



The Role of Enterprise Agility in Mediating Digitalization Capabilities Towards Superior Performance of MSMEs

ABSTRACT

Muzzamil Putra Purnama*,
Dessy Isfianadewi

Faculty of Business and
Economics, Universitas Islam
Indonesia, 55584, Indonesia

*Corresponding author e-mail:
169111301@uii.ac.id

Many companies have launched new models of digital technology support during the COVID-19 pandemic, such as online sales, digital customer interaction, online employee training, and remote workforce solutions, not all companies have benefited. Covid-19 has enough impact on the economy to make business people inevitably have the ability to adjust their agility skills so that their business can survive in the new normal era. This research aims to analyze the influence of digitalization capabilities, mediated by market utilization agility and operational adjustment agility, on the performance of MSMEs in Sleman, Special Region of Yogyakarta. This research uses a quantitative approach, the population to be studied is Sleman MSMEs that have digitalization capabilities, this research uses Purposive Sampling technique, A total of 105 MSME respondents in Sleman, Yogyakarta, filled out a questionnaire, which was analyzed using SmartPLS 3. The research results indicate that digitalization capabilities have a positive impact on market utilization agility and operational adjustment agility. Market utilization agility does not have a significant effect on the performance of MSME companies. Operational adjustment agility has a positive impact on the performance of MSME companies. The capability of digitalization does not have a significant impact on the performance of MSME companies. The study finds that market utilization agility does not serve as a mediator between digitalization capabilities and MSME performance. Instead, operational adjustment agility fully mediates this relationship, highlighting its critical role. These findings provide valuable insights for MSME practitioners in understanding the interplay between digitalization capabilities, market utilization agility, operational adjustment agility, and their collective influence on company performance.

Keywords: Digitalization Capabilities; Market Utilization Agility; Operational Adjustment Agility; Firm Performance

| Submitted September 2024 | Reviewed October 2024 | Revised October 2024 | Accepted November 2024
| DOI: <http://dx.doi.org/10.18860/mec-j.v8i3.29235>

INTRODUCTION

Since the outbreak of the COVID-19 pandemic, many companies have adopted various digital technologies, such as big data analytics, artificial intelligence, cloud computing, and the Internet of Things, to accelerate business transformation to digital (Sheng et al.,

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2021). According to a new global survey from McKinsey, many executives say that their companies have accelerated digitalization in customer interactions as well as supply chain and internal processes in three to four years, and that some digital accounting projects or digital projects in their portfolio have grown dramatically in seven years (Blackburn et al., n.d.). Although many companies have launched new models of digital technology support during the COVID-19 pandemic, such as online sales, digital customer interaction, online employee training, and remote workforce solutions (Ketchen & Craighead, 2020), not all companies have benefited (Ye et al., 2022). Therefore, scholars and practitioners should strive to advance the current understanding of how businesses can use digital technology successfully, especially in light of the COVID-19 pandemic.

What is meant by digitalization capability is the extent to which the Enterprise Management system integrates data with processes within the Enterprise with the help of new digital technologies. Companies that have good digitization capabilities can better vary the data they have such as orders, customers, production, and markets. Because data is a fairly new element in production, a fundamental resource, as well as a strategic resource in this digital era (Li et al., 2022). Agility is defined as the ability to respond quickly and innovatively to unexpected changes in the business environment, and it is one of the conditions needed by the Company to develop and grow in a changing environment. There are two types of agility, the first is market capitalization agility which is defined as the Company's ability to see the market to make decisions to meet market needs, the second is operational adjustment agility which is the Company's ability to adapt in the Company's internal processes to achieve changes quickly (Li et al., 2022). Covid-19 has quite an impact on the economy, making business people inevitably have the ability to adjust their agility skills so that their business can survive in the new normal era. Business owners must always be flexible to survive and thrive in unstable times such as a pandemic, Large companies benefit significantly by developing their agility on a large scale (Jadoul et al., 2020).

Because Sleman is an area that arguably has quite a lot of MSMEs with high digitalization potential. With evidence that there are 109,757 micro, small and medium business units that have the potential to do digital marketing, as well as the support of the Sleman district government which is very aware of the importance of MSMEs for economic development. We decided to conduct a survey of MSME players in Sleman district (DINKOPUKM, 2023).

The first difference with previous research examines to understand whether businesses can maintain the benefits of using digital technology during the COVID-19 pandemic, focusing more on analyzing dynamic capabilities to test digital capabilities affect business performance (Coreynen et al., 2020). The second difference with previous research is that previous research through analysis of manufacturing companies is expected to find whether the flexibility of fully adjusting operations mediates the relationship between dynamic capabilities and company performance (Li et al., 2022).

The first difference with previous research examines to understand whether businesses can maintain the benefits of using digital technology during the COVID-19 pandemic. Meanwhile, my research focuses more on seeing the role of agility that mediates the relationship between digitalization capabilities and Company performance. The second difference with previous research is that previous research through analysis of manufacturing companies is expected to find whether the flexibility of fully adjusting operations mediates the relationship between dynamic capabilities and company performance. Meanwhile, this research focuses more on Sleman area MSMEs, where MSMEs are one of the pillars of economic progress. Theoretical Benefits The research is expected to contribute to the development in the field of operations management studies, especially those related to the study of Company agility that mediates the relationship between digitalization capabilities and Company performance so that it can be a reference for further researchers related to this research topic. Practical benefits for companies, this research is expected to be a reference in evaluating the Company's agility performance. The company is also expected to implement digitalization and improve company performance. The research objectives are to determine whether there is a positive influence between digitalization capabilities on market utilization agility, to determine whether there is a positive influence between digitalization capabilities on operational adjustment agility, to determine whether there is a positive influence between market utilization agility on company performance, to determine whether there is a positive influence between operational adjustment agility on company performance, to determine whether there is a positive influence between digitalization capabilities on company performance, to determine whether market utilization agility mediates the relationship between digitalization capabilities and company performance, to determine whether operational adjustment agility mediates the relationship between digitalization capabilities and company performance.

LITERATURE REVIEW

Digitalization Capability

There are several previous studies that also discuss digitalization capabilities, which in a growing business, digitalization capabilities are a very important strategy for a company to achieve competitive advantage. The result in this previous study is that the organizational agility and digital capabilities of a company have a positive impact on the company, the study found that digital capabilities serve as a mediator for corporate agility and digital transformation of MSMEs. This research recommends that companies always improve agility and digital understanding in order to better keep up with changes in digital technology, improve operating capabilities, and better integrate digital resources (Zhang et al., 2024).

Market Utilization Agility

Previous research also explains that agility is defined as the ability to respond quickly and effectively to new challenges in the innovation environment, especially in market utilization agility describes the Company's ability to anticipate market possibilities and threats or respond appropriately, which is where it is hoped that the Company can create more value for them or their ecosystem partners by creating good market utilization agility, it is all in order to meet the ever-evolving consumer demand, the Company must be agile in order to achieve good Company performance (Alghamdi & Agag, 2024).

Operational Adjustment Agility

Other studies have also explained that operational adjustment agility also helps in adjusting changes in operations and also provides flexibility in the daily operating system, this does not rule out the possibility of redesigning and creating new, more efficient processes, which has an impact on market utilization agility which is part of the external business. The main focus for the agility of operations adjustment is to cover speed, accuracy, cost efficiency, and flexibility, it all covers the internal company, so it can be concluded that the agility of operations adjustment is the company's ability to face demands and changes by focusing on these aspects in order to achieve good company performance (Akhtar et al., 2018).

Firm Performance

Previous research also revealed a mediating effect between the company's agility and the company's digital capability process, where this study revealed that digital capabilities significantly improve company performance, and agility is an important aspect of it. This finding not only provides theoretical support for the development of digitalization capabilities, but also provides practical encouragement for the Company to create strategies to optimize the allocation of its resources in this digital era. This research suggests strengthening agility coupled with improving digitalization capabilities in order to adapt well to improve the Company's future performance (Xu et al., 2024).

Positive Effect of Digitalization Capability on Market Utilization Agility

Li et al. (2022) have researched that digitalization capabilities can enable companies to obtain more data from external sources, whether from customers, markets, or customers, so that companies can detect unexpected market trends or improve market utilization agility for the better. Such as the use of technology that can analyze big data, artificial intelligence, companies can avoid external threats such as from customers or suppliers faster. For example, when there is COVID-19, companies that have utilized technology can avoid threats The company can even avoid the chain of transmission of COVID-19 and even predict the next stage of infection. Companies can also consider by looking at how the dynamics of their consumers are evolving, how the relationship

between digital services and consumers is changing, and what their consumers are worried about in the future. With this research, it can be said that the Company's digitalization capabilities have a positive effect on market utilization agility.

H1: There is a positive influence of digitalization capabilities on market utilization agility

Positive Effect of Digitalization Capability on Operational Adjustment Agility

Al Jabri et al. (2024) have researched that digitalization capabilities which are accompanied by effective information technology alignment can increase the Company's dynamic capabilities, so that it can adapt to Company changes and can take advantage of new opportunities more efficiently. As the definition of dynamic capability is the ability of an organization to combine and also integrate internal and external competencies to survive in a dynamic, competitive and uncertain environment. Information technology alignment is a mutually supportive relationship in terms of goals, missions, and strategies between the business side and technology, and information technology alignment requires digitization capabilities in its application. In conclusion, digitization capabilities that are supported by the Company's technology strategy and that are aligned with its business strategy, the Company will be able to develop agility in adjusting operations to deal with a changing business environment. With this research, it can be said that the Company's digitalization capabilities have a positive effect on the agility of operations adjustment.

H2 : There is a positive influence of digitalization capabilities on operational adjustment agility.

Positive Influence of Market Utilization Agility on Company Performance

(Khalil et al., 2023) This study examines that with high market utilization agility, companies tend to innovate continuously. The company can then quickly act to respond to market demand, market possibilities, and unexpected changes. With that the company can increase its net profit better. The company's ability to respond quickly to opportunities and threats from the market will also improve the company's performance. This study concludes that market utilization agility has a positive impact on company performance.

H3: There is a positive influence of market utilization agility on company performance.

Positive Effect of Operational Adjustment Agility on Company Performance

(Xu et al., 2024) produced research in which operational adjustment agility can increase the possibility of companies adjusting management and operational strategies more flexibly. In dealing with rapid market and technological changes, companies can make decisions quickly and also optimize processes and structures to support innovation and company performance. This efficient decision-making and rapid implementation can not

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only improve the company's ability to see an opportunity, but also increase effectiveness in realizing products, as well as increase innovation and company performance in the face of competition. This study concludes that the agility of operating adjustments has a positive impact on company performance.

H4: There is a positive influence of operational adjustment agility on company performance.

Positive Effect of Digitalization Capabilities on Company Performance

Bui & Le (2023) conducted research which resulted in digitalization capabilities that had a good impact on company performance. This happened because of the global crisis that occurred, especially in the COVID-19 pandemic, which resulted in the creation of the digitalization era, where digital technology showed its strength which was so influential on companies in doing business around the world by doing business digitally. Companies that realize the importance of digital platforms during the pandemic are companies that manage to maintain a solid economy. Companies that succeed here are determined by their ability to recognize the advantages of the digital platforms they use and how they can use these digital technologies effectively, or how they can develop their digital technologies and platforms successfully and at a higher rate than competitors.

H5: There is a positive influence of Digitalization Capability on Company performance

Market Utilization Agility Mediates the Relationship between Digitalization Capabilities and Firm Performance

Ayadi et al. (2022) examined that digitalization capabilities indirectly improve firm performance with a positive mediating effect from market utilization agility. Digitalization capabilities show that the improvement of company performance through digitalization capabilities occurs indirectly, but through the relationship between digitalization capabilities and market utilization agility. The result is that market utilization agility becomes a mediator for these variables. Market utilization agility is influenced by digitalization capabilities, then market utilization agility has a direct impact on company performance, which means that market utilization agility fully mediates the relationship between the independent variable, namely digitalization capabilities and the dependent variable, namely company performance.

H6: Market Utilization Agility Mediates the Relationship between Digitalization Capabilities and Company Performance

Operational Adjustment Agility Mediates the Relationship between Digitalization Capabilities and Company Performance

Atobishi et al. (2024) examined that from the analysis of this study found a significant positive relationship between digital capabilities on company performance mediated by

operational adjustment agility. Digital capabilities are significantly associated with increased operational adjustment agility, which can sense and respond to changes in the environment quickly. This research verifies that companies that can reconfigure operating systems, resources and initiatives will be able to improve operational processes to be more responsive and innovative overall. With this increase, their company's operational adjustment agility can mediate digitalization capabilities with company performance. The conclusion of this study is that operational adjustment agility mediates the relationship between digitalization capabilities and company performance.

H7: Operational Adjustment Agility Mediates the Relationship between Digitalization Capabilities and Firm Performance

Hypotheses of the research

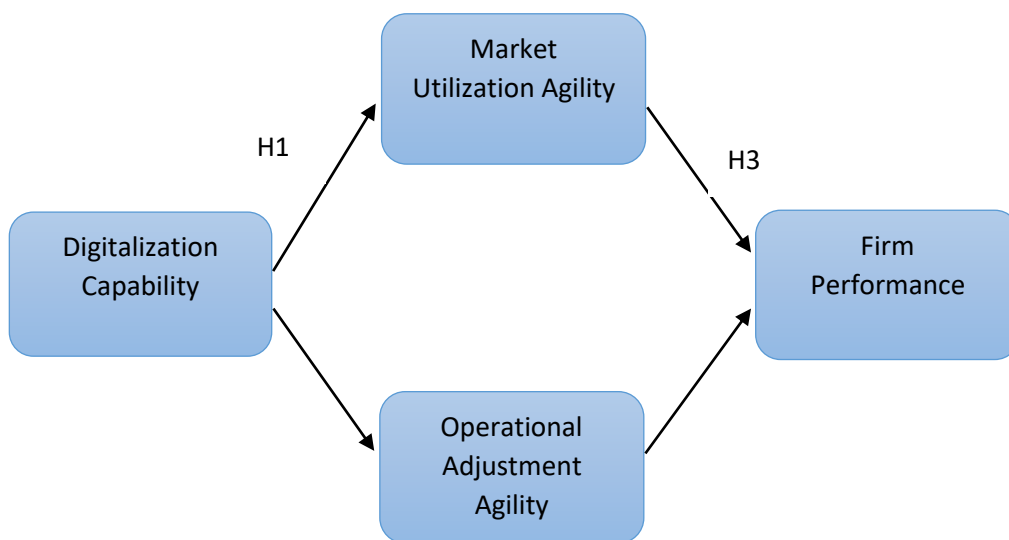


Figure 1. Conceptual Framework

METHODOLOGY

Population is a group of people, interesting things, or events that researchers want to conclude (Sekaran & Bougie, 2016). The population to be studied is Sleman MSMEs that have digitization capabilities, because Sleman is an area that arguably has quite a lot of MSMEs with high digitalization potential. With evidence that there are 109,757 micro, small and medium business units that have the potential to do digital marketing, as well as the support of the Sleman district government which is very aware of the importance of MSMEs for economic development. The sample is part of the population. The sample consists of several members who have been selected from a predetermined population. It can be interpreted that the sample is part of the population. For example, suppose the population is 1000 workers in a company, 200 of whom are sampled for research. With these 200 samples the researcher took the conclusion of the 1000 people. Therefore, the

sample can be interpreted as a subgroup or part of the population. By examining the sample, a researcher must draw conclusions which can be generalized to the intended population (Sekaran & Bougie, 2016).

This study uses Purposive Sampling technique. Purposive sampling is a sampling technique of a certain type of person with the information the researcher wants, either because the person is the only one who has the information, or the person fits the criteria desired by the researcher (Sekaran & Bougie, 2016). The sample selection in this study was based on several criteria. First, respondents must work or have worked in MSMEs. The second criterion is that respondents must work or have worked in MSMEs with digitalization capabilities. The number of respondents required for this study is at least 30 respondents. In determining the number of samples, the characteristics and complexity of this research model refer to the ten times rule described by (Hair et al., 2021) which is 10 times the number of paths to endogenous constructs. A total of 105 MSME respondents in Sleman Yogyakarta filled out a questionnaire and were analyzed in order to draw conclusions which can be generalized to the intended population.

The data in this study were collected by distributing questionnaires to respondents. There are 32 total questions that will be answered by respondents through the Google Form platform. The purpose of the researcher using Google Form or an online questionnaire is to make it easier to get sample data in the target population, namely the Sleman district.. The questions presented in the online questionnaire are multiple choice questions where respondents do not need to type or develop their own answers.

Digitalization capability is the ability to experience and use digital technology flexibly. Digitalization capability is the embodiment of dynamic capability in this era of digitalization. The connotation of digitalization capability can be described through three dimensions of dynamic capability, first sensing, second mastering, and rearrangement. The digitalization capability uses the DC code which is measured using 9 statements adopted from research (Zhang et al., 2024).

Previous research also explains that agility is defined as the ability to respond quickly and effectively to new challenges in the innovation environment, especially in the utilization of market agility describes the Company's ability to anticipate market possibilities and threats or respond appropriately, which is where it is hoped that the Company can create more value for them or their ecosystem partners by creating good market utilization agility, it is all in order to meet the ever-growing consumer demand, the Company must be agile in order to achieve good Company performance (Alghamdi and Agag, 2024). In the market utilization Agility research, there are 9 questions taken from research (Alghamdi and Agag, 2024).

Operational Adjustment Agility is Agility that focuses on fast response, accurate action, and cost efficiency. This not only relates to internal processes that occur within the Company, but also includes external operational processes. Agility is basically defined as

the Company's ability to react quickly to change and uncertainty. Operational Adjustment Agility helps with operational adjustments and changes and provides more flexibility in day-to-day operations. This allows for rapid readjustment and development of new processes, which ultimately impacts market utilization agility which is part of the external business environment (Akhtar et al., 2018). In the operational adjustment agility research, there are 8 questions taken from research (Akhtar et al., 2018).

Company performance is a stage where the company can understand demand and change quickly, adjust production processes and supply chains more flexibly, and also launch new services or products more quickly, so as to maintain a competitive advantage. The digitalization capability uses the FP code which is measured using 8 statements adopted from research (Liu and Son, 2024).

In this study, variables were measured using a 5 Likert Scale with the following information; Value 1 = strongly disagree, b) Value 2 = disagree, c) Value 3 = neutral, d) Value 4 = agree and e) Value 5 = strongly agree. The Likert scale uses 5 points because this scale measures as participants agree or disagree with certain questions with an explanation of 1 (strongly disagree) to 5 (strongly agree) with a neutral point in the middle, with that the Likert scale allows researchers to calculate averages and standard deviations and also apply other more advanced statistical techniques to examine respondents (Sekaran & Bougie, 2016). To collect data from respondents, this study used an online questionnaire with the Google Form platform. This research uses a quantitative approach to test the hypothesis. The testing method used by this research is the Partial Least Square (PLS) method. PLS is a composite-based testing method. PLS SEM involves combining measurement model indicators linearly in order to form composite variables (Hair et al., 2021).

RESULTS

Respondent Profile

From the 105 data collected with the main priority of these respondents being MSME owners, in the hope that the objectives of this research can be more relate and influence other MSMEs. the first criteria respondents must work or have worked in MSMEs and The second criterion is that respondents must work or have worked in MSMEs with digitalization capabilities. The results of the questionnaire showed that most respondents were businesses aged 1-5 years, with a percentage of 40%. It was found that at most 53.3% of businesses have 1-5 employees. Of the 105 respondent data, the dominating industry type distribution was FnB with a percentage of 36.19%.

Convergent Validity Test Results

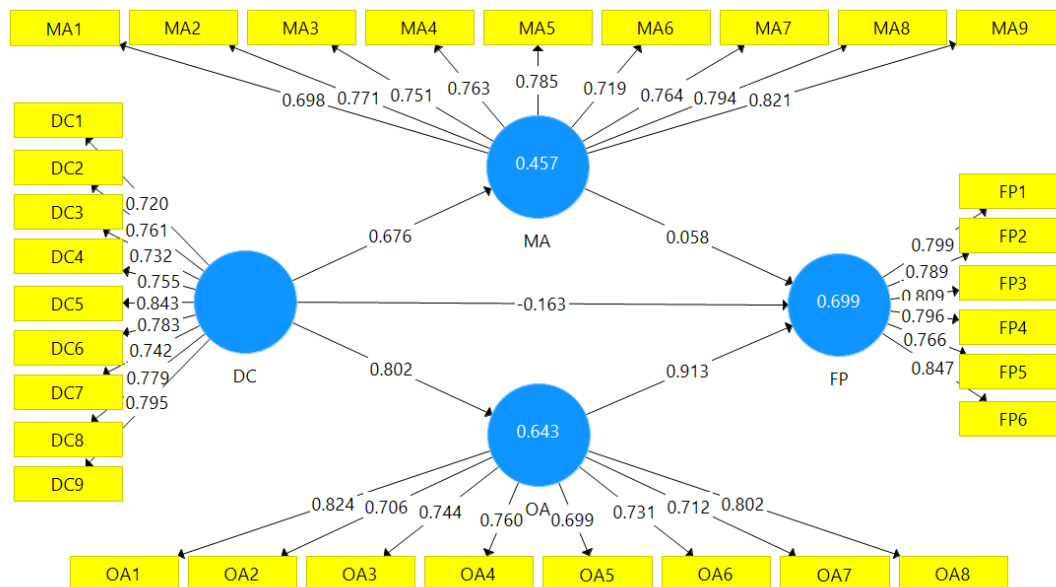
Convergent validity is used in evaluation to measure how well item variation can be explained and ensure that construct indicators have a positive relationship with the construct. This validity assessment depends on the AVE (Average Variance Extracted)

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and Outer Loadings values. If the Average Variance Extracted (AVE) value is more than 0.5 and Outer Loadings are in the range of 0.5 to 0.6, then the research results can be considered valid (Hair et al., 2022).

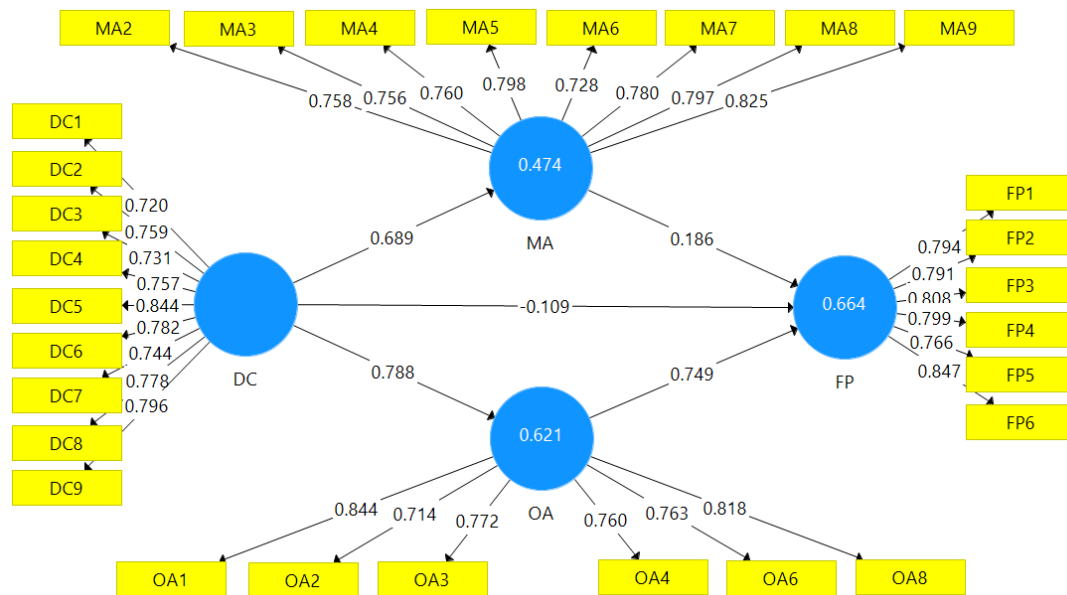
Based on result, it can be concluded that two variable items did not meet the criteria, and became three after the two variable items were removed because their construct measurements did not reach the recommended threshold or standard. According to the book by (Hair et al., 2022), outer loading with values between ≥ 0.40 and < 0.70 requires further analysis of its internal consistency. If the measurement of the construct still meets the recommended threshold, the item is worth keeping; conversely, if it does not meet the set standards, the item can be deleted. Therefore, items with low values were removed in this study, namely MA1, OA5 and OA7.

There was a fluctuation in values for some variables, showing a decrease, while other variables showed an increase within the range of values. These changes reflect the dynamics of the variables observed during the research period. After removing three question items that did not meet the threshold criteria or recommended standards, the issue of convergent validity in this study has been resolved. Therefore, no further removal of question items is necessary. The outer loadings results can be seen in the following Figure 2.



Source(s): Figure by authors

Figure 2. Measurement Model Validity and Reliability Test



Source(s): Figure by authors

Figure 3. Measurement Model Validity and Reliability Test After Modification

In addition, Average Variance Extracted (AVE) is an important factor in assessing convergent validity. The AVE value for each variable must be greater than or at least reach 0.5 for the variable to be considered consistent. Result shows that the AVE values for variables such as digitalization capability, market utilization agility, operational adjustment agility, and company performance all have average values above 0.5. Therefore, it can be concluded that all variables are considered valid.

Discriminant Validity Test results

In this study, discriminant validity testing was conducted using the Cross Loadings criterion. Cross-loadings refer to the level of correlation between indicators and other constructs in the model. Based on this criterion, when assessing the validity of an indicator within a specific construct, its loading value must be higher compared to its correlation with other constructs in the model. This criterion aims to ensure that the indicator is more relevant to the intended construct than to other constructs.

From the result, it can be summarize that all variable items are considered valid because the construct loading values for each construct are higher than their correlations with other constructs in the model. Thus, it can be concluded that the latent variables in the study have been accurately explained by their indicators or manifest variables, and the research variables demonstrate good or adequate discriminant validity.

Reliability Test Results

The reliability test applied is Composite Reliability, which measures internal consistency and is considered a good indicator of reliability. The Composite Reliability value must be greater than 0.70. If the Composite Reliability value exceeds 0.70, the variable is considered reliable. After checking the Composite Reliability, all variables showed values above 0.70, so it can be concluded that these variables are reliable.

Testing the Structural Model (Inner Model)

Collinearity Test Results

The researcher used Collinearity VIF to ensure that collinearity does not significantly affect the estimation of the structural model. In this study, it can be concluded that the VIF values for each variable are below 5, which is considered good. There is only one variable with a VIF above 3, which is less ideal but still falls within the good category as it is below 5, according to (Hair et al., 2022). This indicates that there are no collinearity issues in the research model.

Coefficient of Determination (R-Square) Test Results

The coefficient of determination or R-square is a commonly used measure to evaluate the extent to which independent or exogenous variables influence and explain the dependent or endogenous variables. Additionally, this coefficient indicates the predictive strength of the model by measuring the squared relationship between the estimated and actual values of a specific endogenous variable. Thus, this coefficient illustrates the overall potential influence of independent variables on the dependent variables. For example, R-Squares values of 0.67, 0.33, and 0.19 indicate different model strengths, namely strong, moderate, and weak (Hair et al., 2022). Based on this study, the results of the r-square analysis are at a moderate level because they are above 0.33, but not up to 0.67.

Q-Square Test Results

Predictive relevance or Q-square is used by researchers to measure how effectively the model predicts variance in the dependent variable. This measurement is conducted through the blindfolding method, which produces a Q-square value. The fundamental principle of this method is that a Q-square value greater than 0 indicates that the model possesses strong predictive capability, whereas a Q-square value less than 0 signifies weak predictive performance (Hair et al., 2022). The findings of this study confirm that a Q-square value above 0 reflects the model's high accuracy in describing the relevant relationships.

Hypothesis Testing

The researcher used path coefficients to determine the direction of hypothesis testing, where the metrics used show a range of values from -1 to 1. A variable is considered to have a negative relationship if its value ranges from 0 to -1, and a positive relationship if its value ranges from 0 to 1. Additionally, hypothesis testing was conducted using SmartPLS3 through bootstrapping techniques. According to (Hair et al., 2022), hypothesis testing must meet two principles: the P-value must be less than 0.05, and the t-statistic must be greater than 1.96.

Table 1. shows that four hypotheses are supported while three hypotheses are not supported. The results of the hypothesis testing indicate that H3, H5, and H6 are not supported, meaning that market utilization agility does not have a significant direct effect on company performance, digitalization capability does not have a significant direct effect on company performance, and market utilization agility does not mediate the relationship between digitalization capability and company performance. Conversely, H1, H2, H4, and H7 are supported. A more detailed explanation of the hypothesis testing results can be found in Table 1.

Table 1. Hypothesis Testing Results

Hypothesis	Original Sample (O)	T-Statistics	P-Values	Conclusion
DC → MA	0.689	7.265	0.000	H1 supported
DC → OA	0.788	13.553	0.000	H2 supported
MA → FP	0.186	1.013	0.311	H3 not supported
OA → FP	0.749	4.571	0.000	H4 supported
DC → FP	-0.109	0.712	0.477	H5 not supported
DC → MA → FP	0.128	0.937	0.349	H6 not supported
DC → OA → FP	0.590	4.034	0.000	H7 supported

Source(s): Table by authors

DISCUSSION

Digitalization Capability and Market Utilization Agility

MSMEs in Sleman must enhance their digitalization capabilities to improve their agility in seizing market opportunities. Investing in digital tools, such as e-commerce platforms and social media, can enable MSMEs to adapt swiftly to shifts in market demand and leverage new opportunities. Evidence shows that digitalization capabilities positively impact market utilization agility. Therefore, it can be concluded that MSMEs in Sleman,

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Yogyakarta, with strong digitalization capabilities, are better equipped to enhance their market utilization agility.

This finding aligns with previous research by (Li et al., 2022), which demonstrated that digitalization capabilities allow companies to access more external data—whether from customers or the market—helping them detect emerging trends and boost market utilization agility. Similarly, (Xu et al., 2024) explored the connection between digitalization capability and market adjustment agility, finding that digitalization capabilities significantly contribute to improved market utilization agility.

Digitalization Capability and Operational Adjustment Agility

SME management should focus on adopting digitalization strategies to enhance operational adaptability. Implementing technologies such as cloud-based management systems and process automation can significantly improve efficiency, flexibility, and responsiveness to shifts in supply chain and production dynamics. Research confirms that digitalization capabilities positively influence operational adjustment agility. Consequently, MSMEs in Sleman, Yogyakarta, with strong digitalization capabilities, are better positioned to boost their operational adjustment agility.

This conclusion is consistent with findings by (Al Jabri et al., 2024), who highlighted that digitalization capabilities, when aligned with effective IT systems, strengthen dynamic capabilities, enabling firms to adapt to changes and capitalize on emerging opportunities efficiently. Similarly, (Zhang et al., 2024) found that digitalization capabilities have a positive impact on operational adjustment agility, further supporting the importance of digital transformation for MSME success.

Market Utilization Agility and Firm Performance

SMEs should avoid relying solely on market utilization agility as their primary strategy for enhancing firm performance. Instead, this approach should be combined with operational improvements and robust internal management to achieve more consistent and sustainable outcomes. Evidence indicates that market utilization agility does not significantly impact the performance of MSMEs. Thus, it can be concluded that MSMEs in Sleman, Yogyakarta, do not depend on market utilization agility to enhance their performance.

This finding contrasts with studies by (Das et al., 2023) and (Khalil et al., 2023), which reported a significant positive relationship between market utilization agility and firm performance. However, these differences may stem from variations in study samples. (Khalil et al., 2023) observed the benefits of market utilization agility in the hotel industry, while (Das et al., 2023) focused on IT firms. (Osievskyy et al., 2020) also examined this relationship within the context of small and medium enterprises, further highlighting the importance of considering industry-specific and contextual factors when evaluating the impact of market utilization agility on business performance, which

is more relevant to this study and yielded negative results regarding the relationship between market utilization agility and firm performance. This study concludes that market utilization agility does not have a significant impact on the performance of SMEs in Sleman, Yogyakarta Special Region.

Operational Adjustment Agility and Firm Performance

SMEs should focus on strengthening their operational adaptability to enhance performance. Management should prioritize flexible and adaptive internal processes, such as improving inventory management, production, and logistics, to optimize outcomes. Research demonstrates that operational adjustment agility positively impacts MSME performance. Therefore, it can be concluded that MSMEs in Sleman, Yogyakarta Special Region, leverage operational adjustment agility to enhance their performance.

This conclusion aligns with findings by (Xu et al., 2024), which highlighted that operational adjustment agility enhances a company's ability to adapt management and operational strategies with greater flexibility. In the face of rapid market and technological changes, firms can make swift decisions and optimize processes and structures to foster innovation and improve performance. Similarly, (Oliveira-Dias et al., 2023) confirmed that operational adjustment agility has a positive effect on firm performance, underscoring its critical role in achieving business success.

Digitalization Capability and Firm Performance

Digitalization alone does not directly enhance SME performance without a well-aligned strategy. Management must ensure that digital technologies are seamlessly integrated into operational processes and utilized effectively to drive performance improvements. Evidence indicates that digitalization capability, on its own, does not have a significant impact on the performance of MSMEs. Therefore, it can be concluded that the performance of MSME business companies in Sleman, Yogyakarta Special Region does not go through digitalization capabilities to improve company performance.

This finding differs from the results of studies by (Yang & Yee, 2022) and (Bui & Le, 2023), which stated that digitalization capability significantly positively affects firm performance. However, this finding may be related to sample differences in the studies. The variations in results could be due to sample differences, (Yang & Yee, 2022) focused on publicly traded companies, while (Bui & Le, 2023) examined companies engaged in CSR practices, whereas the sample in this study is SMEs in Sleman, which may not necessarily practice CSR. (Heredia et al., 2022) also studied the relationship between digitalization capability and firm performance using a sample of private companies, which is more relevant to this study and produced negative results for the direct relationship between digitalization capability and firm performance. Therefore, this study finds that digitalization capability in SMEs in Sleman, Yogyakarta Special Region, does not significantly influence firm performance.

Market Utilization Agility, Digitalization Capability, and Firm Performance

SME management should consider that market utilization agility is not the main factor mediating the relationship between digitalization and firm performance. They need to focus on other areas, such as operational agility, which has a more direct impact on performance. Market utilization agility is proven not to mediate the influence between digitalization capability and MSME business enterprise performance. Thus, it can be concluded that MSMEs in Sleman Special Region of Yogyakarta with digitalization capabilities do not use market utilization agility to improve company performance.

This finding contrasts with the results of studies by (Ayadi et al., 2022) and (Jing et al., 2023), Jing et al. (2023), which suggested that market utilization agility significantly mediates the relationship between digitalization capability and firm performance. The discrepancy may be attributed to differences in the sample populations used in these studies. Variations in results may stem from differences in samples, (Ayadi et al., 2022.) and (Jing et al., 2023) focused on middle and upper management samples. Joensuu-Salo et al. (2018) also studied market utilization agility mediating the relationship between digitalization capability and firm performance using a sample of SMEs, which is more relevant to this study and yielded negative results regarding market utilization agility mediating the relationship between digitalization capability and firm performance. Additionally, this finding is related to the negative results from hypothesis 3, which indicated that market utilization agility does not significantly impact firm performance. This leads to a lack of sufficient evidence supporting the mediating role of the variable in the previous hypotheses, making this hypothesis less robust. The differences in results could also be attributed to the rejection of the earlier hypotheses. As a result, this study concludes that market utilization agility in SMEs in Sleman, Yogyakarta Special Region, does not significantly mediate the relationship between digitalization capability and firm performance.

Operational Adjustment Agility, Digitalization Capability, and Firm Performance

Management should utilize digitalization capabilities to enhance operational adaptability, as this has been proven crucial for improving firm performance. Digitalization efforts should focus on increasing flexibility and speed in operational adjustments to positively influence performance. Operational adjustment agility has been shown to fully mediate the relationship between digitalization capability and MSME performance. Therefore, it can be concluded that MSMEs in Sleman, Yogyakarta Special Region, leverage digitalization capabilities to improve their performance through operational adjustment agility.

This finding aligns with the research of (Atobishi et al., 2024), which identified a significant positive relationship between digitalization capability and firm performance, with operational adjustment agility acting as a mediator. Digitalization capabilities are closely linked to operational adjustment agility, enabling firms to swiftly detect and

respond to environmental changes. This study confirms that businesses capable of reconfiguring operational systems, resources, and strategies can enhance their overall processes to be more responsive and innovative. Additionally, this conclusion is supported by (Li et al., 2022), who found that operational adjustment agility mediates the relationship between a company's digitalization capability and its performance.

CONCLUSIONS

This study aims to analyze and identify the impact of digitalization capabilities mediated by market utilization agility and operational adaptability on the performance of SMEs in Sleman, Special Region of Yogyakarta. The findings conclude the following: Digitalization capabilities have a positive effect on market utilization agility. Digitalization capabilities have a positive effect on operational adaptability. Market utilization agility does not have a significant effect on the performance of SMEs. Operational adaptability has a positive effect on the performance of SMEs. Digitalization capabilities do not have a significant effect on the performance of SMEs. Market utilization agility does not mediate the effect between digitalization capabilities and the performance of SMEs. Operational adaptability fully mediates the effect between digitalization capabilities and the performance of SMEs.

Limitations and Recommendations

This study included only 105 respondents, meaning the results cannot be generalized to the entire region. Additionally, the characteristics and conditions of SMEs in Sleman may differ from those in other areas of Yogyakarta or other regions in Indonesia, making the findings of this study potentially less relevant for SMEs outside of Sleman. The study only examined how market utilization agility and operational adaptability affect the relationship between digitalization capabilities and company performance. It is suspected that there are other variables that could help explain this relationship. Future research could focus on other variables that connect these factors.

Considering the limitations of this study, for future research to improve upon existing studies: increasing the number of participants surveyed. The demographic backgrounds of the respondents should also be taken into account, as this could lead to a more equitable distribution of the questionnaire. This is important because the respondents in this study are from the Sleman area of the Special Region of Yogyakarta. Secondly, for future research seek other variables that could mediate the relationship between digitalization capabilities and company performance. This way, in the managerial implications, researchers can offer more varied solutions for business practitioners to leverage digitalization capabilities to enhance company performance.

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