



The Effect Of Workforce Transformation And Human Resource Development On The Performance Of Msmes Fostered By Palu City Business Incubator

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ABSTRACT

This study aims to analyze the effect of workforce transformation and human resource development on the performance of MSMEs under the guidance of the Palu City Business Incubator. A quantitative approach was used with a descriptive and causal design, involving 50 active MSMEs as samples obtained through purposive sampling. Primary data were collected through a Likert scale-based questionnaire and analyzed using multiple linear regression. The results show that workforce transformation has a positive and significant effect on MSME performance. Human resource development has also been proven to have a significant effect and is the most dominant variable in improving MSME performance. Simultaneously, workforce transformation and human resource development have a significant effect on MSME performance. These findings confirm that strengthening human resource capacity and workforce transformation are crucial strategies for improving the productivity, competitiveness, and sustainability of MSMEs in an increasingly competitive market.

INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) play an important role in the Indonesian economy. This sector not only contributes significantly to individual welfare, but also serves as a main pillar of national social and economic development (Risnawati et al., 2022). Based on data, MSMEs employ around 97% of the workforce in Indonesia, or around 117 million workers, while contributing 61.07% to the national Gross Domestic Product (GDP) (Mhayugiastiwi et al., 2024). This position makes MSMEs the backbone of the economy, playing a role in creating jobs, reducing inequality, and strengthening regional economic resilience (Fani et al., 2024).

The COVID-19 pandemic then dealt a major blow to economic stability. Social distancing policies caused operational disruptions and a decline in revenue for many businesses (Adda et

al., 2020). At the same time, people's consumption patterns shifted to digital purchases through e-commerce and social media, encouraging businesses to accelerate technology adoption and transform their business models in order to survive (Setiawan et al., 2021; Farhani & Chaniago, 2021). The era of digitalization has opened up opportunities for MSMEs to expand their markets and increase efficiency, but it has also presented new challenges in the form of a need for a workforce that is more adaptive to technology and changes in work systems (Astuti et al., 2023; Oktaviani et al., 2023).

After the pandemic, signs of recovery began to appear in various regions, including Palu City. Based on data from the Palu City Cooperative and MSME Office in 2021, there were more than 15,000 active MSMEs in various sectors such as trade, manufacturing, and services. This condition shows the resilience and great potential of the MSME sector in supporting the regional economy (Santi et al., 2024). However, most MSMEs still face challenges in optimizing their business performance. Many business actors experience unstable sales, a decline in the number of customers, and difficulties in reaching their target market due to limited digital knowledge, unprepared human resources, and inadequate infrastructure (Rusda et al., 2023).

The performance of MSMEs reflects the extent to which business actors are able to adjust their strategies and manage change to achieve business sustainability, increased income, and competitiveness in the market (Maulana, 2021; Said, 2023). In this context, workforce transformation is a key factor. Arizqi & Kusumawati (2023) emphasize that the readiness of the workforce to innovate, adapt, and develop new skills is the main capital in facing the challenges of the digital era. Workforce transformation is not only about improving technical skills, but also changing mindsets and work culture to be more open to collaboration and innovation. An inclusive and dynamic work culture can encourage the emergence of creative ideas that enhance brand image and customer trust (Farid et al., 2025). Thus, an organization's ability to adapt to change is crucial to its sustainability and competitiveness (Tagoe et al., 2025).

Effective workforce transformation cannot be achieved without the support of human resource development. HRD serves to strengthen the capacity of business actors through training, coaching, and knowledge management that enable them to solve business problems through the application of skills and innovation (Mampi et al., 2024; Buntuang & Adda, 2022). Efforts to improve skills, education, and technology mastery will make the workforce more competent and ready to face change. HRD includes training, work experience, technology mastery, and education (Syaiful, 2018). A workforce that is trained in improving the skills and knowledge required by human resources will acquire greater capabilities (Hasanuddin, 2025). Thus, human resource development is not only a complement but also a key prerequisite to ensure that workforce transformation runs effectively and has a direct impact on improving the performance of MSMEs.

In Palu City, business incubators play an important role in supporting the capacity of MSME actors by providing guidance and assistance, thereby facilitating the digital transformation process for MSMEs. Business incubator programs are designed to increase the success and development of business potential through activities involving various business partners. In addition, business incubators serve as a means of connecting MSMEs with access to the knowledge, networks, and resources necessary to increase their competitiveness in the market (Halwiah, 2023; Saharuddin, 2024; Dasi et al., 2025)..

Research conducted by (2022) shows that workforce transformation plays an important role in improving the performance of MSMEs, especially through increased adaptability to changes in the business environment. This transformation not only includes improving technical skills, but also changing mindsets and work culture towards a digital orientation. Digitalization is a key factor that drives operational efficiency, expands market reach, and increases business productivity. In line with this, Aditya (2025) reveals that the development of digital-based human resource competencies can strengthen the competitiveness of MSMEs amid global competition.

Through training, mentoring, and mastery of information technology, MSME players can be more innovative in managing their businesses and reaching consumers more effectively.

Based on this background, this study focuses on the Impact of Workforce Transformation and Human Resource Development on the Performance of MSMEs Assisted by the Palu City Business Incubator. This study is expected to provide deeper insights into the importance of workforce transformation and human resource development in improving the performance and competitiveness of MSMEs.

LITERATURE REVIEW

Workforce Transformation

Workforce Transformation refers to fundamental changes in conditions that require changes in culture, behavior, and mindset (Adhiatma et al., 2023). This transformation includes improving digital skills, adapting to new technologies, and establishing modern work values such as collaboration, openness, and flexibility. Workforce transformation involving technology-based training and modern human resource management is essential to help MSMEs optimize employee performance in maintaining the organization (Prana, 2024). The main objective of workforce transformation is to create a workforce that is able to work more efficiently, technology-based, and in line with the needs of modern industry. This transformation process enables organizations, especially MSMEs, to build new capabilities that not only increase productivity but also promote long-term business sustainability. Through improved skills, flexibility in working methods, and adaptability, workforce transformation provides opportunities for MSMEs to strengthen their competitive position. The indicators of workforce transformation developed by Gibson (2015) are, (1) Skills and qualities, new skills and qualities needed to work effectively in a changing environment, (2) Adoption of new social values, the ability to accept and apply new social values and work culture, (3) Flexible and fluid, the ability to demonstrate flexibility in tasks, roles, and work processes, (4) Faster and more adaptive, the speed and readiness of the workforce to respond and adapt to change.

Human Resource Development

Human resources (HR) are individuals who act as drivers in an organization, whether in an institution or a company, and serve as assets whose abilities need to be trained and developed (Widiawan et al., 2023). Human resource development is an effort to improve the quality and capabilities of individuals through education, training, and workforce management, by integrating knowledge, technology, skills, and support from other parties to achieve optimal results (Auriza et al., 2022; Adda et al., 2022). According to Bangun (2012; 67), human resource development is a process that aims to improve the capacity of individuals in supporting the achievement of organizational goals. The capabilities of human resources in a company can be strengthened through various training and education programs designed to develop their skills and knowledge. The indicators of HRD can be identified through four aspects: (1) Training, which is the process of improving technical abilities and knowledge through structured training activities; (2) Work Experience, which is the ability developed through direct work practice. (3) Technology Mastery, which is the ability to operate and utilize technology and digital-based work systems, (4) Education, which is basic knowledge obtained from formal and non-formal education (Syaiful, 2018).

MSME Performance

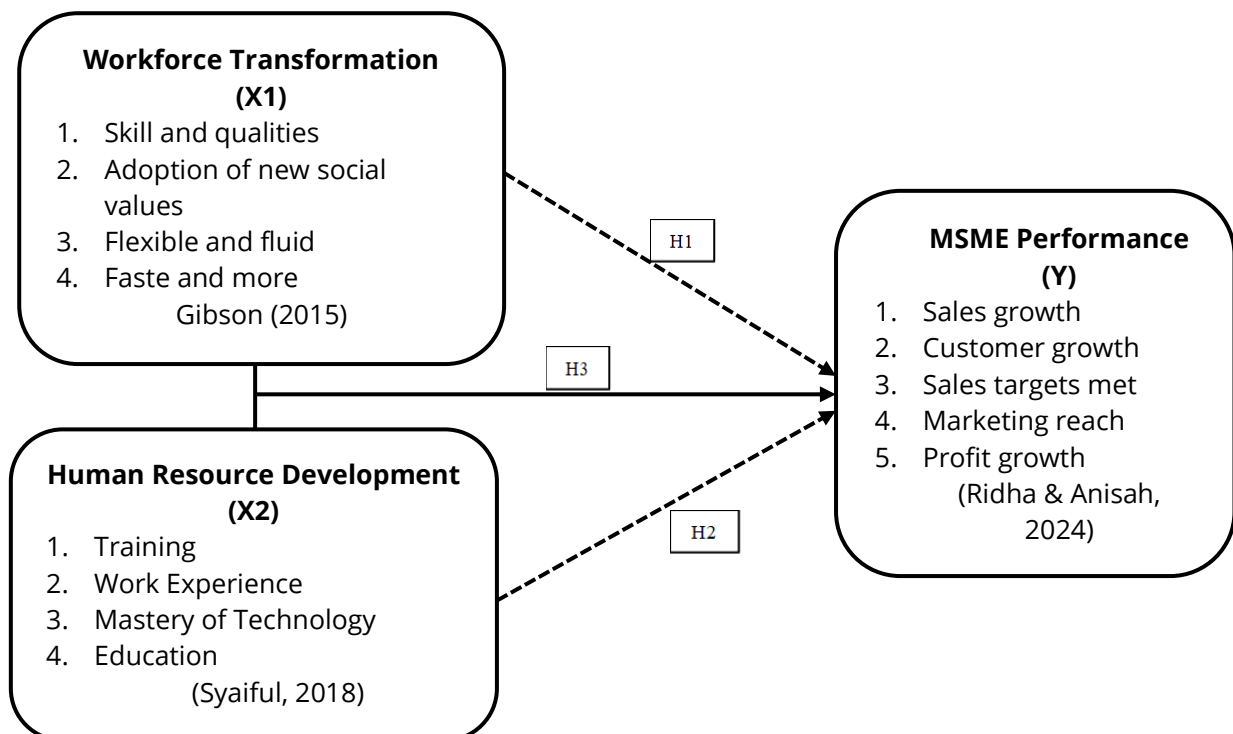
According to Wibowo (2017; 70), performance is a process that describes how work is done to achieve desired results. Meanwhile, MSME performance reflects the achievement of work results carried out by employees in accordance with their responsibilities and assigned tasks. For this performance to be effective, the results achieved must meet standards in terms of

both quantity and quality, so that they can provide significant benefits for the development of their business (Diana & Hakim, 2022). In addition, MSMEs can continue to increase their capacity to achieve optimal performance by absorbing various information, knowledge, and technologies that are developing in an ever-changing environment (Octasyulva et al., 2022). MSME performance is measured through several indicators, namely, (1) Sales growth, which is an increase in sales volume that continues to increase every year, both in terms of the number of units sold and the rupiah value, (2) Customer growth, which is an increase in the number of customers that continues to grow over time or efforts to retain customers for products and services, (3) Sales target fulfillment, which is the achievement of predetermined sales or production plans, (4) Marketing reach, which is expanding the marketing reach from one place to another, (5) Profit growth, which is an increase in profits obtained from time to time (Ridha & Anisah, 2024).

Framework

This study examines the relationship between three main variables, namely workforce transformation (X_1), human resource development (X_2), and MSME performance (Y). Workforce transformation aims to improve skills, adopt new social values, and enhance the workforce's ability to adapt to market and technological changes, which are expected to improve MSME performance in terms of sales growth, customers, and profits. On the other hand, human resource development through training, work experience, technology mastery, and education aims to improve the competence of the workforce so that MSMEs can work more efficiently. These two variables contribute to improving the overall performance of MSMEs.

Figure 1 Framework



Hypothesis

H1: Workforce Transformation has a positive effect on MSME performance.

H2: Human resource development has a positive effect on MSME performance.

H3: Workforce Transformation and human resource development simultaneously have a positive effect on MSME performance.

METHODS

This study uses a quantitative approach with a descriptive and causal design, which aims to analyze the impact of workforce transformation and human resource development on the performance of MSMEs. The descriptive approach provides an overview of the level of workforce transformation, human resource development, and MSME performance. Meanwhile, the causal approach is used to analyze the influence of these variables. This study involves two independent variables, namely workforce transformation and human resource development, and one dependent variable, namely MSME performance. The population in this study consists of 65 MSMEs registered as tenants of the Palu City Business Incubator. The sampling technique used was purposive sampling, which is the selection of samples based on certain criteria relevant to the research objectives. The sample used consisted of 50 MSMEs actively participating in the incubation program. The sample selection was based on the consideration that MSMEs actively participating in the incubation program had in-depth experience and knowledge of business operations, had a workforce, and were still actively operating.

The main data source in this study was primary data collected directly from MSME actors mentored by the Business Incubator in Palu City. Data collection was conducted through interviews and questionnaires. Interviews were conducted to obtain information directly from MSME actors who had actively participated in the incubation program, while questionnaires were distributed via Google Forms to provide accurate and relevant information for analysis. The questionnaire contained statements related to the research variables using a 1 to 5 Likert scale. The Likert scale is an attitude measurement instrument that uses several statement options to measure the level of agreement or disagreement of respondents to the statements presented. (Simamora, 2022).

The data collected from the questionnaire was analyzed using multiple linear regression techniques with SPSS statistical software. Multiple linear regression analysis was used to test how workforce transformation (X_1) and human resource development (X_2) affect MSME performance (Y). This approach was chosen because it allows for structured testing of hypotheses about the relationship between variables to obtain factual data and characteristics of the items studied. Multiple linear regression helps measure the extent to which each independent variable, either partially or simultaneously, affects the dependent variable.

RESULTS

Validity Test

The validity test aims to measure the extent to which the research instrument can measure what it is supposed to measure. The validity test is a measure that indicates whether the variable being measured is indeed the variable that the researcher intends to study (Utami & Rasmanna, 2023). The validity of the measuring instrument is determined by comparing the calculated r value with the table r value.

Table 1. Validity Test

No	Variable	Item	Calculated R	Table R	Description
1	Workforce Transformation (X1)	X1.1	0,799	0,279	Valid
		X1.2	0,738	0,279	Valid
		X1.3	0,715	0,279	Valid
		X1.4	0,852	0,279	Valid
		X1.5	0,707	0,279	Valid
		X1.6	0,778	0,279	Valid
		X1.7	0,774	0,279	Valid
		X1.8	0,857	0,279	Valid
		X1.9	0,743	0,279	Valid

		X1.10	0,817	0,279	Valid
		X1.11	0,753	0,279	Valid
		X1.12	0,656	0,279	Valid
		X1.13	0,792	0,279	Valid
		X1.14	0,755	0,279	Valid
		X1.15	0,803	0,279	Valid
		X1.16	0,695	0,279	Valid
2	Human Resource Development (X2)	X2.1	0,590	0,279	Valid
		X2.2	0,774	0,279	Valid
		X2.3	0,793	0,279	Valid
		X2.4	0,762	0,279	Valid
		X2.5	0,644	0,279	Valid
		X2.6	0,729	0,279	Valid
		X2.7	0,516	0,279	Valid
		X2.8	0,595	0,279	Valid
		X2.9	0,520	0,279	Valid
		X2.10	0,415	0,279	Valid
		X2.11	0,773	0,279	Valid
		X2.12	0,665	0,279	Valid
3	MSME Performance (Y)	Y.1	0,772	0,279	Valid
		Y.2	0,658	0,279	Valid
		Y.3	0,737	0,279	Valid
		Y.4	0,661	0,279	Valid
		Y.5	0,654	0,279	Valid
		Y.6	0,509	0,279	Valid
		Y.7	0,617	0,279	Valid
		Y.8	0,686	0,279	Valid
		Y.9	0,731	0,279	Valid
		Y.10	0,350	0,279	Valid
		Y.11	0,513	0,279	Valid
		Y.12	0,666	0,279	Valid
		Y.13	0,811	0,279	Valid
		Y.14	0,701	0,279	Valid

Source: SPSS Data Processed, 2025

Based on the table above, it can be seen that all statement items in each variable have a calculated r value $>$ table r , so it can be concluded that all items are valid.

Reliability Test

Reliability testing is used to test the reliability of research instruments. According to Sugiyono (2023: 185), reliability is related to the degree of consistency and stability of data or findings. Reliability testing is conducted to determine the consistency of the results of a respondent's answers. The reliability of a variable is measured using Cronbach's Alpha. If Cronbach's Alpha is greater than 0.60, the variable is considered reliable, meaning that the research instrument has good consistency. Conversely, if Cronbach's Alpha is less than 0.60, the variable is considered unreliable.

Table 2. Reliability Test

Variable	Cronbach's Alpha	Description
Workforce Transformation	0,951	Reliabel
Human Resource Development	0,858	Reliabel
Kinerja UMKM	0,882	Reliabel

Source: SPSS Data Processed, 2025

Based on the results in the table above, all variables in this study have a Cronbach's Alpha value > 0.6. This indicates that the research instruments used are reliable and can be trusted to measure the variables in question.

Data Feasibility Test (Classical Assumptions)

Normality Test

The normality test aims to ensure that the residual data or data analyzed in a statistical model is normally distributed (Mardiatmoko, 2020). The test is conducted using the Kolmogorov-Smirnov test, with the criterion that if the significance value is greater than 0.05, the data is declared to be normally distributed.

Table 3. Normality Test

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
<u>N</u>		50
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	2.94639515
Most Extreme Differences	Absolute	.117
	Positive	.056
	Negative	-.117
Test Statistic		.117
Asymp. Sig. (2-tailed)		.082 ^c
a. Test distribution is Normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction.		

Source: SPSS Data Processed, 2025

Based on the normality test results in the table above, the Asymp. Sig (2-tailed) value obtained is 0.082, which is greater than 0.05. Therefore, it can be concluded that the data is normally distributed.

Multicollinearity Test

The multicollinearity test aims to ensure that there is no very strong or nearly perfect linear relationship between the independent variables (X) in a regression model. A regression model is considered to be multicollinear if there is a perfect linear function between some or all of the independent variables.

To determine the presence of multicollinearity, look at the Variance Inflation Factor (VIF) and Tolerance values. If the Variance Inflation Factor (VIF) value is less than 10 and the tolerance value is greater than 0.10, it can be concluded that there is no multicollinearity (Mardiatmoko, 2020).

Table 4. Multicollinearity Test

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	8.915	4.459		2.000	.051		
	Workforce Transformation	.261	.067	.404	3.868	.000	.525	1.906
	Human Resource Development	.625	.125	.525	5.021	.000	.525	1.906

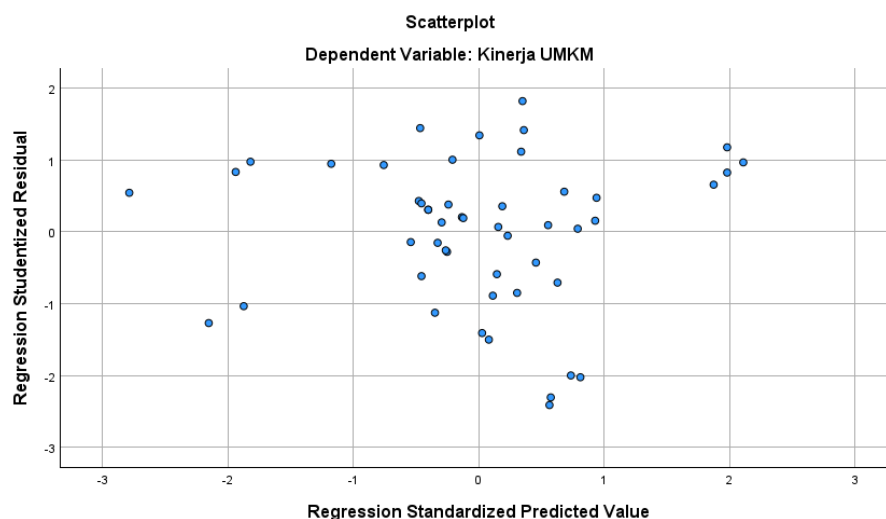
a. Dependent Variable: MSME Performance

Source: SPSS Data Processed, 2025

Based on the analysis results in the table above, the tolerance and VIF values of the Workforce Transformation (X1) and Human Resource Development (X2) variables are 0.525 and 1.906, respectively. This indicates that all tolerance values obtained are > 0.1 and VIF values are < 10 , so it can be concluded that there are no indications of multicollinearity.

Heteroscedasticity Test

The heteroscedasticity test ensures that the regression model can provide accurate and efficient estimates. According to Sugiyono (2022: 142), one approach to detecting heteroscedasticity is to use scatterplot analysis. This approach involves mapping standardized predicted values (ZPRED) against absolute standardized residual values (ZRESID). If the points on the graph are scattered randomly without forming a clear pattern, such as tapering, widening, or resembling a fan, this indicates that there are no symptoms of heteroscedasticity in the model. Thus, the regression model can be considered to satisfy the assumption of homoscedasticity, which is one of the requirements that must be met in linear regression analysis.

Figure 2 Heteroscedasticity Test

Source: SPSS Data Processed, 2025

Based on the image above, the results of the heteroscedasticity test using a scatterplot graph show that the points are scattered randomly without forming a specific pattern, such as tapering, widening, or resembling a fan. Therefore, it can be concluded that the regression model does not show any symptoms of heteroscedasticity, so the assumption of homoscedasticity is fulfilled.

Multiple Linear Regression Analysis

According to Sugiyono (2022), multiple linear regression analysis is used to analyze the effect of Workforce Transformation (X_1) and Human Resource Development (X_2) on MSME Performance (Y). The formula for multiple linear regression analysis to test the hypotheses is as follows.

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + e$$

Table 5 Multiple Linear Regression Analysis

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	8.915	4.459		2.000	.051
	Workforce Transformation	.261	.067	.404	3.868	.000
	Human Resource Development	.625	.125	.525	5.021	.000

a. Dependent Variable: MSME Performance

Source: SPSS Data Processed, 2025

Based on the results of the analysis in the table above, the following multiple linear regression equation can be formed: $Y = 8,915 + 0,261 X_1 + 0,625 X_2$

Based on the multiple linear regression equation above, it can be interpreted as follows;

1. The constant value of 8.915 indicates that if all independent variables, namely Workforce Transformation (X_1) and Human Resource Development (X_2), are considered constant or equal to 0, then MSME Performance (Y) is 8.915.
2. The regression coefficient of the Workforce Transformation (X_1) variable is positive, namely 0.261, indicating that if other variables remain constant and the Workforce Transformation (X_1) variable increases by 1 unit, MSME Performance (Y) will increase by 0.261 units.
3. The regression coefficient of the Human Resource Development variable (X_2) is positive at 0.625, indicating that if other variables remain constant and the Human Resource Development variable (X_2) increases by 1 unit, MSME Performance (Y) will increase by 0.625 units.

Overall, these results indicate that workforce transformation and human resource development play a positive role in improving the performance of MSMEs under the guidance of the Palu City Business Incubator.

T-test

The t-test in multiple linear regression analysis is used to test the effect of each independent variable individually on the dependent variable. This test aims to determine whether a particular independent variable has a significant relationship with the dependent variable. Sugiyono (2022:132) states that if the t-test results show a significance value (p-value) < 0.05, it can be concluded that the independent variable partially has a significant effect on the dependent variable.

Table 5. Partial Test (t-test)

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	8.915	4.459		2.000	.051
	Workforce Transformation	.261	.067	.404	3.868	.000
	Human Resource Development	.625	.125	.525	5.021	.000

a. Dependent Variable: MSME Performance

Source: SPSS Data Processed, 2025

Based on the t-test results, the significance value for the Workforce Transformation variable (X1) was $0.000 < 0.05$ and the significance value for the Human Resource Development variable (X2) was $0.000 < 0.05$. Therefore, it can be concluded that Workforce Transformation and Human Resource Development have a significant effect on MSME performance.

F-test

The F-test is used to test the effect of all independent variables simultaneously on the dependent variable. Sugiyono (2022: 132) If the test results show a p-value < 0.05 , it can be concluded that the independent variables simultaneously have a significant effect on the dependent variable.

Table 6. Simultaneous test (F-test)

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1154.539	2	577.270	63.782	.000 ^b
	Residual	425.381	47	9.051		
	Total	1579.920	49			

a. Dependent Variable: MSME Performance

b. Predictors: (Constant), Human Resource Development, Workforce Transformation

Source: SPSS Data Processed, 2025

Based on the analysis results in the table above, it shows that the calculated F value is 63.782 and the significance value is $0.000 < 0.05$, so it can be concluded that *Workforce Transformation* and Human Resource Development simultaneously affect the Performance of MSMEs.

Coefficient of Determination (R^2)

The coefficient of determination provides an overview of the extent to which the regression model fits the analyzed data. According to Sugiyono (2022: 286), the coefficient of determination or R-Square (R^2) describes the percentage contribution of independent variables in explaining dependent variables. The R^2 value ranges from 0 to 1, which can also be expressed as a percentage (0%–100%). If the R^2 value = 0, then the independent variable does not explain the dependent variable at all. Conversely, if $R^2 = 1$, the independent variable fully explains the dependent variable. The closer the R^2 value is to 1, the better the model's ability to explain the relationship between the variables being analyzed.

Table 7. Coefficient of Determination Test

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.855 ^a	.731	.719	3.008
a. Predictors: (Constant), Human Resource Development, Workforce Transformation				
b. Dependent Variable: MSME Performance				

Source: SPSS Data Processed, 2025

Based on the analysis results in the table above, the coefficient of determination (R-Square) value obtained is 0.731. This shows that the magnitude of the influence of the Workforce Transformation and Human Resource Development variables on MSME Performance is 73.1%. The remaining 26.9% variation in MSME Performance is influenced by other variables not examined in this study.

DISCUSSION

The results of this study indicate that workforce transformation has proven to play an important role in driving the performance improvement of MSMEs under the guidance of the Palu City Business Incubator. The results of the partial t-test with a p-value < 0.05 and a positive regression coefficient of 0.261 show that the higher the level of workforce transformation, the higher the performance of MSMEs.

Organizations that are able to transform their work patterns, culture, and workforce competencies will be more adaptive to environmental changes and capable of achieving superior performance. These results are in line with Kusumawati's (2022) research, which found that workforce transformation and the use of digital technology have a significant effect on the performance of MSMEs in the digital era. Research by Adhiatma et al. (2023) also shows that workforce transformation strategies aimed at MSMEs can increase business competitiveness and sustainability.

In addition, research by Oktaviani et al. (2023) and Widya Astuti et al. (2023) also indicates that MSME players who are able to adopt new work patterns that are more flexible, collaborative, and technology-based tend to perform better than MSMEs that remain stuck in traditional work patterns. Thus, the results of this study reinforce the empirical evidence that workforce transformation is a strategic factor in improving MSME performance.

Human resource development is also a factor that drives MSME performance. Human resource development has a very strong correlation with MSME performance, with the largest partial regression coefficient of 0.625 and a p-value < 0.05. Therefore, it can be concluded that human resource development is the most dominant variable influencing MSME performance. Contributions in the form of training, education, work experience, and technological mastery will improve the quality of human resources, which will ultimately have a direct impact on performance improvement. These findings are supported by Mhayugiastiwi et al. (2024), who state that training and mentoring programs for MSMEs under the guidance of business incubators can improve the managerial and operational capabilities of business actors, thereby impacting business performance improvement.

Ridha and Anisah (2024) also show that the entrepreneurial competence and innovation capabilities of SME human resources in the furniture industry in Banjarmasin have a significant effect on SME performance. In addition, Octasyilva et al. (2022) also emphasize that the

innovativeness of SME entrepreneurs, which stems from strong human resource capacity, is a key factor in improving business performance and sustainability. The F test results show that workforce transformation and human resource development simultaneously have a significant effect on MSME performance, with a significance value of 0.000 (< 0.05) and a coefficient of determination (R^2) of 0.731, which means that 73.1% of the variation in MSME performance can be explained by these two variables in the regression model, while the remaining 26.9% is influenced by other factors outside the model. This indicates that workforce transformation and human resource development do not work separately but complement each other in driving MSME performance improvement.

Workforce transformation provides a framework for changing work culture, adaptive mindsets, and organizational flexibility, while human resource development provides the technical and managerial capacity needed to implement these changes in daily business practices. In addition, support through business incubation programs that combine training, mentoring, and HR capacity building has proven effective in improving entrepreneurial performance. Furthermore, Farid et al. (2025) state that the use of digital marketing and value co-creation will provide a significant competitive advantage when supported by adaptive human resources and a work environment that encourages collaboration.

This study concludes that workforce transformation and human resource development have a positive and significant effect, both partially and simultaneously, on the performance of MSMEs under the guidance of the Business Incubator in Palu City, with human resource development as the most dominant variable. Workforce transformation plays a role in shaping a work culture that is adaptive, innovative, and responsive to change, while human resource development ensures that MSME actors have adequate technical, managerial, and digital competencies to implement these changes in business operations. Increasing human resource capacity and transforming work patterns are important for MSMEs to be able to improve performance, strengthen competitiveness, and take advantage of digital opportunities more optimally. These findings also have practical implications that business incubator coaching programs should be designed not only to provide market access and capital, but also to intensively encourage workforce transformation and human resource development as strategies to improve the performance of MSMEs in Palu City.

CONCLUSION

Based on the results and discussions analyzed using SPSS, it can be concluded that workforce transformation has a positive and significant effect on human resource development and the performance of MSMEs under the guidance of the Palu City Business Incubator. Human resource development also has a positive and significant effect and is the most dominant factor in improving MSME performance.

Simultaneously, workforce transformation and human resource development have a significant effect on MSME performance, thus confirming all research hypotheses. Therefore, strengthening workforce transformation and sustainable human resource development programs are key to improving the adaptability, productivity, and competitiveness of MSMEs, which will ultimately improve MSME performance.

LIMITATION

This study has several limitations. First, the research subjects were limited to MSMEs under the guidance of the Palu City Business Incubator with a specific number of respondents, so the results cannot be generalized to all MSMEs in other regions with different characteristics. Second, the variables studied only cover workforce transformation and human resource development, while MSME performance can also be influenced by other factors such as access to capital, government policies, more specific use of digital technology, and product innovation.

Third, the cross-sectional research design means that this study is not yet able to describe changes in workforce transformation, human resource development, and MSME performance in the long term.

Therefore, further research is recommended to expand the sample coverage, add other relevant variables, and use more diverse designs and methods so that the results obtained are more comprehensive.

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