

THE INFLUENCE OF HUMAN RESOURCES, CAPITAL, TYPE OF BUSINESS AND WORKING HOURS ON INCOME THROUGH PRODUCTIVITY AS AN INTERVENING VARIABLE IN BUMDES CITRA MANDIRI JEMBER

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ABSTRACT

This research aims to analyze the effect of human resources, capital, type of business and working hours on income through productivity as an intervening variable at BUMDes Citra Mandiri Jember. The analysis method used in this research is quantitative descriptive analysis method. The data used in this research is primary data. The sampling technique used purposive sampling with a sample size of 30 respondents. The analysis tool used is path analysis using SPSS Version 25. The results showed that in the model 1 path regression test, the variable type of business had an effect on productivity, while the variables of human resources, capital and working hours had no effect on the productivity of BUMDes Citra Mandiri Jember. In the model 2 path regression test, the variables of human resources, capital, type of business, working hours and productivity have no effect on the income of BUMDes Citra Mandiri Jember.

Keywords: Human Resources , Capital, Business, Productivity , Income.

INTRODUCTION

Law Number 6 of 2014 is a legal umbrella that underlines the government's commitment to realizing village development that is empowered, sustainable and supports the interests of the community. With a focus on improving the welfare and quality of life of village residents, this law encourages efforts to fulfill basic needs, develop adequate infrastructure, empower the local economy through developing regional potential, as well as sustainable management of natural resources and the environment.

In implementation, villages have autonomy and authority to manage their own areas. This management is to regulate and administer the government and of course this development cannot run with regulations alone. The village government must work together with the community. Community participation must encourage village development where development is directed on the basis of economic, social and cultural values. One of the institutions that supports this regulation is the Village-Owned Enterprises (BUMDes), as mandated by Law Number 11 of 2021, is a legal entity initiated by villages or together with villages to manage various businesses, optimize assets, increase investment and productivity, provide services, and develop other types of businesses to improve the welfare of village communities. More than just a legal entity, BUMDes is a forum for community and village government participation in strengthening the local economy, with its formation based on the needs and potential of each village. In this way, BUMDes is not only a driving force for the village economy, but also a symbol of collaboration between the government and the community in realizing inclusive and sustainable development at the local level.

BUMDes Citra Mandiri is a business entity managed by the Arjasa Village government. This economic institution is led by the Director. The BUMDes Director has the authority and responsibility for the direction of BUMDes management. Some of the businesses managed are categorized into several types, namely joint ventures and social enterprises. Income from this business goes into the village treasury or Village Original Income (PADesa) accompanied by a report to the village government every year. The development of BUMDes in the economy is quite influential, where these business entities have various important aspects, one of which is Original Village Income (PADesa). BUMDes Citra Mandiri has several business units that have developed. With the participation of capital from the village, human resources (labor), type of business and productivity owned later balanced with the potential and wealth of the village, this opens up opportunities for autonomous villages with strong economic independence. Currently, the management of BUMDes has been realized, which has an impact on productivity and income in the village itself. There needs to be a holistic and integrated approach in managing BUMDes Citra Mandiri. Good management must take into account the factors that influence BUMDes operations, including the level of community participation, the capital used, the type of business available and the limited working time they have.

The aim of this research is to analyze the influence of human resources, capital, type of business and working hours on the productivity and income of BUMDes Citra Mandiri Jember. Then, to analyze the influence of human resources, capital, type of business and working hours on income through the productivity of BUMDes Citra Mandiri Jember.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Theoretical basis

A. Human Resources

According to Priyono (2008), human resources include integrated abilities from the aspects of thinking power and physical power possessed by individuals. This includes the totality of a person's intellectual and physical capacities. It is important to improve the quality of human resources so that work productivity can be increased, so that society can achieve a better level of welfare. By improving the quality of human resources, whether through education, training, or developing individual potential, society can gain a competitive advantage in the global job market and encourage sustainable economic growth. By paying attention to the importance of human resource development, the government and private sector can work together to create an environment that supports the growth and development of human potential.

B. Capital

According to Adam Smith's theory, capital accumulation is a key factor that determines the level of economic growth of a country. Smith believed that economic growth could be measured through increases in income. According to Alfred Marshall's view, capital is a factor of production that receives rewards in the form of interest. In classical economic concepts, interest is a reward for the use of capital or money capital. According to John Maynard Keynes' thinking, capital is influenced by two main factors, namely income levels and interest rates. High levels of income tend to encourage capital accumulation, because people have more funds available to save or invest. Apart from that, interest rates also play an important role in determining investment decisions.

C. Productivity

Adam Smith's thinking about productivity highlights the importance of factors such as the division of labor, free markets, and competition in driving economic efficiency. The concept of division of labor emphasizes the importance of specialization in increasing individual and organizational productivity. The Invisible Hand highlights the role of markets in allocating resources efficiently without the need for direct government intervention, thereby enabling the creation of economic balance and efficiency.

According to Simanjuntak (1985), productivity is the result or output achieved from the use of available resources. This concept of productivity can be described in several forms that include ways in which production output can be increased in relation to the use of available resources. Meanwhile, research conducted by Cahyaningsih (2023), productivity influences income at restaurants in Kuta District. Research conducted by Purnami (2020), productivity has a significant positive effect on the income of female workers in the brick industry in Tulikup Village, Gianyar Regency. Meanwhile, according to the Harrod-Domar theory, income is something that is obtained if production increases and is balanced by investment. The relationship between income and productivity is intrinsically linked to the role of investment in spurring economic growth. Significant investments in infrastructure, technology, and human resources can increase overall productivity in an economy. With increased productivity, society can produce more goods and services with the same or even fewer inputs. This then impacts incomes, as increased production allows for more jobs and increases incomes for

individuals and households . Conversely, higher income levels can also encourage more investment, creating a positive cycle of economic growth.

D. Income

According to Adam Smith's view, income is what allows individuals to obtain desired goods and services. Income plays a crucial role in facilitating the exchange of goods and services in society. According to Alfred Marshall's view, income is a continuous flow of material benefits received by a person or his family from the factors of production that they own or control. It includes income earned from various sources, such as wages from employment, interest from investments, and profits from business or capital ownership.

According to JM Keynes's view, income is the reward someone receives from the work or business they do. Typically, this income is measured in terms of money and often over a specific time period, such as a week or a year. Keynes' views on income highlight its important role in measuring the level of well-being of individuals and society as a whole. This concept describes income as a direct result of a person's productive activities, either in the form of wages from the work done or income from the business run. This view also emphasizes the importance of time in measuring income, because income often relates to a specific period and can change over time.

Hypothesis

According to Garaika (2019), a hypothesis is a temporary answer to a research problem formulation, therefore research problem formulations are usually in the form of questions. It is said to be temporary, because the answer given is only based on a relevant theory, not yet based on empirical facts obtained through data collection, so the hypothesis can be stated as a theoretical answer to the research problem formulation, not yet an empirical answer (observation). The hypotheses in this research are as follows:

H0: No effect

H1: Influence

RESEARCH METHODS

Types of research

This research adopts an associative approach which is classified as a descriptive quantitative research type . This approach allows researchers to identify patterns, trends, and relationships between variables in more detail, thereby gaining a deeper understanding of the phenomenon under study.

Research Location and Time

The research location was carried out at a Village-Owned Enterprise called Citra Mandiri which is owned by Arjasa Village, Arjasa District, Jember Regency, East Java Province. This Village-Owned Enterprise is located on Jl. Projo Diharjo, Tegalbago, Arjasa, Jember, East Java. Research time is October 2023 to January 20 24..

Variable Identification

- a. Independent Variable

Independent variable has a role as a trigger or cause of change or the presence of a dependent or dependent variable in a study. In this study, the independent variables considered are Human Resources (X1), Capital (X2), Type of Business (X3), and Working Hours (X4).

b. Dependent Variable

dependent variable , or what is known as a dependent variable , is a factor that is observed and measured to determine whether there is an influence from a free or independent variable. In the context of this research, the dependent variable used is Income (Y).

c. Intervening Variables

Variables referred to as intermediary variables are factors that, theoretically, have an influence on the dependent variable. In the context of this research, the intermediate variable identified is Productivity (Z).

Sample Determination Method

According to Garaika (2019), in the context of research, sample refers to part of the total number and characteristics possessed by the population that is the object of study . According to Sugiyono (2019), the appropriate sample size in research between 30 and 500 is appropriate for most research. This sampling is based on the required criteria. A sample is a part or entire population that is considered representative. The sample that meets the criteria in this research is 30 respondents consisting of the BUMDes structure (Director, Secretary and Treasurer), 3 Heads of BUMDes Citra Mandiri business units, 10 workers in all business units, 5 Village Apparatus (Village Head, Village Secretary , Head of Planning, Head of Administration and General Affairs and Head of Hamlet), 5 MSMEs, Head of BPD (Village Consultative Body) and 3 Consumers (1 each from each business unit). In this research, a *non-probability sampling method was used* , while the sampling technique was *purposive sampling* . According to Fauzy (2019), *purposive sampling* is a sampling method that is carried out based on certain criteria or characteristics that are in accordance with the research objectives.

Method of collecting data

In this study, researchers used 4 data collection techniques in the form of a (a) Observation, namely observing in order to fulfill several criteria, such as in accordance with the research objectives, well planned, and recorded in a structured and systematic manner . (b) Questionnaires are data collection techniques in the form of questions distributed to respondents. (c) Interview, namely a question and answer dialogue with respondents to obtain more complete information, especially in the use of primary data. (d) Documentation, which involves collecting data by recording existing information, such as notes, reports, or archives.

Data analysis method

Data analysis used in this research includes:

- a. Instrument Test
- b. Classic assumption test
- c. *Path Analysis*
- d. Hypothesis testing
- e. Sobel Test

RESULTS AND DISCUSSION

General Description of Research Objects

The Citra Mandiri Village-Owned Enterprise is a village economic institution that aims to develop village potential by establishing several businesses that are used to provide an economic impact on the community and increase Village Original Income (PADesa). There are several business units owned by BUMDes Citra Mandiri, including:

1. Citra Mandiri Tourism business unit
2. Water management business unit
3. Meat milling business unit

The following is the organizational structure of BUMDes Citra Mandiri:

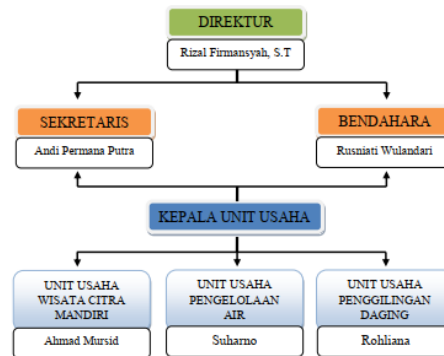


Figure 1. Organizational structure of BUMDes Citra Mandiri

Instrument Test

1. Validity test

Validity testing is an important step in evaluating how well an instrument can measure what it is intended to. Validity testing is an important process in ensuring the reliability of research instruments before they are used for data collection. The following are the results of testing on 30 community respondents involved in the economy of BUMDes Citra Mandiri, Arjasa Village, Arjasa District, Jember Regency who were tested using SPSS version 25 .

Table 1. Validity Test Results of Research Data Instruments

| Variable | Indicator | r – count | r - table | Information |
|----------------------|-----------|-----------|-----------|-------------|
| Human Resources (X1) | X1.1 | 0.780 | 0.361 | Valid |
| | X1.2 | 0,836 | 0,361 | Valid |
| | X1.3 | 0,540 | 0,361 | Valid |
| Modal (X2) | X2.1 | 0,494 | 0,361 | Valid |
| | X2.2 | 0,945 | 0,361 | Valid |
| | X2.3 | 0,738 | 0,361 | Valid |
| Jenis Usaha (X3) | X3.1 | 0,466 | 0,361 | Valid |
| | X3.2 | 0,617 | 0,361 | Valid |
| | X3.3 | 0,785 | 0.361 | Valid |
| Jam Kerja (X4) | X4.1 | 0.465 | 0.361 | Valid |
| | X4.2 | 0.809 | 0.361 | Valid |
| | X4.3 | 0.773 | 0.361 | Valid |

| Variable | Indicator | r – count | r - table | Information |
|------------------|-----------|-----------|-----------|-------------|
| Productivity (Z) | Z1.1 | 0.500 | 0.361 | Valid |
| | Z1.2 | 0.940 | 0.361 | Valid |
| | Z1.3 | 0.743 | 0.361 | Valid |
| Income (Y) | Y1.1 | 0.814 | 0.361 | Valid |
| | Y1.2 | 0.769 | 0.361 | Valid |
| | Y1.3 | 0.796 | 0.361 | Valid |

The table shows that all statements included in the research questionnaire have quite high validity and can be relied upon as effective instruments in collecting research data. This is because all variables have a calculated r value greater than the table r.

2. Reliability Test

Reliability testing, as explained by Zahriyah (2021), is a process for assessing the consistency or stability of the measurement results of an instrument. The purpose of the reliability test is to determine whether the instrument is reliable or suitable for use as a measuring tool in research.

Table 2. Reliability Test Results of Research Data Instruments

| Variable | <i>Cronbach's Alpha</i> | Reliability Standards | Information |
|-----------------------|-------------------------|-----------------------|-------------|
| Human Resources (X1) | 0.772 | 0.60 | Reliable |
| Capital (X2) | 0.792 | 0.60 | Reliable |
| Type of Business (X3) | 0.723 | 0.60 | Reliable |
| Working Hours (X4) | 0.763 | 0.60 | Reliable |
| Productivity (Z) | 0.779 | 0.60 | Reliable |
| Revenue (Y) | 0.821 | 0.60 | Reliable |

The results from the table above show that all variables measured in this study can be considered reliable because all variables have a *Cronbach's Alpha value* greater than 0.60

Classic assumption test

1. Normality test

According to Nuryadi (2017), the normality test is an important step in data analysis to ensure that the data used is normally distributed. The normality test is used to test how well the data fits the normal distribution model.

Table 3. Kolmogorow-Smirnov Normality Test Results

| One-Sample Kolmogorov-Smirnov Test | | |
|--|----------------|-------------------------|
| | | Unstandardized Residual |
| N | | 30 |
| Normal Parameters ^{a,b} | Mean | .0000000 |
| | Std. Deviation | 1.32465974 |
| | | |
| Most Extreme Differences | Absolute | .103 |
| | Positive | .103 |
| | Negative | -.076 |
| Test Statistic | | .103 |
| Asymp. Sig. (2-tailed) | | .200 ^{c,d} |
| a. Test distribution is Normal. | | |
| b. Calculated from data. | | |
| c. Lilliefors Significance Correction. | | |
| d. This is a lower bound of the true significance. | | |

The table above shows that the significance value of 0.200 is greater than 0.05 so it can be concluded that in this study it is normally distributed.

2. Multicollinearity Test

An important assumption in multiple regression analysis using the *Ordinary Least Squares* (OLS) method is that there is no strong linear relationship between the independent variables. If there is a significant linear relationship between the independent variables, then this is referred to as multicollinearity, according to the explanation by Zahriyah (2021).

Table 4. Multicollinearity Test Results

| Variable | Tolerance | VIF | Information |
|-----------------------|-----------|-------|----------------------------------|
| Human Resources (X1) | 0.588 | 1,701 | Multicollinearity does not occur |
| Capital (X2) | 0.476 | 2,102 | Multicollinearity does not occur |
| Type of Business (X3) | 0.390 | 2,561 | Multicollinearity does not occur |
| Working Hours (X4) | 0.881 | 1,135 | Multicollinearity does not occur |
| Productivity (Z) | 0.307 | 3,260 | Multicollinearity does not occur |

The table above shows that all independent variables in this study did not experience multicollinearity. This is because all variables have a tolerance value > 0.10 and a VIF value < 10 .

3. Heteroscedasticity Test

The heteroscedasticity test is an important procedure in regression analysis to determine whether there is unequal variance in the residuals across observations in the regression model.

Table 5. Heteroscedasticity Test Results

| Variable | Sig | Standard | Information |
|-----------------------|-------|----------|-----------------------------------|
| Human Resources (X1) | 0.134 | 0.05 | Heteroscedasticity does not occur |
| Capital (X2) | 0.720 | 0.05 | Heteroscedasticity does not occur |
| Type of Business (X3) | 0.005 | 0.05 | Heteroscedasticity occurs |
| Working Hours (X4) | 0.054 | 0.05 | Heteroscedasticity does not occur |
| Productivity (Z) | 0.086 | 0.05 | Heteroscedasticity does not occur |

The table shows that the Human Resources variable (X1) has a significance value of $0.134 > 0.05$, meaning that heteroscedasticity does not occur. The Capital variable (X2) has a significance value of $0.720 > 0.05$, meaning that heteroscedasticity does not occur. The Business Type variable (X3) has a significance value of $0.005 < 0.05$, meaning heteroscedasticity occurs. The Working Hours variable (X4) has a significance value of $0.054 > 0.05$, meaning that heteroscedasticity does not occur. The Productivity variable (Z) has a significance value of $0.086 > 0.05$, meaning that heteroscedasticity does not occur.

Path Analysis

Hamid (2019) explains that path analysis helps in describing and measuring the direct and indirect effects of exogenous (free) variables on endogenous (dependent) variables. Path analysis models show how these variables influence each other and cause changes in the system being studied. Thus, path analysis allows researchers to understand the complexity of the relationships between variables in a model and identify significant causal pathways.

1. Regression Coefficient 1

Table 6. Regression Results 1

| Coefficients ^a | | | | | | |
|---------------------------|--------------------------|-----------------------------|------------|---------------------------|-------|------|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | -1.466 | 2.390 | | -.613 | .545 |
| | SUMBER DAYA MANUSIA (X1) | .097 | .111 | .124 | .873 | .391 |
| | MODAL (X2) | .156 | .090 | .262 | 1.725 | .097 |
| | JENIS USAHA (X3) | .790 | .165 | .613 | 4.782 | .000 |
| | JAM KERJA (X4) | .069 | .113 | .071 | .609 | .548 |

a. Dependent Variable: PRODUKTIVITAS (Z)

Based on this table, it is known that the Business Type variable (X3) has an effect on Productivity (Z) with a significance value of $0.000 < 0.05$, while the Human Resources variable (X1) is 0.391, Capital (X2) of 0.097 and Working Hours (X4) of 0.548 have no effect on Productivity (Z) because the significance value is greater than 0.05. Meanwhile, the results of the R Square coefficient for path 1 are as follows:

Table 7. Results of R Square Path Coefficient Model 1

| Model Summary | | | | |
|---|-------------------|----------|-------------------|----------------------------|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
| 1 | .833 ^a | .693 | .644 | .865 |
| a. Predictors: (Constant), JAM KERJA (X4), JENIS USAHA (X3), SUMBER DAYA MANUSIA (X1), MODAL (X2) | | | | |

Based on the table above, it is known that the influence of Human Resources (X1), Capital (X2), Type of Business (X3) and Working Hours (X4) on Productivity (Z) in BUMDes Citra Mandiri is 0.644 or 64.4%, while the remaining 35.6% was influenced by other things. Meanwhile, the value ϵ_1 can be calculated using the formula:

$$\epsilon_1 = \sqrt{1 - 0.644}$$

$$\epsilon_1 = \sqrt{0.356}$$

$$\epsilon_1 = 0.596$$

2. Regression Coefficient 2

Table 8. Regression Results 2

| Coefficients ^a | | | | | | |
|---------------------------------------|--------------------------|-----------------------------|------------|---------------------------|--------|------|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 15.399 | 4.053 | | 3.799 | .001 |
| | SUMBER DAYA MANUSIA (X1) | .321 | .189 | .300 | 1.696 | .103 |
| | MODAL (X2) | .121 | .161 | .148 | .753 | .459 |
| | JENIS USAHA (X3) | .405 | .385 | .229 | 1.053 | .303 |
| | JAM KERJA (X4) | -.138 | .192 | -.104 | -.720 | .478 |
| | PRODUKTIVITAS (Z) | -1.393 | .337 | -1.014 | -4.137 | .000 |
| a. Dependent Variable: PENDAPATAN (Y) | | | | | | |

Based on table 4.8, it is known that the significance value is that the Productivity (Z) variable has an effect on Income (Y) with a significance value of $0.000 < 0.05$, while the Human Resources variable (X1) is 0.103, Capital (X2) is 0.459, Type of Business (X3) of 0.303 and Working Hours (X4) of 0.478 have no effect on Income (Z) because the

significance value is greater than 0.05. Meanwhile, the results of the R Square coefficient for path 1 are as follows:

Table 9. Results of R Square Path Coefficient Model 2

| Model Summary | | | | |
|--|-------------------|----------|-------------------|----------------------------|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
| 1 | .747 ^a | .557 | .465 | 1.456 |
| a. Predictors: (Constant), PRODUKTIVITAS (Z), JAM KERJA (X4), SUMBER DAYA MANUSIA (X1), MODAL (X2), JENIS USAHA (X3) | | | | |

Based on table 4.8, it is known that the influence of Human Resources (X1), Capital (X2), Type of Business (X3), Working Hours (X4) and Productivity (Z) on Income (Y) at BUMDes Citra Mandiri is 0.465 or 46.5 %, while the remaining 53.5% is influenced by other things. Meanwhile, the value ϵ_1 can be calculated using the formula:

$$\epsilon_2 = \sqrt{1 - 0.456}$$

$$\epsilon_2 = \sqrt{0.535}$$

$$\epsilon_2 = 0.731$$

The results of the path calculations in this research are as follows:

Calculation of Direct Effect (DE)

1. Influence of Human Resources variables (X1) on Productivity (Z)

$$De_{ZX1} = X_1 \longrightarrow Z = 0.124$$

This shows that the Human Resources variable (X1) has a very weak influence on Productivity (Z) because it has a value between 0 – 0.25.

2. Influence of the Capital variable (X2) on Productivity (Z)

$$De_{ZX2} = X_2 \longrightarrow Z = 0.262$$

This shows that the Capital variable (X2) has a fairly strong influence on Productivity (Z) because it has a value between > 0.25 – 0.5.

3. Influence of the Business Type variable (X3) on Productivity (Z)

$$De_{ZX3} = X_3 \longrightarrow Z = 0.613$$

This shows that the Business Type variable (X3) has a strong influence on Productivity (Z) because it has a value between > 0.5 – 0.75.

4. Influence of the Working Hours variable (X4) on Productivity (Z)

$$De_{ZX4} = X_4 \longrightarrow Z = 0.071$$

This shows that the Working Hours variable (X4) has a very weak influence on Productivity (Z) because it has a value between 0 – 0.25.

5. Influence of Human Resources variables (X1) on Income (Y)

$$De_{YX1} = X_1 \longrightarrow Y = 0.300$$

This shows that the Human Resources variable (X1) has a fairly strong influence on Income (Y) because it has a value between > 0.25 – 0.5.

6. Influence of the Capital variable (X2) on Income (Y)

$$De_{YX2} = X_2 \longrightarrow Y = 0.148$$

This shows that the Capital variable (X2) has a very weak influence on Income (Y) because it has a value between 0 – 0.25.

7. Influence of the Business Type variable (X3) on Income (Y)

$$De_{YX3} = X_3 \longrightarrow Y = 0.229$$

This shows that the Business Type variable (X3) has a very weak influence on Income (Y) because it has a value between 0 – 0.25.

8. Influence of the Working Hours variable (X4) on Income (Y)

$$De_{YX4} = X_4 \longrightarrow Y = -0.104$$

This shows that the Working Hours variable (X4) has no effect on Income (Y) because it has a value below 0.

9. Influence of the Productivity variable (Z) on Income (Y)

$$De_{YZ} = Z \longrightarrow Y = -1.014$$

This shows that the Productivity variable (Z) has no effect on Income (Y) because it has a value below 0.

Calculation of Indirect Effect (IE)

1. Influence of Human Resources (X1) on Income (Y) through Productivity (Z).

It is known that the direct influence that X1 has on Y is 0.103, while the indirect influence of X1 on Y through Z is a calculation between the beta value of X1 on Z and the beta value of Based on these calculations, the results obtained show that the influence of Human Resources (X1) on Income (Y) through Productivity (Z) is considered to have quite a strong influence because the value is between > 0.25 – 0.5.

2. Effect of Capital (X2) on Income (Y) through Productivity (Z).

It is known that the direct influence that X2 has on Y is 0.459, while the indirect influence of X2 on Y through Z is a calculation between the beta value of X2 on Z and the beta value of Based on these calculations, the results obtained show that the influence of Capital (X2) on Income (Y) through Productivity (Z) is considered to have quite a strong influence because the value is between > 0.25 – 0.5.

3. Effect of Business Type (X3) on Income (Y) through Productivity (Z).

It is known that the direct influence that X3 has on Y is 0.303, while the indirect influence of X3 on Y through Z is a calculation between the beta value of X3 on Z and the beta value of X3 on Y, namely $0.613 + 0.229 = 0.842$. Based on these calculations, the results obtained show that the influence of Business Type (X3) on Income (Y) through Productivity (Z) is considered to have a very strong influence because the value is between > 0.75 – 1.

4. Effect of Working Hours (X4) on Income (Y) through Productivity (Z).

It is known that the direct influence that X4 has on Y is 0.478, while the indirect influence of X4 on Y through Z is the calculation of the beta value of X4 on Z with the beta value of Based on these calculations, the results obtained show that the influence of Working Hours (X4) on Income (Y) through Productivity (Z) is considered to have less influence because the value is below 0 (zero).

Hypothesis testing

Nuryadi (2017) , explains that hypothesis testing involves a series of statistical steps designed to test claims or assumptions put forward about population parameters. This procedure allows researchers to make conclusions about whether the observation results obtained are consistent with the proposed hypothesis or whether there is sufficient evidence to reject it. Based on the regression results, the conclusions from the hypothesis test are as follows:

Table 10. Hypothesis Test Results (t Test)

| Variable | Sig | t count | t table | Information |
|----------|-----|---------|---------|-------------|
|----------|-----|---------|---------|-------------|

| Variable | Sig | t _{count} | t _{table} | Information |
|--------------|-------|--------------------|--------------------|---|
| X1 against Z | 0.391 | 0.873 | 2,048 | H0.1 is accepted and H1.1 is rejected |
| X2 against Z | 0.097 | 1,725 | 2,048 | H0.2 is accepted and H1.2 is rejected |
| X3 against Z | 0,000 | 4,782 | 2,048 | H0.3 is rejected and H1.3 is accepted |
| X4 against Z | 0.548 | 0.609 | 2,048 | H0.4 is accepted and H1.4 is rejected |
| X1 against Y | 0.103 | 1,696 | 2,048 | H0.5 is accepted and H1.5 is rejected |
| X2 against Y | 0.459 | 0.753 | 2,048 | H0.6 is accepted and H1.6 is rejected |
| X3 against Y | 0.303 | 1,053 | 2,048 | H0.7 is accepted and H1.7 is rejected |
| X4 against Y | 0.478 | -0.720 | 2,048 | H0.8 is accepted and H1.8 is rejected |
| Z against Y | 0,000 | -4.137 | 2,048 | H0.13 is accepted and H1.13 is rejected |

Sobel Test

Based on the path coefficient, the path calculations in this research are as follows:

1. Sobel Test Calculation for Variable X1

Is known:

a : 0.097 (unstandardized value X1 to Z) → a² : 0.0094

b : -1.393 (unstandardized value of Z to Y) → b² : 1.9404

sa : 0.111 (standard error value X1 to Z) → sa² : 0.0123

sb : 0.337 (standard error value of Z to Y) → sb² : 0.1136

$Sab = \sqrt{b^2 Sa^2 + a^2 Sb^2 + Sa^2 Sb^2}$

$Sab = \sqrt{(1.9404)(0.0123) + (0.0094)(0.1136) + (0.0123)(0.1136)}$

$Sab = \sqrt{(0.0239) + (0.0011) + (0.0014)}$

$Sab = \sqrt{0.0264}$

$Sab = 0.1625$

Calculation of indirect effects by comparing t_{count} with t_{table} as follows:

$$t = \frac{ab}{S_{ab}}$$

$$t = \frac{0.097 \times -1.393}{0.1625}$$

$$t = -0.831$$

In these calculations it is known that the calculated t value = -0.831 and the t_{table} value = 2.048 and it is concluded that the calculated t < t_{table} so that Human Resources (X1) has no effect on Income (Y) through Productivity (Z). This means that productivity cannot mediate the influence of human resources on income at BUMDes Citra Mandiri.

2. Sobel Test Calculation for Variable X2

Is known:

a : 0.156 (nilai unstandardized X2 ke Z) → a² : 0.0243

$$\begin{aligned}
b & : -1.393 \text{ (nilai unstandardized Z ke Y)} \longrightarrow b^2 : 1.9404 \\
sa & : 0.090 \text{ (nilai standar error X2 ke Z)} \longrightarrow sa^2 : 0.0081 \\
sb & : 0.337 \text{ (nilai standar error Z ke Y)} \longrightarrow sb^2 : 0.1136 \\
Sab & = \sqrt{b^2 S a^2 + a^2 S b^2 + S a^2 S b^2} \\
Sab & = \sqrt{(1.9404) (0.0081) + (0.0243) (0.1136) + (0.0081) (0.1136)} \\
Sab & = \sqrt{(0.0157) + (0.0027) + (0.0009)} \\
Sab & = \sqrt{0.0193} \\
Sab & = 0.1389
\end{aligned}$$

Calculation of indirect effects by comparing t_{count} with t_{table} as follows:

$$\begin{aligned}
t & = \frac{ab}{Sab} \\
t & = \frac{0.156 \times -1.393}{0.1389} \\
t & = -1.564
\end{aligned}$$

In these calculations it is known that the calculated t value = -1.564 and the t_{table} value = 2.048 and it is concluded that the calculated $t < t_{\text{table}}$ so that Capital (X2) has no effect on Income (Y) through Productivity (Z). This means that productivity cannot mediate the influence of human resources on income at BUMDes Citra Mandiri.

3. Sobel Test Calculation for Variable X3

Is known:

$$\begin{aligned}
a & : 0.790 \text{ (nilai unstandardized X3 ke Z)} \longrightarrow a^2 : 0.6241 \\
b & : -1.393 \text{ (nilai unstandardized Z ke Y)} \longrightarrow b^2 : 1.9404 \\
sa & : 0.165 \text{ (nilai standar error X3 ke Z)} \longrightarrow sa^2 : 0.272 \\
sb & : 0.337 \text{ (nilai standar error Z ke Y)} \longrightarrow sb^2 : 0.1136 \\
Sab & = \sqrt{b^2 S a^2 + a^2 S b^2 + S a^2 S b^2} \\
Sab & = \sqrt{(1.9404) (0.272) + (0.6241) (0.1136) + (0.272) (0.1136)} \\
Sab & = \sqrt{(0.5278) + (0.0709) + (0.0309)} \\
Sab & = \sqrt{0.6269} \\
Sab & = 0.7918
\end{aligned}$$

Calculation of indirect effects by comparing t_{count} with t_{table} as follows:

$$\begin{aligned}
t & = \frac{ab}{Sab} \\
t & = \frac{0.624 \times -1.393}{0.791} \\
t & = -1.098
\end{aligned}$$

In these calculations it is known that the calculated t value = -1.098 and the t_{table} value = 2.048 and it is concluded that the calculated $t < t_{\text{table}}$ so that Business Type (X3) has no effect on Income (Y) through Productivity (Z). This means that productivity cannot mediate the influence of business type on income at BUMDes Citra Mandiri.

4. Sobel Test Calculation for Variable X4

Is known:

$$\begin{aligned}
a & : 0.069 \text{ (unstandardized blue X4 ke Z)} \longrightarrow a^2 : 0.0048 \\
b & : -1.393 \text{ (blue unstandardized Z ke Y)} \longrightarrow b^2 : 1.9404 \\
sa & : 0.113 \text{ (blue standar error X4 k Z)} \longrightarrow sa^2 : 0.0128 \\
sb & : 0.337 \text{ (blue standar error Z for Y)} \longrightarrow sb^2 : 0.1136 \\
Sab & = \sqrt{b^2 S a^2 + a^2 S b^2 + S a^2 S b^2}
\end{aligned}$$

$$Sab = \sqrt{(1.9404) (0.0128) + (0.0048) (0.1136) + (0.0128) (0.1136)}$$

$$Sab = \sqrt{(0.0248) + (0.0005) + (0.0015)}$$

$$Sab = \sqrt{0.0268}$$

$$Sab = 0.1638$$

Calculation of indirect effects by comparing t_{count} with t_{table} as follows:

$$t = \frac{ab}{Sab}$$

$$Sab$$

$$t = \frac{0.069 \times -1.393}{0.163}$$

$$0.163$$

$$t = -0.589$$

In these calculations it is known that the $t_{\text{calculated}} = -0.589$ and the $t_{\text{table}} = 2.048$ and it is concluded that the $t_{\text{calculated}} < t_{\text{table}}$ so that Working Hours (X4) have no effect on Income (Y) through Productivity (Z). This means that productivity cannot mediate the effect of working hours on income at BUMDes Citra Mandiri.

Interpretation

1. Human Resources (X1) to Productivity (Z)

Based on the results of hypothesis testing, it is known that the significance value for the influence of Human Resources (X1) on Productivity (Z) is $0.391 > 0.05$ with a $t_{\text{calculated}}$ value of $0.873 < t_{\text{table}} 2.048$ so it can be concluded that H0.1 is accepted and H1.1 is rejected which means there is no influence of Human Resources (X1) on Productivity (Z) at BUMDes Citra Mandiri Jember.

Based on the results of observations, Human Resources has no effect on productivity because the education level of BUMDes Citra Mandiri Jember employees tends to be low and there are multiple positions.

2. Capital (X2) to Productivity (Z)

Based on the results of hypothesis testing, it is known that the significance value for the influence of Capital (X2) on Productivity (Z) is $0.097 > 0.05$ with a $t_{\text{calculated}}$ value of $1.725 < t_{\text{table}} 2.048$ so it can be concluded that H0.2 is accepted and H1.2 is rejected, which means There is no influence of Capital (X2) on Productivity (Z) at BUMDes Citra Mandiri Jember.

This is in accordance with the theory which states that small capital will result in small business productivity. The capital used is still relatively low and unable to support existing types of businesses, and there is a gap in the capital requirements for each business.

3. Type of Business (X3) to Productivity (Z)

Based on the results of hypothesis testing, it is known that the significance value for the influence of Business Type (X3) on Productivity (Z) is $0.000 < 0.05$ with a $t_{\text{calculated}}$ value of $4.782 > t_{\text{table}} 2.048$ so it can be concluded that H0.3 is rejected and H1.3 is accepted which is This means that there is an influence of Business Type (X3) on Productivity (Z) at BUMDes Citra Mandiri Jember.

Based on the results of observations, this is due to business variations, the productivity of BUMDes Citra Mandiri has increased.

4. Working Hours (X4) to Productivity (Z)

Based on the results of hypothesis testing, it is known that the significance value for the influence of Working Hours (X4) on Productivity (Z) is $0.548 > 0.05$ with a $t_{\text{calculated}}$ value of $0.609 < t_{\text{table}} 2.048$ so it can be concluded that H0.4 is accepted and H1.4 is rejected which

is This means that there is no influence of Working Hours (X4) on Productivity (Z) at BUMDes Citra Mandiri Jember.

Based on observations, this is because BUMDes employees have unequal working hours in each business unit, so productivity is also not the same. Wisata Citra Mandiri has working hours of 7-8 hours per day (scheduled), the water management business unit has flexible working hours (adjusting the number of requests, repairs if there is damage and collects monthly water payments) so it is not scheduled, while the business unit has working hours 5-6 hours per day (scheduled).

5. Human Resources (X1) to Income (Y)

Based on the results of hypothesis testing, it is known that the significance value for the influence of Human Resources (X1) on Income (Y) is $0.103 > 0.05$ with a calculated t value Of $1.696 < t_{table} 2.048$ so it can be concluded that H0.5 is accepted and H1.5 is rejected which means there is no influence of Human Resources (X1) on Income (Y) at BUMDes Citra Mandiri Jember.

6. Capital (X2) to Income (Y)

Based on the results of hypothesis testing, it is known that the significance value for the influence of Capital (X2) on Income (Y) is $0.459 > 0.05$ with a calculated t value of $0.753 < t_{table} 2.048$ so it can be concluded that H0.6 is accepted and H1.6 is rejected, which means There is no influence of Capital (X2) on Income (Y) at BUMDes Citra Mandiri Jember.

7. Type of Business (X3) to Income (Y)

Based on the results of hypothesis testing, it is known that the significance value for the influence of Business Type (X3) on Income (Y) is $0.303 > 0.05$ with a calculated t value Of $1.053 < t_{table} 2.048$ so it can be concluded that H0.7 is accepted and H1.7 is rejected which is This means that there is no influence of Business Type (X3) on Income (Y) at BUMDes Citra Mandiri Jember.

8. Working Hours (X4) to Income (Y)

Based on the results of hypothesis testing, it is known that the significance value for the effect of Working Hours (X4) on Income (Y) is $0.478 > 0.05$ with a calculated t value Of $-0.720 < t_{table} 2.048$ so it can be concluded that H0.8 is accepted and H1.8 is rejected which means there is no influence of Working Hours (X4) on Income (Y) at BUMDes Citra Mandiri Jember.

9. Indirect influence of Human Resources (X1) on Income (Y) through Productivity (Z)

calculated t value = -0.1351 and the t table value = 2.048 and it is concluded that the calculated t < t table so that Human Resources (X1) has no effect on Income (Y) through Productivity (Z). This means that productivity cannot mediate the influence of human resources on income at BUMDes Citra Mandiri Jember.

10. Indirect Effect of Capital (X2) on Income (Y) through Productivity (Z)

The indirect effect based on the results of the Sobel test shows that the calculated t value = -1.564 and the t table value = 2.048 and it is concluded that the calculated t < t table so that Capital (X2) has no effect on Income (Y) through Productivity (Z). This means that productivity cannot mediate the influence of capital on income at BUMDes Citra Mandiri Jember.

11. Indirect Effect of Business Type (X3) on Income (Y) through Productivity (Z)

Based on the results of the Sobel test, it is known that the calculated t value = -1.0980 and the t table value = 2.048 and it is concluded that the calculated t < t table so that Business Type (X3) has no effect on Income (Y) through Productivity (Z). This means that productivity cannot mediate the effect of business type on income at BUMDes Citra Mandiri Jember.

12. Indirect Effect of Working Hours (X4) on Income (Y) through Productivity (Z)

In these calculations it is known that the $t_{\text{calculated}} = -0.5868$ and the $t_{\text{table}} = 2.048$ and it is concluded that $t_{\text{calculated}} < t_{\text{table}}$ so that Working Hours (X4) have no effect on Income (Y) through Productivity (Z). This means that productivity cannot mediate the effect of working hours on income at BUMDes Citra Mandiri Jember.

13. Productivity (Z) to Income (Y)

Based on the results of hypothesis testing, it is known that the significance value for the influence of Productivity (Z) on Income (Y) is $0.000 < 0.05$ with a $t_{\text{calculated}} = -4.137 < t_{\text{table}} = 2.048$ so it can be concluded that $H_0.13$ is accepted and $H_1.13$ is rejected which is This means that there is an influence of Productivity (Z) on Income (Y) at BUMDes Citra Mandiri Jember. This is because the productivity of Citra Mandiri BUMDes is quite good, especially in the type of joint venture (Citra Mandiri Tourism) which influences BUMDes income.

CONCLUSION

The variable type of business influences productivity, the variables human resources, capital and working hours do not influence the productivity of BUMDes Citra Mandiri. Meanwhile, the variables human resources, capital, type of business, working hours and productivity have no effect on the income of BUMDes Citra Mandiri. Productivity cannot mediate the influence of human resources, capital, type of business and working hours on the income of BUMDes Citra Mandiri.

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