

## The Role of Digital Entrepreneurial Strategy in the Digital Transformation of MSMEs during the Covid-19 Pandemic



Ida Susi Dewanti<sup>1</sup>, Didik Indarwanta<sup>2</sup>, Indro Herry Mulyanto<sup>3</sup>

<sup>1,2,3</sup> Pembangunan Nasional Veteran Yogyakarta, Indonesia

**ABSTRACT:** The purpose of this study is to develop a digital transformation model for MSMEs by analyzing absorptive capacity and digital entrepreneurial strategy in encouraging digital transformation in MSMEs. The research was conducted by taking a sample of 100 SMEs in Depok Sleman District. Sampling was done using simple random sampling method. The influence between variables was analyzed using a quantitative approach with WarpPLS as the chosen analysis tool. The results of the analysis show that the absorptive ability as the ability to absorb external knowledge to be processed into knowledge that is suitable for the organization, has an insignificant effect on digital transformation. Absorptive ability has a significant influence if it is through a digital entrepreneurship strategy. This finding shows that the knowledge developed by the organization is not able to encourage digital transformation in MSMEs. This knowledge becomes meaningful to encourage digital transformation if it is accompanied by ownership of a digital entrepreneurship strategy. This is because the digital entrepreneurship strategy is a strategy to achieve business goals by changing business activities and processes through the application of innovation, creativity and the use of digital technology. This means that the combination of knowledge that is built is adapted to the technological innovation capabilities of MSMEs as a strategy to adapt to the changes in the environment they are facing. This adaptability can drive the success of digital transformation in MSMEs

**KEYWORDS:** absorptive capacity; digital entrepreneurial strategy, digital transformation, MSMEs, Covid-19 pandemic

### I. INTRODUCTION

The Covid-19 pandemic has undeniably brought changes in business behavior both on the consumer and producer side. Consumers with limited mobility are trying to find ways to keep meeting their needs with all these limitations. Consumers are starting to switch from offline shopping to online shopping. The choice to shop online is considered more practical and safer for consumers. This change in consumer behavior was responded to by the same behavior from producers by participating in switching to using online sales from initially only selling offline. MSMEs, which have been a sector that is considered weak in technology to support their business operations, have begun to improve their capabilities. The Ministry of Cooperative MSMEs (2020), reports that to prevent bankruptcy, around 70% of MSMEs have started selling online. However, 85%-95% of the 70% failed to enter the digital market and in the end still went bankrupt. Meanwhile, around 15% of MSMEs have successfully transformed digitally and survived during the pandemic. The Department of MSME Development and Consumer Protection of Bank Indonesia (2020) even stated that there were also MSMEs that actually received multiple benefits during the pandemic through online sales (Farhani & Chaniago, 2021). Their success in carrying out digital transformation makes the pandemic condition a great opportunity and has a positive impact.

The three conditions that arise, namely not digitizing, digitizing but failing, and succeeding in digitizing, indicate certain factors that cause the failure and success of MSMEs in carrying out digital transformation. The failure and success of MSMEs is influenced by many factors, one of which is the selection of an inappropriate strategy, the owner's lack of courage to take risks, and low digital knowledge. For this reason, this study intends to analyze the role of entrepreneurial orientation which is correlated with the company's courage to take risks, innovate and be proactive in facing a changing business environment. In addition, it also analyzes the capabilities and knowledge of the company with its absorptive capabilities. One of the determinants of the failure of MSMEs to transform is the low level of digital literacy, so knowledge of digital technology will also determine the success of MSMEs. Besides that, the ability to formulate the right strategy and choose the strategy also affects the selection of the right technology to support digital transformation. Digital transformation refers to the wider adoption of digital technology and cultural

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changes in it. Digital transformation is the process of transforming activities, processes, and overall business models by utilizing technological developments. Its main objective is to increase efficiency, manage risk and discover new business opportunities.

### **II. LITERATURE REVIEW**

#### **Entrepreneurial Orientation**

The courage of MSMEs to transform is strongly influenced by the courage of business owners in taking risks. Risk taking is one of the dimensions of entrepreneurial orientation. Entrepreneurial orientation is a view of entrepreneurial activity within the company. Miller (1983) summarizes the characteristics of entrepreneurship-oriented companies as companies that are involved in product and market innovation, dare to take risks, and are proactive. Based on this characterization, the researcher agrees that entrepreneurial orientation is a relevant conceptualization of entrepreneurship at the enterprise level. Entrepreneurial orientation refers to strategic orientation, which is an entrepreneurial aspect seen from the company's decision-making styles, methods, and practices that reflect how the company operates (Lumpkin & Dess 1996).

Entrepreneurial orientation can be considered as one of the organizational capabilities and this ability can distinguish a company from its competitors and achieve superior business performance. Miller (1983) summarizes the characteristics of entrepreneurship-oriented companies as companies that are involved in product and market innovation, dare to take risks, and are proactive. Based on this characterization, the researcher agrees that entrepreneurial orientation is a relevant conceptualization of entrepreneurship at the enterprise level. Entrepreneurial orientation refers to strategic orientation, which is an entrepreneurial aspect seen from the company's decision-making styles, methods, and practices that reflect how the company operates (Lumpkin & Dess 1996).

#### **Absorptive Capacity**

The idea of absorptive capacity was originally developed by Cohen & Levinthal (1990). Cohen & Levinthal in their study express an opinion on how companies internalize external information that is available or accessible to them. Absorptive capacity is defined as the firm's ability to identify external knowledge, assimilate it, and apply knowledge through innovation and other competitive strategies (Cohen & Levinthal, 1990a). Zahra & George (2002) define absorptive capacity as a set of organizational routines and processes by which companies systematically acquire, assimilate, transform and utilize knowledge that results in dynamic organizational capabilities.

Zahra & George (2002) further define absorptive capacity into potential and realized capacity. The company's absorptive capacity is determined by its ability to integrate potential and real capabilities that have significance to the company's competitive performance. This processing capability is then combined with the ability to integrate this information with available resources in order to provide products that are in accordance with what the market wants (Dana & Dana, 2005; Szogs, Chaminade, & Azatyan, 2008; Wang & Ahmed, 2007). Saghali & Allahverdi (2011) state the importance of absorptive capacity by stating that absorptive ability can be seen as a capability-based procedure for organizations. This opinion refers to the opinion which states that absorptive capacity is a function of the company's expertise, its internal technological efforts and its relationship to external knowledge sources (Szogs et al., 2008).

#### **Digital Entrepreneurial Strategy (DES)**

Digital entrepreneurship strategy is a novelty in this study. This concept is an integration between digital strategy and digital entrepreneurship. Digital strategy is an attempt to use technology to change activities within the company. Digital strategy seeks to find activities and processes that need to be changed to provide better service to customers. Then, look for the right combination of technologies and strategies that can be combined to create that experience. Through a digital strategy, companies can find competitive advantages and new opportunities for growth by making strategic changes. On the other hand, digital entrepreneurship is the application of innovation and creativity to solve problems faced by others by taking advantage of the opportunities presented by new media and internet technology. Based on this description, digital entrepreneurial strategy is a strategy to achieve business goals by changing business activities and processes through the application of innovation, creativity, and utilizing digital technology.

#### **Digital Transformation**

Digital transformation is a method change in handling a job using information technology to be more effective and efficient. Digital transformation also refers to a process of change to the future (irreversible change) based on the significant use of information and communication technology to provide added value for organizations and corporations (Farhani & Chaniago, 2021). Digital transformation demands a radical change from conventional business processes to digital business processes. Digital transformation is also one way to adapt flexibly to changes in society.

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The current COVID-19 pandemic has also encouraged many businesses to strengthen their ICT, including the MSME sector. They are trying to digitize their operations. Digitalization is able to change the value offered to customers by creating new business models that are more relevant and adaptive to the existing business environment. For MSMEs, the focus of digital transformation is determined by each MSME leader, this shows that the role of the leader or business owner is very dominant.

## HIPOTESIS PENELITIAN

Based on the description of the research concept framework, the hypotheses related to the entrepreneurial orientation, absorptive capacity, digital entrepreneurial strategy and digital transformation in this study are formulated as follows:

H1: Entrepreneurial orientation (X1) has a significant effect on digital transformation (Y)

H2: Absorptive capacity (X2) has a significant effect on digital transformation (Y)

H3: Entrepreneurial orientation (X1) has a significant effect on digital entrepreneurial strategy (Z)

H4: Absorptive capacity (X2) has a significant effect on digital entrepreneurial strategy (Z)

H5: Digital entrepreneurial strategy (Z) has a significant effect on digital transformation (Y)

H6: Digital entrepreneurial strategy (Z) mediates the effect of entrepreneurial orientation (X1) on digital transformation (Y)

H7: Digital entrepreneurial strategy (Z) mediates the effect of absorptive capacity (X2) on digital transformation (Y)

## III. RESEARCH METHOD

This research is included in the type of explanatory research with a quantitative approach. The research sample is MSMEs in the Depok sub-district, Sleman. The sampling technique used is simple random sampling with a sample size of 100 MSME owners. The sample taken must have been operating for at least 3 years on the grounds that the business being run has been operating since before the covid-19 pandemic until now. Data were collected by questionnaires and direct interviews with research respondents. Measurement of respondents' answers using a Likert scale of 1-5.

**Entrepreneurial Orientation.** Measurement of entrepreneurial orientation uses three dimensions from Miller's (1983) research, namely: innovativeness, risk taking, and proactiveness. Validity test ( $>.57$ ) and reliability (0.764) showed valid and reliable results.

**Absorptive capacity.** Adopting 3 dimensions from Narver & Slater (1990), Kohli & Jaworski (1993), and Liu et al. (2011), namely customer orientation, competitor orientation, and inter-function coordination using a 5-point Likert scale. The test results on 6 items showed valid ( $>.57$ ) and reliable (0.864) results.

**Digital Entrepreneurial Strategy.** Consists of the dimensions of media and technology as a business development strategy, technology support for services. Validity test ( $>.60$ ) and reliability (0.770) showed valid and reliable results.

**Digital transformation.** Consists of the dimensions of digital technology implementation, capabilities, perceived benefits, digital culture, partners, business continuity. Validity test ( $>.60$ ) and reliability (0.770) showed valid and reliable results.

Data were analyzed using WarpPLS. The reason for using WarpPLS is because it is a powerful analytical model (Solimun, 2008), because it can be applied to all data scales, does not require many assumptions and the sample size does not have to be large.

## IV. RESULT AND DISCUSSION

### Karakteristik Demografis

Table 1. Karakteristik Demografis

Characteristic	Frequency (N = 100)	Percentage (%)
<b>Gender</b>		
Male	60	78.95
Female	40	28.05
<b>Education</b>		
Elementary School	14	14
Junior High School	10	10
Senior High School	46	46
Diploma	1	1
Bachelor Degree	27	27
Master Degree	2	2
<b>Age (years)</b>		

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< 30	19	19
30-40	39	39
>40-50	28	28
>50	14	14
<b>Length of business</b>		
>3- 5 years	61	61
>5 - 10 years	12	12
>10 - 15 years	10	10
> 15 years	17	17

Source: primary data is processed, 2022

Table 1 shows that there are more male entrepreneurs than women. The majority of entrepreneurs have senior high school and bachelor degree education. The age of most of the respondents was in the range of 30 – 40. The category of respondents' professional experience shows that most of the respondents are less than five years while the remaining 17% have more than 15 years of experience in the same profession.

### Hypothesis Test

In accordance with the purpose of this study to develop a digital transformation model for SMEs, before interpreting the results of hypothesis testing, the model must have a good Goodness of Fit. There are 10 (ten) measures of Model Fit and Quality Indices in the WarpPLS analysis to measure the quality of the structural model (Solimun et al., 2017). The results of the Goodness of Fit Model using WarpPLS show that the model is fit, i.e. all models fit and quality indices are met, so the model is said to be good and can be used to explain the phenomena studied and can be used for hypothesis testing. The models are arranged as follows:

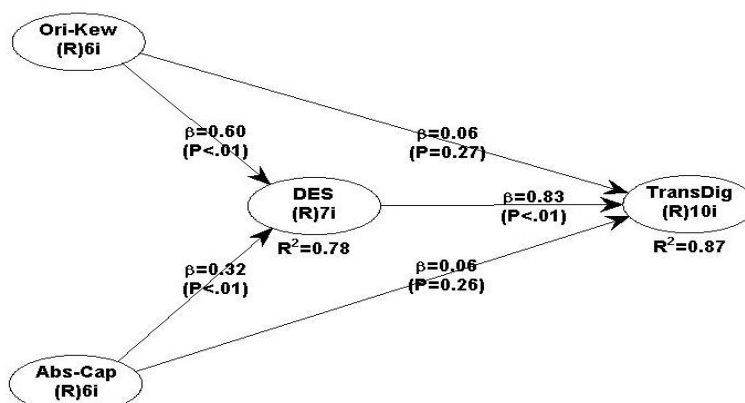


Figure 1. Hypothesis Model

Hypothesis testing was carried out using WarpPLS analysis to see the influence between research variables. The hypothesis testing showed the following results:

Table 2. Hypothesis Testing Using WarpPLS . Analysis

Hypothesis	Relation between Variable	Coefficient	p-value	Description
1	Entrepreneurial Orientation (X1) → Digital Transformation (Y)	0.059	0.274	Non-Significant
2	Absorptive Capacity (X2) → Digital Transformation (Y)	0.064	0.258	Non-Significant
3	Entrepreneurial Orientation (X1) → Digital Entrepreneurial Strategy (Z)	0.598	<0.001	Significant
4	Absorptive capacity (X2) → Digital Entrepreneurial Strategy (Z)	0.315	<0.001	Significant
5	Digital entrepreneurial strategy (Z) → Digital Transformation (Y)	0.826	<0.001	Significant
6	Orientasi kewirausahaan (X1) → Digital Entrepreneurial Strategy (Z) → Digital Transformation (Y)	0.494	<0.001	Significant

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Hypothesis	Relation between Variable	Coefficient	p-value	Description
7	Absorptive capacity (X2) → Digital Entrepreneurial Strategy (Z) → Digital Transformation (Y)	0.260	<0.001	Significant

Source: primary data is processed, 2022

Based on the results of hypothesis testing in table 2, it can be seen that entrepreneurial orientation is not significant in influencing digital transformation in the SMEs studied. This means that the entrepreneurial orientation of the research respondents has not been able to encourage digital transformation in the object of this research. The same result is also found in the absorptive ability which has no significant effect on digital transformation. The relationship between other variables shows significant positive results.

### DISCUSSION

The results of this study found that entrepreneurial orientation had a significant positive effect on digital transformation. These results are not in line with the results of research conducted by Vrontis et al. (2022) where in his research states that entrepreneurial orientation can encourage the acceleration of companies to carry out digital transformation. Entrepreneurial orientation (EO) is considered as the overall strategic posture of the company. In the context of company growth, EO is expected to be able to direct SME entrepreneurs to improve business operations as a business that is sensitive to environmental changes. EO is considered proactive and helps entrepreneurs to take the necessary steps to create innovative products and services. With the help of EO, MSMEs will be able to enjoy the benefits associated with taking advantage of high-risk opportunities. Studies show that EO has a positive impact on business growth in developing as well as developed countries. Other studies have also highlighted that the relationship between EO and SME growth is positive (Ritala et al., 2021). EO can influence the relationship between value creation and firm performance and is thus perceived to influence the performance of SMEs

The results of this study found that absorptive capacity had no significant positive effect on digital transformation. This finding is not in accordance with the results of the study of Siachou et al. (2020) which states that the knowledge possessed by organizations has an important role in digital transformation. García-Morales et al (2014) state that external knowledge is one of the most important tangible assets that organizations seek to acquire. This is because absorptive capacity is related to innovative capabilities that play an important role in obtaining appropriate and more advanced technology. Organizations without an effective knowledge acquisition orientation in formulating their strategies are less able to utilize knowledge, and are low in terms of implementation and integration of knowledge technology, and, as a result, reduce innovation performance (Ferretti & Parmentola, 2015).

The findings of this study indicate that Entrepreneurial Orientation has a significant positive effect on Digital Entrepreneurial Strategy. These results support previous research which found that entrepreneurial orientation is a strong predictor of Digital Entrepreneurial Strategy (Nambisan, 2016). The entrepreneurial orientation literature provides theoretical insights that explain why some firms are able to recognize and capitalize on opportunities and why others fail to do so (Covin & Slevin, 1991; Miller D., 1983). This shows that companies differ in their strategic posture; some show a proactive, innovative attitude, and dare to take higher risks than others, because they are more entrepreneurial oriented. Entrepreneurship-oriented companies are more proactive, they are constantly looking for new opportunities that can give them a competitive advantage (Venkatraman, 1989). Due to the constant scanning of the environment they do. Entrepreneurial firms are more likely to detect emerging opportunities. Moreover, due to their proactive and innovative nature, they are more receptive to new technologies (Engelen et al., 2015; Pérez-Luño et al., 2011) and are consequently in a better position. In addition, the higher risk-taking attitude of entrepreneurial firms makes them more likely to take risks associated with the use of internet and other digital technologies. The proactive nature of higher EO firms tend to identify more entrepreneurial opportunities and are able to better adapt to the presence of new technologies (Ipsmiller et al., 2022).

The findings of this study indicate that absorptive capacity has a significant positive effect on Digital Entrepreneurial Strategy. Organizations performing high levels of absorptive capacity present a thorough understanding of the knowledge to be acquired and are capable of implementing, relatively easily, complex knowledge in their daily routines, tasks, activities and processes (Zahra & George, 2002). Furthermore, high levels of absorptive capacity alert organizations to identify new opportunities, to generate new knowledge and to attempt to interact with other organizations in order to add value to new offerings (Chandler & Jansen, 1992; Henderson & Clark, 1990). As the complexity of the external knowledge to be acquired increases, the ability of organizations to absorb it becomes a mandatory condition (Reed & DeFillippi, 1990). A lack of knowledge and understanding regarding digital transformation strategies along with asymmetrical links with external partners could be considered a challenge to digital

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transformation (Tekic & Koroteev, 2019). This might lead to a plausible redesign of business strategies and business activities, with short

### IMPLICATION

The results of this study are useful for MSMEs in implementing a digital transformation model by strengthening their entrepreneurial orientation and absorptive abilities while building their digital entrepreneurial strategy capabilities. The model developed in this study can be an input for MSMEs to be more prepared and brave to face technological changes in the current digital era and not avoid their influence in the organization. Adaptation of digital technology has proven to be able to help MSMEs, especially micro and small businesses in maintaining their business, learning from the emergence of the COVID-19 pandemic which is still having an impact today.

### CONCLUSIONS

Digital entrepreneurial strategy has an important role in developing digital transformation in micro and small businesses in particular. The digital transformation that is part of the digital economy today must be responded to by these business actors by adapting to their capabilities without leaving the need to continue learning and improving business capabilities. An entrepreneurial orientation that can encourage business organizations to be more innovative, proactive and risk-taking requires a digital entrepreneurship strategy so that the innovations carried out can be in line with the digital technology they have. Likewise, absorptive ability as the ability to build knowledge for the organization must always be improved so that the organization is successful in carrying out the chosen digital transformation.

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