SME Digital Transformation as a Post-Pandemic Recovery Facility in Pekalongan Indonesia

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Abstract
Digital transformation is a new trend in the Industrial Age 4.0, leading to a new business pattern called the digital economy which is exacerbated by the crisis due to the Covid-19 pandemic. However, MSME actors in Indonesia face obstacles in carrying out the business transformation process, because 90% of Indonesian MSMEs are still run conventionally due to problems regarding the unpreparedness of resources. Therefore this study aims to find out and analyze the main achievement goals for SMEs so that they can continue to provide good performance after the Covid-19 pandemic in Pekalongan City and to know and analyze how digital transformation is a means of recovery for SMEs after the Covid-19 pandemic in Pekalongan City. This study uses a qualitative method with a phenomenological approach where data is collected by distributing questionnaires to MSME actors in Pekalongan. In the data collection process, this study involved several informants by conducting in-depth interviews, policy analysis, and documentation as supporting data. Apart from involving MSE actors in various fields, this research also involved informants who know the dynamics of MSMEs in Pekalongan City. Head of the Pekalongan City Trade, Cooperative and UKM Office, Chair of the Pekalongan City UMKM Association, and Head of the Pekalongan City Shopee Market Place. The results of the study show that the main achievement target for SMEs in order to continue to provide good performance after the Covid-19 pandemic in Pekalongan City is to achieve a sustainable competitive advantage. Then digital transformation becomes an alternative solution in post-pandemic recovery. The policy implications are expected that MSEs will make marketing innovation a priority for MSMEs by combining online and offline marketing, implementing e-commerce systems and collaborating with related parties in overcoming obstacles and obstacles in the adaptation process.

Keywords: Digital transformation, recovery, MSEs, Pandemic

1. Introduction
Micro, Small and Medium Enterprises (SMEs) are economic activities that provide great opportunities for the economic progress of a nation. SMEs provide opportunities for society at large regardless of social status or type of business activity. SMEs have an important role in absorbing labor, contributing to Gross Domestic Product (GDP) to export activities at a macro level (Cant & Wiid, 2016). This is also in accordance with the mandate of the 1945 Constitution of the Unitary State of the Republic of Indonesia article 33 paragraph (4), which states that SMEs are part of the national economy that has an independent vision and has great potential to improve people's welfare. SMEs have a significant role in the country's economic growth.

Based on the Coordinating Ministry for Economic Affairs, the contribution of SMEs in May 2022 was recorded at around 61.9% of National GDP and absorbed 97% of the total workforce and could collect up to 60.4% of total investment. It was noted that
there was an increase in the number of SMEs in Indonesia from 2015 to 2019 by 9.47%. This increase has a fluctuating effect on employment and GDP in the period 2015 to 2019 (Source: Ministry of Cooperatives and SMEs, 2022)

Basically, SMEs are managed based on the principles of kinship, economic democracy, efficiency, sustainability, environmental awareness and independence for the balance of progress. Therefore, SMEs aim to grow and develop their business in order to build a national economy based on a just economic democracy. 2020 is the biggest test for social life, especially the economic life of the Indonesian people. Where in 2020 there was a health crisis known as the Covid-19 Pandemic. It is not only the social life of the community that is experiencing changes, but the economic life, especially SMEs, is experiencing a sustainability crisis. However, SMEs have resilience and have the ability to rise from the crisis. The economic crisis caused by the health crisis had a massive impact on all business sectors, starting from the retail level, SME consumers, and even cooperatives (Wiliandri, 2020). SMEs have the resilience to survive and improve from these conditions and are even at stake to encourage economic recovery during the crisis.

Research illustrates that SMEs contribute significantly to economic innovation, partly through cooperation with the larger business sector, the work intensity of SMEs tends to increase and thus contributes substantially to employment at the macro level (Singh, 2017). As shown above, the influence of SMEs on employment is very significant, so it also affects the size of the National GDP.

With the health crisis or the Covid-19 Pandemic that occurred in Indonesia in early 2020, many SMEs experienced problems. Some of the problems experienced by SMEs include difficulties with raw materials for production, changes in consumption patterns of goods and services from offline to online shopping. In addition, SMEs experience labor problems due to the implementation of Large-Scale Social Restrictions (PSBB) to product distribution barriers. This problem immediately received a response from the Government of Indonesia in which the National Economic Recovery (PEN) policy. The PEN program aims to restore the Indonesian economy due to the impact of Covid-19, and has the aim of increasing the activities of affected communities, especially the informal sector and SMEs. The PEN program is implied in Government Regulation Number 23 of 2020 which was later amended to become Government Regulation Number 43 of 2020.

The existence of the Covid-19 pandemic health crisis is not only interpreted negatively, but can also be interpreted as a positive side for the life of SMEs in Indonesia. This means that SMEs in Indonesia must have new breakthroughs in dealing with the health crisis which affects the purchase of goods and services directly (offline). The era of the industrial revolution 4.0 made people's activities inseparable from the use of information technology, namely the internet. Society cannot be separated from the presence of smart phones (smartphones) in searching for information and daily activities such as shopping. The Covid-19 pandemic requires people to reduce face-to-face activities. In staying in touch they use smartphones and even in shopping for their daily needs using smartphones.

SMEs get great opportunities in these circumstances, the use of technology in doing business is one of the important points in surviving and developing business in the current era. The existence of an online marketplace greatly facilitates SMEs in marketing goods and services to consumers. The pattern of changing from selling offline to online is basically referred to as digital transformation. The existence of digital transformation provides an opportunity for SMEs to develop patterns of marketing their goods and services. SMEs must change their business models with new digital technologies such as social networks, cellular, big data, internet, other innovations based on digital transformation such as epayments, ebusiness, and ecommerce (Ayo et al., 2004).
Therefore, the high number of SMEs in Indonesia is inseparable from the various challenges and conditions of the Covid-19 Pandemic which has driven changes in consumption patterns of goods and services to become a momentum to accelerate digital transformation.

The opportunity for digital transformation for SMEs has a huge impact on the success of marketing their goods and services. However, problems arose again after digitalization opportunities for SMEs, namely the lack of knowledge for SMEs about information technology in the form of the internet. This causes lag and the issue of underdevelopment of SMEs in using the internet, so that SMEs are marginalized from large businesses that have used technology before (Johnson & Schaltegger, 2016). The importance of digitization for SMEs is not limited only as a basic capital for their marketing, but more than storage and database records in calculating profits. So it is important basic knowledge and continuity in implementing digital transformation both in technological innovation and social innovation.

Pekalongan City is one of the cities in Indonesia which has a fairly large development of SMEs in Indonesia. Based on data on the number of UKM in Pekalongan City in 2022, there were 1,645 UKM actors (Central Java Province Cooperative and UKM Office, 2022). SMEs in Pekalongan City are divided into two categories, namely Small and Micro, with details of 1,433 small businesses and 212 micro businesses. The city of Pekalongan is known as one of the largest batik producers in Indonesia. Many SME entrepreneurs are engaged in fashion, especially batik. The condition of Covid-19 certainly also affects business continuity in Pekalongan City, especially SMEs. One form of digital transformation in Pekalongan City that has become a government program is the creation of the Lokapasar Batik Application specifically for Setono Wholesale Market SMEs in 2020. The form of digitization includes buying and selling through digital platforms via Whatsapp and online payments to delivery via several expeditions available.

The importance of digital transformation for SMEs in Pekalongan City is to make it easy for consumers to obtain goods and services. The main problem faced by SMEs in Pekalongan City is accessibility to digital platforms, and until now only Batik SMEs have facilities from the government through the Batik Workshop Program. However, the existence of e-commerce provides opportunities for all SMEs in Pekalongan City. Not only to get access to marketing for free and ease of online transactions. In fact, several e-commerce platforms also provide access to capital for UKM players who already have accounts. Synergy between financial and non-financial institutions is the two main things for the economic recovery of these SMEs.

Digital transformation is not only understood as convenience for SMEs, but convenience for consumers who use goods and services (König et al., 2019). It is increasingly easier for consumers to explore what they need and make easy and safe transactions through technology-based. The inclusion of a digital platform for online sales of goods, services and food in Pekalongan City provides opportunities for new SMEs who have creativity and innovation. This digital transformation must be interpreted as a condition of people's economic recovery. However, not a few SMEs are ready to carry out digital transformation which makes it difficult for them to utilize technology or even reluctant to make changes towards digital so that they cannot compete with previous SMEs or companies that used digital.

Based on these perspectives, it is important to study the phenomenon of digital transformation for SMEs located in Pekalongan City, Central Java from various SME sectors. So that from the results of this exploration and elaboration, the stages of digital transformation can be identified as a form of economic recovery after the Covid-19 Pandemic in Pekalongan City.
The problem currently faced by SMEs is the uncertainty of resources, especially during the Pandemic period due to poor use of technology so that the formulation of the problem is whether digital transformation has an impact on the economic recovery of SMEs in Pekalongan City after the Covid-19 Pandemic. So the objectives of this study are:

1) What the main achievement target for SMEs so that they can continue to provide good performance after the Covid-19 pandemic in Pekalongan City? and how is digital transformation as a means of recovery for SMEs after the Covid-19 pandemic in Pekalongan City?

2. Method

This study uses a qualitative method with a phenomenological approach where data is collected by conducting interviews with MSME actors in Pekalongan. In the data collection process, this study involved several informants by conducting in-depth interviews, policy analysis, and documentation as supporting data (Sugiyono, 2016). Rural MSMEs are entering a new era due to the adoption of digital technology by business actors who support and show characteristics such as the intensity of using the internet network, the ability to carry out digital transactions, and the maintenance of village social values. Theoretically and empirically, this study shows that digital transformation is driven by changes in collective behavior around the use of technology, followed by an inclusive rural digital economy (Mazya et al., 2022). The uniqueness of this study includes several expert opinions who understand the dynamics of MSEs, among others:

1. Head of Trade, Cooperative and UKM Office of Pekalongan City
2. Head of the MSME Section of the Pekalongan City UKM Dinkop
3. Chairman of the UMKM Association in Pekalongan City
4. Chairman of the Pekalongan City Batik Association
5. Head of Market Place Shopee Pekalongan City

There are six (6) steps in qualitative data analysis (Creswell, 2009), namely: Processing and preparing data, Reading the entire data, Analyzing in more detail with coding data, Implementing the data coding process, Connecting themes and descriptions of research findings, Interpreting field finding data. Testing the validity and validity of the qualitative data carried out in this study was based on 3 (three) data validity strategies according to Creswell. Therefore the data validity strategy in this study includes (Creswell, 2009): 1) Triangulation of various data sources, carried out by examining data and evidence originating from informants based on position in MSME management in Pekalongan City; 2) The use of a relatively long time (prolonged time) is carried out based on the experience and involvement of researchers as part of the management of Cooperatives and MSMEs who have a lot of experience and knowledge about MSMEs, besides that the availability of time with researchers and informants in this study is quite a lot; 3) Researchers conduct questions and answers with colleagues who have knowledge of the themes raised by researchers, in addition to regular discussions with experts or academic experts who have a scientific background in economics.

3. Results and Discussions

A. The main achievement target for SMEs is to continue to provide good performance after the Covid-19 pandemic in Pekalongan City

MSMEs are defined as activities that are active in medium and small scale businesses, so they are referred to as Micro, Small and Medium Enterprises. MSMEs are activities that create jobs, increase business competitiveness, and provide consumers with a variety of innovative products and services (Zulu-Chisanga et al., 2021). In addition, MSMEs have a role in the process of equity and increase in people's income, encourage the nation's economic growth, and have a role in realizing national stability. MSMEs are one
of the main pillars of the national economy which must get the main opportunities, support, protection and business development without neglecting the role of large businesses and State-Owned Enterprises (Cheong et al., 2020).

The development of MSMEs in Indonesia is regulated in Law Number 20 of 2008 concerning Micro, Small and Medium Enterprises (MSMEs), so that the definition of MSMEs is as follows:

1. Micro Enterprises are productive businesses owned by individuals and/or individual business entities that meet the criteria of Micro Enterprises, with the criteria of owning assets or net assets of at least IDR 50 million (excluding land and building assets) and having profits from their business of IDR 300 million.

2. Small business is a productive economic business activity that stands alone, which is carried out by individuals or business entities that are not subsidiaries or not branches of companies that are owned, controlled or become part either directly or indirectly of medium or large businesses that fulfill the following requirements: Small Business criteria. Businesses that are classified as small businesses are businesses that have annual sales ranging from Rp. 300 million to Rp. 2.5 billion and a net worth of Rp. 50 million to Rp. 500 million.

3. Medium Enterprises are productive economic enterprises that stand alone, carried out by individuals or business entities that are not subsidiaries or branches of companies that are owned, controlled, or become a part either directly or indirectly with Small Businesses or Large Businesses with total assets net or annual sales results. Medium businesses have criteria for a net worth of more than IDR 500 million to IDR 10 billion (not including buildings and land where the business is located). Then the sales results per year reach IDR 2.5 billion to IDR 50 billion.

MSMEs that have success in their management are inseparable from the performance of these MSMEs. The performance of MSMEs is often related to the work results achieved by MSMEs in certain periods and is linked to the size of the values or standards of the company (Aribawa, 2016). In general, performance is the result or work evaluation of a company that is achieved by a person or group with the division of activities in the form of tasks and roles in a certain period with the standards of the company (Mutegi et al., 2015).

B. Digital transformation as a means of post-Covid-19 recovery for SMEs in Pekalongan City

The era of the industrial revolution 4.0 made the activities of the community and business actors inseparable from the internet and technology. MSMEs as one of the business actors must follow technological developments and use the internet as a tool to market their products and services. Before getting to know the internet and information technology, business actors, both small, medium and large, carried out traditional direct marketing activities, but after the emergence of the internet, business actors were able to take advantage of this technology as a tool for conducting online trade and consumers only needed their cellphones to make sales transactions. buy.

The ease of using the internet and information technology makes it easy for MSMEs to sell their products and services, the existence of the Covid-19 pandemic is spearheading the creativity of MSMEs in utilizing technology. By carrying out promotions using the internet, the process of buying and selling with consumers is facilitated and competitive prices are able to make MSMEs have great strength and opportunities in running their business. The ease and advantages of using technology and the internet are one form of digital transformation in the MSME sector.
Transformation began to be used in various organizational business practices in the 1990s (Muzyka et al., 1995). The definition of transformation in business practice is a basic change in organizational logic or a fundamental change in organizational behavior. Transformation is also interpreted as an overall concept that includes various competitive strategies adopted by organizations to produce significant improvements in business performance (McKeown & Philip, 2003). These strategies are processes of business redesign, organizational development, overall quality management, and use of information technology.

The transformation referred to in an organization and company cannot be separated from the use of technology. Technology has been identified as a key tool to help organizations transform. The role of new information and communication technology (IT) has been widely recognized due to its rapid development and diffusion, thus triggering considerations of business transformation in organizations (R. E. Morgan & Page, 2008). IT is transformationalist when companies change the traditional and fundamental way of doing business by redefining capabilities, processes and relationships. So organizations must also engage in strategic technology acquisition to acquire new capabilities or to enter new markets.

IT implementation unlocks significant changes in an organization. As a result, this fundamental change requires companies to run or operate in a completely new market scheme. Not only in changing the order of IT utilization within the company but also in changing human resources in their activities. The use of the internet network within the company is able to provide convenience and increase the activity and performance of the company in a positive direction. These changes do not only apply to an organization or company but also to small-scale companies or MSMEs. These changes are fundamental as a form of network management change or digital transformation.

Digital transformation is defined as an effort to use technology in a sustainable manner to improve the performance or reach of the company broadly (Westerman et al., 2014).

The achievement of digital transformation for MSMEs depends on the digital technology used and the management of the use of this technology. MSMEs as a business sector that is able to touch all groups regardless of the amount of capital have opportunities and advantages in utilizing the market. UMKM is a flexible ecosystem, meaning that the supply of products offered has innovations based on the market that is in demand. Digitalization offers the possibility of what consumers need for reasons of significant change, so that it can be interpreted that digitalization is the starting point of a wave of digital transformation.

An important element in a digital transformation carried out by MSMEs is competitive and innovative advantages in developing their business in a sustainable manner by utilizing information technology. MSMEs have business characteristics with small capital and are dynamic by involving the creativity of their workers so that MSMEs are able to compete against current market needs. Government protection for MSMEs makes MSME life grow rapidly every year. Not a few consumers, both personally and as an organization, take advantage of MSME products and services. However, what becomes an obstacle for MSMEs in facing global market competition is capital and sustainable marketing to produce their products and services.
Digital transformation in MSMEs is very important and has an important role for the economic life of a country, therefore the success of the digital transformation of MSMEs requires the following stages (Ulas, 2019): Data-Based Change and Authority and Responsibility, Adoption of Work Culture, Digital Transformation Roadmap, Analysis of Requirements and Needs for Digital Transformation, Collaboration with Others and Digital Awareness Creation.

### Figure 1. Digital Transformation Elements; Sumber: (Goerzig & Bauernhansl, 2018)

<table>
<thead>
<tr>
<th>Primary change</th>
<th>Content change</th>
<th>Result change</th>
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<tbody>
<tr>
<td>Competitive advantage through the use of IT for sustainable MSME business development</td>
<td>• Cooperation • Application of market sensitive information systems • Integration into the business ecosystem</td>
<td>• Organizational management • Business model and marketing strategy • Implementation of a business appraisal system • Integration of information systems</td>
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Digital transformation is an ongoing process that requires continuous improvement and adaptation to market and consumer needs. It involves changes in organizational management, business models, marketing strategies, implementation of business assessment systems, and integration of information systems. The results of these changes are new challenges in the digital transformation process, namely in the form of organizational management, business models and marketing strategies, implementation of business assessment systems and integration of information systems on an ongoing basis. Then digital transformation becomes an alternative solution in post-pandemic recovery. The policy implications are expected that MSEs will make marketing innovation a priority for MSMEs by combining online and offline marketing, implementing e-commerce systems and collaborating with related parties in overcoming obstacles and obstacles in the adaptation process. MSME support with analysis of requirements and needs in implementing digital transformation goals. Through the support of the government and other stakeholders such as MSME associations, it is possible to get access to assistance and policies in supporting MSME digital transformation.

4. Conclusion

The main achievement target for SMEs so that they can continue to provide good performance after the Covid-19 pandemic in Pekalongan City is achieving a sustainable competitive advantage. MSME development must have cooperation between sectors in society and with the government. The existence of cooperation provides opportunities for access to policies as well as access to the latest technology information systems. Information systems that are sensitive to the market as one of the supporters of the transformation process will greatly assist MSMEs in adapting services to market and consumer needs. So that competitive and sustainable business integration will be created.

The results of these changes are new challenges in the digital transformation process, namely in the form of organizational management, business models and marketing strategies, implementation of business assessment systems and integration of information systems on an ongoing basis. Then digital transformation becomes an alternative solution in post-pandemic recovery. The policy implications are expected that MSEs will make marketing innovation a priority for MSMEs by combining online and offline marketing, implementing e-commerce systems and collaborating with related parties in overcoming obstacles and obstacles in the adaptation process. MSME support with analysis of requirements and needs in implementing digital transformation goals. Through the support of the government and other stakeholders such as MSME associations, it is possible to get access to assistance and policies in supporting MSME digital transformation.
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