to emphasize the strategic development of cultural and creative industries for a sustainable and inclusive recovery, stimulating innovation, improving the quality of life, and building an economy that is more resilient and able to adapt to new conditions. | The methodology used includes the use of statistical data, analytical methods, correlation analysis, and qualitative analysis of survey and interview data to understand the impact of digital technology on the development of the creative industry .. | This paper discusses the importance of transitioning economic processes to a creative approach, emphasizes the role of culture and creativity in creating a distinctive image for companies, industries and countries, and highlights the strategic development of cultural and creative industries for a sustainable and inclusive recovery, stimulate innovation, and improve the quality of life, with a focus on the synergistic effects of interactions between creative industries and standard formats, as well as the impact of the creative economy in ensuring human-centered and inclusive development in various economic sectors. | **Writer** | Patrick Kabanda, et al (2016) | **Objective** | This paper discusses the revolutionary impact of digital technology on creative work, emphasizing the need for appropriate policies to promote fair and inclusive creative work in the digital era, while touching on issues such as the digital gender gap, intellectual property rights and digital literacy .. |
| Methodology | The methodology includes discussing the impact of digital technology on creative work, highlighting specific benefits in various creative fields, and referring to specific initiatives such as the Badilisha platform and China's specific campaign on intellectual property rights infringement. |
| Conclusion | This paper examines the revolutionary impact of digital technology on creative work, emphasizing the need for appropriate policies to promote fair and inclusive creative work in the digital age. |

7. **Concept Theme**: Creative Work in the Context of Structural Transformation  
**Writer**: Nataliya Kuznetsova, et al. (2022)  
**Objective**: The aim of this research is to identify the problems of creative employment, develop prospects for stimulating its growth in the context of digitalization, and provide suggestions for increasing employment in the creative industries through small businesses and entrepreneurship.  
**Methodology**: This methodology involves critical literature analysis of the concept of creative employment and its components, as well as the application of statistical analysis methods to estimate global creative employment.  
**Conclusion**: This paper explores creative employment in the context of digital technology, identifies issues, proposes growth strategies, highlights the role of IT and media, discusses future technologies, and suggests ways to increase employment through small businesses and entrepreneurship. |

8. **Concept Theme**: Digitalization of Creative Industries for Skills Development  
**Writer**: Mariana Pozniak, et al. (2020)  
**Objective**: The aim in T. Vlasenko, Mariana Pozniak (2020) is to study the current situation of creative industries in Ukraine and how it impacts digitalization, including exploring the topics of creative industries and digitalization, their trends, their impact on each other, skills development in the digital era, online education platforms in the creative field, and the influence of digital technology on creative company business models.  
**Methodology**: The methodology involves an analysis of the current state of the creative industries in Ukraine, their relationship with digitalization, trends in the creative industries and digitalization, their impact on each other, the development of skills in the digital era, the functioning of online educational platforms in the creative field, the influence of digital technologies on the business models of creative companies, and the importance of the digital economy.  
**Conclusion**: This paper explores the impact of digitalization on the creative industries in Ukraine, including its adaptation to new technologies, skills development in the digital era, and its impact on business models and the economy. |

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Source: Data processed by the author (2024)

Discussion
The development of the Internet is currently considered one of the greatest innovations in the last thirty years. Since the early 1990s, the internet has had a huge influence and resulted in major changes in various fields, including economics and socio-politics. As a result, business processes were changed, computerization was carried out, and digitalization was implemented in the 1990s (Sklenarz et al., 2024). In subsequent developments, a major change emerged in industry known as the industrial revolution 4.0, where there is a link between the internet of things and physical computing systems that are connected using a combination of software, sensors, processors and communication technology to create something that can add value. in the manufacturing process through the ability to store and enter information into it (Zhao et al., 2024). The current issue focuses on digital transformation through advances in artificial intelligence and machine learning. Almost the entire process of running a company's business from the start. Digital transformation involves the use of technology such as cloud computing, data analysis, artificial intelligence, the Internet of Things (IoT), and automation to change the way an organization operates (Johnson, 2024). In addition, it also involves changes in organizational culture and structure, and upskilling employees to optimize the use of technology. This digital transformation has significant implications for the economy and society. Digital transformation is intended to facilitate and accelerate economic growth, but at the same time it can be a factor inhibiting growth if the right framework for its integration does not exist (Cubillas-Para et al., 2024). Although some companies are still trying to resist these changes, technology and digital transformation models are increasingly gaining ground in this context by generating ideas and creating prototypes. Organizational work procedures that successfully implement digital transformation can increase work efficiency, minimize costs, increase customer satisfaction levels, and develop new products and types of services (Rialti and Filieri, 2024). On the other hand, organizations that are unable to carry out digital transformation may lose their competitive edge and find it difficult to survive in an increasingly competitive market.
Digital transformation is a must for organizations that want to continue to compete in this digital era (Shang et al., 2024).

Organizations that are able to adopt digital technology will have advantages in terms of efficiency and productivity, and can provide more added value to customers. Therefore, organizations must have awareness and commitment to carrying out digital transformation in order to maintain competitiveness and relevance in an increasingly competitive market (Alabdali et al., 2024). Currently, research and development of new technologies is being carried out that integrates the physical, digital and biological worlds. This technology has an impact on various scientific disciplines, economic sectors, and industries. In general, digital transformation is a significant idea in today’s digital era, where digital technology has a major role in almost all aspects of life, from business to government, to the daily lives of individuals. Indonesia has experienced a transition from a traditional economy to a modern economy, which involves the use of trading systems with digital technology to strengthen the economy (Pangandaheng et al., 2022). It cannot be denied that the economy can grow at this time due to the rapid pace of technological innovation which is able to bring change from time to time by using it as an effort to analyze and connect all these efforts in facing changing times. Despite the digital economy becoming an important part of the national economy, theoretical research on this topic lags behind the rapid development at the practical level and great attention at the policy level. In the digital era, significant profits can be gained by business and economic actors who are able to utilize digital technology in the trading system. Digitization and digitization emphasize technology, while digital transformation is more related to strategy and overall business model (Makassar State University et al., 2021). Digital transformation is the action taken by an organization to remain adaptable to digital innovations that emerge and spread in the external environment. In order to maintain the existence of the economy, it is very important to be able to adopt technological changes that continue to develop towards an integrated economy via the internet (Cheng et al., 2024). This is an absolute requirement that must be met in order to remain competitive in the current era of globalization. The creative economy refers to the economic sector that focuses on creative and cultural activities, such as art, design, film, music, publishing, technology, and so on. The creative economy concept emphasizes the role of creativity and innovation in creating economic value, and states that creative economic activities can be a source of significant economic growth. Creativity and innovation are the main sources of economic value in the creative economy. This is different from traditional economies which prioritize the use of natural resources and labor. The existence of a cluster or concentration of creative business actors in a certain area. The existence of a creative cluster can help increase productivity, innovation and market access for creative business actors. Different technologies and media will be increasingly integrated in the creative economy. This can create new opportunities to create economic value, such as through the involvement of creative business actors in the development of digital platforms or multimedia content. Consumption of products and services that focus on experiences (such as music concerts, art exhibitions, or amusement parks) can create new products or services. those that have higher economic value are those that don't just focus on functionality alone. Current developments show that human resources are
starting to be replaced by artificial intelligence (Elia et al., 2024). The latest technology in the field of artificial intelligence is developing rapidly at this time. Artificial intelligence is able to process information more quickly and accurately compared to human resources, which makes it possible that artificial intelligence will take over tasks previously carried out by human resources. Although artificial intelligence provides benefits such as efficiency and cost savings, there are still several shortcomings that need to be considered, such as the lack of empathy and creativity that only human resources have. Therefore, even though technology continues to develop, there is still a need for the presence of human resources who can adapt to changes and are able to make decisions that cannot be measured by technology (Tulungen et al., 2022). Governments and businesses can utilize artificial intelligence to increase efficiency and productivity. However, they must also pay attention to the impact of artificial intelligence on the workforce and need to develop human resource skills and expertise to remain relevant in the era of artificial intelligence. Therefore, developing human resource skills is important to prepare them to face challenges and changes in the future. It is important to understand the challenges faced by business people in the creative economy sector in developing digital skills and creativity, as well as how education and training programs from the government can help improve the quality of human resources.

CONCLUSION

From the explanation in the previous section, it can be concluded that digital transformation in Indonesia has great potential to increase the growth of the creative economy in Indonesia. Digital transformation that can open up new opportunities to increase efficiency, innovation and market access in industry can be supported by proactive and responsive government policies. The government has an important role in facilitating digital transformation and helping creative business actors face challenges and take advantage of existing opportunities. One government policy that can support digital transformation is by facilitating access to adequate digital technology and infrastructure. The government can play a role in providing financial and regulatory support that enables creative business actors to obtain the technology and digital infrastructure needed to increase efficiency and innovation. In addition, the government can also strengthen cooperation between creative business actors and educational or research institutions to facilitate collaboration in creating more innovative creative products and services. This can be done through support programs such as business incubation and acceleration, which provide financial support and mentorship to creative business actors in developing their businesses. The government can also facilitate creative business actors to expand their market reach through promotion and digital marketing support. The government can help creative business actors to utilize digital platforms to promote their products and services to the global market, by organizing digital exhibitions and festivals or through promotional campaigns that are integrated with digital platforms. Thus, government policies that support digital transformation can provide a positive impetus for creative business actors in increasing efficiency, innovation and market access. However, it is also important for the government to consider the impacts and risks of digital transformation and provide appropriate support for creative businesses to overcome challenges and take
advantage of existing opportunities. However, digital transformation also has significant challenges, such as cyber security risks, lack of digital access and literacy in some regions, and regulatory issues. To overcome this challenge, several suggestions that can be recommended are: 1. Encourage synergy and cross-sector collaboration between the public and the private sector in building reliable and safe digital infrastructure, as well as strengthening efforts to increase digital literacy for the community and creative business actors. 2. Building collaboration between universities and research institutions to develop innovation and technology that can support creative economic growth. 3. Increase regulations and supervision related to cyber security, copyright protection and other relevant regulations to support the development of the creative economy. 4. Strengthen the development of creative clusters and relationships between creative business actors to increase collaboration, innovation and market access. 5. Implement financial assistance policy incentives in the form of capital or loans at low interest rates to creative economy actors. In addition, providing tax cuts to creative companies and startups so they can invest and operate in the creative industry with a lighter tax burden. By implementing the suggestions above, it is hoped that the policy of accelerating digital transformation in Indonesia can have a positive impact on the growth of the creative economy in Indonesia.

References


