



Influence analysis characteristics businessman, development human resources, and competence on the performance of Upanat *sandal* business actors in the Borobudur Area Magelang

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Abstract

Upanat *sandal* are specialized footwear designed to reduce surface wear on the stone structure of Borobudur Temple. The sustainability of their production is closely related to the performance of local business actors involved in their manufacture. This study aims to analyze the influence of entrepreneurial characteristics, human resource development, and human resource competence on the performance of Upanat business actors in the Borobudur area, Magelang. This research employed a quantitative approach using primary data collected through questionnaires distributed to 40 Upanat entrepreneurs selected through random sampling. The data were analyzed using multiple linear regression analysis to examine the effect of each independent variable on business performance. The results show that entrepreneurial characteristics, human resource development, and human resource competence have a positive and significant effect on business performance. Among these variables, human resource competence has the strongest influence on the performance of Upanat business actors. These findings indicate that strengthening skills, knowledge, creativity, and technological capabilities is crucial for improving productivity and ensuring the sustainability of Upanat businesses in the Borobudur area.

1. INTRODUCTION

The preservation of Borobudur Temple has been continuously pursued, particularly through efforts to minimize the deterioration of its stone structure. One such initiative is the use of Upanat *sandals*, which are specially designed footwear intended to reduce abrasion on the stone steps when visitors climb the temple structure. The Borobudur Conservation Center has initiated the production of Upanat by conducting socialization programs and involving 40 craftsmen who are local business actors from 20 villages within the Borobudur District (Bakhri, 2020).

However, the limited availability of skilled labor has resulted in production levels that remain far below the required target. Currently, the existing workforce is only capable of producing approximately 200 pairs of sandals per week. In contrast, the demand generated by visitors to Borobudur Temple requires a production capacity of more than 1,000 pairs per day. To prevent damage to the temple stones caused by friction from visitors' footwear, Upanat are planned to become mandatory footwear for tourists or any individuals who ascend the Borobudur Temple structure. At present, access to the temple is regulated, with



the number of visitors permitted to climb the structure limited to approximately 1,200 people per day (Susilo & Suroso, 2014).

Business performance is influenced by various internal factors, including entrepreneurial characteristics, human resource development, and human resource competence (Rahman et al., 2025). Previous studies have shown that human resource readiness, capital, and marketing capabilities significantly influence the performance of micro and small enterprises. Research conducted by Kussujaniatun and Hartati (2020) found that the preparedness of human resources plays a crucial role in improving UMKM performance, particularly in local community-based industries. Entrepreneurial characteristics refer to a set of personal attributes, behaviors, and attitudes that enable individuals to transform innovative ideas into viable business activities. These characteristics are reflected in entrepreneurs' daily decision-making processes, commitment, and capacity for innovation. Human resource development represents organizational efforts to enhance employee quality through education, training, and career development programs aimed at improving skills, work capability, and organizational loyalty. Career development, as a continuous process, plays a critical role in achieving organizational goals and improving employee work efficiency. Meanwhile, competence encompasses the knowledge, skills, attitudes, and values embedded within individuals, which are manifested in their ability to think and act consistently. Human resource competence is therefore recognized as one of the most critical determinants of performance in the business sector.

Research conducted by Sari (2015) indicates that entrepreneurial characteristics, business environment, and working capital influence business performance at Kios Pasar Bandar, Kediri City. The limitations of previous research variables necessitate the addition of human resource development and competency variables. Based on this, this study aims to determine the extent of the influence of entrepreneurial characteristics, human resource development, and competency on the performance of Upanat entrepreneurs in the Borobudur area of Magelang. The results of this study can be used by entrepreneurs to consider decisions related to the performance of Upanat entrepreneurs.

2. THEORETICAL REVIEW AND HYPOTHESIS

Upanat sandals, also known as Upanat Borobudur, are woven sandals made from a combination of pandan leaves, coconut shells, and foam materials. According to the Indonesian Ministry of Education and Culture (2020), the term upanat refers to footwear. These sandals were specifically designed to support the preservation of Borobudur Temple and have undergone extensive research and development since January 2022. Following a series of durability, ergonomic, and aesthetic assessments, Upanat were officially declared to meet conservation standards by the Borobudur Conservation Center.

Historically, Upanat were first produced by a local creative industry practitioner in the Borobudur area, Mr. Basiyo, who has been developing this product since 1997. Subsequently, the design was refined in collaboration with the Borobudur Conservation Center to ensure greater safety and suitability for use on the temple's stone stairways and floor surfaces (Fifiyanti et al., 2023). From a historical and philosophical perspective, the use of Upanat Borobudur footwear serves not only to minimize physical deterioration of the temple structure but also functions as an educational medium for visitors, promoting

awareness of cultural heritage preservation. Moreover, the production of these sandals represents a community empowerment-based conservation initiative involving local craftsmen in the Borobudur Temple area.

In general, strengthening human resources involves a series of strategic activities aimed at enhancing individual and organizational capacity. These activities include: (1) education and training through formal learning and skills development programs; (2) empowerment by providing autonomy, responsibility, and opportunities for participation in decision-making and problem-solving processes; (3) career development through the establishment of clear career pathways and continuous learning opportunities; (4) performance management by implementing effective evaluation systems, constructive feedback mechanisms, and performance improvement support; (5) employee welfare through the provision of a safe, healthy, and supportive work environment that considers physical, mental, and emotional well-being; and (6) the development of an organizational culture that promotes learning, collaboration, innovation, and recognition of achievement (Sunahwati et al., 2019). Strengthening human resources is essential, as human capital constitutes the primary asset for organizations and communities in achieving sustainable development goals. By enhancing human resource capacity and competence, organizations can improve efficiency, productivity, and adaptability.

Business Actor Performance

Business actor performance refers to the level of achievement of organizational or individual goals that have been previously established. Improvements in business performance may be assessed through various dimensions, including marketing performance, financial performance, and human resource performance. However, in this study, performance is measured using indicators commonly applied by business actors in micro and small enterprises. Aribawa (2016) defines business performance as the work outcomes achieved by individuals in completing their tasks within a specific period, which are subsequently evaluated against organizational standards.

Entrepreneurial Characteristics

Entrepreneurial characteristics are defined as a set of personal traits, behaviors, attitudes, and actions that enable individuals to transform innovative ideas into business activities. These characteristics are reflected in entrepreneurs' daily practices, including their commitment, perseverance, and willingness to take calculated risks. Entrepreneurial success is often associated with consistent attitudes and behaviors that demonstrate dedication and responsibility in managing business activities (Hadi et al., 2022).

Human Resource Development

Human resource development refers to systematic efforts to enhance the quality and capability of human resources through planned education, training, and workforce management processes. Such efforts aim to ensure that employees' knowledge, skills, and competencies are aligned with job requirements and organizational objectives. According to Rowley et al. (2012), human resource development is a continuous process designed to improve workers' knowledge, skills, and abilities through training, organizational learning, and development programs to support improved performance.

Human Resource Competence

Competence represents the underlying personal characteristics that influence how individuals think and behave across a wide range of situations over time. It encompasses motives, personality traits, self-concept, values, knowledge, and skills that contribute to superior performance in the workplace. Mangkunegara (2012) emphasizes that human resource competence, such as comprising knowledge, skills, abilities, and personality characteristics directly affects individual and organizational performance.

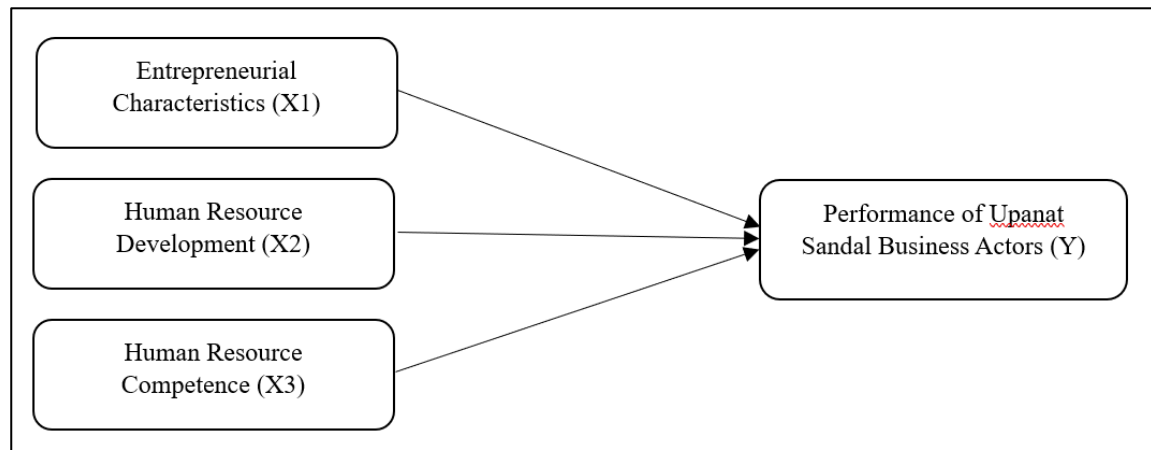


Figure 1. Conceptual Framework

Influence analysis characteristics businessman, development human resources and competence on the performance of Upanat business actors. Hypothesis:

- H₁: Entrepreneurial characteristics (X1) have a positive and significant effect on the performance of Upanat business actors (Y).
- H₂: Human resource development (X2) has a positive and significant effect on the performance of Upanat business actors (Y).
- H₃: Human resource competence (X3) has a positive and significant effect on the performance of Upanat business actors (Y).

3. RESEARCH METHODOLOGY

This study uses primary data with a quantitative research approach and descriptive statistical analysis. A survey was conducted by distributing questionnaires to all Upanat entrepreneurs in the Borobudur area, totaling 40 respondents as a sample. Sampling was conducted using random sampling. The analysis method used is multiple linear regression analysis aimed at examining the influence of entrepreneurial characteristics, human resource development, and human resource competency variables on the performance of Upanat entrepreneurs.

4. RESULTS AND DISCUSSION

Respondent Profile Analysis

The respondents in this study consisted of Upanat business actors operating in the Borobudur Tourism Area, Magelang. Data were collected through questionnaires

distributed to 40 business actors located across 20 villages within the Borobudur Sub-district.

Based on gender, the respondents were predominantly male, accounting for 26 individuals (65%), while female respondents totaled 14 individuals (35%). In terms of age distribution, most respondents were between 35 and 45 years old, comprising 14 business actors (35%). This age group is considered to be within the most productive working period for entrepreneurial activities. The smallest proportion consisted of respondents aged over 45 years, totaling five individuals (12.5%).

Regarding educational background, the majority of respondents had completed senior high school education, with 24 individuals (60%). Meanwhile, respondents with junior high school education represented the smallest group, totaling three individuals (7.5%). Based on business experience, half of the respondents (20 individuals or 50%) had been operating their businesses for approximately two years, reflecting the relatively recent development of Upanat production following its official implementation for conservation purposes.

Statistics Descriptive
Analysis Regression Linear Multiple

Multiple linear regression analysis was employed to examine the extent to which the independent variables, entrepreneurial characteristics (X₁), human resource development (X₂), and human resource competence (X₃) influence the dependent variable, namely the performance of Upanat business actors (Y).

Table 1. Results of Multiple Linear Regression Analysis Coefficients

Model	Unstandardized Coefficients		Coefficients		
	B	Std. Error	Beta	t	Sig.
1 (Constant)	2.766	5.436		.479	.519
TotalX1	.418	.307	.267	3.041	.053
TotalX2	.585	.327	.426	4.057	.014
TotalX3	.61	.327	.451	4.285	.012

a. Dependent Variable: TotalY Sumber :

The regression results, as presented in Table 2, yield the following equation:

$$Y = 0.267X_1 + 0.426X_2 + 0.451X_3$$

Y = Business Actor Performance

X₁ = Entrepreneurial Characteristics

X₂ = Human Resource Development

X₃ = Human Resource Competence

The regression coefficients indicate that all independent variables have a positive effect on business performance. Specifically, a one-unit increase in entrepreneurial characteristics leads to a 26.7% increase in business performance, while a one-unit increase in human resource development contributes to a 42.6% increase. Human resource competence demonstrates the largest coefficient, with a one-unit increase resulting in a 45.1% improvement in performance, assuming other variables remain constant.

Test Eligibility Model

F-test

The F-test was conducted to assess the overall feasibility of the regression model. As shown in Table 3, the calculated F-value is 18.650 with a significance level of 0.000, which is lower than the threshold value of $\alpha = 0.05$. Since the calculated F-value exceeds the critical F-table value, it can be concluded that entrepreneurial characteristics, human resource development, and human resource competence simultaneously have a positive and significant effect on the performance of Upanat business actors.

Table 2. F-Test

		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	538.260	3	172.764	18.650	.000 ^b
	Residual	876.283	94	9.301		
	Total	1324.542	97			

a. Dependent Variable: TotalY

b. Predictors: (Constant), TotalX3, TotalX1, TotalX2

T-test

The t-test was applied to examine the partial effects of each independent variable on business performance. At a significance level of 0.05 (two-tailed), the results presented in Table 4 indicate that entrepreneurial characteristics have a t-value of 3.041 with a significance level of 0.043. Human resource development yields a t-value of 4.057 with a significance level of 0.014, while human resource competence records the highest t-value of 4.285 with a significance level of 0.012.

These results confirm that hypotheses H_1 , H_2 , and H_3 are accepted, indicating that entrepreneurial characteristics, human resource development, and human resource competence each have a positive and significant influence on business performance. Among the three variables, human resource competence exhibits the strongest effect. For more details, the author presents the results of the t-test in table 4 as follows:

Table 3. Results Test Hypothesis (Test T)

Model		Unstandardized Coefficients B		Standardized	t	Sig.
			Std. Error	Coefficients Beta		
1	(Constant)	2.766	5.436		.479	.519
	TotalX1	.217	.207	.267	3.041	.043
	TotalX2	.384	.227	.426	4.057	.014
	TotalX3	.415	.227	.451	4.285	.012

Coefficient Determination

The coefficient of determination (R^2) was used to measure the explanatory power of the regression model. As shown in Table 5, the R^2 value is 0.633, indicating that 63.3% of the variation in business performance can be explained by entrepreneurial characteristics, human resource development, and human resource competence. The remaining 36.7% is

influenced by other factors not included in this study. The following is a table of determination coefficients from this study:

Table 4. Coefficient of determination

Model	R	RSquare	Adjusted R Square	Std. Error of the Estimate
1	.722 ^a	.486	.633	3.050

The Influence of Entrepreneurial Characteristics on Business Performance

The results indicate that entrepreneurial characteristics have a positive and significant effect on the performance of Upanat business actors. This is evidenced by a calculated t-value of 3.041, which exceeds the critical value of 1.985, and a significance level of 0.043, which is below 0.05. These findings suggest that stronger entrepreneurial traits contribute to improved business performance.

This result aligns with the findings of [Sari and Handayani \(2016\)](#), who stated that entrepreneurial characteristics such as self-confidence, task and result orientation, risk-taking, leadership, originality, and future orientation significantly influence business performance. However, this finding contrasts with the study by [Endang and Widodo \(2017\)](#), which reported that entrepreneurial characteristics do not have a direct significant effect on performance, indicating that entrepreneurial competence may function as a mediating variable.

The Influence of Human Resource Development on Business Performance

Human resource development is found to have a positive and significant effect on business performance, as indicated by a t-value of 4.057 and a significance level of 0.014. Since the calculated t-value exceeds the critical value of 1.985, hypothesis H₂ is accepted.

These findings are consistent with [Nasfi et al. \(2020\)](#), who demonstrated that human resource development significantly improves employee performance within cooperative and business service organizations. The results of this study confirm that systematic training, education, and skill development programs enhance the performance of Upanat business actors in the Borobudur area.

The Influence of Human Resource Competence on Business Performance

Based on the calculated t value of the HR Competence Variable 4.285 with a significance level of 0.012. While the significance level obtained is 1.985. Because the calculated t value of 4.285 > 1.985. So it can be concluded that H₃ is accepted which means the HR Competence variable (X₂) has a positive and significant effect on the Performance of business actors (Y). The results of this study are in line with research conducted by [Darmanto \(2018\)](#) it is known that HR Competence has a positive and significant influence on business performance, with the higher HR Competence the higher business performance. The results of the study show that HR competence has a significant positive influence on business performance. This means that the better the HR competence possessed by an entrepreneur, the more it will have an impact on increasing the ability to manage a company, including managerial, leadership and decision-making abilities. By having sufficient HR competence, Upanat business actors will be able to continue to

develop and innovate, increasingly developing and qualified. So with quality performance it is expected to increase the income of Upanat business actors.

5. CONCLUSION AND RECOMMENDATIONS

Based on the analysis and hypothesis testing conducted, several key conclusions regarding the performance of Upanat entrepreneurs can be established. First, entrepreneurial characteristics demonstrate a positive and significant effect on business performance, meaning that stronger and more positive entrepreneurial traits directly correspond to improved performance. Similarly, Human Resource Development exerts a positive and significant influence, indicating that more effective development initiatives lead to greater entrepreneurial outcomes. Furthermore, Human Resource Competence also shows a positive and significant impact, suggesting that higher levels of competence result in better overall performance. Notably, when comparing these factors, the Competence variable holds the greatest influence on the performance of Upanat entrepreneurs, surpassing the impact of both Entrepreneurial Characteristics and Human Resource Development.

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