

The Role of Dynamic Digipreneur Capabilities in Mediating The Relationship Between Digital Transformation and Competitive Advantage in Improving Business Performance

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ABSTRACT

This research aims to investigate the relationship between digital transformation, dynamic digital entrepreneur capabilities, competitive advantage, and business performance in small and medium enterprises (IKM). The first hypothesis (H1) proposes that digital transformation has a positive effect on competitive advantage, referring to Porter's (2001) view on the role of the internet in creating competitive advantage through partnerships and business digitalization. The second hypothesis (H2) states that digital transformation influences dynamic digipreneur capabilities through increasing knowledge sharing and digital capabilities. The third (H3) and fourth (H4) hypotheses claim that entrepreneurial-oriented dynamic digital entrepreneur capabilities have a positive impact on the competitive advantage and business performance of SMEs. The fifth hypothesis (H5) confirms that competitive advantage contributes to improving SME business performance through increasing market share, profits, efficiency, reputation and marketing effectiveness. Next, the sixth (H6) and seventh (H7) hypotheses try to explore the role of mediation, with H6 proposing that dynamic digipreneur capabilities can mediate the relationship between digital transformation and competitive advantage, and H7 claiming that competitive advantage can mediate the relationship between digital transformation and SME business performance. Finally, the eighth (H8) and ninth (H9) hypotheses suggest a dual mediating role, with H8 proposing that competitive advantage can act as a mediator between dynamic digipreneur capabilities and SMI business performance, while H9 proposes that digital transformation can influence SMI business performance through digipreneur capabilities dynamic and competitive advantage as a mediator.

INTRODUCTION

Small and Medium Industries (IKM) Batik is that this sector has a significant contribution to the Indonesian economy with millions of business actors and exports of batik products worth billions of

dollars. However, the negative impact of the COVID-19 pandemic is felt strongly in the form of decreased production, increased unemployment, and difficulties in obtaining raw materials for Batik IKM. Apart from that, this sector also faces serious competition from foreign batik products that offer cheaper prices, which has the potential to threaten demand for local batik products. (BPS, 2021).

Pekalongan City is one of the cities experiencing very rapid growth in the batik industry. With a population of around 300,000 people, the majority of Pekalongan City residents seek their livelihood in the batik industry sector. At the end of 2014, Pekalongan City received an award as "the world's most creative city" in the "For Craft and Folkarts category" from UNESCO (Nurhayati & Ardianingsih, 2017).

The decline in the number of batik IKMs was caused by the impact of the COVID-19 pandemic, which resulted in many craftsmen going out of business and increasing unemployment. The 1998 crisis also still had a negative impact due to high raw material prices which hampered business funding. Apart from that, batik craftsmen are reluctant to take the risk of overproduction, in accordance with customer requests who only order according to annual trends to avoid unsoldness. Difficulty in obtaining labor due to the preference of factory workers, the use of simple technology that slows down production, and the emergence of imported batik products that compete at lower prices are also factors in the decline in demand for local batik.

The Covid-19 pandemic crisis that occurred in Indonesia at the beginning of 2020 caused many SMEs to experience problems. Some of the problems experienced by SMEs include: difficulties in raw materials for production, changes in people's consumption patterns of goods and services from *offline* to *online shopping*. Apart from that, SMEs are experiencing labor problems due to the implementation of Large-Scale Social Restrictions (PSBB) and product distribution obstacles. This problem immediately received a response from the Indonesian Government with 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 changed to Government Regulation Number 43 2020.

While batik sarong IKMs have begun to rise in Pekalongan after the Covid-19 pandemic ended, however, on the other hand, IKMs are experiencing several obstacles in running their businesses. The results of interviews with owners of batik sarong IKMs in Pekalongan stated that regarding the obstacles faced by IKMs, apart from limited delivery outside the region, and the scarcity of raw materials, the problem faced by Batik Sarong IKMs in the digital era is that technological knowledge is still low so that batik IKMs are not yet ready to go digital, it is difficult to find the right digital platform. SMEs feel unsafe when carrying out digital transactions.

The large contribution of batik SMEs to the Indonesian economy and culture means that batik SMEs need to be considered and supported in developing and improving their performance. This can be done through various efforts, such as training and business assistance, providing access to wider markets, and the application of digital technology to increase production efficiency and productivity.

Advances in information and communication technology have been integrated and connected globally and have entered the realm of the business world. The era of digital innovation which is marked by advances in science provides space for companies to improvise and adapt to digital innovation in developing and maintaining business, and conversely for companies that are not ready for this phenomenon, it will be a challenge that can be detrimental to the company itself in the long term business (Diandra & Syahputra, 2021).

In line with this view, business actors must be able to balance technological advances by increasing the superiority of the company's resources, especially human resources. Various types of resources owned by companies must be integrated with digital which continues to transform from day to day. As a business activity, entrepreneurship requires programs that can improve the abilities of individuals or groups, especially digital abilities in accessing information and communication available on various business platforms, both in *e-commerce marketplaces* and social media (Diandra & Syahputra, 2021). The phenomenon of the Covid-19 pandemic and the massive use of electronic communications is currently causing a shift in the mindset of individuals, business actors and consumer behavior in conducting business transactions.

Digitalization requires a business to be able to create new strategies (El Sawy et al., 2016) and forces all business activities from operational to management levels to be able to use digital (Marfuin & Robin, 2021). According to Madrakhimova (2013), this situation has resulted in increased awareness

of companies in maintaining their business reputation (Madrakhimova, 2013) . Based on the effects of digital transformation, managers who are active and follow developments in the digital world can engage with the potential of new technologies and encourage their introduction, which acts as a condition for entering digital business strategies (Liu et al., 2015) .

Research conducted by Kusumawati (2022) states that digital readiness can make it easier for SMEs to carry out digital transformation, and ultimately will improve the performance of SMEs so that they are more able to compete. Other research conducted by Eryc (2022) also stated similar results, namely that digital transformation carried out by SMEs due to demands during the pandemic, can improve the performance of these SMEs, consisting of increasing customer satisfaction, increasing communication and coordination between various parties, and increasing synchronization of data and information (Eryc, 2022) . Research by Pradisti, Suparno and Wulandari (2022), obtained results that the marketing performance of SMEs can be improved by the presence of digital transformation variables. This variable has the greatest influence on the marketing performance of SMEs (Pradisti et al., 2022) .

From the problems above, it can be concluded that the competitive advantage of a business in the current digital innovation era is very dependent on individual digital capabilities, business mindset, organizational resources, network capabilities and consumer information as an increase in sustainable competitive advantage. Every company faces business competition and in facing it, they rely on internal and external capacities and capabilities to improve company performance. However, in reality, businesses are experiencing dynamic changes due to digital transformation and the rapid progress of digital innovation. Business competition does not only occur offline , but also through the *online world* which is very dynamic and fast. Therefore, in order not to be left behind, companies must integrate resource advantages with advances in digital technology.

The concept of dynamic digital capabilities or abbreviated as KDD is the result of a synthesis of three concepts that link digital capabilities, entrepreneurial orientation and dynamic capabilities as a business survival strategy. The gap found in the theory of digital transformation and its influence on competitive advantage and business performance is that in the era of digital innovation, individual capabilities within a company are not only digital capabilities, but are also entrepreneurially oriented.

To bridge this gap, the author proposes an integration of theories, namely: digital capabilities, entrepreneurial orientation and dynamic capabilities into dynamic digital capabilities to increase competitive advantage and business performance (Korhonen & Gill, 2018; Miller, 1983; Lumpkin & Dess, 1996; Kay, Leih, & Teece, 2017).

This research has a number of objectives which are formulated based on the problems and research questions that have been asked. The main objective of this research is to examine a number of relationships between relevant variables, including the influence of digital transformation on competitive advantage, digital transformation on dynamic digital entrepreneur capabilities, dynamic digital transformation capabilities on competitive advantage, dynamic digital transformation capabilities on SME business performance, and competitive advantage on SME business performance. In addition, this research also aims to examine the mediating potential of dynamic digital entrepreneur capabilities and competitive advantage in the relationship between digital transformation and SME business performance. Through a series of in-depth analyses, this research is expected to provide a better understanding of the factors that influence the success of SME businesses in the era of digital transformation.

The research results are expected to have significant practical and theoretical value in the context of competitive advantage in the banking industry. This research can provide benefits to various parties, including academics and SMEs. For academics, it is hoped that this research can serve as a useful reference for further research, as well as provide in-depth insight into competitive advantage in the context of SMEs.

A number of studies on Small and Medium Industries (IKM) in Indonesia have evaluated the impact of digital transformation on various aspects, including competitive advantage and business performance. Research by Yuliantari & Pramuki (2022) on SMEs in Bali Province found that digital transformation had a positive effect on the competitive advantage and performance of SMEs, but the time span of the transformation was not explained in detail. Telagathi et al. (2022) focused on Weaving Crafts SMEs in Gianyar Regency, Bali with a qualitative approach, but the lack of quantitative data is a limitation. The research results of Suliah et al. (2022) in food SMEs in Sukabumi City indicates the

positive influence of dynamic capabilities and competitive advantage on SME performance, but the subjects and factors studied are still not varied. In addition, Pasaribu et al. (2022) in the Special Region of Yogyakarta found that digital transformation had an impact on business performance, although there were limitations in sample size due to the pandemic. Lastly, research by Pradisti et al. (2022) in Banyumas shows that digital transformation and digital marketing capabilities have an important role in improving the marketing performance of SMEs. Noviyana & Sitorus (2023) in West Jakarta highlighted the importance of managerial ability in optimizing the competitive advantage and financial performance of SMEs.

From the explanation above, it can be concluded that research on the influence of a company's digital capabilities on digital transformation and SME business performance is still very relevant and needs to continue to be developed. Even though a lot of research has been carried out on this topic, there are still many gaps or gaps in information that need to be refined.

Several things that still need to be researched include how big the impact of digital capabilities is on digital transformation and the business performance of IKMs and what the appropriate strategy is to increase the digital capabilities of IKMs. Apart from that, it is also necessary to identify the factors that influence the level of adoption of digital technology among SMEs and how to overcome the obstacles faced in developing digital capabilities. By conducting research related to this, it is hoped that it can help SMEs to optimize the potential of digitalization in improving business performance and maintaining the continuity of their business in this digital era.

RESEARCH METHODS

This research uses quantitative methods (Gill & Johnson, 2002). Primary data (primary) is used as a source of supporting data in carrying out research activities. Secondary data is supporting data and indicates the occurrence of the main problems behind the research theme of competitive advantage. Collecting primary data as the main material for this research begins with the required data collection methods. The main data was taken from primary data sources using the questionnaire method. Previous research added that primary data is accurate data to support the conduct of research. Considering that primary data is useful in answering research problems objectively. Data is obtained directly so as to guarantee the authenticity and accuracy of related sources regarding perceptions, opinions and preferences by filling out questionnaires directly by respondents (Lancaster, 2005).

The population in this study were all female Batik IKM owners in nine batik centers in Pekalongan City (Tharenou et al., 2013). This research will be conducted in Pekalongan City using a respondent sampling technique based on *total sampling* (Keith et al., 2013), due to the limited population.

Sample selection must meet the criteria, the purpose of selecting samples based on predetermined criteria is to help researchers overcome limitations encountered in the field. The sample criteria for this research are: (1) female Batik IKM business owner, (2) have a minimum of 2 years of service and (3) are willing to participate in the research. Next, determining the minimum sample size is calculated using calculations according to (Keith et al., 2013), namely 5 to 10 times the number of indicators. The number of female respondents who own Batik IKMs in nine Batik centers in Pekalongan City is 180 people (units). So the number of samples or respondents used in this research was 180 people.

The reason for selecting only female respondents in research on the business performance of Batik SMEs in Pekalongan is based on several specific research considerations. This was done as a step to prevent gender bias in research. The sampling technique used was *convenience sampling*, which is a sampling technique taken based on the ease of obtaining samples that have been determined by the researcher (Ferdinand, 2006). The data collected used questionnaires and questionnaires (Ferdinand, 2006). This research questionnaire uses a modified questionnaire, because the modified questionnaire allows adjustments to the specific research context. Research on the business performance of women who own Batik IKMs in Pekalongan City has unique and specific characteristics, so the modified questionnaire can be adapted to the context of this research.

Empirical validation test by distributing questionnaires that have been validated by experts, to a minimum of 30 respondents who have the same specificity as the research respondents. If the results

are valid and reliable, that is, they have a correlation coefficient of more than 0.3, then the research instrument's validity and reliability are guaranteed, so it can be used for research.

Questions in the questionnaire were created using a *Likert scale*, to measure and evaluate the respondent's level of agreement or disagreement with the question statements related to the variables studied. On the *Likert scale*, this research uses five answer choices arranged in different ranges. Respondents are asked to choose one of the answer options that best suits their opinion or perception of the statement given. The range of answer choices can be: Strongly Agree (score 5), Agree (score 4), Disagree (score 3), Disagree (score 2), Strongly Disagree with a score of 1 (Carifio & Perla, 2007).

Hypothesis testing uses an inferential statistical approach, *Structural Equation Modeling* (SEM), an alternative method, namely *Partial Least Square* (PLS). *Structural Equation Modeling*, the alternative method *Partial Least Square*, is a powerful analysis method because PLS does not assume that data must be measured on a certain scale, it can be applied to all data scales and in this study the Likert scale is used, which is ordinal data, does not require many assumptions and the sample size is not it must be big (Ghozali, 2014). The PLS evaluation model helps researchers to obtain latent variable values for prediction purposes. formally, the latent variable in the model is a linear aggregate of the indicators (Ghozali, 2014).

RESULT

A. The Influence of Digital Transformation on Competitive Advantage

Porter's (2001) view regarding the role of the internet in creating competitive advantage states that the increasing effect of complementarity between actors in the industry in the value creation process is still relevant to pay attention to today. Companies can establish partnership relationships even with their competitors in seeking new opportunities to develop their business. Companies can use other companies to develop the digitalization of their business through outsourcing.

Wardhana's research (2015) states that digital marketing strategies influence competitive advantage sequentially starting from the most dominant, namely: ease of finding products, availability of special offers, ability to identify and attract new customers, availability of product information or articles that support and provide product guidance. for consumers, the ability to create brand visibility and awareness, the ability to strengthen the brand image received by consumers, the availability of testimonial displays, the availability of the latest information via SMS-blogs, the availability of service assistance to consumers, the availability of online communication with entrepreneurs, the availability of online opinion support, the availability required supporting images such as photos or product illustrations, availability of video displays capable of visualizing the product or supporting presentations, availability of transaction tools and various payment media, availability of attached documents containing information in pdf, doc, xls formats, ppt, or others, and the availability of visitor records (Wardhana, 2015).

Rosli (2012) states that competitive advantage for SMEs is largely determined by the SMEs' ability to anticipate globalization. Measuring competitive advantage for SMEs uses dynamic capabilities, innovation and global orientation indicators. Dynamic capabilities include firm management, HRD, and marketing which are resource capabilities owned by the organization. Apart from that, SMEs must prioritize innovation and global orientation considering that these two factors also greatly determine the success of SMEs in competing in the global market. Fajar (2013) stated that the development of Information Technology (IT) has brought rapid changes to the business world. The need for time and cost efficiency causes every business actor to feel the need to implement information technology. It is not only large companies that need to apply this technology, Small and Medium Enterprises (SMEs) are also required to implement it in order to increase their business competitiveness. Based on the explanation above, a hypothesis is formulated:

H1: There is an influence of digital transformation towards competitive advantage.

B. The Influence of Digital Transformation on Dynamic Digipreneur Capabilities

Research by Sulistiyani et al. (2020) stated that there is a dominant influence between variables, shown by the relationship between digital transformation and knowledge sharing capabilities. Digital requires companies to develop two capabilities, namely Digital Capability and Leadership Capability (Prihanto, 2018).

To ensure that the momentum of digital transformation continues, three aspects of digital transition need to be managed: first, building a foundation of capabilities, second, aligning the reward structure, third, measuring and monitoring digital progress (Prihanto, 2018). Digital technology can be a powerful tool to bring brands closer to consumers and provide extraordinary experiences to customers (Royyana, 2021). Based on the explanation above, a hypothesis is formulated:

H2: There is an influence of digital transformation on dynamic digital entrepreneur capabilities

C. The Influence of Dynamic Digipreneur Capabilities on Competitive Advantage

Information Technology Capability has a significant influence on Competitive Advantage in Culinary SMEs in DKI Jakarta (Wijaya et al., 2022). Implementing strategies in the use of information technology is useful for increasing the ability to adapt to the dynamics of a market environment that continues to develop. The use of information technology will help production run, making it easier for business actors in their business activities so they can win in competition. Tyoso and Haryanti's (2020) research has proven that there is an influence of digital capability variables on the competitive advantage and performance of Fashion SMEs in Jakarta (Tyoso & Haryanti, 2020). Digital capability is formed by creative, critical use, ICT Proficiency, learning, participating, and self-actualising. Of the six dimensions, the main dimension is self-actualization. This has been proven to have an influence on competitive advantage.

Information technology capabilities are seen as inherent in a business process and activity to create competitive advantage. The higher the level of consumers shopping at a Culinary IKM, the greater the competition between Jakarta Culinary IKM players (Wijaya et al., 2022). One of the weaknesses of IKM is the limited capability and aggressiveness of IKM owners and workers to improve business performance by utilizing digital media. There are several factors that can hinder the use of the internet in SMEs, including incompatibility of business processes, limited knowledge in terms of internet use, limited managerial abilities in internet use, limited number of computers and internet connections, lack of trust and security in internet use, and high costs. computer development and maintenance (Tyoso & Haryanti, 2020). Based on the explanation above, a hypothesis is formulated:

H3: There is an influence of dynamic digital entrepreneur capabilities on competitive advantage.

D. The Influence of Dynamic Digipreneur Capabilities on SME Business Performance

Research conducted by Wiklund & Shepherd (2005), entrepreneurial orientation can influence small business performance through several factors (Wiklund & Shepherd, 2005). First, entrepreneurial digital capabilities can increase the accessibility of small businesses to wider markets through the use of available digital platforms and information technology. This can help small businesses to reach potential customers from various regions and increase sales of products and services.

Other research conducted by Attaran & Woods (2017) found that entrepreneurial digital capabilities can also increase company efficiency and productivity. Companies that are able to utilize digital technology in the production and distribution process tend to be more efficient in managing inventory, processing orders, and delivering products. This can help SMEs reduce operational costs and increase productivity which can ultimately improve business performance (Attaran, 2017).

Apart from that, digital entrepreneurial capabilities can also increase innovation in IKM products and services. According to research by Liborio, Berrah & Tabourot (2021), SMEs that are able to utilize digital technology in the product and service development process tend to be more innovative in facing increasingly fierce market competition. Continuous product and service innovation can help SMEs to maintain their market share and improve their business performance in the long term.

Entrepreneurial digital capabilities can also strengthen SME business relationships with customers. SMEs that are able to utilize digital technology in interactions with customers tend to be more responsive in resolving customer complaints and requests. This can help SMEs to build stronger business relationships with customers and increase customer satisfaction which can ultimately improve business performance (Hasan et al., 2021).

Based on these studies, it can be concluded that entrepreneurial digital capabilities can influence SME business performance in various ways, including increasing market accessibility, efficiency and productivity, innovation, and business relationships with customers. Therefore, SMEs need to strive to develop their digital entrepreneurial capabilities in order to strengthen business performance and

survive amidst increasingly competitive market competition. Based on the explanation above, a hypothesis is formulated:

H4: There is an influence of dynamic digital entrepreneur capabilities on SME business performance.

E. The Influence of Competitive Advantage on SME Business Performance

Competitive advantage is often considered a precursor to business performance, as it provides the foundation for sustainable success over the long term. One of the reasons why competitive advantage comes before business performance is that it allows companies to differentiate themselves from competitors by offering unique products or services, which can lead to increased market share and profitability. According to Porter (1985), competitive advantage can be achieved through cost leadership or differentiation strategies, both of which require a strong understanding of customer needs and preferences.

Another reason why competitive advantage comes before business performance is that it allows companies to adapt to changes in the business environment, such as technological advances or shifts in consumer trends. This ability to be flexible and agile, can help companies to stay ahead of competitors and remain relevant in the market. Teece et al. (1997) argue that dynamic capabilities, which enable companies to adapt quickly to changes in the business environment, are a key driver of sustainable competitive advantage.

Competitive advantage can lead to improved business performance by attracting and retaining customers, investors and employees. A strong reputation for quality, innovation, or customer service can create a positive image for a company, which can improve a company's competitive position and financial performance. According to Barney (1991), resources and capabilities that are valuable, rare, difficult to imitate, and cannot be replaced are the main source of sustainable competitive advantage.

In short, competitive advantage comes before business performance because it allows companies to differentiate themselves, adapt to changing business environments, and attract and retain customers, investors, and employees. The concepts of competitive advantage, dynamic capabilities, and valuable resources and capabilities are supported by a wide range of academic literature, including Porter (1985), Teece et al. (1997), and Barney (1991).

According to research conducted by Agwu (2018), competitive advantage can influence the business performance of SMEs by increasing market share and profits. SMEs that have strong competitive advantages tend to be more successful in attracting customers and maintaining their market share. This can increase SMEs' income and profits significantly. Apart from that, competitive advantage can also increase the efficiency and productivity of SMEs, thereby reducing operational costs and improving financial performance.

Furthermore, according to research by Nizam, Mufidah & Fibriyani (2020) competitive advantage can improve the marketing performance of SMEs (Nizam et al., 2020). SMEs that have strong competitive advantages tend to find it easier to market their products or services to potential customers. This is because competitive advantage can be the main reason why customers should choose IKM products or services over products or services from competitors. In the long term, better marketing effectiveness can help SMEs to improve their business performance by attracting new customers and retaining old customers (Azizah & Maftukhah, 2017).

From these studies, it can be concluded that competitive advantage can influence SME business performance in various ways, including increasing market share, profits, efficiency and productivity, reputation, and marketing effectiveness. Therefore, SMEs must strive to develop strong competitive advantages in order to improve their business performance in an increasingly competitive market. Based on the explanation above, a hypothesis is formulated:

H5: There is an influence of competitive advantage on SME business performance.

F. Dynamic Digipreneur Capabilities Mediate the Effect of Digital Transformation on Competitive Advantage

Entrepreneurial-oriented dynamic digital capabilities refer to a business's ability to adapt and innovate in response to digital transformation, while maintaining an entrepreneurial mindset focused on identifying and exploiting new opportunities. This combination of factors can help businesses to increase their competitive advantage, as they are better able to respond to changing market conditions and take advantage of emerging trends.

Dynamic, entrepreneurially oriented digital capabilities are critical in today's rapidly evolving business landscape, where technological advances and digital transformation have disrupted traditional industries and created new opportunities for growth. By leveraging digital technology and cultivating an entrepreneurial mindset, businesses can identify new customer needs, develop innovative products and services, and create new revenue streams. Dynamic digital capabilities also enable businesses to adapt quickly to changing market conditions, such as shifting consumer preferences, technological disruptions, or regulatory changes. This agility and adaptability can be a key source of competitive advantage, as businesses that are more agile and responsive to change are better equipped to succeed in today's fast-paced business environment.

One way entrepreneurially oriented dynamic digital capabilities can increase competitive advantage is through the development of new products and services that utilize digital technology. For example, businesses that can use data analytics to identify customer needs and preferences can develop more targeted marketing campaigns, leading to increased sales and market share.

Another way in which entrepreneurially oriented dynamic digital capabilities can enhance competitive advantage is by improving operational efficiency. By leveraging digital technology to streamline internal processes and workflows, businesses can reduce costs and increase productivity, resulting in higher profits and a stronger market position.

Additionally, entrepreneurially oriented dynamic digital capabilities can facilitate collaboration and innovation in business, leading to the development of new products, services and business models. By cultivating a culture of creativity and experimentation, businesses can stay ahead of the competition and maintain a competitive advantage.

Several studies have demonstrated a positive relationship between entrepreneurially oriented dynamic digital capabilities and competitive advantage. For example, a study by Lee and Lim (2018) found that digital entrepreneurial orientation is positively related to the development of dynamic capabilities, which in turn has a positive impact on firm performance. Another study by Zahra, Sapienza, and Davidsson (2006) shows that entrepreneurial orientation is positively related to company growth and performance. Additionally, a study by Chen and Huang (2018) found that dynamic capabilities mediate the relationship between digital transformation and firm performance.

Sutapa's (2014) research states that innovation capability has a significant effect on competitive advantage. Information Technology Capability has a significant influence on Competitive Advantage in Culinary SMEs in DKI Jakarta (Wijaya et al., 2022).

Wijaya and Simamora's research states that information technology capability has a significant effect on competitive advantage (Wijaya et al., 2022), information technology capability has a significant effect on competitive advantage through strategy. A company's IT capabilities can accumulate over time along with the development of information technology and its use in various fields. According to the resource based view (RBV), IT capabilities can be considered as a form of sustainable advantage so that IT capabilities take time to develop and are likely to become more significant and effective if they are maintained for a longer time (Kim et al., 2018). Based on the explanation above, the hypothesis of this research is:

H6: Dynamic digital entrepreneur capabilities mediate the influence of digital transformation on competitive advantage.

G. Competitive Advantage Mediates the Effect of Digital Transformation on SME Business Performance

Competitive advantage is a critical factor that influences business performance, especially in the context of digital transformation. A study by Papadopoulos et al. (2018) highlighted that competitive advantage plays an important role in the adoption and implementation of digital transformation initiatives in organizations. By utilizing digital technology, companies can increase efficiency, reduce costs, improve customer experience, and gain a competitive advantage in the market. However, digital technology adoption alone may not be enough to achieve sustainable competitive advantage, as competitors can quickly imitate digital innovations. Therefore, companies need to build and maintain competitive advantages by leveraging dynamic capabilities, such as strategic agility, innovation, and learning, to continuously adapt and respond to changing market conditions.

Research by Tarafdar et al. (2019) further supports the notion that competitive advantage mediates the relationship between digital transformation and business performance. In their study, they

found that digital transformation initiatives had a positive impact on competitive advantage, which in turn had a positive impact on business performance. They argue that companies that adopt digital transformation initiatives and build competitive advantages are better positioned to achieve superior business performance than those that do not.

Overall, competitive advantage plays an important role in bridging the relationship between digital transformation and business performance. By utilizing digital technology and building dynamic capabilities, companies can build and maintain competitive advantages, which in turn drive superior business performance. Based on the explanation above, a hypothesis is formulated:

H7: Competitive Advantage mediates the influence of Digital Transformation on SME Business Performance.

H. Competitive Advantage mediates the influence of dynamic digital entrepreneur capabilities on SME business performance

The concept of dynamic capabilities refers to a company's ability to integrate, build, and reconfigure internal and external resources to respond effectively to a rapidly changing environment. Dynamic digital capabilities, on the other hand, refer to a company's ability to leverage digital technologies to develop and enhance their dynamic capabilities. Entrepreneurial orientation, in turn, refers to a company's propensity toward innovation, risk-taking, and proactive strategies.

A study by Benitez et al. (2021) found that dynamic digital capabilities mediate the relationship between entrepreneurial orientation and company performance. In other words, companies that are more entrepreneurially oriented and have stronger dynamic digital capabilities tend to perform better than companies that are less innovative and less digitally capable. Additionally, these companies are more likely to achieve sustainable competitive advantage, as they are better able to adapt to changing market environments and create value for their customers.

Another study by Yang et al. (2019) also found that dynamic capabilities mediate the relationship between digital transformation and firm performance. Companies that are able to leverage digital technology to enhance their dynamic capabilities are better positioned to create value for their customers, respond to changing market environments, and ultimately achieve superior financial performance.

Overall, dynamic digipreneur capabilities can create a virtuous cycle of performance improvement through competitive advantage, thereby enabling companies to grow sustainably and outperform their competitors in the long term. Based on the explanation above, the hypothesis of this research is:

H8. Competitive advantage mediates the influence of dynamic digital entrepreneur capabilities on SME business performance.

I. Dynamic Digipreneur Capabilities and Competitive Advantage mediate the Influence of Digital Transformation on SME Business Performance

Dynamic digital capabilities or also called entrepreneurially oriented dynamic digital capabilities refer to a company's ability to combine an entrepreneurial mindset with the digital capabilities needed to adapt to changing market conditions. These capabilities can facilitate the digital transformation process, which is critical to achieving superior business performance in today's competitive business environment. The combination of entrepreneurial orientation and dynamic digital capabilities can enable companies to leverage digital technologies to create new business opportunities, increase customer engagement, and increase operational efficiency.

Several studies have found evidence to support a positive relationship between digital capabilities and business performance. For example, a study by Yang and colleagues (2021) found that digital technology adoption can improve business performance for small and medium enterprises (SMEs). Similarly, a study by Ooi et al. (2020) found that digital transformation can increase customer engagement and improve business performance.

In addition, several studies have also found that an entrepreneurial mindset can contribute to better business performance. For example, a study by Kautonen et al. (2015) found that an entrepreneurial mindset is positively related to company growth. In addition, a study by Delmar and Shane (2004) found that entrepreneurial orientation was positively related to company performance. So dynamic digital capabilities that are entrepreneurially oriented can bridge the relationship between

digital transformation and business performance. By combining an entrepreneurial mindset with digital capabilities, companies can utilize digital technology to create sustainable competitive advantages and achieve superior business performance. Based on the explanation above, a hypothesis is formulated: H9: There is an influence of Digital Transformation on Business Performance with Dynamic Digital Entrepreneur Capabilities and Competitive Advantage as Intervening variables.

The data provided includes a number of hypotheses related to digital transformation, competitive advantage, dynamic digital entrepreneur capabilities, and SME (Small and Medium Enterprises) business performance. Let's discuss each hypothesis separately:

1. **H1: There is an influence of digital transformation on competitive advantage.** Porter's (2001) view states that the internet plays an important role in creating competitive advantage by enabling companies to form partnerships with their competitors and develop business digitalization. This supports this hypothesis.
2. **H2: There is an influence of digital transformation on dynamic digital entrepreneur capabilities.** Research shows that digital transformation impacts knowledge sharing capabilities and digital capabilities. This shows that digital transformation can influence the capabilities of dynamic digital entrepreneurs.
3. **H3: There is an influence of dynamic digital entrepreneur capabilities on competitive advantage.** There is evidence from various studies showing that entrepreneurially oriented dynamic digital capabilities can influence competitive advantage.
4. **H4: There is an influence of dynamic digital entrepreneur capabilities on SME business performance.** Research shows that entrepreneurial-oriented dynamic digital capabilities can influence the business performance of SMEs.
5. **H5: There is an influence of competitive advantage on SME business performance.** Competitive advantage can influence SME business performance by increasing market share, profits, efficiency, reputation and marketing effectiveness.
6. **H6: Dynamic digital entrepreneur capabilities mediate the influence of digital transformation on competitive advantage.** There is evidence to support that dynamic digital capabilities can act as mediators between digital transformation and competitive advantage.
7. **H7: Competitive Advantage mediates the influence of Digital Transformation on SME Business Performance.** There is support from research that competitive advantage can be a mediator between digital transformation and SME business performance.
8. **H8: Competitive Advantage mediates the influence of dynamic digital entrepreneur capabilities on SME Business Performance.** There is evidence that competitive advantage can act as a mediator between dynamic digital entrepreneur capabilities and SME business performance.
9. **H9: There is an influence of Digital Transformation on Business Performance with Dynamic Digital Entrepreneur Capabilities and Competitive Advantage as Intervening variables.** This hypothesis implies that digital transformation can influence the business performance of SMEs through dynamic digital entrepreneur capabilities and competitive advantage as mediators. This makes sense because digital transformation can impact capabilities and advantages, which in turn impact business performance.

CONCLUSION

The conclusion of this research is that digital transformation has a significant influence on various aspects of business, including competitive advantage, dynamic digital entrepreneur capabilities, and SME business performance. Competitive advantage can mediate the influence of digital transformation on IKM business performance, likewise dynamic digital entrepreneur capabilities can act as a mediator in the relationship between digital transformation and competitive advantage and IKM business performance. In the current business context which is heavily influenced by digital technology, it is important for companies, especially SMEs, to understand the role of digital transformation in achieving competitive advantage and improving their business performance. Thus, companies can take appropriate actions to optimize the use of digital technology and maintain their competitiveness in an increasingly competitive market.

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