

## The Impact of Digitalization on MSMEs' Financial Performance: The Mediating Role of Dynamic Capability

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### Abstract

The COVID-19 pandemic has negatively affected the 82.9% of MSMEs. They experienced a significant decrease in operating profit due to fixed production costs or increased production costs while the sales declined. Therefore, it requires various strategies to boost the financial performance of MSMEs through digitalization and dynamic capability. The sample consisted of 282 respondents from MSMEs in Central Java which then all primary data were processed using structural equation model analysis. The results of the study showed that digitalization and dynamic capability could enhance the MSMEs' financial performance and the variable of dynamic capability succeeded in mediating the effect of digitalization on the MSMEs' financial performance.

**Keywords:** digitalization, dynamic capability, MSMEs' financial performance

## Dampak Digitalisasi Terhadap Kinerja Keuangan UMKM: Peran Mediasi dari Kapabililtas Dinamis

### Abstrak

Pandemi COVID-19 telah menyebabkan 82,9% UMKM mengalami dampak negatif yakni penurunan profit usaha secara signifikan akibat biaya produksi tetap atau bahkan meningkat sementara penjualan menurun. Oleh karena itu di butuhkan berbagai strategi untuk mendongkrak kinerja keuangan UMKM melalui *digitalization* dan *dynamic capability*. Sampel penelitian ini sebanyak 282 responden dari UMKM di Jawa Tengah yang kemudian semua data primer diolah menggunakan analisis *Structural Equation Modeling*. Hasil penelitian menunjukkan bahwa variabel *digitalization* dan *dynamic capability* mampu meningkatkan kinerja keuangan UMKM serta variabel *dynamic capability* berhasil memediasi pengaruh *digitalization* dengan kinerja keuangan UMKM.

**Kata kunci:** digitalisasi, kapabilitas dinamis, kinerja keuangan UMKM

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## INTRODUCTION

Financial performance is the ability of MSMEs to operate efficiently, earn adequate income, survive, and develop by observing environmental opportunities and threats (Arthur et al., 2013). The financial performance of MSMEs is measured by operating profit, turnover or sales volume, and business capital adequacy at a certain period. The COVID-19 pandemic has negatively affected the 82.9% of MSMEs ([www.bps.go.id](http://www.bps.go.id)). They experienced a significant decrease in operating profit due to fixed production costs or increased production costs while the sales declined. Business costs that underwent an increase during the pandemic were from the sector of raw materials, transportation, and

labor. Meanwhile, 5.9% of MSMEs experienced a positive impact (www.bps.go.id). Therefore, improving the environment for MSMEs is a priority for the Indonesia Government to diversify its economy. The government has implemented several policies and regulations to boost investment. The government is also steadily reforming and updating the legal system, banking regulations, and labor laws in readiness for participation in the global market.

The MSME sector is one of the essential components of the Indonesian economy (ekon.go.id; www.bi.go.id). It requires a strategy to help MSMEs compete with big businesses. Cost reduction and sustainable growth have become a priority for MSMEs to grow and remain competitive in the market. Digitalization is an opportunity for MSMEs to shift from traditional trade to new trends that apply technology (Plakoyiannaki et al., 2015). Digitalization has led to a new market and create possibilities for MSMEs to serve needs in new ways, for example, by using virtual export channels or electronic intermediaries (Cho and Tansuhaj, 2013). Raharja et al., (2019) defined digitalization as the process of transforming from printed, audio, and video to digital, such as e-commerce.

E-commerce is an application with the internet that can be used as a transaction tool, namely sales channels (Gabrielsson and Gabrielsson, 2011). E-commerce provides businesses with innovative methods using available resources, enhancing performance and operational aspects (Lee et al., 2015). The adoption of e-commerce gives benefits such as ease of access, broad range, efficiency, and effectiveness in selling products, exchanging information about products sold between sellers and buyers, and opening up a broader market for MSME products (Susanty et al., 2020). The use of e-commerce can enhance MSMEs' performance (Alzahrani, 2019; Lee et al., 2015; Susanty et al., 2020), increase sales and productivity (Awa et al., 2015), cost-effectiveness (Faloye, 2014) and change the business strategies (Al-Bakri and Katsioloudes, 2015; Hamad et al., 2018; Ramanathan et al., 2012). Contrary to Popovic-Pantic et al., (2020), digital technology has no direct influence on financial performance.

During the change process, the management of business entities must have the dynamic capability to manage the company. The term 'dynamic' refers to competency renewal to achieve alignment with the business environment that changes every minute. Specific innovative responses are required when the timing is critical, the rate of technological change is fast, and the future competition and markets are difficult to define. Whereas the term 'capability' is emphasized the key role of strategic management appropriately in adapting, integrating, and reconfiguring internal and external resource organizational skills and functional competencies to suit changing environmental requirements (Teece et al., 1997). Dora et al., (2016) explained that dynamic capability is a company's ability to adjust its resources to realize environmental quality with rapid changes. Companies must apply dynamic capability to adapt to existing changes so that MSMEs' performance will be better (Hernández-Linares et al., 2020) and create new value (Adeniran and Johnston, 2016; Oliva et al., 2019) (Oliva et al., 2019). Suhendi et al., (2020) suggested that the higher the level of individual readiness to change, the higher the dynamic capability in each organization. On the other hand, Drnevich and Kriauciunas

(2010), found a negative relationship between dynamic capabilities and organizational financial performance.

Several studies have examined the importance of digitalization and dynamic capability to motivate MSMEs in enhancing financial performance (Adeniran and Johnston, 2016; Al-Bakri and Katsioloudes, 2015; Alzahrani, 2019; Awa et al., 2015; Faloye, 2014; Hamad et al., 2018; Hernández-Linares et al., 2020; Lee et al., 2015; Oliva et al., 2019; Ramanathan et al., 2012; Susanty et al., 2020). However, very few studies still focus on digitalization and dynamic capability, especially on MSMEs. Previous research has shown that digitalization and dynamic capability are critical to long-term viability for most industries. However, this activity involves a very high-cost increase if the industry is in a period of financial uncertainty. Such a condition happened during the COVID-19 pandemic.

The problems experienced by MSMEs during the COVID-19 pandemic, namely the decline in sales, resulted in a decrease in business profits. Based on the issues and the research gap in previous research, this study aims to analyze and empirically test the role of dynamic capability in mediating the effect of digitalization on the MSMEs' financial performance. The urgency of this research is because the development of digital MSMEs in Indonesia will encourage MSMEs to be digital-based and last a long time in the digital market. Therefore, mitigation and recovery solutions are needed by creating stimulus based on the demand and encouraging digital platforms to expand partnerships. In addition, it also requires a dynamic capability in the use of e-commerce technology that can support product quality improvement and competitiveness, product processing, and marketing so that it has a positive impact on the company's performance (www.lipi.go.id, 2020). The contribution of this research is in the importance of adopting digitalization and dynamic capability as a strategy for MSMEs to increase profits without usury. The findings also can be used by the Ministry of Cooperatives and SMEs in identifying the right way to develop the economic potential of MSMEs during the pandemic. The novelty in this study lies in a research model that examines the role of digitization to improve MSMEs' financial performance through dynamic capabilities as a moderating variable.

### **Resource Based View Theory**

The Resource-Based View (RBV) theory was first pioneered by Wernerfelt (1984). It is a theory that views the company's resources and capabilities as the basis of its competitiveness and performance. The assumption of the RBV theory is how a company can compete with other companies by managing the company's resources following the company's ability to achieve the company's competitive advantage (Wernerfelt, 1984). Companies that can utilize their resources well can create something that is an advantage over other companies, namely the company's high profitability. Thus, several benefits and successes that the company has in competing with other companies will improve the company's financial performance (Alzahrani, 2019; Lee et al., 2015; Susanty et al., 2020).

## **Digitalization and Dynamic Capability**

Digitalization in this study is proxied by e-commerce capability. It is the ability to transact commercially, which involves the exchange of value through or using digital technology between individuals (Laudon and Traver, 2016) and sales transaction media (Gabrielsson and Gabrielsson, 2011). Lee et al., (2015) revealed that e-commerce could expand the marketing range of MSMEs where sellers and buyers can easily make transactions. As a result, they can survive in the era of the digital business economy (Rahayu and Day, 2017) to create sustainable company performance (Coviello et al., 2017; Tob-Ogu et al., 2018).

In line with resource-based view theory, the management of MSMEs must rely on knowledge capabilities, both personal and company knowledge, to enhance MSMEs' dynamic capabilities. In other words, resource-based view theory forms the basis for building human capital involvement in the company's routines, namely employee involvement in formulating operational goals and company strategies (Nelson and Winter, 2010). Accordingly, MSMEs can develop new knowledge related to digital use, such as e-commerce. The continuous use of e-commerce in MSME business activities is an iterative process that affects the dynamic ability of human capital to achieve sustainable performance in a rapidly changing business environment (Nick and Bontis, 2012).

The company's high level of expertise can be seen from the technological advances applied in the company, for example, in e-commerce utilization. If the company has utilized e-commerce optimally and accelerated company activities, it would affect the company's dynamic ability to compete in a dynamic business environment. It is in line with the concept of dynamic capability theory, which is a mechanism that connects resources and product markets to compete for profit and company survival in the current pandemic. Krell et al., (2016); Picoto et al., (2014) stated that e-commerce capability positively affects dynamic capability. Thus the higher the digitalization utilization in the form of e-commerce in a company, the company's dynamic capability will also increase.

**H1:** Digitalization has a positive effect on dynamic capability

## **Digitalization and MSME's Financial Performance**

According to Pereshybkina et al., (2017), companies that maximize the use of digitalization in the form of e-commerce will simplify and accelerate the process of selling, purchasing, distributing, and marketing the company's products. It results in a good impact on the company's financial performance. Every MSME actor must have good knowledge and ability to apply e-commerce to the company's operational and non-operational activities. It has the aim of increasing product innovation produced by MSMEs.

As described in resource-based view theory, MSMEs get benefit by owning or controlling strategic assets, both tangible and intangible (Teece et al., 1997). Resource-based view strategy provides solutions for MSMEs to achieve sustainable performance through a unique set of resources characterized by: valuable, rareness, imperfectly imitable, and non-substitutable (Adeniran and Johnston, 2016).

Alzahrani (2019); Lee et al., (2015); Susanty et al., (2020) added that MSMEs that have unique resources have good knowledge and abilities in utilizing digital 'e-commerce'

in accelerating the process of MSME business activities. It has a direct impact on improving MSMEs' financial performance. Additionally, the ability to use e-commerce can increase sales also productivity (Awa et al., 2015), cost-effectiveness (Faloye, 2014) and change the business strategies (Al-Bakri and Katsiolouides, 2015; Hamad et al., 2018; Ramanathan et al., 2012). Accordingly, it will impact improving the MSME's financial performance (Li et al., 2020).

**H2:** Digitalization has a positive effect on the MSMEs' financial performance

### **Dynamic Capability and MSME's Financial Performance**

The value of dynamic capability in businesses lies in their ability to change the resources by creating, integrating, recombining and releasing resources (Oliva et al., 2019). Barreto (2010) demonstrated that dynamic capabilities are the organization's ability to solve problems systematically through strategies by detecting opportunities and threats, making timely decisions, and implementing implementation to advance company performance. Therefore, dynamic capabilities act as a buffer and adjuster between the two factors: resources and a responsive business environment to create and maintain sustainable company performance (Barreto, 2010).

Responding to increasingly fierce competition in the era of the COVID-19 pandemic, MSMEs need to improve their ability to compete globally. It can be realized by formulating adaptive strategies that are easily adapted to keep up with changes (Hill and Jones., 2010). It follows the concept of the resource-based view, where companies can create value in unique forms and ways that cannot be imitated by competitors (Barney and Wright, 2010) to make revenue maximization (Fahy, 2010).

Park and Kim (2014); Rialti et al., (2019) stated that the success of MSMEs could be achieved by maintaining flexibility and adapting to an environment that can change at any time as it is today. The dynamic capability theory proves that dynamic capability is a basis for achieving success in various aspects of life, including business, through increasing ability and willingness. Hernández-Linares et al., (2020); Rachel and Tallott (2016) showed that dynamic capability positively affects the MSMEs' financial performance.

**H3:** Dynamic capability has a positive effect on the MSMEs' financial performance

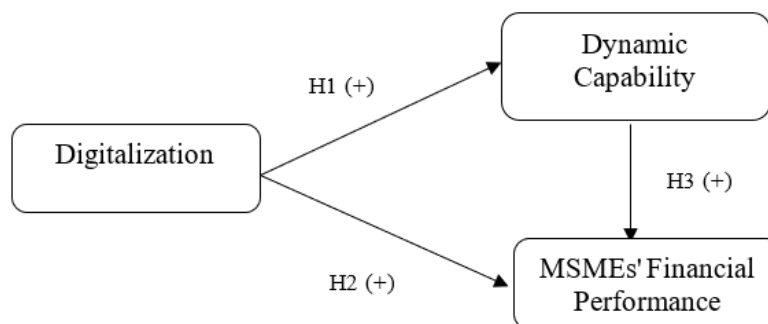


Figure 1. Research Model

**METHOD**

This type of research is explanatory research with a quantitative approach. It explains the position of the variables studied and the relationship among variables by testing the hypothesis that has been put forward. It tests several factors that affect the MSMEs' financial performance, including digitalization and dynamic capability. The population in this study comprised 4.174.210 MSMEs in Central Java (<http://disperindag.jatengprov.go.id>). The reason for choosing MSMEs in Central Java is because MSMEs in Central Java are starting to be technology literate. MSME actors have used e-commerce technology to market their products, in addition to manual sales that they have been doing ([http://disperindag.jatengprov.go .id](http://disperindag.jatengprov.go.id)). The respondents of this study involved owners and managers of MSMEs in Central Java.

The samples were determined using the Slovin method as a measuring tool to calculate the sample size because the observed population is more than 100 respondents. The following is the Slovin formula proposed by Slovin (1960) with an error tolerance of 6%:

$$n = \frac{N}{1 + n(e)^2}$$

In which:

n = Number of Sample

N = Total Population

e = Error Tolerance

Thus:

$$n = \frac{4.174.210}{1 + 4.174.210 (0,06)^2}$$

$$n = 277.76$$

n is rounded to 278

The data collection method in this study used a questionnaire distributed via google form to 350 MSME actors in Central Java. This research consists of independent, dependent, and intervening variables. The independent variable in this study is digitalization measured using e-commerce capability. The dependent variable is MSME's financial performance, and the intervening variable is dynamic capability. Indicators and measurements for each variable can be examined in table 1.

The data were analyzed using the SEM (Structural Equation Modeling) equation with the SmartPLS application. It examined the latent variables using manifest variables, multiple regression models and path analysis using observed variables (Ghozali and Latan, 2015). Following is the equation of this research:

$$\eta_1 = \gamma_1 \xi_1 + \zeta_1$$

$$\eta_2 = \beta_1 \eta_1 + \gamma_2 \xi_1 + \zeta_2$$

Information:

$\eta_1$  : Dynamic Capability

$\eta_2$  : MSME's Financial Performance

$\gamma_1 - \gamma_2$  : Coefficient

$\xi_1$  : Digitalization

$\zeta_1 - \zeta_2$  : Residual Value

Table 1. *Variables, Indicator, and Measurement*

No	Variables	Operational Definition	Indicator	Measurement
1	Digitalization (E-commerce capability)	an ability to make commercial transactions involving the exchange of value through or using digital technology between individuals (Laudon and Traver, 2016) and sales transaction media (Gabrielsson and Gabrielsson, 2011).	a. general marketing activities, b. achieve international penetration, c. conduct B2B transactions, d. B2C transactions (Lee et al., 2015)	Likert scale of 1-5 1 = Strongly Disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly Agree
2	Dynamic Capabilities	the company's capacity to routinely and structurally create, expand, and modify the resource base used in its operational activities.  (Adeniran and Johnston, 2016; Hernández-Linares et al., 2020; Oliva et al., 2019)	a. culture, orientation and leadership; b. markets, technology, and regulations; c. feel, seize and transform; d. identify and explore emerging opportunities; e. integration of individual expertise within the organization (Adeniran and Johnston, 2016; Hernández-Linares et al., 2020; Oliva et al., 2019)	Likert scale of 1-5  1 = Strongly Disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly Agree
3	MSMEs' financial performance	the company's achievements within a particular time  (Arthur et al., 2013).	a. profit, b. sales growth, c. business capital adequacy (Arthur et al., 2013)	Likert scale of 1-5  1 = Strongly Disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly Agree



## FINDING AND DISCUSSION

### Descriptive Statistic Analysis

The descriptive statistical calculations result of digitalization, dynamic capability and MSME's financial performance are shown in Table 2.

Table 2. *Descriptive Statistic*

Variable	N	Min	Max	Mean	Standard Deviation
Digitalization		10	40	42.88	8.259
Dynamic Capability	282	8	30	35.66	4.355
MSME's Financial Performance		12	45	50.85	4.691

Table 2 shows that the sample in this study consisted of MSMEs in Central Java, with 350 questionnaires distributed. Two hundred eighty-two (282) questionnaires were returned and processed so that the response rate is 80.57%. Digitalization has a minimum value of 10 with a maximum value of 40, a mean value of 42.88, and a standard deviation of 8.259. The dynamic capability has a minimum value of 8 with a maximum value of 30, the mean value of 35.66, and the standard deviation, which shows the research variable is 4.355. The MSME's financial performance variable has a minimum value of 12, a maximum value of 45 with a mean value of 50.85, and a standard deviation is 4.691.

### The Result of Measurement Model (Outer Model)

#### *Convergent Validity and Average Variance Extracted (AVE)*

Convergent validity has a function to determine the correlation between the indicator and its construct. Convergent validity can be seen from the outer loading factor value for each construct indicator. A study is reliable and valid if the correlation value is  $> 0.70$ , whereas the average variance extracted value is  $\geq 0.50$ . The results of the correlation output between the indicator with its construct and the Average Variance Extracted (AVE) can be seen in table 3.

Table 3. *Outer loadings and Average Variance Extracted (AVE)*

	Digitalization	Dynamic Capability	MSME's Financial Performance
DI	1.000		
DC		1.000	
FP			1.000
AVE	1.000	1.000	1.000

Table 3 shows the value of outer loadings generated more than 0.70. Thus, each variable has an excellent convergent validity value, and the convergent validity requirements have been fulfilled. Meanwhile, the results of the average variance extracted output indicate that the AVE value is good for each construct because it has a value greater than 0.50, and it fulfilled the requirements.



***Discriminant Validity and Composite Reliability***

Discriminant Validity (validity test) is a test that aims to measure a construct and its indicator with other constructs. The high value of discriminant validity in a construct with its indicators illustrates that this construct is unique compared to other constructs. The Discriminant Validity value can be seen from the cross-loading.

Table 4. *Cross loadings, Composite Reliability and Cronbach Alpha*

	Digitalization	Dynamic Capability	MSME's Financial Performance
DI	1.000	0.779	0.722
DC	0.779	1.000	0.861
FP	0.722	0.861	1.000
Cronbach's Alpha	1.000	1.000	1.000
Composite Reliability	1.000	1.000	1.000

Table 4 shows that each construct with its indicator has a higher cross-loading value than the other constructs. It means that the latent constructs can be predicted better by each indicator than other constructs. The composite reliability value and Cronbach's alpha results are more than 0.70, equal to 1,000. It means that each latent construct has good reliability because it fulfilled the requirements of the composite reliability test and Cronbach's alpha.

**Structural Model Test Result (Inner Model)**

***Determinant Coefficient (R<sup>2</sup>)***

The R2 test is used to explain the effect of certain exogenous latent variables on endogenous latent variables, whether they have a substantive impact or not. The R2 test is good if it can explain endogenous variables and the value is close to 1. The following are the results of the R-Square (R2) output:

Table 5 shows that the R-Square Adjusted value on the dynamic capability variable is 0.212 or 21.2%, and the MSME's financial performance variable is 0.372 or 37.2%. In other words, the dynamic capability variable can be explained by the digitalization variable of 21.2%. Meanwhile, the remaining 78.8% are defined by other variables. The digitalization and dynamic capability variables of 37.2% can explain the MSME's financial performance variable. Meanwhile, the remaining 62.8% are presented by other variables. The results of the coefficient of determination R-square (R2) can also be seen through the path diagram of the structural model. The construction model is the result of the PLS Algorithm processing method. The following is a structural model of the PLS Algorithm results.

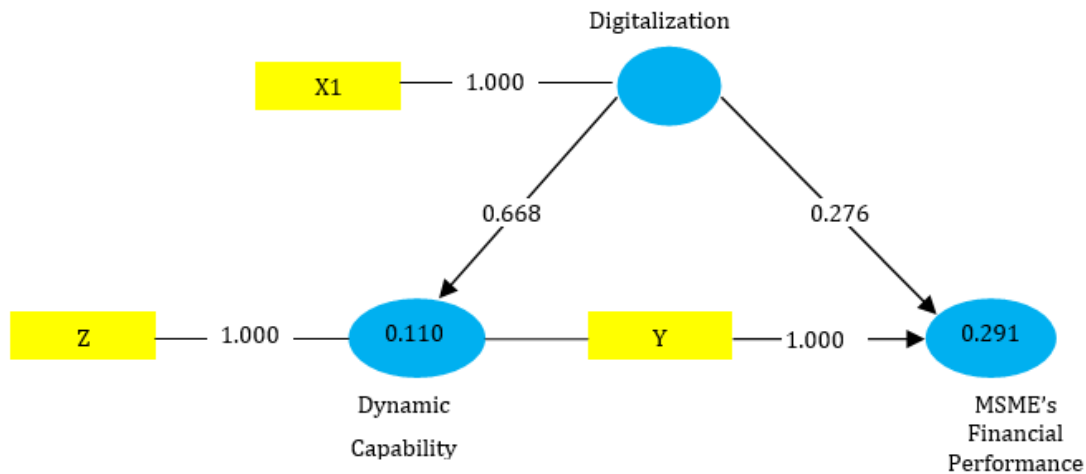


Figure 2. Research Result

### Hypothesis Result (T-Test)

The hypothesis test can be seen using the p-value obtained through the bootstrapping method in the Path Coefficient table. The hypothesis can be accepted and the construct indicator is valid if it has a probability value or p-value <0.05 and using a t-statistic > 1.96 (Ghozali and Latan, 2015). The results of the processed data are shown in table 6

The digitalization shows the original sample for 0.668. The p-value is 0,000, and it is

Table 6. Path Coefficients

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P-Values	Decision
Digitalization → Dynamic Capability	<b>0.668</b>	0.669	0.157	8.775	<b>0.000</b>	H1 Supported
Digitalization → MSME's Financial Performance	<b>0.276</b>	0.270	0.130	6.223	<b>0.000</b>	H2 Supported
Dynamic Capability → MSME's Financial Performance	<b>0.511</b>	0.514	0.125	8.622	<b>0.001</b>	H3 Supported

following the requirement of p values <0.050. Meanwhile, the t-statistic column 8,775 is valid under the requirements of the t-statistic value for > 1.96. Thus the first hypothesis **(H1) is supported**. It means digitalization has a positive and significant effect on dynamic capability. Digitalization on MSME's financial performance has a parameter coefficient of 0.276 found in the original sample column. The result of p-value is 0,000 and the value of t-statistics is 6,223 where the results fulfill the requirements (p-value <0.050

and t-statistics value  $> 1.96$ ). Hence the second hypothesis **(H2) is supported**. It means that digitalization has a positive and significant effect on MSME's financial performance. Dynamic capability for the parameter coefficient is 0.511 in the original sample column. P-values indicate a value of 0,001, smaller than 0.050, so it belongs to significant and fulfills the requirements. Meanwhile, the t-statistic value of 8.622 is valid because the results fulfill the requirements of the t-statistic value  $> 1.96$ . Therefore the third hypothesis **(H3) is supported**. In other words, dynamic capability has a positive and significant impact on MSME's financial performance.

### **Digitalization and Dynamic Capability**

Digitalization has a significant positive effect on dynamic capability. In other words, MSMEs with a high level of e-commerce capability will be able to take advantage of limited internal resources to influence their dynamic capability development during the COVID-19 pandemic. The ability of companies to use e-commerce to manage valuable, heterogeneous, and immobile business processes can provide a competitive advantage for companies (Irfan et al., 2019; Zhang et al., 2016a; 2016b). It is in line with the resource-based view theory, which requires the MSMEs management to rely on knowledge capabilities, both individual and company knowledge. It aims to increase MSMEs' product innovation, such as through e-commerce. Maximizing the use of e-commerce will ease and accelerate the process of MSME operational activities to affect the dynamic ability of MSMEs to compete in a dynamic business environment. The result is consistent with the findings of Krell et al., (2016); Picoto et al., (2014) that e-commerce capability has a positive effect on dynamic capability. It means, the higher the level of a company's e-commerce capability, the higher the company's dynamic capability.

### **Digitalization and MSME's Financial Performance**

Digitalization has a significant positive effect on the MSMEs' financial performance. This result indicates that the use of digitalization (e-commerce capability) by MSMEs during the COVID-19 pandemic ease and accelerate MSME operational activities. Consequently, it will have a good impact on MSME's financial performance. The resource-based view theory also demonstrates that MSMEs management, through the maximum use of e-commerce, can produce product innovations with competitive advantages to improve the MSMEs' financial performance. The results of this study are following the findings of Al-Bakri and Katsioloudes (2015); Alzahrani, (2019); Awa et al., (2015); Faloye (2014); Hamad et al., (2018); Lee et al., (2015); Li et al., (2020); Ramanathan et al., (2012); Susanty et al., (2020). They suggested that the ability to use e-commerce can increase sales, productivity, cost-effectiveness, and business strategies to improve the MSMEs' financial performance (Li et al., 2020).

### **Dynamic Capability and MSME's Financial Performance**

The dynamic capability has a significant positive effect on MSMEs' financial performance. MSMEs during the COVID-19 pandemic are required to have the ability to show timely responses also fast and flexible product innovations. In addition, company also should have management's ability to effectively coordinate and reuse internal and external competencies. The existence of dynamic capability during this pandemic helps

companies to have a strategy in changing or exploiting the resources owned by MSMEs, so that in the end it will improve MSME's financial performance. Similar to resource-based view theory, the competitive ability of MSMEs globally can create value in unique forms and ways that cannot be imitated by competitors (Fahy, 2010), which positively impacts increasing MSME financial performance. The results of this study are in line with Fitriati et al., (2020); Gómez and Ballard (2013); Hernández-Linares et al., (2020); Rehman and Saeed (2015); Rachel and Tallott (2016) who proved that dynamic capability can improve the MSMEs' financial performance.

## **CONCLUSION**

The respondents consisted of 282 MSMEs in Central Java show that digitalization and dynamic capability can improve MSMEs' financial performance. The dynamic capability variable can mediate the effect of digitalization on MSMEs' financial performance. The results of this study indicate that MSMEs are required to have the dynamic capability in maximizing utilization in the e-commerce sector to simplify and accelerate the process of MSME operational and non-operational activities and value creation that improves MSME's financial performance. The results of this study have implications for MSMEs as consideration for maximizing the use of information and communication technology in facing dynamic environmental changes to impact MSMEs' financial performance improvement. For the Government, as reference material in socializing about the use of digitization through workshops or training. However, the results of this study have several limitations. First, the ability of the digitization variable in explaining dynamic capability is only 21.2%.

Meanwhile, the digitalization and dynamic capability variables have 37.2% ability in explaining MSME's financial performance. Second, the collection of questionnaires in this study was only through the Google form media. It was due to the covid-19 pandemic, which did not support direct interviews. Therefore, future research can first add several independent variables: financial literacy, access to capital, intellectual capital, and others. Second, using other measurements for digitalization such as ICT utilization, and third applying the interview method (if the pandemic condition has ended) so that the data is more accurate.

## **REFERENCES**

- Adeniran, T. V., and Johnston, K. A. (2016). The impacts of ICT utilisation and dynamic capabilities on the competitive advantage of South African SMEs. *International Journal of Information Technology and Management*, 15(1), 59–89. <https://doi.org/10.1504/IJITM.2016.073915>
- Al-Bakri, A. and Katsioloudes, M. (2015). The factors affecting e-commerce adoption by Jordanian SMEs. *Management Research Review*, 38(7), 726–749.
- Alzahrani, J. (2019). The impact of e-commerce adoption on business strategy in Saudi Arabian small and medium enterprises (SMEs). *Review of Economics and Political Science*, 4(1), 73–88. <https://doi.org/10.1108/reps-10-2018-013>

- Arthur, S., Abanis, T., Eliab, B., and Sumil, N. (2013). Financial Performance in the Selected Microfinance Institutions in Uganda. *International Journal of Engineering Research & Technology (IJERT)*, 2(2), 1–11.
- Awa, H. O., Baridam, D. M., and Nwibere, B. M. (2015). Demographic determinants of electronic commerce (EC) adoption by SMEs. *Journal of Enterprise Information Management*, 28(3), 326. <http://search.proquest.com/docview/1664418723?accountid=49672>
- Barney, J. B., and Wright, P. M. (2010). On Becoming a Strategic Partner : The Role of Human Resource in Gaining Competitive Advantage. *Human Resources Management*, 37(1), 31–46.
- Barreto, I. (2010). Dynamic Capabilities: A review of past research and an agenda for the future. *Journal of Management*, 36(1), 256–280. <https://doi.org/10.1177/0149206309350776>
- Cho, H., and Tansuhaj, P. S. (2013). Comments on “The parting gift.” *Thunderbird International Business Review*, 49(5), 630–631. <https://doi.org/10.1002/tie>
- Coviello, N., Kano, L., and Liesch, P. W. (2017). Adapting the Uppsala model to a modern world: Macro-context and microfoundations. *Journal of International Business Studies*, 48(9), 1151–1164. <https://doi.org/10.1057/s41267-017-0120-x>
- Dora, M., Kumar, M., and Gellynck, X. (2016). Determinants and barriers to lean implementation in food-processing SMEs - A multiple case analysis. *Production Planning and Control*, 27(1), 1–23. <https://doi.org/10.1080/09537287.2015.1050477>
- Drnevlch, P.L. and Kriauciunas, A.P. (2010), Clarifying the conditions and limits of the contributions of ordinary and dynamic capabilities to relative firm performance, *Strategic Management Journal*, 32, 254-279.
- ekon.go.id
- Fahy, J. (2010). The Resource Based View of the Firm: Some Stumbling Blocks on the Road to Understanding Sustainable Competitive Advantage. *Journal of European Industrial Training*, 24, 94–104.
- Faloye, D. (2014). The adoption of e-commerce in small businesses: an empirical evidence from retail sector in Nigeria. *Journal of Business and Retail Management Research*, 8(2), 54-65.
- Fitriati, T. K., Purwana, D., and Buchdadi, A. D. (2020). Dynamic Capabilities and SMES Performance: The Mediating Effect of Innovation (Study of SMES in Indonesia). *Advances in Health Sciences Research*, 27(ICoSHEET 2019), 457–464. <https://doi.org/10.2991/ahsr.k.200723.115>
- Gabrielsson, M., and Gabrielsson, P. (2011). Internet-based sales channel strategies of born global firms. *International Business Review*, 20(1), 88–99. <https://doi.org/10.1016/j.ibusrev.2010.05.001>
- Ghozali, Imam. and Latan, H. (2015). *Concepts, Techniques, Applications Using Smart PLS 3.0 for Empirical Research*. Diponegoro University Publisher.
- Gómez, L. F., and Ballard, D. I. (2013). Communication for the Long Term: Information Allocation and Collective Reflexivity as Dynamic Capabilities. *Journal of Business Communication*, 50(2), 208–220. <https://doi.org/10.1177/0021943612474992>

- Hamad, H., Elbeltagi, I., and El-Gohary, H. (2018). An empirical investigation of business-tobusiness Egyptian, e-commerce adoption and its impact on SMEs competitive advantage: the case of manufacturing SMEs. *Strategic Change*, 27(3), 209–229.
- Hernández-Linares, R., Kellermanns, F. W., and López-Fernández, M. C. (2020). Dynamic capabilities and SME performance: The moderating effect of market orientation. *Journal of Small Business Management*, 59(1), 162–195. <https://doi.org/10.1111/jsbm.12474>
- Hill, C. W. L., and Jones, G. R. (2010). *Strategic Management: An Integral Approach* (3rd ed.). Houghton Mifflin Company.  
<http://disperindag.jatengprov.go.id>
- Irfan, M., Wang, M., and Akhtar, N. (2019). Impact of IT capabilities on supply chain capabilities and organizational agility: a dynamic capability view. *Operations Management Research*, 12, 113–128.
- Krell, K., Matook, S., and Rohde, F. (2016). The impact of legitimacy-based motives on IS adoption success: An institutional theory perspective. *Information and Management*, 53(6), 683–697. <https://doi.org/10.1016/j.im.2016.02.006>
- Laudon, K. C., and Traver, C. G. (2016). *E-commerce*.
- Lee, C. Y., Lee, T. R., and Kao, C.-K. (2015). Study on the Adaptation of Corporate Business Strategy to E-commerce Practice. *Advances in Management & Applied Economics*, 5(6), 25–43.
- Li, L., Lin, J., Turel, O., Liu, P., and Luo, X. (Robert). (2020). The impact of e-commerce capabilities on agricultural firms' performance gains: the mediating role of organizational agility. *Industrial Management and Data Systems*, 120(7), 1265–1286. <https://doi.org/10.1108/IMDS-08-2019-0421>
- Nelson, R. R., and Winter. (2010). *An Evolutionary Theory of Economics Change*. Cambridge, MA: Belknap Press of Harvard University Press.
- Nick, C., and Bontis. (2012). *The Strategic Management of Intellectual Capital and Organizational Knowledge*. Oxford University Press.
- Oliva, F. L., Couto, M. H. G., Santos, R. F., and Bresciani, S. (2019). The integration between knowledge management and dynamic capabilities in agile organizations. *Management Decision*, 57(8), 1960–1979. <https://doi.org/10.1108/MD-06-2018-0670>
- Park, E., and Kim, K. J. (2014). An integrated adoption model of mobile cloud services: Exploration of key determinants and extension of technology acceptance model. *Telematics and Informatics*, 31(3), 376–385. <https://doi.org/10.1016/j.tele.2013.11.008>
- Pereshybkina, A., Eugenia, M., Conde, C., and Kirner, E. (2017). *How will the industry 4.0 transformations affect SMEs in Germany by 2030?* Hochschule Furtwangen University.
- Picoto, W. N., Bélanger, F., and Palma-Dos-Reis, A. (2014). An organizational perspective on m-business: Usage factors and value determination. *European Journal of Information Systems*, 23(5), 571–592. <https://doi.org/10.1057/ejis.2014.15>
- Plakoyiannaki, E., Kampouri, A. P., Stavragi, G., and Kotzaivazolou, I. (2015). Marketing Intelligence & Planning Article information: *Marketing Intelligence & Planning*, 33(3), 238–257.

- Popović-Pantić, Sanja., Semenčenko, Dušica., and Vasilić, Nikola. (2020). Digital technologies and the financial performance of female smes in serbia: the mediating role of innovation. *Economic Annals, I,X,V(224)*, 53-81. <https://doi.org/10.2298/EKA2024053P>
- Rachel, H., and Tallott, M. (2016). Baltic Journal of Management Developing dynamic capabilities for learning and internationalization: A case study of diversification in an SME. *Journal of Manufacturing Technology Management, 20(5)*, 547–567.
- Raharja, S. J., Tresna, P. W., and Rivani. (2019). “Adoption of Information and Communication Technology on Enhancing Business Performance: Study on Creative Industry SMEs in Bandung City Indonesia. *Review of Integrative Business and Economics Research, 8(3)*, 20–30. [https://doi.org/http://buscompress.com/uploads/3/4/9/8/34980536/riber\\_8-s3\\_02\\_t19-122\\_20-30.pdf](https://doi.org/http://buscompress.com/uploads/3/4/9/8/34980536/riber_8-s3_02_t19-122_20-30.pdf).
- Rahayu, R., and Day, J. (2017). E-commerce adoption by SMEs in developing countries: evidence from Indonesia. *Eurasian Business Review, 7(1)*, 25–41. <https://doi.org/10.1007/s40821-016-0044-6%0A>
- Ramanathan, R., Ramanathan, U., and Hsiao, H. L. (2012). The impact of e-commerce on Taiwanese SMEs: Marketing and operations effects. *International Journal of Production Economics, 140(2)*, 934–943. <https://doi.org/10.1016/j.ijpe.2012.07.017>
- Rehman, K. U., and Saeed, Z. (2015). Impact of Dynamic Capabilities on Firm Performance: Moderating Role of Organizational Competencies. *Sukkur IBA Journal of Management and Business, 2(2)*, 20. <https://doi.org/10.30537/sijmb.v2i2.92>
- Rialti, R., Marzi, G., Ciappei, C., and Busso, D. (2019). *Big data and dynamic capabilities : a bibliometric analysis and systematic literature review capabilities*. <https://doi.org/10.1108/MD-07-2018-0821>
- Slovin, M. J. (1960). *Sampling*. Simon and Schuster Inc.
- Suhendi, C., Nugroho, M., Yahya, H. B., and Zahari, A. S. M. (2020). *Dynamic Capabilities for SME's: Ready to Change and Cloud Service Role Toward Digital Business. 115(Insyma)*, 129–133. <https://doi.org/10.2991/aebmr.k.200127.026>
- Susanty, A., Handoko, A., and Puspitasari, N. B. (2020). Push-pull-mooring framework for e-commerce adoption in small and medium enterprises. *Journal of Enterprise Information Management, 33(2)*, 381–406. <https://doi.org/10.1108/JEIM-08-2019-0227>
- Teece, D. J., Pisano, G., and Shuen, A. (1997). Dynamic capabilities and strategic management. *Knowledge and Strategy, 18(7)*, 509–533. [https://doi.org/https://doi.org/10.1142/9789812796929\\_0004](https://doi.org/https://doi.org/10.1142/9789812796929_0004)
- Tob-Ogu, A., Kumar, N., and Cullen, J. (2018). ICT adoption in road freight transport in Nigeria – A case study of the petroleum downstream sector. *Technological Forecasting and Social Change, 131*, 240–252. <https://doi.org/10.1016/j.techfore.2017.09.021>
- Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal, 5(2)*, 171–180. <https://doi.org/10.1002/smj.4250050207>

www.bi.go.id

www.bps.go.id



www.lipi.go.id.(2020).

Zhang, P., Zhao, K., and Kumar, R. L. (2016). Impact of IT governance and IT capability on firm Performance. *Information Systems Management*, 33(4), 357–373.

Zhang, S., Zhao, L., Lu, Y., and Yang, J. (2016). Do you get tired of socializing? an empirical explanation of discontinuous usage behaviour in social network services. *Information and Management*, 53(7), 904–914.