



Digital Innovation in the Era of Society 5.0 Encourages Indonesia's Economic Recovery in Post-Pandemic

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ABSTRACT

This study aims to examine the role of digital innovation in driving Indonesia's economic recovery in the post-pandemic era through the Society 5.0 approach. The global Covid-19 pandemic has had a significant impact on the Indonesian economic sector, which requires innovative steps to restore the country's economy. Society 5.0, which is a concept promoted by the Japanese government, combines digital technology with social and human needs to achieve a sustainable and inclusive society. This study uses a qualitative approach by collecting data from various sources such as literature, research reports, and case studies related to digital innovation that has been implemented in Indonesia. The research results show that digital innovation has a crucial role in driving Indonesia's economic recovery in the post-pandemic era. Some of the digital innovations identified include e-commerce, fintech, big data, artificial intelligence (AI), and the Internet of Things (IoT). The application of digital innovation has enabled the economic sector to adapt to new situations, accelerated digital transformation, and expanded access to global markets. This research provides in-depth insight into the role of digital innovation in driving Indonesia's economic recovery in the post-pandemic era. These findings can serve as a basis for policy makers, business people and the general public in developing innovative strategies that can take advantage of digital potential to accelerate the country's economic recovery

INTRODUCTION

In the mid of the Covid-19 pandemic that has hit the world, including Indonesia, digital innovation has become a force that drives Indonesia's economic recovery in the post-pandemic era. The era of Society 5.0 is a concept that carries a combination of digital technology and a better social life. In this era, digital technology is not only used for business and economic purposes, but also to improve the quality of life of society as a whole. Indonesia's economy, like other countries, has been severely affected by the Covid-19 pandemic. Social restrictions and lockdowns implemented to control the spread of the virus have disrupted many sectors of the economy, including trade, tourism and manufacturing industries. However, digital innovation has been a key driver in Indonesia's post-pandemic economy.

One important aspect of digital innovation is the widespread adoption of internet and telecommunications technologies in various sectors. The increase in the use of the internet and smartphones has provided new opportunities for small and medium enterprises (MSMEs) to transform and market their products online. Through e-commerce platforms and social media, MSMEs can access a wider market and reach potential consumers at home and abroad. In addition, digital innovation also plays an important role in creating new jobs in the post-pandemic era. In the midst of high unemployment due to company closures and workforce reductions, the development of digital technology opens up new opportunities for job creation in the information and communication technology sector.

Digital innovation also has an impact on the industrial sector, with the concept of industry 5.0 focusing on automation and the use of smart technologies such as the Internet of Things (IoT), big data, and artificial intelligence (AI). The implementation of technology in the industrial sector can increase production efficiency, reduce costs, and increase the competitiveness of enterprises. This helps in accelerating the recovery of the industrial sector in Indonesia after the pandemic. Not only the business and industrial sectors, digital innovation also contributes to the public sector, such as education and health services. In education, digitalization of learning enables wider access to education through online learning and digital resources. Meanwhile, in the health sector digital technology plays an important role in the improvement of health services, such as telemedicine and remote health monitoring. Therefore, harnessing Indonesia's digital innovation potential can lead to a stronger economic recovery in the post-pandemic era and can create and create jobs and improve the efficiency of the industrial sector as a whole.

METHODOLOGY

This study uses a qualitative approach by collecting data from various sources such as literature, research reports, and case studies related to digital innovation that has been implemented in Indonesia. The research results show that digital innovation has a crucial role in driving Indonesia's economic recovery in the post-pandemic era. Some of the digital innovations identified include e-commerce, fintech, big data, artificial intelligence (AI), and the Internet of Things (IoT). The application of digital innovation has enabled the economic sector to

adapt to new situations, accelerated digital transformation, and expanded access to global markets

RESULTS

The Concept of Society 5.0 and Its Impact on the Indonesian Economy

The historical path to society 5.0 began with society 1.0, which is characterized as the stage of hunter-gatherer human progress. We have passed through the phase of society 2.0 and 3.0, the agrarian and industrial phase, and society 4.0 is the information age. We are now in society 5.0, where artificial intelligence transforms big data from the internet into the kind of intelligence that permeates every aspect of society. Everyone's life will be more comfortable and sustainable when we switch to society 5.0 because individuals will only be provided with goods and services in the required amount and time (Nyoman et al., 2020).

The Japanese government defines Society 5.0 as a human-centered society capable of balancing economic progress and social challenges through a system of integration of virtual and physical worlds (COJG 2019). Meanwhile, according to Fukuyama, society 5.0 was proposed by the Japanese government with a clear concept. This includes using science based on modern technology such as AI and robots. According to Fukuyama (Hendarsyah, 2019), society 5.0 from the idea of the Japanese government aims to realize a society where humans enjoy life to the fullest.

Through Society 5.0, artificial intelligence that considers the human perspective will transform the vast amount of data collected online in all areas of life. Of course, it is hoped that this wisdom will be a new thing for the community. There is no denying that this transition will allow people to live more fulfilling lives. The need for a balance between economic success and handling social problems is also emphasized in Society 5.0 (Suherman et al., 2020).

In Society 5.0, new values are generated by technological advances that can reduce human inequality and potential economic problems. Given that this issue still exists today, especially in developing countries such as Indonesia, it seems difficult to implement. However, that does not mean it cannot be done. Japan has established itself as a country with the most up-to-date technology today. It is natural with it. Japan will continue to make technological advances until the idea of Society 5.0 can be fully realized.

The implementation of Industry 4.0 breakthrough advances, such as the Internet of Things (IoT), big data, artificial intelligence (AI), robotics, and the sharing economy, into every sector of the economy and every aspect of daily life, is the goal of society 5.0. By doing this, the society of the future will be one where values and services are prioritized. It continues to be developed by increasing the harmony and sustainability of human life. Japan in this regard will take the lead to realize this ahead of other countries in the world. Basically, society 5.0 is presented as a concept from the basis of science and technology. Society in the 5.0 era is no longer required to do anything that is considered challenging. For

example, in today's world, product delivery usually takes days, not to mention technical limitations that make the shipping process longer. Drones are being used as human assistants in Society 5.0 in an attempt to make things more contemporary.

Thus, the concept of society 5.0 is to combine justice, equity, and prosperity to create a super intelligent society. As a result, economic capitalism, economic growth, and technological progress have not been able to create a society that can grow and develop by itself and can enjoy life to the fullest.

In the economic field, the growth of communication and information technology in a country can be used to determine whether its economy is doing well or badly. The country's economy will grow faster as information technology becomes more advanced. If this is coupled with a shift in the way people and organizations view economic decision-making, as well as the ability to offer sufficient access to support business operations in the industrial and trade sectors, even information technology can generate benefits that will drive economic growth. sustainable activities and others (Jakaria et al., 2021).

With all this digital, the impact of society 5.0 in the economy is that there is no need to open multiple distribution locations, operational costs can be reduced, consumers have more choices thanks to the ability to compare different products available online, and they can buy goods from other countries at relatively affordable prices. In addition to facilitating transactions, this will certainly encourage price competition between business actors and spur economic growth. Especially among the younger generation, Indonesia is increasingly interested in studying the fields of information technology, computer science, and developing artificial intelligence.

Challenges and Opportunities in Developing Digital Innovation in Indonesia

In Indonesia, developing digital innovation faces unique challenges and opportunities. The development of digital technology has had a significant influence on the creative economy sector in Indonesia. The use of digital technology can already be felt in various sub-sectors such as design, music, fine arts and other sub-sectors (Rofaida et al., 2020). The possibilities for digital creative businesses are growing given these advancements. The digital creative industry blends artistic components with the application of digital technology in its operations and outputs. Technology is needed in the discovery and production cycle to collect, share, and enrich creative ideas. The presence of the industrial revolution 5.0 makes the world now experience increasingly rapid and competitive changes (Yusnaini & Slamet, 2019). There is no doubt and has become an undeniable reality that information communication technology has become a force that drives change in learning and learning practices (Warsita, 2020).

Today's public sector places a high value on innovation. This problem arises from the success of the private sector in creating and practicing various technologies to serve its clients. The biggest draw is this achievement and as part of efforts to improve public services, the public sector must be able to produce various innovations. The rapid advances in technology, information, and communication (ICT) taking place in the public sector show how innovation is

inseparable from this growth, showing how closely the concepts of innovation and e-government are interrelated (Eprilianto et al., 2020).

Challenges in developing digital innovation in Indonesia include: (1) Limited access and connectivity. Although internet penetration has increased, affordable and fast internet access is still a challenge in several regions in Indonesia. The availability of infrastructure and the quality of connectivity need to be improved to enable wider adoption of digital innovation. (2) Digital inequality. There is a digital divide between urban and rural areas, as well as between the more well-off and underprivileged economic groups. This challenge requires governments and other stakeholders to ensure access, literacy, and equity in adopting digital innovations. (3) Data security and privacy. The growth of digital innovation has also been accompanied by increasing security and data privacy risks. Cybercrime, hacker attacks, and misuse of personal data are challenges that need to be addressed through the right policies and infrastructure. (4) Lagging regulations. Regulations that are not in line with the development of digital technology can hinder innovation. The need for an adaptive and progressive regulatory framework is a challenge for digital innovation developers.

As for opportunities in developing digital innovation in Indonesia, among others: (1) Number of population and economic growth. With a large population and rapid economic growth, Indonesia offers a potential market for the development of digital innovation. The demand for efficient and innovative digital solutions is on the rise. (2) Potential use of technology in key sectors. Indonesia has key sectors such as e-commerce, fintech, e-gov, and agrotechnology that can support the growth of digital innovation. Technology adoption in these sectors can increase efficiency, productivity, and competitiveness. (3) Local creativity and innovation. Indonesia has creative and innovative human resources. This potential can be used to generate unique digital solutions, create products and services that fit local needs, and contribute to the global digital innovation ecosystem. (4) Government support and collaboration. The Indonesian government has realized the importance of digital innovation in advancing the economy and society. Initiatives such as Making Indonesia 5.0 and other programs encourage the development of digital innovation. Collaboration between the government, private sector, and educational institutions also provides opportunities for the development of sustainable digital innovation.

To develop digital innovation in Indonesia, a comprehensive and collaborative effort between the government, private sector, academia, and society is needed. By overcoming existing challenges and taking advantage of the opportunities available, digital innovation in Indonesia can grow rapidly. As for the existence of adequate digital infrastructure, the government needs to continue to improve the accessibility and quality of internet connectivity throughout Indonesia. This includes infrastructure development such as broadband internet networks, meeting electricity needs, and updating telecommunications technology. Efforts are also needed to improve digital literacy at all levels of society, including digital skills training for residents,

businesses, and workers. Good digital literacy will enable people to adopt digital innovations more effectively. By overcoming challenges and seizing existing opportunities, Indonesia has great potential to become a digital innovation hub in the Southeast Asian region. This will provide significant economic and social benefits, including increased productivity, job creation, and improved quality of life for the community.

The Role of Digital Innovation in the Society 5.0 Era in Post-Pandemic Economic Recovery

The coronavirus (Covid-19) pandemic has almost spread to every country in the world. The Covid-19 pandemic has also changed social hierarchies, having a direct impact on social problems, economic problems, and health issues. Covid-19 adversely affects human health, threatens lives and even causes death. Economic life as a whole has also been adversely affected by the consequences of this pandemic.

Industrial activities are increasingly affected due to Covid-19, even leading to bankruptcy. There is no other option for the company except layoffs. As a result, unemployment is increasing, crime is increasing, and people's purchasing power is decreasing. In addition, the business sector faces complex problems in a constantly changing world. As a result, the company's strategy had to be changed. It is sad that the pandemic problem has been passed in almost every country, especially in Indonesia.

The Covid-19 pandemic has triggered an economic recession and resulted in a huge damage to human well-being. Over time, the community began to rise by encouraging post-pandemic economic recovery. Post-pandemic economic recovery has been passed by the Indonesian people by realizing the digital innovations that have been inherent in the pandemic period, such as the rise of online sales in various marketplaces. This is a manifestation of real digital innovation that has now been felt. Thus, digitalization in the 5.0 era can actually be felt during the Covid-19 pandemic.

The concept of society 5.0 does bring marketing in the economic field by combining technology and humans or the role of humans in it. This is a challenge for people in that era in post-pandemic economic recovery. However, this does not leave a great opportunity for humans to apply digital innovation in the economy.

According to Jung, the process of creating digital content goes through several stages, ranging from idea generation, idea conversion, packaging to content preservation. The secret of the success of this process is imagination, which can ensure product quality and continuous innovation. Creativity in the digital content sector relies on a combination of different individual skills integrated into interactive work processes, in addition to individual abilities. This shows how the success of the digital content sector depends on the strength of the team. This aspect of creativity needs to be seen through the lens of society 5.0, which argues that the rise of technology will cause a decline in social relations (Sugiono, 2020).

DISCUSSION

With digital innovation, people 5.0 can use social media as a tool to market their products, utilize social media for business, or engage in digital marketing. In addition, to persuade people to buy or use the goods they offer, business owners must have the confidence and communication skills to do so. The availability of digital marketing makes it easier for entrepreneurs and sellers to manage their micro and macro businesses. By incorporating digital marketing into the entrepreneurial process, businesses can develop the ability of society 5.0 to create products that keep up with the times and technological advances, especially in the current era of society 5.0, which demands proficiency with digital media and the internet (Hidayatullah et al., 2022).

Therefore, technological innovation is known as "Society 5.0" was created to overcome problems that arise in the industrial era 4.0. In areas where technology is developing rapidly, such as robotics applications, it is feared that the role of humans will be smaller. As a result, through society 5.0, it is expected that human resources (HR) will play a greater or more significant role in society, enabling it to overcome and anticipate global trends that arise in industry 4.0 (Sri Pinati, 2020).

CONCLUSIONS AND RECOMMENDATIONS

The current era of society 5.0, in the use of technology and the internet has an effective impact on the use of digital media. This is based on digital innovations created by society 5.0, this is very helpful in improving the post-pandemic economy. The implication is that skills and entrepreneurship must be in harmony with the technological improvements that occur in life so that they can help people for their economic recovery. So that digital models through social media can restore their economy after the pandemic, it can also be used in introducing their products in various digital sectors. The role of qualified and adequate human resources in the 5.0 era is also the key to the success of this digital innovation.

FURTHER STUDY

This article can provide benefits for other researchers in the future, and can be further developed.

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