Building MSMEs Resilience with the Role of Digitalization and Human Resource Practices

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Abstract

This study highlights the important role of digitalization and human resource management in strengthening the resilience of MSMEs in Cirebon City. Using a quantitative approach based on SEM-PLS, this study analyzed 173 MSMEs in the culinary sector. The results show that digitalization has a positive impact on the resilience of MSMEs, although the effect is not as great as the role of human resource management. The R-square value of 0.652 indicates that these two factors together explain 65.2% of the variation in MSMEs resilience. Therefore, this study recommends strengthening digitalization strategies and improving the quality of human resource management through training and supportive policies, in order to improve the competitiveness and sustainability of MSMEs in the face of economic and social dynamics in the digital era.

Keywords: MSMEs, Resilience, Digitalization, Human Resources

1. Introduction

In the rapidly evolving digital age, change occurs at a high intensity, creating a situation that is constantly changing dynamically. This makes the organization's ability to deal with uncertainty even more crucial. To survive and thrive, organizations need to have strong resilience and adaptability (Muharam et al., 2024). Business resilience is the ability of MSMEs to adapt to various challenges, such as change, and growth, while utilizing business opportunities that arise in the midst of a challenging business environment (Pambreni & Sudari, 2025).

The economic growth of a country or region cannot be separated from the role of Micro, Small and Medium Enterprises (MSMEs). They are a major force driving economic progress, creating jobs, and promoting innovation. MSMEs are not just a business association, but also a high-impact economic driver (Farida, 2023). MSMEs play a strategic role in the Indonesian economy. With a total of 64.2 million, MSMEs not only contribute 61.07% of the Gross Domestic Product (GDP) worth 8,573.89 trillion rupiah, but also absorb 97% of the total workforce and raise 60.4% of total investment. However, this success must be balanced with efforts to overcome the challenges faced by MSMEs (Limanseto, 2021).

MSMEs are now faced with various challenges in the digital era, such as changing consumer habits, competition from global markets, and uncertain economic conditions (Muharam et al., 2024). Their ability to absorb labor and create new jobs is very important in the face of global economic changes (Farida, 2023).

Digital transformation has become an important aspect for micro, small and medium enterprises (MSMEs) in today's dynamic business environment. Digital transformation is often seen as a strategic step to improve financial performance, improve decision-making, and drive innovation in business models. By implementing digital strategies and adopting new technologies, MSMEs can create innovative products and services while adapting to technological advances (Cassaro et al., 2024). Adopting digital marketing can support MSMEs in accelerating their digital transformation. This is done by increasing business flexibility while providing easy-to-understand guidance to managers (Joeliaty, 2024).

Improving human resource practices is one of the key factors that determine the competitiveness and sustainability of MSMEs in the long term (Putra et al., 2023). Improved human resource practices play an important role in strengthening the resilience and improving the performance of MSMEs. To remain competitive in the market and survive in the long term, MSMEs need qualified, skilled and innovative human resources. While the challenges of sustainability integration are often more complicated for small businesses than for large enterprises, building resilience

remains a necessity that cannot be ignored. Therefore, the quality of human resources directly affects the ability of MSMEs to maintain their sustainability.

The development of human resources (HR) in the MSMEs sector in Cirebon City plays an important role in the city's economic growth. Unfortunately, there are still many challenges faced, such as low workforce performance, limited product innovation, and lack of optimal technology utilization (Nurani et al., 2023). To overcome this, entrepreneurial leadership is needed that is not only responsive to change but also innovative in creating new opportunities but also able to adapt to digital transformation. By implementing a sustainable transformation culture, this will encourage MSMEs in Indonesia, especially in Cirebon City, to become more competitive in the global market.

This study aims to evaluate the resilience of micro, small and medium enterprises (MSMEs) in Cirebon City in facing economic and social challenges, particularly in adaptation and recovery efforts. Furthermore, this study will analyze whether there are significant differences in the level of resilience of MSMEs based on the level of digitalization implementation as well as human resource management practices. Given the post-pandemic challenges affecting MSMEs in Cirebon City, strengthening business resilience is an urgent priority.

The results of this study are expected to serve as a basis for the Cirebon City Government and related parties, such as the Office of Cooperatives, MSMEs, Trade, and Industry, in formulating policies that support digital transformation and effective HR management. Thus, this research contributes to filling the information gap on MSMEs resilience while supporting inclusive and sustainable economic growth in Cirebon City.

2. Literature Review

2.1. MSMEs Resilience

Resilience is the ability to face challenges, rise from adversity, and adjust to new situations in order to survive (Castro & Castro, 2023). Business resilience refers to the ability of a business to survive, adapt, and bounce back from difficult situations or traumatic experiences. This quality is very important, especially in the world of entrepreneurship, because it helps businesses remain resilient in the face of challenges (Sulastri et al., 2021). Resilience is a person's ability to adjust in the face of difficult events such as tragedy, stress or other challenges. The term is also often used to describe an individual's resilience in overcoming adversity quickly and effectively, both in personal life and career. For entrepreneurs, resilience is especially important as they are faced with uncertain situations every day (Kussudyarsana et al., 2023).

2.2. Digitalization

Digitalization is the use of digital technology to optimize business processes, increase revenue, and open new business opportunities (Salsabila et al., 2024). The utilization of this technology aims to improve operational efficiency, reduce costs, speed up services, and provide more convenience for customers (Alfian et al., 2024). The rapid shift towards online business models has created a need for individuals with digital skills, who can help traditional businesses adapt to the world of e-commerce. Long term, utilizing digital technology can expand market reach while creating a lasting competitive advantage. Individuals who have the ability to implement digitalization will more easily adjust to changes and be able to maintain their business continuity in a sustainable manner (Umar et al., 2023). Strategically adopting digital technologies can improve competitiveness, productivity, resilience and performance, while opening up opportunities to master new digital skills. They increasingly realize that moving quickly in utilizing digital technology is the key to staying relevant, surviving, and even gaining an edge in the midst of intense competition (Meli Putri Yana et al., 2024).

2.3. Human Resource Practices

Human resources are a very important and inseparable element of an organization, be it an institution or a company. Human resources are also the main factor that determines the progress of business activities. Every company increasingly needs quality human resources to achieve its goals, because the higher the quality of human resources in a company, the better the competitiveness of the company (Sun Siagian & Agusty Ningrum, 2022). Likewise in MSMEs, the existence of human resources is a very vital element for every business. The quality of human resources will be a determinant in winning the competition. An entrepreneur needs to have competence in delegating tasks, managing business operations, building and maintaining relationships with customers, managing funding sources, and applying interpersonal relationship skills. All these aspects are equally important to help entrepreneurs achieve success or grow their business (Sun Siagian & Agusty Ningrum, 2022).

2.4. Hypothesis Development

Digitalization and human resource practices, as key factors in MSMEs resilience, play an important role in strengthening business adaptability and sustainability. Digitalization enables bles MSMEs to improve operational efficiency, optimize market reach, and enhance interactions with customers through technological advancements such as e-commerce and digital payment systems (Utami Putri et al., 2023). Meanwhile, effective human resource practices, including employee training and strategic workforce management, contribute to business stability and long-term growth by ensuring a skilled and motivated workforce (Mawardi et al., 2024). The integration of of digitalization and HR practices provides MSMEs with the necessary tools to face economic challenges and remain competitive in an increasingly digital market (Joeliaty, 2024).

H_1: Digitalization has a positive and significant influence on the MSMEs resilience.
H_2: Human resource practices have a positive and significant influence on the MSMEs resilience.

The sustainability of MSMEs is strongly linked to the adoption of digital transformation and the implementation of strategic HR practices. Digital tools such as data analytics and cloud computing enable MSMEs to make more informed business decisions and improve overall performance (Maulana et al., 2024). At the same time, investments in people development drive innovation, increase adaptability and strengthen business resilience in highly competitive markets (Mukhlis et al., 2022). The combination of digitization and well-executed HR practices not only ensures business sustainability but also enhances MSMEs competitiveness by aligning operations with evolving industry demands (Sari et al., 2024).

H_3: Digitalization and human resource practices together have a positive and significant effect on the MSMEs resilience.
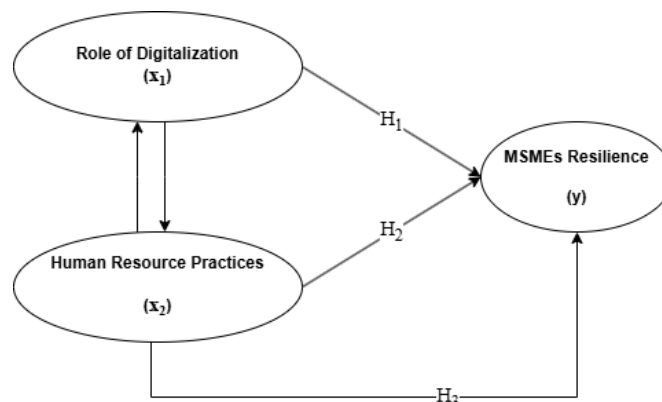

Figure 1. Theoritical Framework of Research

Table 1a. Operational Variables

Variable item	Dimensions	Indicator code	Indicator Description
Digitalization (Sakinah et al., 2024)	Self-Confident	RD1	Confidence in using technology
	Perceived Benefits	RD2	Relevance of performance
	Understanding Ease of Use	RD3	Ease of interaction
	Response to Use	RD4	Positive attitude towards technology
	Attitude Intention to Use	RD5	Intention to use technology
	Actual System Use	RD6	Frequency of Use

Table 1b. Continued: Operational Variables

	Planning	HRP1	Prioritize work
		HRP2	Planning needs
		HRP3	Manage relationships with external parties
		HRP4	Planning for development
	Organizing	HRP5	Organize work schedule
		HRP6	Managing needs
		HRP7	Dividing operational time and administrative tasks
Human Resources Practices (Zainal, 2015)		HRP8	Utilizing technology
	Implementation	HRP9	Carry out production
		HRP10	Maintain relationships with external parties
		HRP11	Implementing strategies
		HRP12	Evaluate results
	Controlling	HRP13	Checking the effectiveness of the strategy
		HRP14	Tracking cash flow
		HRP15	Identify and solve problems
	Planning	MR1	Proactive attitude
		MR2	Prioritization of recovery
		MR3	Planning strategy
		MR4	Participation in Training
		MR5	External resource capability and capacity
		MR6	Monitoring and reporting on internal and external conditions
MSMEs Resilience (Sharma & Sharma, 2015)		MR7	Competence and proficiency of internal resource
	Adaptive Capacity	MR8	Staff contribution and participation
		MR9	Closed mindset
		MR10	Information and knowledge
		MR11	Leadership, management and governance structure

Table 1c. Continued: Operational Variables

| MR12 | Innovation and creativity |
| MR13 | Decentralized and responsive decision-making |

3. Materials and Methods

3.1. Materials

This research uses quantitative methods to conduct a thorough analysis to answer the research problem. The research results are described descriptively. Furthermore, for research data analysis, researchers used PLS SEM as an analysis technique. PLS-SEM is an approach in Structural Equation Modeling (SEM) that focuses on predictive aspects, with the main objective of estimating and explaining causal relationships in a pre-designed statistical model. This approach emphasizes the model's ability to predict rather than simply test the theory (Purwanto & Sudargini, n.d.). This technique combines a structural approach and allows solving problems in multiple regression with the SMART PLS analysis tool through various stages of Outer Model, Inner Model, and hypothesis testing (Abdurrahman & Mulyana, 2022). This study aims to evaluate the causal relationship between one dependent variable and two or more independent variables.

This research focuses on all MSMEs in Kesambi District, Cirebon City, with a total of 542 MSMEs used as the population. Of these, the sample specifically selected was micro-enterprises in the culinary sector, so that 304 MSMEs were obtained as the object of research. The sampling method used was purposive sampling, which is the deliberate selection of respondents based on suitability with the research objectives and characteristics relevant to the topic under study. This method was chosen in order to explore more in-depth information about the characteristics of micro businesses and ensure that respondents have relevantinsights, experience or expertise. From a total of 200 data collected, only 173 met the criteria for further analysis.

3.2. Methods

In this study, the sample usedis part of the overall population. The determination of the sample size was carried out using the Slovin Formula, which is one of the most popular sampling methods in quantitative research. This formula is often used to determine the number of representative samples, so that the research results can be generalized without requiring a special table in the calculation. Thus, the Slovin Formula plays a role in determining the right sample size in a study. This formula is expressed as follows:

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

Desciption:
n = number of samples required,
N = total population studied, and
e = error rate set in sampling (0,5).

The data in this study were collected through a structured survey using a questionnaire. All latent variables (constructs) were measured using the Likert scale model using five levels, namely:

Table 2. Likert Scale

Alternative Answer	Score
Strongly Agree (SA)	5
Agree (A)	4
Disagree Less (DL)	3
Disagree (D)	2
Disagree Strongly (DS)	1

4. Results and Discussion

4.1. Results

The results of this study can be seen in Table 3.

Table 3. Respondent Criteria

Characteristic	Frequency	Percentage
Gender		
Male	82	47%
Female	91	53%
Length of business		
>1 years	20	12%
1-3 years	32	18%
3-5 years	74	43%
>5 years	47	27%
Revenue (IDR)		
>1 million	11	6%
1 million-2.5 million	60	35%
2.5 million-4 million	66	38%
>4 million	36	21%

Based on the Table 3 above, the respondent profile illustrates that Micro, Small and Medium Enterprises (MSMEs) actors in Cirebon City, especially in the culinary sector, are mostly women. Of the 173 respondents analyzed, 53% were women, while the other 47% were men. This reflects the dominant role of women in the world of small businesses, both as owners and managers of businesses that help drive local economic growth.

Based on length of business, the majority of respondents (43%) have been in business for three to five years. A total of 27% have been in business for more than five years, indicating a good level of business resilience. Meanwhile, 18% of businesses have only been running between one and three years, and another 12% are new with less than one year of business. This diversity shows that MSMEs in Cirebon City have a fairly strong level of adaptation in facing business challenges.

In terms of income, there is considerable variation among MSMEs players. 6% of respondents earn less than one million rupiah per month, while 35% eam between one and two and a half million rupiah. The largest group, 38 per cent of respondents, eamed between two and a half to four million rupiah, while 21 per cent eamed more than four million rupiah. This shows that most MSMEs are in the middle income category, with greater potential for growth if supported by training, access to digital technology, and policies that strengthen human resource management.

Overall, the profile of the respondents shows that MSMEs in Cirebon City have a fairly strong foundation, especially with many businesses having survived for more than three years. However, challenges in the utilization of digital technology and human resource management remain important aspects that need to be considered in order to improve the competitiveness and resilience of their businesses in the digital economy era.
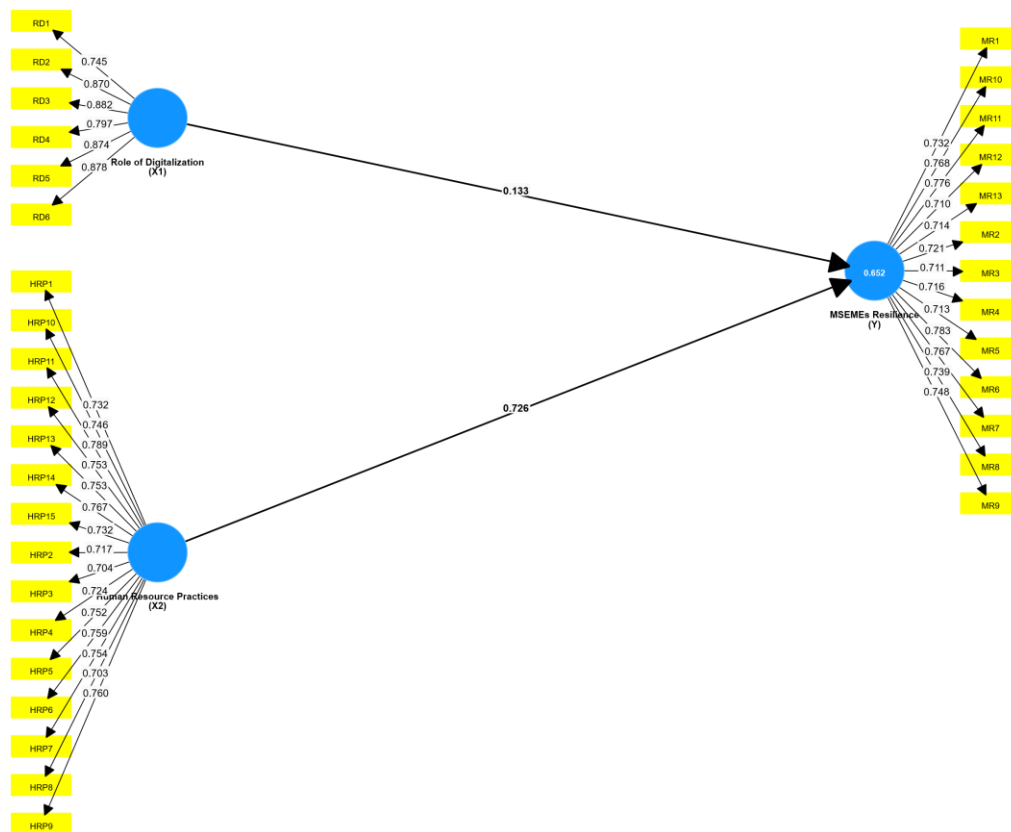
Figure 2. Outer Model

4.1.1. Convergent Validity

The reliability of the correlation between item scores and their components, calculated using PLS software, was used to assess the convergent validity of the reflective indicator measurement model. The factor loading values indicate that each indicator effectively measures its respective independent variable. A high factor loading on an indicator indicates that the indicator is a strong and dominant measure. An individual reflective index is considered high if its value exceeds 0.70 based on standardized construction. For a more detailed explanation, the following is a description of each variable separately.

Table 4a. Convergent Validity Value Variable

Item	*Loading Factor*	Description
RD1	0.745	Valid
RD2	0.870	Valid
RD3	0.882	Valid
RD4	0.797	Valid
RD5	0.874	Valid
RD6	0.878	Valid
HRP1	0.732	Valid
HRP2	0.717	Valid
HRP3	0.704	Valid
HRP4	0.724	Valid
HRP5	0.752	Valid
HRP6	0.759	Valid
HRP7	0.754	Valid
HRP8	0.703	Valid
HRP9	0.760	Valid
HRP10	0.746	Valid
HRP11	0.789	Valid

Table 4b. Continued: Convergent Validity Value Variable

HRP12	0.753	Valid
HRP13	0.753	Valid
HRP14	0.767	Valid
HRP15	0.732	Valid
MR1	0.732	Valid
MR2	0.721	Valid
MR3	0.711	Valid
MR4	0.716	Valid
MR5	0.713	Valid
MR6	0.783	Valid
MR7	0.767	Valid
MR8	0.739	Valid
MR9	0.748	Valid
MR10	0.768	Valid
MR11	0.776	Valid
MR12	0.710	Valid
MR13	0.714	Valid

Source: PLS Test Output, processed 2025

Based on the figure above, it can be seen that all loading factors have values above 0.7. This shows that each indicator has proven valid in measuring each dimension. In addition, the loading factor also indicates the extent to which each indicator contributes to the construction. In the Role of Digitalization dimension, the indicator with the largest contribution is RD.3 (Frequency of Use), with a loading factor value of 0.882. Meanwhile, in the Human Resource Practices dimension, the indicator with the highest contribution is HRP.11 (Implementing Strategies), with a value of 0.789. As for the MSMEs Resilience dimension, the indicator with the highest loading factor is RU.6 (Monitoring and Reporting Internal and Extemal Situations), with a value of 0.783.

4.1.2. Discriminant Validity

Discriminant validity testing aims to ensure that each variable is conceptualized differently from other variables. A model is said to have good discriminant validity if each indicator of a particular latent variable has a higher loading value than the loading on other latent variables. The results of the discriminant validity test are shown below:

Table 5a. Discriminant Validity Value

Item	Digitalization	Human Resource Practices	MSMEs Resilience
RD1	**0.745**	0.246	0.277
RD2	**0.870**	0.383	0.393
RD3	**0.882**	0.457	0.445
RD4	**0.797**	0.472	0.429
RD5	**0.874**	0.535	0.516
RD6	**0.878**	0.595	0.558
HRP1	0.422	**0.732**	0.632
HRP2	0.413	**0.717**	0.543
HRP3	0.358	**0.704**	0.550
HRP4	0.371	**0.724**	0.600
HRP5	0.411	**0.752**	0.639
HRP6	0.398	**0.759**	0.665
HRP7	0.370	**0.754**	0.575
HRP8	0.577	**0.703**	0.562

Table 5b. Continued: Discriminant Validity Value

HRP9	0.469	**0.760**	0.588
HRP10	0.364	**0.746**	0.550
HRP11	0.434	**0.789**	0.605
HRP12	0.455	**0.753**	0.615
HRP13	0.402	**0.753**	0.567
HRP14	0.391	**0.767**	0.626
HRP15	0.346	**0.732**	0.574
MR1	0.321	0.519	**0.732**
MR2	0.347	0.600	**0.721**
MR3	0.303	0.447	**0.711**
MR4	0.319	0.494	**0.716**
MR5	0.432	0.501	**0.713**
MR6	0.438	0.586	**0.783**
MR7	0.419	0.597	**0.767**
MR8	0.399	0.647	**0.739**
MR9	0.393	0.646	**0.748**
MR10	0.417	0.713	**0.768**
MR11	0.491	0.678	**0.776**
MR12	0.435	0.602	**0.710**
MR13	0.378	0.550	**0.714**

Source: PLS Test Output, processed 2025

The table above shows that each latent variable has the highest indicator factor loading value when associated with other latent variables. This finding indicates that all latent variable measures fulfill discriminant validity well and meet all discriminant validity criteria set out in this study.

4.1.3. Evaluating Average Variance Extracted (AVE)

The Average Variance Extracted (AVE) value of each construct also provides an overview of the validity and reliability criteria. A construct is considered to have high reliability if its value exceeds:

Table 6. *Average Variance Extracted* (AVE) Value

Research Variables	Average variance extracted (AVE)
Role of Digitalization	0.710
Human Resource Practices	0.553
MSMEs Resilience	0.546

Source: PLS Test Output, processed 2025

Based on the table above, it can be concluded that all constructs are reliable. This can be seen from the AVE value which exceeds 0.50, in accordance with the minimum limit that has been set.

4.1.4. Reliability Test

Composite reliability values and Cronbach's alpha were used to evaluate the level of reliability with the following conditions:

Table 7. Cronbachs Alpha and Composite Reliability Values

Research Variables	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)
Role of Digitalization	0.919	0.938	0.936
Human Resource Practices	0.942	0.943	0.949
MSMEs Resilience	0.931	0.934	0.940

Source: PLS Test Output, processed 2025

Based on the results of the calculation of composite reliability and Cronbach's alpha shown above, the astraments sted in their study ate declared aliahle, because they have a value that exceeds 0.70.

4.1.5. Structural Model Testing (Inner Model)

The relationship between constructs, the R-square value, and the level of significance in a research model are analyzed through the evaluation of the inner model or structural model. This evaluation is carried out by calculating the R-squared value for the dependent construct tested and the significance of the parameter coefficients on the structural path. The first step in evaluating the PLS modelis to check the R-squared value of all latent variables. PLS. based R-squared value estimates are presented in the following table:

Table 8. R-Square Value

	R- Square	R- Square Adjusted
MSMEs Resilience	0.652	0.648

Source: PLS Test Output, processed 2025

Basically, this study involves a single dependent variable (Y) that is influenced by several independent variables. The table above shows that the calculated R-squared value for variable Y is 0.652. Based on the research results, the R-Square value of 0.652 indicates that this research model has a fairly strong predictive capacity in explaining the resilience variables of MSMEs. R-Square value of 0.50 is categorized as moderate, while values above 0.75 are classified as substantial (Ringle & Sarstedt, n.d.). Therefore, with a value position of 0.652 which is close to the strong category, in the context of social research and business management, this model is considered to have an adequate level of explanation for the variation in the resilience of the MSMEs studied

4.1.6. Goodness of Fit Testing
Inner Model Test Results

The significant parameter estimation results provide information about the relationship between the variables in the study. The value obtained from the inner weight output is used as a reference to assess the direct effect. Analysis of the path coefficient value and t-statistic allows testing of the direct effect. The hypothesis of influence is accepted if thet-statistic value exceeds the t-table value. The estimation results of the structural model evaluation are presentedin the following table:

Table 9. Direct Effect Test Results

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
Role of Digitalization -> MSMEs Resilience	0.133	0.130	0.055	2.404	0.016
Human Resource Practices -> MSMEs Resilience	0.726	0.730	0.046	15.884	0.000

Source: PLS Test Output, processed 2025

The path coefficient value of 0.133 indicates that the Digitalization variable has a positive influence on MSMEs Resilience. With a t-statistic value of 2.404, which is greater than the t-table value at a significance level of 5%, and a p-value of 0.016 (smaller than 0.05), this effect is declared significant. This means that there is a significant relationship between Digitalization and Resilience of MSMEs in this model. Meanwhile, the path coefficient of 0.726 indicates that the Human Resource Practices variable has a very strong positive influence on MSMEs Resilience. With a t-statistic of 15.884 and a p-value of 0.000 (far below 0.05), this influence is also significant. This indicates that Human Resource Practices contribute significantly in increasing the value of MSMEs Resilience. Thus, both variables, namely Digitalization and Human Resource Practices, significantly influence MSMEs Resilience. However, the influence of Human Resource Practices on MSMEs Resilience is much greater than the influence of Digitalization, as seen from the higher value of the path coefficient and t-statistic.
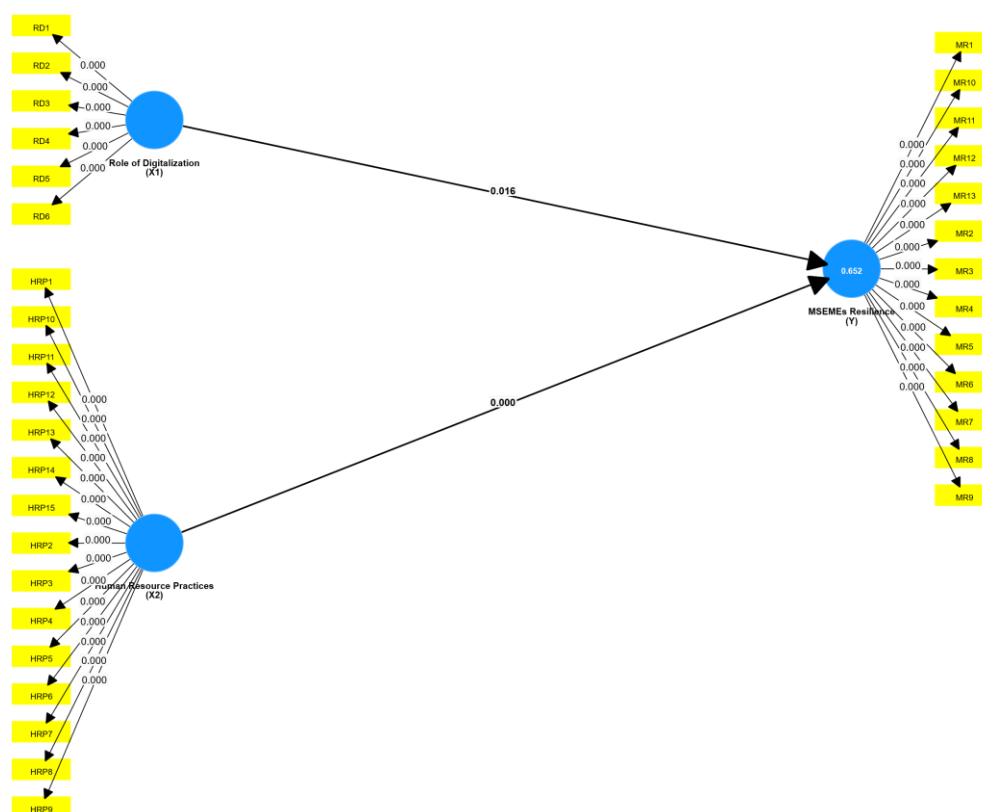
Figure 3. PLS Bootstrapping Test Results

4.2. Discussion

4.2.1. The Influence of the Role of Digitalization on the Resilience of MSMES

The data shows that digitalization has a major influence on the resilience and sustainability of MSMEs. This can be seen from the curve coefficient value of 0.133 and the t-statistic of 2.404, which exceeds the t-table value (1.96). In addition, the positive path coefficient value indicates that digitalization is one of the main factors that support MSME in surviving and developing.

A deeper understanding of the role of digitalization, its benefits, and the technologies and strategies that can be used by MSMEs can be obtained through the use of digital among businesses. With this understanding, MSMEs can choose the right digital solutions to strengthen business resilience, improve operational efficiency, and expandmarket reach. The use of digital tools can also help MSMEs be better prepared to face economic challenges, adapt to market changes, and utilize business opportunities more optimally. With the right utilization of digital technology, MSMEs can manage their businesses more flexibly and be responsive to market dynamics. Digitalization strategies in improving MSMEs resilience focus on leveraging online marketing, operational automation, and data analysis to support more accurate and sustainable decision-making.

The research findings show that the role of digitalization plays in the resilience and sustainability of MSMEs in the modern business era. The term refers to the application of digital technology in various aspects of business, which brings fundamental changes in business operations and the way they deliver value to customers (Machin et al., 2023). Previous research has shown that Digitalization can strengthen the resilience of MSMEs, digital technology also helps MSMEs become more resilent and survive. So that by utilizing digital technology in operations and sales, business acton can more easily adapt to the crisis, maintain their business, expand market reach, and increase sales (Putra et al., 2023). Previous research also shows that through digitalization, can provide opportunities for MSMEs to utilize various digital tools and platforms that are essential in running today's businesses. These capabilities help manage business activities more efficiently, from promotion to stock control. In addition, the use of e-commerce and social media opens MSMEs' access to a wider market, which in turn can increase their sales and revenue (Titin et al., 2024).

4.2.2. The Effect of Human Resource Practices on MSMEs Resilience

The data shows that human resource practices have a major influence on the resilience and sustainability of MSMEs. This can be seen from the curve coefficient value of 0.726 and the t-statistic of 15.884, which exceeds the t-table value

(1.96). In addition, the positive path coefficient value indicates that human resource practices are one of the main factors that support MSMEs in surviving and developing.

In running their businesses, MSME players increasingly understand that good human resource (HR) managerment is more important than just pursuing short-term profits. Mistakes in HR management can impact productivity, employee loyalty, and business stability. Therefore, having a strong HR management system is a major factor in maintaining MSMEs resilience amidst economic challenges. Effective HR practices help MSMEs create a stable work environment and support business growth. With the right recruitment strategy, continuous training, and guaranteed employee welfare, MSMEs can improve efficiency and competitiveness. Awareness of the importance of good HR. management allows MSMEs to be more adaptive to market changes and face business risks with more confidence.

MSMEs that implement sustainable HR strategies are better equipped to face operational challenges. They understand that employee well-being not only impacts productivity, but also the sustainability of the business as a whole. By understanding and managing challenges in HR management, MSMEs cantum obstacles into opportunities for growth. Good HR management also encourages MSME players to continuously improve their managerial and leadership skills. With a better understanding of the role of HR in the business, they can design more effective strategies to sustain the business in the long run. This makes MSMEs more confident in facing economic changes and creating new opportunities to grow and survive.

Research findings show that human resources have a positive and significant effect on the performance of MSMEs, meaning that the better the human competence, the better the performance of MSMEs. Individuals who have strong competencies tend to be more confident and able to motivate themselves to carry out and complete tasks effectively. Human resource competencies include a person's abilities and characteristics, such as knowledge, skills, and attitudes, which are needed in carrying out their duties in the work environment (Mawardi et al., 2024). In addition, previous research shows that human resource management has a positive and significant effect on MSMEs entrepreneurship in Indonesia. In the MSME sector, effective human resource management (HRM) plays an important role in encouraging entrepreneurial spirit. This practice contributes to increased productivity, innovation and overall business performance. The positive impact arises from certain HR management strategies that strengthen entrepreneurial capabilities (Reni et al., 2023).

4.2.3. The Effect of the Role of Digitalization and Human Resource Practices on MSMEs Resilience

The data shows that the role of digitalization and human resource practices have a major influence on the resilience and sustainability of MSMEs. This can be seen from the R-Square value of around 65.2%, which confirms that business sustainability is not solely determined by how much technology is adopted, but also by the effectiveness of HR management. Without good HR management, the positive potential of digitalization will not be optimized to the fullest.

Therefore, this research recommendation directs MSMEs actors to not only focus on the application of digital technology, but also strengthen HR management. Support from the govemment and related institutions through policies and training is essential to improve HR skills and capabilities. With a well-integrated strategy of digitalization and HR management, MSMEs will not only be able to survive in fierce competition, but also be better prepared to face challenges in the ever-changing digital era, so that business resilience can be built solidly amid the current economic and social dynamics.

5. Conclussion

Through the implementation of optimal HR practices, such as employee training and strategic management, MSMEs are able to create a qualified and skilled workforce. This research confirms that the impact of HR management on MSMEs resilience is far more dominant than that of digitalization. While digital technology brings various benefits, such as increased operational efficiency and expanded market reach, the presence of effective HR management remains a determining factor in maintaining business sustainability.

The coefficient value supporting the superiority of HR practices further confirms that without the support of quality human resources, the potential benefits of digitalization will not be maximized. Therefore, it is recommended that MSMEs in Cirebon City not only focus on the adoption of digital technology, but also strengthen HR management to remain competitive and resilient in facing the growing market challenges. Support from the government and related institutions, through policies and training programs, is crucial to improve the capabilities and skills of human resources, so that business resilience can be realized firmly in the face of dynamic changes in the current economic and social environment.

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