



Improving MSMEs Performance through Human Capital, Financial Literacy and Competitive Advantage

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Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

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ABSTRACT

Aims: This study aimed to ascertain this effect of Human Capital and Financial Literacy on MSME Performance with Competitive Advantage as a mediating variable.

Study Design: This study was quantitative. The methods of analysis employed in this research were outer and inner models, bootstrapping analysis, and specific indirect effects.

Place and Duration of Study: The study's sample, which was MSMEs in Banyumas Regency, Central Java, Indonesia. Moreover, the duration of this study was 3 months.

Methodology: This study utilized Structural Equation Modeling (SEM) based on Partial Least Square (PLS), this consists of the inner model and the outer model. With a mediation test using indirect effect. Purposive sampling, which used 162 respondents, was the sample strategy employed in this study.

Results: The results showed how Human Capital and Competitive Advantage have a positive and significant effect on the Performance of MSMEs. Furthermore, the mediating test results showed

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that Competitive advantage has been able to mediate the connection between Human Capital and MSME Performance. However, the results of this study found that Financial Literacy has no effect on MSME Performance and Competitive Advantage. In addition, the results showed that Competitive Advantage has not been able to mediate the relationship between Financial Literacy and MSME Performance.

Conclusion: This research shows that a number of factors, such as Competitive Advantage and Human Capital, affect MSMEs' Performance. The results were in accordance with Resource Based Theory's concept that managing an organization's human capital, will create a competitive advantage that will increase organizational performance. Therefore, MSMEs need to pay attention to their human capital competencies because. Findings from this research show there is human capital can create competitive advantages that are used in facing competition to improve MSME performance.

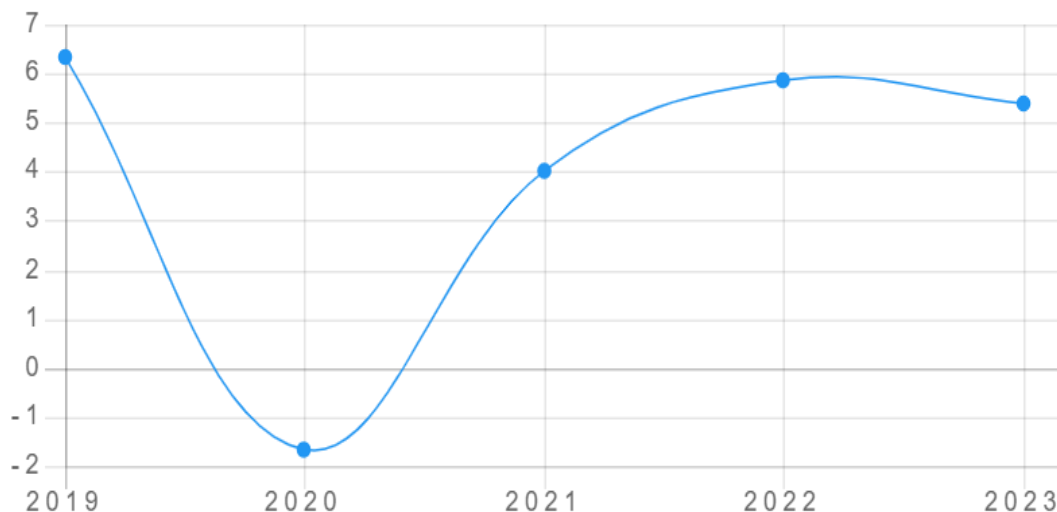
Keywords: Human capital; financial literacy; competitive advantage; MSMEs performance.

1. INTRODUCTION

The economy is a measure of progress in a country. One of the business sectors that significantly contributes to Indonesia's economic improvement is MSMEs. MSMEs can absorb employment, overcome social problems such as poverty and unemployment, are relatively stable from the financial crisis, and even have the highest contribution to GDP compared to other sectors [1]. Based on [2], the contribution of MSMEs to the Gross Domestic Product (GDP) is 61%, or valued at IDR 9,580 trillion, while the contribution in employment reaches 97% of the total workforce. The significant contribution of MSMEs to the Indonesian economy encourages all parties to support and pay attention. The government provides support by implementing various programs such as guidance, training, and funding. This

support seeks to help MSMEs grow and make them more competitive so that they can become a stronger sector in the economy [3].

The existence of MSMEs in each region is a potential for community economic development that must be sustained, including MSMEs located in Banyumas Regency, Central Java. In inclusive and sustainable economic growth, the development and strengthening of the MSME sector are expected to make a significant contribution [4]. According to data from [5], there are 8,563 MSMEs in the Banyumas Regency area, which shows an increase from previous years, and based on [6] Graph 1, it shows better economic conditions, especially in 2022, reaching 5.86%. However, in 2023 there was a decrease of 0.46%, resulting in an economic growth rate of 5.40%.



Graph 1. Economic growth of banyumas regency 2019-2023

Source: Bappeda Central Java Province, 2024 [6]

Based on Graph 1, the decline in economic growth in Banyumas Regency indicates the need for a greater contribution from MSMEs so that efforts are needed to support their sustainability, one of which is to ensure that MSMEs can perform well. Performance is the capacity of a business to reach set goals [7]. MSME performance is the efficiency or effectiveness of an action. Efficiency is the number of employees used to produce a certain output in an action, while effectiveness refers to the achievement of that action [8]. Through the resource-based theory approach, [9]. RBT describes capabilities and resources as both material and immaterial assets that are employed to support and establish plans for enhancing efficacy and efficiency. Well-performing and growing MSMEs are essential for stable and sustainable economic growth [10]. However, to achieve good MSME performance, there are still various problems that are faced, including the low quality of human resources and ignorance of financial management among MSME actors causing MSME competitiveness to be lower than large companies. Therefore, human capital, financial literacy, and competitive advantage are important factors affecting MSME performance.

Previous research found that managing intangible assets, in this case intellectual capital, has been proven to improve organizational performance [11,12,13,14]. One component of intellectual capital which is considered a significant aspect that improves organizational performance is human capital. Human capital is defined as the expertise, skills, and knowledge possessed by MSME owners [15]. Human capital has an important role in managing information and knowledge, which are key factors for businesses to run their business activities [16]. Research results [17] found human capital functions in enhancing MSMEs' performance. The ability of human resources to build cooperation with other entrepreneurs can produce good performance. Supported by research by [15,18,19,20,21] which states that human capital has a significant positive effect on the performance of MSMEs. However, research by [22] and [23] stated that on the contrary, human capital is unaffected the performance of MSMEs. MSME actors in Banyumas Regency have limited broad knowledge so they are not long-term oriented [24]. Therefore, it is necessary to understand that a business will grow if existing resources are managed as much as possible [25]. In this research, what must be managed is human resources.

Financial literacy is the skill or quantity of knowledge that people or groups have about how to successfully manage their finances according to their needs and the economic conditions they face [7]. The knowledge and ability of MSME actors in managing business finances are obtained through financial literacy. When the finances of a business are managed well, it will result in progress and profits that prove that the business is performing well. Research conducted by [26] stating that financial literacy has a significant positive effect on the performance of MSMEs, in line with research conducted by [27,28,29,7,30]. However, in contrast to the research [31,32,23] which states that financial literacy is unaffected the performance of MSMEs. Good and correct financial management is one of the challenges faced by MSME players in Banyumas Regency [33]. This happens because MSMEs are not accustomed to recording and preparing financial reports as a description of business activities and business financial position [34]. The lack of knowledge about financial records causes MSME actors to be less interested in keeping records [33].

Based on the findings of earlier research due to the consequences of the connection between human capital and financial literacy and MSMEs' performance are unclear, researchers are looking at competitive advantage as a mediating factor in the additional value that MSMEs create because of these factors. The primary reason why competitive advantage is used as a mediating variable because businesses may create high-quality products that every customer wants if they have the correct objectives and strategies in place for providing higher value for customers [35]. Therefore, businesses need to have a sustainable competitive advantage [25].

Competitive advantage is a business's ability for success its competitors in terms of services, products, and costs [36]. Competent and qualified human resources are so important in achieving the competitive advantage of a business. MSMEs that can manage their human resources well will create a strong competitive advantage so that maximum business performance is formed. Research [17,36,35,8,19,37,38] contends that MSMEs' performance is significantly improved by competitive advantage.

This research is a development of research conducted by [17] with the variables used previously being human capital, MSME

performance, and competitive advantage. The addition of financial literacy variables as independent variables in this study is to test whether there is an influence on the performance of MSMEs mediated by competitive advantage. In previous studies, the objects used were only limited to batik industry MSMEs, while in this study the environment or business network of the research object was expanded to various MSME sectors. In addition, the difference in location is also a point of difference with previous research. Considering the dearth of studies on the quality of human resources, finance, and competitive advantage in MSMEs in the Banyumas Regency area, researchers are interested in making it the object of research.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1 Literature Review

2.1.1 Resource based theory (RBT)

Wernerfelt [39] states that businesses that can optimize the use of their internal resources have the potential to boost business performance and increase competitiveness to achieve the desired goals. [9] argues that a company needs to make sure its internal resources are better than its external resources to have a competitive edge. One of the business resources that is difficult for competitors to follow is human resources [40]. In addition, according to [9] resources must be valuable, rare, difficult to replicate, and irreplaceable. It becomes a unique strength or advantage to achieve business continuity because competitors will find it difficult to imitate and compete to enter the same market. Based on the explanation above, the expertise, skills, and commitment possessed by human capital in business will create the uniqueness that forms a competitive advantage. The competitive advantage is used as a strategy to win business competition so that it will improve business performance.

2.1.2 Self-efficacy theory

Bandura [41] states that self-efficacy theory is an activity that certain people want to achieve in learning. A person's belief in a plan through activities undertaken to achieve their target. The activity referred to in this study is a person's financial capability. To achieve the desired target and achieve financial capability, one must improve financial knowledge with financial

literacy. From the foregoing explanation financial literacy will increase the financial knowledge of MSME actors who form a competitive advantage. Good financial management techniques provide a competitive advantage in business competition, so that it will improve business performance.

2.2 Hypothesis Development

2.2.1 Human capital's impact on MSME performance

In agreement with resource-based theory, when a business is managed by someone who has expertise, and skills and is highly committed to realizing business goals, it can create value to improve business performance [18]. In their research shows the skills and abilities of business owners and employees influence the direction and level of growth achieved so it should be viewed as an important resource for the business [21]. Stated the importance of capable employees to continuously support and deliver higher business performance, especially in today's challenging knowledge economy. The above description is reinforced by research [17,15,19,20] which claims that human capital has a significant positive effect on the performance of MSMEs. The study's hypothesis, which is supported by the justification given above, is as follows:

H1: Human capital has a significant positive effect on the performance of MSMEs.

2.2.2 Financial literacy's impact on MSME performance

In agreement with self-efficacy theory, financial literacy equips businesses with the knowledge and skills to deal with business financial challenges, thereby strengthening confidence in their ability to manage and make financial decisions. Research [29] states that financial literacy contributes small businesses in gaining the understanding, potential, and competence to financially strategize in order to make choices about services and financial decisions. Financial literacy assists entrepreneurs in gaining the understanding and abilities related to money that they need to start financial plans, write business strategies, and choose wisely the investments to make. The above description is reinforced by research [26,27,28,7,30] which claims that financial literacy has a significant positive effect on the performance of MSMEs. The study's hypothesis, which is supported by the justification given above, is as follows:

H2: Financial literacy has a significant positive effect on MSME performance.

2.2.3 Competitive advantage's impact on MSME performance

In agreement with resource-based theory, a business that has a competitive advantage can be stronger in facing business challenges and can maintain its business performance. In line with the research [37] that competitive advantage turns as an essential factor when assessing whether business performance is rising or falling [38]. Stated that the higher the access to finance and competitive advantage, the higher the performance of MSMEs. This statement is supported by research [17,36,27,35,19,8,38] which states that competitive advantage has a significant positive effect on the performance of MSMEs. The study's hypothesis, which is supported by the justification given above, is as follows:

H3: Competitive advantage has a significant positive effect on MSME performance.

2.2.4 Human capital's impact on competitive advantage

In agreement with resource-based theory, the competitive advantage of a business can continue by utilizing its internal resources more effectively than competitors, especially in the face of market dynamics that affect business performance. The internal resources in question are human resources. Research results [17] stated that human resources are one of the resources that differentiate a business from its competitors. This statement is supported by research [19,42,43] which states that human capital has a significant positive effect on competitive advantage. The study's hypothesis, which is supported by the justification given above, is as follows:

H4: Human capital has a significant positive effect on competitive advantage.

2.2.5 Financial literacy's impact on competitive advantage

In agreement with self-efficacy theory, financial literacy empowers individuals and businesses to make better financial decisions, manage risks effectively, and capitalize on opportunities so that individuals and businesses can achieve competitive advantage [44]. In addition to stating that it is not only large companies that need a competitive advantage, MSMEs are also important to create a sustainable competitive

advantage at least in maintaining their survival. The description above, reinforced by research [27] and [45] which states that financial literacy has a significant positive effect on competitive advantage. The study's hypothesis, which is supported by the justification given above, is as follows:

H5: Financial literacy has a significant positive effect on competitive advantage.

2.2.6 Effect of human capital through competitive advantage on MSME performance

In agreement with resource-based theory, the role of business management in anticipating business dynamics is carried out by human resources. Research confirm this up [36] which indicates skilled and dedicated employees are valuable assets in achieving competitive advantage. Building and maintaining a competitive advantage, as well as maintaining a focus on customer needs are strategies that can increase competitiveness and business success in a competitive market. This statement affirms what the research's findings show [17] and [19] it claims that the performance of MSMEs is significantly improved by human capital through competitive advantage. The outcomes of empirical studies conducted [42] and [43] revealed that competitive advantage is significantly enhanced by human capital, according to study findings [36,27,35,8,38] concluded that MSMEs' performance is MSMEs' performance has been significantly boosted by competitive advantage. The study's hypothesis, which is supported by the justification given above, is as follows:

H6: Human Capital has a significant positive effect on MSME performance through Competitive Advantage.

2.2.7 Effect of financial literacy through competitive advantage on MSME performance

In agreement with self-efficacy theory, financial literacy increases the self-efficacy of MSME owners through financial knowledge and skills to gain a competitive advantage that leads to MSME sustainability and success. Supported by research results [27] reveal that MSME owners and managers must have good financial literacy to improve business performance against funding, have a good financial risk attitude, and maintain a competitive advantage. The results of empirical studies conducted [45] and [44] which states that financial literacy provides a significant

boost to competitive advantage, according to research findings [17,36,35,8,38] found that the performance of MSMEs is significantly improved by competitive advantage. The study's hypothesis, which is supported by the justification given above, is as follows:

H7: Financial literacy has a significant positive effect on the performance of MSMEs through Competitive Advantage.

3. METHODS

3.1 Population and Sample

The population used was MSME actors in the Banyumas Regency area. Purposive sampling

was the method of sampling employed in this case study, and it met the following standards: respondents are MSME owners who have been established for more than 3 years, are still actively running a business, and are located in the Banyumas Regency area. Based on these criteria, the sample used in this study was 162 respondents. This study distributes digital surveys as a means of collecting primary data in the form of Google Forms.

Operational definition of variables: Table 1 shows the variables utilized in this study, including their definition.

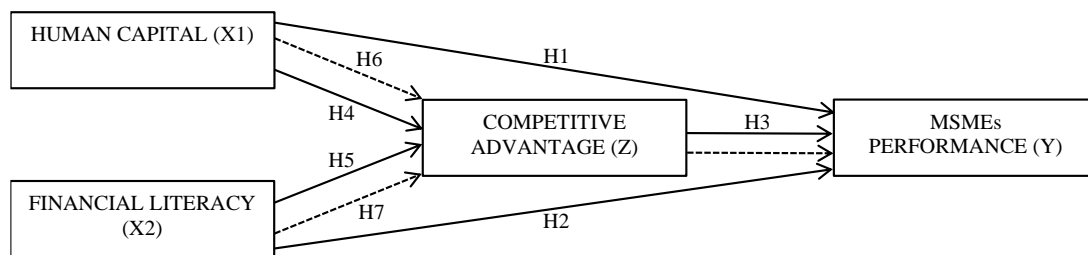


Fig. 1. Conceptual Framework

Table 1. Classification of variables and indicators

Variables	Definitions	Indicators	Items	Sources
Human Capital	Human capital is a critical component of business success as it relates to the ability to make strategic decisions and developing positive relationships with employees is critical to business success [18].	Competencies	1. Our business has knowledgeable employees. 2. Our business has employees who are experts in their work. 3. Our business has very experienced employees.	[21]
		Attitude	4. Our business has employees who are highly committed to completing tasks. 5. Our business has employees who are willing to learn from other colleagues. 6. Our business has employees who are motivated in their work. 7. Employees in our business are constantly sharing new ideas and expertise with other colleagues. 8. Our business has employees who are cooperative with other employees.	
		Intellectual Alertness	9. Employees in our business are always coming up with innovative, creative, and more effective ways to complete tasks.	

Variables	Definitions	Indicators	Items	Sources
Financial Literacy	Financial literacy is an individual's ability to make judgments and make effective decisions related to financial management [46].		10. Employees in our business can contribute fresh perspectives and creative ideas. 11. Employees in our business are able to foresee potential issues and seek out chances to address them. 12. Employees in our business complete business transactions as quickly as feasible. 13. Workers at our business are able to recognize and adjust to changes in the work environment.	[46,29]
		Soft Skills	14. Our business has employees who have good communication skills. 15. Our business has employees who have leadership skills. 16. Our employees are independent and able to work under minimal supervision. 17. Our business has employees who are good at defining, evaluating, and solving problems related to the business.	
		General Personal Finance Knowledge	18. We understand the factors that affect income. 19. We are aware of the revenue streams. 20. We can describe how to achieve prosperity and financial objectives. 21. We can keep financial records. 22. We understand financial statements.	
		Saving and Borrowing	23. We understand the savings budget. 24. We can analyze the advantages and disadvantages of being in debt.	
MSME Performance	Business performance is the result of achieving business objectives using a good and effective strategy [37].	Financial Performance	25. Our business has generated increasing profits for the previous three years. 26. Over the past three years, operating capital for our business has increased.	[7,47,48,17]
		Product Performance	27. Over the past three years, our business has produced a growing quantity of goods. 28. Demand for our products has increased in the last three years.	
		Marketing Performance	29. Over the last three years, our business's revenues have	

Variables	Definitions	Indicators	Items	Sources
Competitive Advantage	A competitive advantage is an edge over rivals that may be attained by giving customers more value either through lower pricing or by delivering more advantages to offset higher costs [8].	Product Uniqueness	increased steadily. 30. In the last three years, our business has seen a growth in consumers. 31. Our business can create products with interesting variants. 32. Our business can create products with combinations according to consumer desires.	[49,17]
		Product Quality	33. The quality of the product is unmatched by other offerings. 34. Competitors find it difficult to replicate the caliber of the goods provided.	
		Competitive Price	35. Prices from our business are consistently lower than those of our rivals. 36. We consistently provide costs that are on par with or even cheaper than those of our rivals.	

Source: Data processed by authors (2024)

4. RESULTS AND DISCUSSION

4.1 Results

4.1.1 Profile respondents

This study involved 162 respondents who were categorized based on gender, monthly turnover, and number of employees.

Based on the data in Table 2, the majority of MSME actors were male (65.4%), with monthly turnover <Rp.166,000,000 (85.8%) and number of employees <5 people (87.0%).

4.1.2 Data Instrument test

4.1.2.1 Validity test

Construct validity test is a test by determines the quality of accounting information instruments by examining each question item's loading factor value [20].

1. Convergent Validity

a. Factor Loading

Convergent validity aims to evaluate each relationship's validity between the indicators and their latent variables [20]. In this test, loading factors can be said to be valid if >0.7 (more than 0.7). Based on Table 3, the results of all loading factor values are >0.7 such that each indicator's

validity and significance in assessing its concept may be deduced.

b. Average Variance Extracted (AVE)

In this test, the Average Variance Extracted (AVE) value can be said to be valid if > 0.5 (more than 0.5). The test findings indicate, based on Table 4, that all AVE values in this study have met the requirements, namely > 0.5 it leads to the conclusion that all indicators are valid and that each construct is free of AVE issues.

2. Discriminant Validity

a. Fornell-Larcker Criterion

Discriminant validity is used to assess how much difference between a construct and another construct. Discriminant validity which has a high value indicates that a construct has unique characteristics and can describe the phenomenon being measured specifically. Table 5 indicates that the test findings indicate that each variable's AVE root value exceeds the AVE root of its correlation with other variables, indicating that discriminant validity is satisfied or valid.

4.1.2.2 Test of reliability

A reliability test is performed to demonstrate the instrument's accuracy, consistency, and

precision in measuring constructions [50]. Two criteria are used to evaluate the dependability of variable constructs in order to test the analysis of the outer model:

1. Composite Reliability

2. Cronbach's Alpha

The accepted limit value for the level of composite reliability is 0.7 although it is not an absolute standard [24]. From Table 6, shows the reliability test output from the composite reliability

value and Cronbach's alpha > 0.7 so it can be concluded that the construct has a very good level of reliability.

4.1.2.3 Structural model results (Inner Model)

The structural model (inner model) seeks to realize the connection between variables through testing. In this study, the relationship between human capital and financial literacy variables on MSME performance with the competitive advantage variable acting as a mediating variable.

Table 2. Respondent profile

Category	Frequency	%
Gender		
Male	106	65.4%
Female	56	34.6%
Turnover every month		
<Rp. 166.000.000	139	85.8%
Rp. 166.000.000 - Rp. 1.250.000.000	22	13.6%
Rp. 1.250.000.000 - Rp. 4.166.000.000	1	0.6%
Number of Employees		
<5	141	87.0%
5-19	15	9.3%
20-99	6	3.7%

Source: Data processed by authors (2024)

Table 3. Output results of outer loadings

Items	X1 (HC)	X2 (FL)	Y (MP)	Z (CA)	Descriptions
HC8	0.806				Valid
HC9	0.843				Valid
HC10	0.873				Valid
HC11	0.836				Valid
HC13	0.814				Valid
HC14	0.814				Valid
HC15	0.812				Valid
HC16	0.810				Valid
HC17	0.834				Valid
FL1		0.962			Valid
FL2		0.961			Valid
MP1			0.950		Valid
MP2			0.931		Valid
MP5			0.919		Valid
CA1				0.908	Valid
CA2				0.909	Valid
CA5				0.840	Valid

Source: Data processed by authors (2024)

Table 4. Average Variance Extracted (AVE)

Variables	AVE	Descriptions
X1 (HC)	0.684	Valid
X2 (FL)	0.925	Valid
Y (MP)	0.872	Valid
Z (CA)	0.785	Valid

Source: Data processed by authors (2024)

Table 5. Fornell-larcker criterion

Variables	X1 (HC)	X2 (FL)	Y (MP)	Z (CA)	Descriptions
X1 (HC)	0.827				Valid
X2 (FL)	0.787	0.962			Valid
Y (MP)	0.800	0.710	0.934		Valid
Z (CA)	0.819	0.651	0.786	0.886	Valid

Source: Data processed by authors (2024)

Table 6. Composite reliability and cronbach's alpha

Variables	Cronbach's Alpha	rho_A	Composite Reliability	Descriptions
X1 (HC)	0.942	0.943	0.951	Reliable
X2 (FL)	0.919	0.919	0.961	Reliable
Y (MP)	0.926	0.929	0.953	Reliable
Z (CA)	0.863	0.862	0.916	Reliable

Source: Data processed by authors (2024)

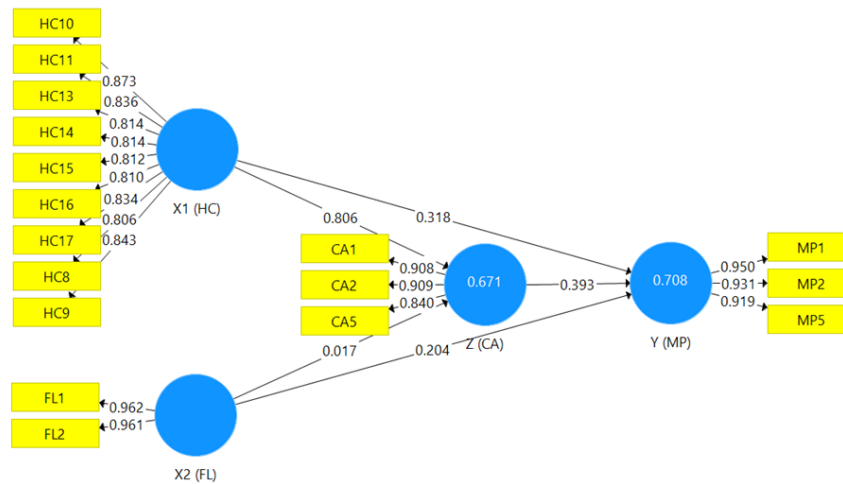


Fig. 2. Inner Model

Table 7. R-Square

Variables	R-Square	Descriptions
Y (MP)	0.708	Medium
Z (CA)	0.671	Medium

Source: Data processed by authors (2024)

Table 8. Direct effect: Path coefficients

Variables	Original Sample	Sample Mean	Standard Deviation	T Statistics	P-Values	Descriptions
X1 (HC)->Y (MP)	0.318	0.323	0.144	2.208	0.028	Supported
X2 (FL)->Y (MP)	0.204	0.197	0.104	1.959	0.051	Not Supported
Z (CA)->Y (MP)	0.393	0.396	0.106	3.717	0.000	Supported
X1 (HC)->Z (CA)	0.806	0.810	0.088	9.109	0.000	Supported
X2 (FL)->Z (CA)	0.017	0.016	0.099	0.170	0.865	Not Supported

Source: Data processed by authors (2024)

Table 9. Indirect effect: Specific indirect Effects

Variables	Original Sample	Sample Mean	Standard Deviation	T Statistics	P-Values	Description
X1 (HC)->Z (CA)->Y (MP)	0.317	0.321	0.094	3.389	0.001	Supported
X2 (FL)->Z (CA)->Y (MP)	0.007	0.007	0.041	0.163	0.870	Not Supported

Source: Data processed by authors (2024)

The R-Square for the dependent construct is used to evaluate the inner model, also known as the structural model [20]. R-Square is a measure that shows how much variation in the value of endogenous variables (those affected) can be explained by exogenous variables (those that affect them).

Table 7 shows that the R-Square value on the MSME performance variable (Y) is 0.708, which means that the ability of variables X1 and X2 to explain Y is 70.8%, while the competitive advantage variable (Z) is 0.671, which means that the ability of variables X1 and X2 to explain Z is 67.1%. The R-Square results on both variables fall into the moderate category (moderate) because R2 is categorized as moderate (moderate) if the value is 0.50 to 0.74.

4.1.2.4 Hypothesis test result

In PLS, testing each hypothesized relationship statistically uses simulation using the sample and the bootstrapping technique. The goal of bootstrapping testing is to reduce the issue of abnormalities in study data. [20].

The Path Coefficient test is needed to prove how strong the influence of the independent variable is on the dependent variable. If the P-Values <5% (0.05) then there is a direct influence on the dependent variable [17].

5. DISCUSSION

5.1 First Hypothesis Testing Results

Based on Table 8, the coefficient value of the human capital variable on the performance of MSMEs with a path coefficient of 0.318 and a t-statistic of 2.208, which shows that the t-count > t-table (1.960), as well as a p-value of 0.028 <0.05. Therefore, the hypothesis stating that human capital has a positive effect on MSME performance is supported. The outcomes of the analysis indicate that human capital consisting of competence, attitude, intellectual alertness, and soft skills can enhance MSMEs' performance. In

accordance to the resource-based theory, this is consistent with the idea that human capital acts as a value creator capable of improving the performance of MSMEs. Research [21] revealed that human capital not only provides value to the business in the short term but also plays an important role in maintaining business performance in the long term. This study's results validate earlier empirical research carried out by [17,15,19,18,20] which states that human capital has a significant positive effect on the performance of MSMEs.

5.2 Second Hypothesis Testing Results

Based on Table 8, in addition, the coefficient value of the financial literacy variable on MSME performance with a path coefficient of 0.204 and a t-statistic of 1.959 which shows that the t-count is less than the t-table (1.960), and the p-value is 0.051 > 0.05. As such, the hypothesis that claims financial literacy has an impact on MSMEs' performance is unsupported. The analysis's findings show that financial literacy included of personal financial knowledge, saving, and borrowing cannot improve the performance of MSMEs. This is an impact of MSME actors' inadequate financial literacy, which prevents them from making sound financial decisions or planning to enhance business performance [51]. Supported by research results [52] states that the performance of MSMEs is most severely affected by marketing and production aspects.

5.3 Third Hypothesis Testing Results

Based on Table 8, the coefficient value of the competitive advantage variable on MSME performance with a path coefficient of 0.393 and a t-statistic of 3.717 which shows that the t-count > t-table (1.960), and a p-value of 0.000 <0.05. Therefore, the hypothesis stating that competitive advantage has a positive effect on MSME performance is supported. Of The outcomes the analysis indicate that competitive advantage consisting of product uniqueness, product quality, and competitive pricing can improve MSME performance. This is in line with

the resource-based theory, which states that competitive advantage plays a role in strengthening MSMEs in facing challenges and maintaining their performance. Reinforced by the study results [37] which reveals that the higher the competitive advantage owned by MSMEs, the higher the business performance will be. Research results [17] indicates that companies' marketing efforts will be successful because of increased sales, and customers' ability to do so will be facilitated by high-quality products. The outcomes of this research validate earlier empirical studies carried out by [36,27,35,8,19,38] which states that MSMEs' performance gets significantly better by having a competitive advantage.

5.4 Fourth Hypothesis Testing Results

Based on Table 8, the coefficient value of the human capital variable on competitive advantage with a path coefficient of 0.806 and a t-statistic of 9.109 which shows that the t-count > t-table (1.960), and a p-value of 0.000 < 0.05. Therefore, the hypothesis stating that human capital has a positive effect on competitive advantage is supported. The outcomes indicate that human capital consisting of competence, attitude, intellectual alertness, and soft skills can increase the competitive advantage of MSMEs amid business competition. This is in line with the resource-based theory, which states that the sustainability of a business's competitive advantage by utilizing its internal resources in the face of market dynamics can improve the performance of MSMEs. Research [42] stated that the sustainability of competitive advantage through human resources is quite difficult, but if the business focuses on human capital, as the best capital, it will be easy to do. The study's findings also agree with earlier empirical studies by [17,19,43] which states that human capital has a significant positive effect on competitive advantage.

5.5 Fifth Hypothesis Testing Results

Based on Table 8, the coefficient value of the financial literacy variable on competitive advantage. with a path coefficient of 0.017 and a t-statistic of 0.170 which shows that the t-count is less than the t-table (1.960), and the p-value is 0.865 > 0.05. Therefore, the hypothesis that financial literacy has a positive effect on competitive advantage is not supported. The results of the analysis indicate that financial literacy, which consists of personal financial

knowledge, saving, and borrowing, cannot increase the competitive advantage of MSMEs in the competitive market. This is because MSME actors only rely on creativity and innovation so that their products continue to keep up with the times and are in demand by consumers. Nevertheless, MSME actors still try to improve the performance of their products so that they always excel in the market even though their knowledge of financial management is not good [53].

5.6 Sixth Hypothesis Testing Results

Based on Table 9, the coefficient value of human capital through competitive advantage on MSME performance with a path coefficient of 0.317 and a t-statistic of 3.389 which shows that the t-count > t-table (1.960), and a p-value of 0.001 < 0.05. Therefore, the hypothesis stating that human capital through competitive advantage has a positive effect on MSME performance is supported. The results of the analysis show that competitive advantage consisting of product uniqueness, product quality, and competitive price can mediate the relationship between human capital and MSME performance. Supported by research results [42] reveal that competitive advantage based on human capital brings innovation and sustainability in business work. Innovations include taste, design, shape, quality, and price of products that have an impact on improving business performance. The study's findings also agree with earlier empirical studies by [17] and [19] which states that human capital has a significant positive effect on MSME performance through competitive advantage. In addition, supporting research by [42] and [43] as well as [36,27,35,8,38] concluded that human capital has a positive effect on competitive advantage, which in turn has a positive influence on MSMEs' performance.

5.7 Seventh Hypothesis Testing Results

Based on Table 9, the coefficient value of financial literacy through competitive advantage on MSME performance with a path coefficient of 0.007 and a t-statistic of 0.163 shows that the t-count is less than the t-table (1.960), and the p-value is 0.870 > 0.05. Therefore, the hypothesis that financial literacy through competitive advantage has a positive effect on MSME performance is not supported. The results of the analysis show that competitive advantage consisting of product uniqueness, product quality, and competitive price is not able to

mediate the relationship between financial literacy and MSME performance. Financial literacy is not the main factor that creates a competitive advantage. Marketing and production aspects are considered important in the creation of competitive advantage for MSMEs [52]. This is because MSME players only rely on creativity and innovation so that their products keep up with the times and are in demand by consumers [53].

6. CONCLUSIONS AND RECOMMENDATIONS

The results of this study showed that human capital has a significant positive effect on the performance of MSMEs. The results also found that competitive advantage has a significant positive effect on the performance of MSMEs. Furthermore, the mediation test results show that competitive advantage mediates the relationship between human capital and MSME performance. However, the study's findings revealed that financial literacy does not affect MSME performance and competitive advantage. In addition, the results show that competitive advantage cannot mediate the relationship between financial literacy and MSME performance.

Based on the above limitations, this study provides several theoretical and practical suggestions; First, MSMEs need to pay attention to their human capital competencies because this study's outcomes indicate that human capital can create competitive advantages that are used in facing competition to improve MSME performance. Second, Further study may reveal additional factors, such financial management. because it is proven to improve the performance of MSMEs [54,55,56]. Further research can also add intellectual capital variables because they are proven to increase the competitive advantage of MSMEs [57,58,59]. Third, In order to enable a wider generalization of the research findings, this study can enlarge the research object.

DISCLAIMER (ARTIFICIAL INTELLIGENCE)

Authors hereby declare that NO generative AI technologies and text-to-image generators have been used during writing or editing of manuscripts.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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