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The Impact of Digital Culture on the Competitive Advantage of SMEs

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Abstract: The purpose of this study is to analyze the impact of digital culture on the competitive advantage of SMEs. This research uses quantitative research with a descriptive analysis approach. The data used by researchers are primary data and secondary data. Data collection tools used by researchers are questionnaires and study centers. The population in this study were all MSME actors in East Jakarta, while the sample in this study was 100 respondents who were selected using the purposive side method. Testing the research data using the validity test, reliability test, measurement test, and regression weight test. Based on the results of data processing and analysis, it can be concluded that: 1) Digital Safety has a positive and significant effect on the competitiveness of MSMEs with a C.R. (critical ratio) result of $5.743 > 1.96$ and a probability value of $0.000 < 0.05$; 2) Digital Ethics has a positive and significant impact on the competitiveness of MSMEs with a C.R. (critical ratio) result of $-2.038 < 1.96$ and a probability value of $0.042 < 0.05$; and 3) Digital Skills have a positive and significant impact on the competitiveness of MSMEs with a C.R. (critical ratio) result of $6.432 < 1.96$ and a probability value of $0.000 < 0.05$.

Keywords: *Impact, Digital Culture, Competitive Advantage, MSME.*

INTRODUCTION

Every year, even every month, there are many new MSMEs from various types and circles in the technology field. At least until now, there are thousands of local MSMEs in Indonesia. This is an important historical record for the Indonesian nation to have many MSMEs competing in the international arena (Rozdesvenaskaia & Yarina, 2021; Rajkovic et al., 2021). The State of Indonesia must utilize this acceleration to develop its economy. The large market makes this startup business opportunity wide open because the creative economy is used as a goldfield for the country's progress (Ivanova, 2021).

Some of the reasons why Indonesia needs to develop a creative economy, among others, because the creative economy has great potential in several ways: 1) Making a significant economic contribution, the success of the creative economy will certainly advance the Indonesian economy in the international arena; 2) Creating a positive business climate, with the creative economy creating a positive competitive climate because each startup wants to be the best; 3) Building the image and identity of the nation, the success of the creative economy will provide a special characteristic for Indonesia, namely as a country that adheres to a creative economy; 4) Developing an economy based on renewable resources; and 5) Creating innovation and creativity which are the competitive advantages of a nation; and 6) Providing a

positive social impact, the state of society in the current era of globalization tends to be inseparable from existing information technology (Zlita & Zvirbule, 2020; Mietlich et al., 2020). With information and communication technology, it is easier for people to establish relationships globally. Because technology is quite sophisticated today, it has allowed people to enter the international world easily with the existence of communication support features (Ali & Anwar, 2021).

The increase in the number of internet users in Indonesia from 30 million people in 2009 to 171 million people in 2018 needs to be addressed wisely, especially for companies that want to win the business competition. Changes in consumer behavior due to the development of information and telecommunications technology must be researched and studied continuously so that the decisions taken can meet consumer wants and needs (Narayana & Brushal, 2020; Zhang & Breedlove, 2021).

The development of information technology makes it possible to carry out various activities faster, more precisely, and more accurately so that performance and productivity are expected to be improved (Darby et al., 2020; Sintes et al., 2021). The role of information technology is very important now and in the future. The information technology and telecommunications sectors are important sectors; those who own and use this technology will become leaders in their fields. The development of the number of MSMEs is presented in the following figure:

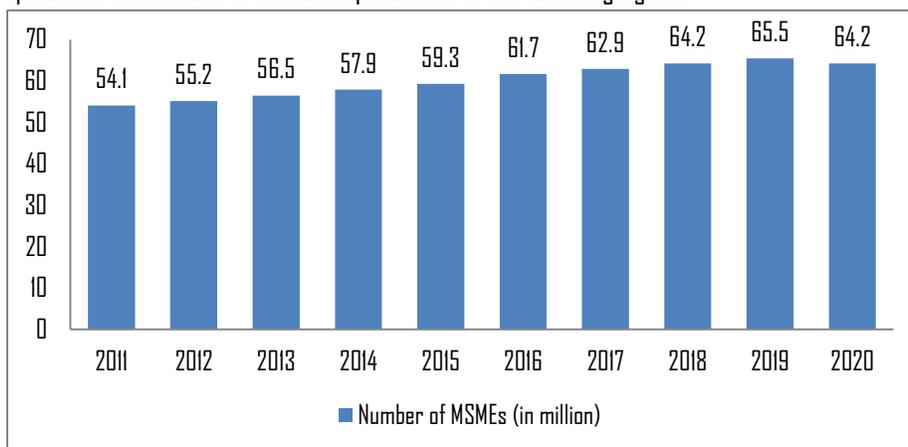


Figure 1. Number of MSMEs (in a million)

Source: Ministry of Cooperatives and SMEs (2020)

Based on data from the Asian Development Bank, although some activities have resumed, the demand for Indonesian MSME products will still decline in 2021. Based on data obtained from a survey involving 2,509 Indonesian MSME actors, ADB found that the closure of micro-enterprises has decreased from 48 percent in March-April 2020 to five percent for the same period in 2021. Meanwhile, small business closures decreased from 54.4 percent to 1.8 percent, and medium-sized business closures decreased from 31.3 percent to 63 percent.

The presence of information technology affects individuals, but business-oriented organizations (companies) are one of the entities that get a big positive influence from the development of this information technology. Many parties have used information systems and technology as a supporting tool to improve company performance from time to time; besides that, they are also used further as a tool or main weapon in competing (Cahyadi & Magda, 2021). There are many examples of companies that went bankrupt because they could not compete with their competitors who used information technology intensively to win the competition.

Some of the advantages that the internet has, especially in terms of efficiency, can change selling and buying. This has influenced consumer behavior from offline to online, and Indonesia is no exception. This change in buying behavior has

led to destructive innovation in shopping centers in several cities in Indonesia, as seen from the lack of buyers and the closing of shops in these shopping centers (Bakumenko & Sigal, 2020).

The government continues to encourage MSME actors to level up in their business. This pandemic is increasingly accelerating the preparation for this digital transformation step. President Jokowi instructed to accelerate the process. The acceleration can be done by deploying or providing the infrastructure; currently, only 60% of Indonesian people can access the internet, and there is still a lack of digital infrastructure. The MSME Go Online movement occurs in several stages, which are presented in the following figure:

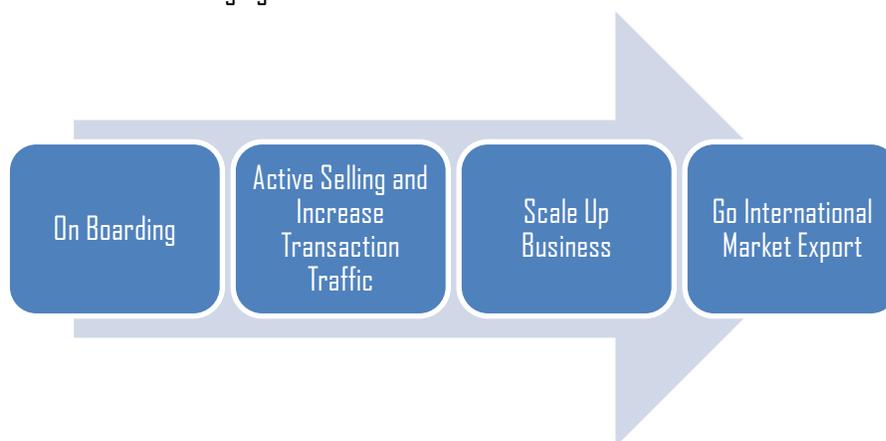


Figure 2. Stages of the Go Online MSME Movement

Source: Ministry of Information

Concerning market exports, the government stated that MSMEs in the regions are so that MSME actors can export products facilitated and facilitated by the marketplace to reach international markets.

Indonesia's economic fundamentals are still fragile, requiring the government to continue empowering Micro, Small, and Medium-Sized Enterprises (MSMEs), an abbreviation for which the authors will use in the future. This sector can absorb a sufficient number of workers and create opportunity for MSMEs to grow and compete with major capital-intensive businesses (Sanchez et al., 2021). MSMEs' survival cannot be questioned, as they have demonstrated their ability to survive and become the engine of the economy, particularly in the aftermath of the economic crisis. On the other hand, MSMEs confront numerous challenges, including a lack of operating capital, insufficient human resources, and a lack of scientific and technological knowledge. Another barrier that MSMEs encounter is their interaction with uncertain business prospects and a lack of stability in their planning, vision, and mission. This is because, in general, MSMEs are income generators, i.e., they increase income, and they exhibit the following characteristics: they are family-owned, employ relatively simple technology, lack access to money (bankable), and there is no separation of business and personal capital (Benscik, 2020).

MSMEs' empowerment in the face of globalization and intense competition has compelled them to address global concerns such as boosting product and service innovation, improving human resources and technology, and expanding their marketing area. This must be done to raise the selling value of MSMEs, particularly so they can compete with foreign products that are progressively entering Indonesia's industrial and manufacturing hubs, given that MSMEs are an economic sector capable of employing the majority of the country's workers (Juliyanti & Wibowo, 2021).

Another issue that MSMEs encounter, and which is also a vulnerability, is a lack of access to information, particularly market intelligence (Boksa et al., 2020). This presents a barrier to selling its products because to limited access to market knowledge, resulting in a lack of market orientation and low worldwide competitiveness. Due to a lack of

market information, MSMEs are unable to direct their business development in a clear and focused manner, resulting in stagnation. The ability of MSMEs to weather the currents of global competition needs to be explored further in order for the Indonesian economy to remain stable. Additionally, it incorporates a human resource component. The strategy for MSMEs survival can be accomplished by increasing their competitiveness and developing human resources in order for them to have value and be able to survive in the ACFTA market, including through lending (KUR), providing access to marketing information, training microfinance institutions through capacity building, and developing information technology (I.T.) (Garzoni et al., 2020).

Similarly, additional efforts might be undertaken through campaigns promoting domestic products and sponsoring microfinance institutions. Microfinance has developed into a global conversation, with many believing that it is a means of eradicating poverty (ref). Numerous global and bilateral institutions foster microfinance through a variety of cooperative schemes. Numerous developing countries have also attempted to expand microfinance as part of their varied development plans. Non-governmental organizations (NGOs) are also included in the application of microfinance.

LITERATURE REVIEW

MSME Empowerment

MSMEs are the most numerous business segment in the Indonesian economy and have demonstrated their ability to survive a variety of shocks and economic crises. Concerning businesses that fit into this category, as defined by the Micro, Small, and Medium-Sized Enterprises (MSMEs) Act of 2008, various criteria are utilized to define the definition and criteria for Micro, Small, and Medium-Sized Enterprises (MSMEs) (Roberts et al., 2021).

Apart from being based on the law, MSMEs are classified according to their growth stage, as follows: a) Livelihood Activities, which are Small and Medium-Sized Enterprises that are used as job chances to earn a livelihood, or what is more frequently referred to as the informal sector. Examples include street vendors; b) Micro Enterprise, which is a Small and Medium Enterprise that resembles a craftsman but lacks entrepreneurial characteristics; c) Small Dynamic Enterprise, which is a Small and Medium Enterprise that possesses an entrepreneurial spirit and is capable of accepting subcontracting and export work; and d) Fast Moving Enterprise, which is a Small and Medium Enterprise that possesses an entrepreneurial spirit and is on the verge of transforming into a Big Business (U.B.) (2021). (Kis, 2021).

Bank Indonesia provides a five-finger concept to empower Indonesia's MSME sector, each of which can play a role, namely: 1) The thumb, which symbolizes the role of financial institutions in financial intermediation, particularly in the provision of loans/financing to micro, small, and medium-sized customers. Medium and as agents of development; 2) The index finger represents the regulator, specifically the Government and Bank Indonesia, which act as real estate and fiscal regulators, respectively. Issuing business permits, certifying land so that MSMEs can use it as collateral, fostering an enabling environment, and serving as a source of financing; 3) The middle finger, representing a catalyst that assists banks and MSMEs, including Promoting Enterprise Access to Credit (PEAC) Units, a credit guarantee company; 4) The ring finger, representing a facilitator that assists MSMEs, particularly micro-enterprises, in obtaining bank financing (Campbell et al., 2021).

Collaboration between Micro, Small, and Medium-Sized Enterprises (MSMEs) and commercial banks is one of numerous examples of symbiotic mutualism in the economy. This collaboration benefits not just them, but also the community and the government. The community benefits from job availability, while the government benefits from

increased Gross Domestic Product (GDP), which accounts for more than half of Indonesia's GDP. However, any cooperation must conform to the precautionary principle in order to assure mutual benefit (Sonar et al., 2020).

Increasing the Competitiveness of Indonesian Products

Based on the analysis carried out by the Organization for Economic Co-operation and Development, daytime power can be defined as the ability of a company, industry, region, or country to produce relatively high and sustainable income and employment factors to face competition on an international scale. Therefore, the competitiveness of companies on a micro-scale must first be thoroughly tested in the industrial sector (Rossato & Castellani, 2020).

A country's competitiveness in international trade is mostly governed by two factors: comparative advantage and competitive advantage. Additionally, comparative advantage factors are natural elements, whereas competitive advantage factors are acquired factors or may be developed/created. Along with these two elements, a country's level of competitiveness is determined by what is known as the Sustainable Competitive Advantage (SCA). This is primarily in light of the fact that global competition is becoming increasingly difficult, or Hyper Competitive (Dinca et al., 2019).

The examination of ultra-tight competition demonstrates that, in the end, each country will be compelled to ponder or develop an adequate strategy in order to survive in the face of extremely harsh global competition. According to Hamdy Hadi, the correct strategy is the SCA strategy (Sustained Competitive Advantage Strategy), or a strategy built around integrated planning and operational activities that connects the external and internal environments for the purpose of achieving short- and long-term goals while effectively and efficiently maintaining/growing sustainable real income (Zhen et al., 2021).

This requires a review of policies, programs, and development activities that have been carried out so far. Ministries and institutions in charge of each of the downgraded pillars and indicators need to work more than usual to raise the rankings on each of these competitiveness indicators and pillars. In addition, various general factors that hinder the increase in competitiveness, as shown in Table 2, need to be addressed quickly so that next year and beyond, Indonesia's competitiveness ranking does not decline but increases steadily (Taylor & Murphy, 2004).

MSME Economic Digitization Culture

Indonesia outperformed other ASEAN countries in e-commerce for the first time. Indonesia's population growth goes hand in hand with the growth of e-commerce, with a transaction value of US\$ 1.1 billion in 2014. This is a double-edged sword that must be addressed from a different perspective, namely an achievement for the Indonesian economy and a challenge for the government as policymakers, are they able to develop the e-commerce sector, especially for MSMEs.

The internet is a basic need in this millennial era. There is not a single job that does not require internet. The internet facilitates all aspects of life, ranging from education, entertainment, information, public service, knowledge, advertising, investment, interaction, communication, and business and selling. All people can enjoy the internet, even if you have to sacrifice credit or quota. The existence of the internet is expected to be a supporting and strengthening instrument for creative economic actors and SMEs in developing their business and marketing their sales (Yousef et al., 2021).

Business people are starting to use information technology and telecommunications to run and support their business activities. The movement and changes in doing business that is increasingly fast towards digitalization force business people to adapt to these changes. For large companies, business patterns that lead to the digitalization process are not too constrained due to the characteristics of large companies with good enough resources. However, this

digitization process will require a lot of preparation for MSMEs. Among the MSME problems, including the lack of knowledge about the establishment of MSMEs, not having permits, disputes over Intellectual Property Rights (IPR), and the most basic problem is marketing strategies through digital (Jun et al., 2021).

Through the Creative Economy (from now on referred to as Creative Economy) and Micro, Small and Medium Enterprises, the community generally dominates business activity in Indonesia (from now on referred to as MSMEs). This frame was chosen because the concept is straightforward and economical, particularly for the lower middle class (Peijian & Siwen, 2020). Nonetheless, actors in the Creative Economy and micro- and small-sized enterprises (MSMEs) must keep up with the times in order to avoid falling behind large corporations and competing in a tight and competitive market. As a result, they must accommodate their digital presence via the internet and other virtual or digital media. Community empowerment through science and technology is critical in today's information age (Marcysiak & Pleskacz, 2021).

Digitization is not only matters related to the economy or business. Digitization must be protected with other instruments so that the business conduct of the perpetrators is as expected by getting the maximum profit and minimizing the risk, namely material or immaterial losses. This digitization is a facility that the state has facilitated by ratifying several laws and regulations.

METHOD

This research uses quantitative research with a descriptive analysis approach. The data used by researchers are primary data and secondary data. Data collection tools used by researchers are questionnaires and study centers. The population in this study were all MSME actors in East Jakarta, while the sample in this study was 100 respondents who were selected using the purposive side method. The digital culture variables in this study consisted of Digital Safety (X1), Digital Ethics (X2), and Digital Skills (X3). At the same time, the dependent variable in this study is the competitiveness of SMEs. Testing the research data using the validity test, reliability test, measurement test, and regression weight test.

RESULT AND DISCUSSION

Validity Test

Before testing using SEM, I first tested the validity of each question and a questionnaire totaling 40 questions. This validity test tests how well an instrument can measure what will be measured in a study. The results of the validity test in this study are presented in the following table:

Table 1. Validity Test Results

Variable	Item	R count	Description
Digital Safety	a1	.804	Valid
	a2	.598	Valid
	a3	.806	Valid
	a4	.812	Valid
Digital Ethics	b1	.804	Valid
	b2	.801	Valid
	b3	.839	Valid
	b4	.823	Valid
	b5	.967	Valid
Digital Skills	c1	.822	Valid

	c2	.837	Valid
	c3	.837	Valid
	c4	.775	Valid
	c5	.742	Valid
MSME Competitiveness	d1	.839	Valid
	d2	.988	Valid
	d3	.936	Valid
	d4	.886	Valid
	d5	.837	Valid
	d6	.993	Valid

Source: processed data

The minimum requirement for a questionnaire to be declared valid is the value of r arithmetic $>$ r table; if this is not met, then the questionnaire is declared invalid. Based on the validity test results using the Pearson product-moment correlation on all questions in the questionnaire with r table (0.361). While the value of all variables is above 0.361, then all questions in the questionnaire can be concluded to have good validity.

Reliability Test

After testing the validity, the next step is to test the reliability. A reliability test is used to test the consistency of a questionnaire being tested to be called consistent. Each research question refers to whether data can be trusted or not. The results of the reliability test in this study are presented in the following table:

Table 2. Reliability Test Results

Variable	Cronbach Alpha Value	Critical Point	Decision
Digital Safety	.715	0.7	Reliable
Digital Ethics	.812	0.7	Reliable
Digital Skills	.839	0.7	Reliable
MSME Competitiveness	.831	0.7	Reliable

Source: processed data

Reliability is usually written in the form of coefficients; the higher the coefficient, the higher the reliability of a questionnaire. Based on research conducted by Ezequiel Rey in 2020, reliability can be understood as a series of consistent measurements if the measurements made with the measuring instrument are repeated. In the reliability test, the sample used still refers to the sample in the validity test, which is 30 respondents. Every question that has been tested for validity and is declared invalid will not be involved in reliability testing. Each question is reliable if it has a Cronbach's Alpha value $>$ 0.70. SPSS 26 program is already being used for testing. Based on the author's calculation of the reliability test. Cronbach's alpha values for all research variables were found to be greater than 0.7, which was 0.954. This indicates that the instrument produces trustworthy results, and hence qualifies as a reliable and consistent instrument.

Measurement Test

The measurement test is carried out to determine how accurately an indicator describes the existing latent variables. Each model will measure whether the variable has good accuracy if the manifest variable of the latent variable has a low error value and component factor loading has a high value. The following are the results of the research on latent variables in the study:

Table 3. The Results of the Significance Test of the Validity of the Latent Variable

Manifest Variable	Latent Variables	Estimate	S.E.	C.R.	P	Label
a4	Digital Safety	.771				
a3		.708	.058	17.417	***	Significant
a2		.855	.052	22.208	***	Significant
a1		.778	.062	13.412	***	Significant
b5	Digital Ethics	.845				
b4		.645	.055	9.713	***	Significant
b3		.937	.058	18.779	***	Significant
b2		.975	.062	23.048	***	Significant
b1		.921	.062	19.943	***	Significant
c5	Digital Skills	.873				
c4		.807	.074	12.464	***	Significant
c3		.978	.083	15.734	***	Significant
c2		.978	.088	15.753	***	Significant
c1		.768	.074	11.729	***	Significant
d1	MSME Competitiveness	.621				
d2		.859	.084	12.868	***	Significant
d3		.817	.115	12.543	***	Significant
d4		.646	.07	7.864	***	Significant
d5		.838	.09	11.813	***	Significant
d6		.617	.114	7.427	***	Significant

Source: Processed Data

Based on the results of the CFA test in the table above, it can be concluded that the significance test and the validity of the latent variable have a value that is a requirement, namely Critical Ratio > 1.96 and significant with a p-value = 0.001 (sign ***) which has met the requirements where the value prob(p) < 0.05. Estimated value or standard loading factor > 0.05.

Hypothesis testing

The proposed hypothesis is tested to find out the truth to be accepted. The accepted hypothesis is indicated by the value of Critical Ratio > 1.96 (Z critical 95%) with probability P < 0.05. The hypothesis is declared to have no effect if it does not show a positive and significant effect on the variables being studied. Following are the results of hypothesis testing in the following table:

Table 4. Regression Weights Test Results

			Estimate	S.E.	C.R.	P	Result
MSME Competitiveness	←	Digital Safety	.281	.048	5.743	***	Accepted
MSME Competitiveness	←	Digital Ethics	-.099	.049	-2.038	.042	Rejected
MSME Competitiveness	←	Digital Skills	.375	.059	6.432	***	Accepted

Source: Data Proceed

H1: Digital Safety has a positive and significant impact on the competitiveness of SMEs

Based on the results of table 4, it is known that the results of the C.R. (critical ratio) to determine the Digital Safety variable on the competitiveness of MSMEs obtained several $5.743 > 1.96$ and a probability value of $0.000 < 0.05$. So, it can be concluded that digital safety has a positive and significant impact on the competitiveness of SMEs. That is, Hypothesis 1 can be accepted.

This is following research conducted by Samarina et al. (2021), Selischeva et al. (2021), and Mizanbekova et al. (2020), who found that the massive digitalization of the economy provides a great opportunity for a country's competitiveness system. This is because sophisticated technology will minimize the human factor that can act corruptly and optimize the data needed and increase the absorption of taxes and other financial reports. This is certainly good news for MSMEs because the state can create conditions that make the economic sector more developed, develop legal frameworks, develop digital infrastructure and security issues.

The high level of competitiveness of a small and medium-sized company can be maintained through the fulfillment of four types of capabilities, namely (1) the company's ability to increase market share, profit, and growth of added value sustainability; (2) the company's ability to access and manage its various resources; (3) the company's strategic ability to assess its level of competitiveness compared to other companies (relativity); and (4) the company's ability to continue to create competitive advantage (dynamism).

Fangqiu (2012) developed a framework of thinking about a company's competitiveness and its determinants. In this framework, a company's competitiveness is reflected in the competitiveness of the products it produces, and internal and external factors can characterize its competitiveness. These internal factors include (1) skills or education level of workers, (2) expertise of employers, (3) availability or access to capital, (4) good organizational and management systems (according to business needs), (5) availability or mastery of technology, (6) availability or mastery of information, and (7) availability or control/access to other inputs such as energy, raw materials, and others.

H2: Digital Ethics has a positive and significant impact on the competitiveness of SMEs

Based on the results of table 4, it is known that the results of the C.R. (critical ratio) to determine the Digital Ethics variable on the competitiveness of MSMEs obtained a figure of $-2.038 < 1.96$ and a probability value of $0.042 < 0.05$. So, it can be concluded that digital ethics does not affect the competitiveness of SMEs. That is, Hypothesis 2 is rejected.

This study is following the results of research by Luciano Floridi (2019), Allan Luke et al. (2018), and Kevin Casey et al. (2019), which found that with increasingly rapid technological developments, as well as easy access to world information, some people are increasingly tempted to commit fraud digitally, including in the economic sector. This makes the government need to encourage ethical awareness in digital interactions and develop the competitiveness of individuals and MSME entrepreneurs by enriching their socialization and knowledge through social media teaching interventions.

The "potential" dimension covers the scope of competitiveness and organizational ability. Meanwhile, the process dimension reflects the ability to manage work; while "performance" is the result of various factors that shape it, such as (1) the character, behavior, skills, and knowledge possessed by entrepreneurs; (2) the character of the sector, market and strategic business environment; and others.

H3: Digital Skills have a positive and significant impact on the competitiveness of SMEs

Based on the results of table 4, it is known that the results of the C.R. (critical ratio) to determine the Digital Skills variable on the competitiveness of MSMEs obtained several $6.432 < 1.96$ and a probability value of $0.000 < 0.05$. So it can be

concluded that digital skills have a positive and significant impact on the competitiveness of SMEs. That is, Hypothesis 3 can be accepted.

The results of this study follow the results of previous research conducted by Amanda Bergson Shilsock (2020), Ester van Laar (2017), and Leona Craffert (2014), who found that in the rapidly changing economic realm, digital skills in this century encourage the competitiveness of companies and organizations, but this aspect of digital capabilities has not yet been rigidly defined. Other factors, such as education level of MSME owners and workers, skills and level of entrepreneurship, MSME access to financing sources, access to business development institutions, external factors such as ease of licensing and transaction costs, and others, can also be used to describe the level of competitiveness of SMEs. Although the size of the competitiveness of MSMEs is very diverse, identification of the competitiveness of MSMEs needs to include three characteristics, namely potential, process, and performance.

High competitiveness is also very necessary in competition with global markets, such as implementing the ASEAN Economic Community. This condition will provide challenges and can obtain opportunities so that MSMEs can increase their competitiveness. Eleni Laitso et al. (2020) stated that the main key is MSMEs themselves, especially MSME owners, with the support of their workers.

Entrepreneurs/MSME owners with an entrepreneurial spirit and an innovative spirit must become a driving force to increase the company's competitiveness. The role of MSME owners is very important in increasing competitiveness, while Yang Chen et al. (2021) stated that an MSME owner needs the entrepreneurial leadership character to lead his business. Characters stated to play an important role are ambitious, performance-oriented, and visionary.

CONCLUSION

Based on the results of data processing and analysis, it can be concluded that: 1) Digital Safety has a positive and significant effect on the competitiveness of MSMEs with a C.R. (critical ratio) result of $5.743 > 1.96$ and a probability value of $0.000 < 0.05$; 2) Digital Ethics has a positive and significant impact on the competitiveness of MSMEs with a C.R. (critical ratio) result of $-2.038 < 1.96$ and a probability value of $0.042 < 0.05$; and 3) Digital Skills have a positive and significant impact on the competitiveness of MSMEs with a C.R. (critical ratio) result of $6.432 < 1.96$ and a probability value of $0.000 < 0.05$.

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