Factors that Influence the Income of Basket Craftsmen: Evidence from Nagori Sigodang, Simalungun Regency, Indonesia

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Abstract: Today, a nation's economic condition can identify from an increased supply of goods and services. Also, technological progress is a determinant of economic growth. It describes the ability to provide a variety of goods to the community to get a decent income to meet the needs of everyday life. This study determines the factors that influence the income of basket craftsmen in Nagori Sigodang, Panei District, Simalungun Regency. The population in this study were Nagori Sigodang basket craftsmen, Panei District, Simalungun Regency. The sample size was used purposive sampling by determining special characteristics according to the research objectives. The data were analysed using multiple linear regression tests, hypothesis tests, and coefficient of determination. The results of the multiple linear regression test showed that capital, working hours, and length of business had a positive effect on the income of basket craftsmen; the hypothesis test for the t-test obtained that capital, working hours, and length of business had a significant effect on the income of basket craftsmen, the F-test obtained capital, working hours, and the length of business has a significant effect on the income of basket craftsmen, the coefficient of determination is 0.666, which means that 66.6 percent the level of income can be explained by capital, working hours, and length of business while the remaining 33.4 percent is influenced by other factors not included in the study.

Keywords: capital; working hours; length of business; income.

1. Introduction

The condition of a nation's economic growth can be seen through an increase in the supply of goods, the availability of increased services, and technological progress as a determinant in economic growth so that it can determine how much increase or even a decrease in growth and ability to provide a variety of goods to the community to get a decent income to meet needs everyday life. In the description, economic
development is carried out to improve the community's quality of life, namely the fulfilment of basic needs and overcoming poverty by increasing welfare, building facilities and infrastructure, utilising the resources owned sustainable economic development of a region (Pauzi & Budiana, 2016). Home industries in the creative economy phase also have a large share in the economy in society, both in developed and developing countries. If managed professionally, small industries in their management can produce creative, innovative products and help the industry grow bigger and compete with similar industries to achieve goals (Subrata & Damanik, 2019).

The basket craft business is among several small, micro, and medium enterprises. One of the potential businesses that many people are involved in is the handicraft industry. One of the potential areas for the development of this craft industry is Nagori Sigodang. Nagari Sigodang is a village/nagori located in Panei District, one of the areas in Simalungun Regency where the people become basket craftsmen and are one of the livelihoods of the area. The bamboo handicrafts' design in Nagori Sigodang, Panei District, Simalungun Regency is somewhat unique, although it is still less varied. However, MSMEs have several obstacles that hinder their development, such as the still low level of MSME productivity and resources. Adding community assets through the sale of goods or services to other parties is called income. Income is income earned as compensation for services and goods that have been produced and are given to consumers (Wahyono, 2017).

Several factors affect traders' income level, including capital, business length, work hours, and education level (Wahyono, 2017). The factors that become obstacles in increasing the income of basket craftsmen in Nagori Sigodang, Panei District, Simalungun Regency include business capital, where almost every small business actor faces the same difficulties in terms of capital. Most home industries use private funds, so their production capacity is limited to the amount of capital they have. On the basis of the research background previously, this study attempts to investigate the factors affecting the Income of Basket Craftsmen in Nagori Sigodang, Panei District, Simalungun Regency.

2. Literature Review
2.1. Income
According to Purba (2021), income is a remuneration received in the form of money for a product or service provided, which is explained in an accounting process as a result of an investment. According to Sukirno (2004), income is output received without sharing any activity a country receives. Meanwhile, according to Zamzani & Nusa (2017), income is an increase in economic benefits throughout the reporting period in the form of inflows or increases in inheritance or depreciation of liabilities that causes an increase in equity that does not come from investor donations. Income includes revenue (revenue) and profit (gain). Based on some of the expert opinions above, it can be concluded that it is the amount of input obtained for the services provided by the industry, which can include the sale of products and or services to customers obtained in a surgical operation of the industry to increase the legacy value and reduce the liabilities that arise in the industry delivery of goods or services. Income is a turnover of more than the total assets of the business entity at the beginning of the period. It emphasises the amount of static value at the end of the period. Broadly speaking, income is the number of assets at the beginning of the period plus changes in evaluations that are not caused by changes in capital and debt.

2.2. Capital
Working capital or working capital are short-term assets used to finance the company's daily operations. The money or funds issued are expected to be returned to the company quickly through the sale of their products. The money that comes incomes from the sale of the product so that it can be immediately issued again to finance further operations. Riyanto (2010) argues that working capital is the total amount of current assets about current liabilities.

2.3. Working Hours
Working hours is the time to do work that can be carried out during the day/night. Planning future jobs is a step toward improving time management. If the work planning has not been done carefully, nothing can be used as a guide to determine that the business is carried out in line with the goals to be achieved (Manurung et al., 2008).
2.4. Length of Business

The time the entrepreneur carries out his/her business significantly influences the choice of strategies and methods of carrying out his business (Johannisson, 1986; Liñán, 2004). Entrepreneurs who take longer in their business will have a more mature and appropriate strategy for managing, producing, and marketing their products (Neneh, 2011; Rachmawan et al., 2015) because entrepreneurs who have great experience in their business will have experience and knowledge to make decisions.

3. Materials and Methods

The associative approach determines the relationship or influence between variables (Purba et al., 2021). The data used in this study used primary data collecting data and interviews. This study took the Basket Craftsmen location in Nagori Sigodang, Panei District, Simalungun Regency. The research design used in writing this research is as follows:

- Research literature (Library Research) - Research is conducted directly by reading, seeking information through electronic tools and studying books and other references related to income, capital, business length, working hours, and education level.
- Field Research (Field Research) - In this study, the homogeneous population was 180 Nagori Sigodang basket craftsmen. The number of samples in this study was 50 basket craftsmen Nagori Sigodang, Panei District, Simalungun Regency.

The cross-section data were obtained at the time of the study. Procedures for collecting data related to the problem are to be discussed directly. The data collection procedures were carried out using Questionnaire. The data sources used in this study are basket crafts, Nagori Sigodang, Panei District, Simalungun Regency. Data analysis techniques are performed with multiple linear regression techniques. The equation of linear regression analysis doubles in this study. This study's multiple linear regression analysis equations are Income = f (Capital, Working Hours and Length of Business). Then, the functional is transformed into a regression model as follows:

\[ Y_i = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon_i \]  

Where, \( Y \) is the dependent variable (income), \( a \) is constant, \( b_1, b_3 \) are Regression coefficients, \( X_1 \) is the independent variable (capital) in Rupiah, \( X_2 \) is the independent variable (working hours), and \( X_3 \) is the independent variable (length of business) in the year and \( \epsilon_i = \text{error term} \). Furthermore, the Data analysis techniques are performed by classical assumptions, hypothesis tests and discussion.

4. Results

4.1. Classical Assumptions

The classical assumption test aims to identify whether the data obtained is normal or not. Classical assumption tests include normality tests, multicollinearity tests and heteroscedasticity tests. The normality test in the study used the Kolmogorov-Smirnov test. Ghozali (2015) stated the criteria used that the data is said to be normal distribution if the value of coefficient Asymp.Sig (2-tailed) at the Kolmogorov-Smirnov test output of the alpha specified is 5% (0.05).

Table 1. Result of Normality Testing using One-Sample Kolmogorov-Smirnov

<table>
<thead>
<tr>
<th>Variable(s)</th>
<th>Kolmogorov-Smirnov Z</th>
<th>Asymp.Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital</td>
<td>1.015</td>
<td>0.245</td>
</tr>
<tr>
<td>Working Hours</td>
<td>0.789</td>
<td>0.562</td>
</tr>
<tr>
<td>Business Length</td>
<td>0.948</td>
<td>0.330</td>
</tr>
<tr>
<td>Income</td>
<td>0.627</td>
<td>0.827</td>
</tr>
<tr>
<td>Unstandardised</td>
<td>0.704</td>
<td>0.704</td>
</tr>
</tbody>
</table>

Table 1 captures that the value of Kolmogorov-Smirnov Z is less than 1.96 and Asymp.Sig. (2-tailed) is higher than 0.05 (5%), meaning the data is normally distributed. Further, this study conducts multicollinearity testing. The multicollinearity test aims to test whether regression models find correlations between variables (independent). A good regression model should not be a correlation between independent
variables. Observing the values of the Variance Inflation Factor (VIF) and Tolerance can detect the presence of multicollinearity. The VIF limit is 10 and the value of the Tolerance is 0.10. This study used Tolerance and VIF (Variance Inflation Factor) values.

Table 2. Result of Multicollinearity Testing

<table>
<thead>
<tr>
<th></th>
<th>Correlations</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Zero-Order</td>
<td>Partial</td>
</tr>
<tr>
<td>Capital</td>
<td>0.817</td>
<td>0.424</td>
</tr>
<tr>
<td>Working Hours</td>
<td>0.924</td>
<td>0.785</td>
</tr>
<tr>
<td>Business Length</td>
<td>0.603</td>
<td>-0.048</td>
</tr>
</tbody>
</table>

Dependent variable: Income

Also, this study reports the result of the heteroscedasticity test. Heteroskedasticity means that there are variables in the regression model that are not the same (constant). This study used the heteroskedasticity test with a graph analysis method in this case. The graph analyst method is done by observing scatterplots where the horizontal axis uses predicted standardised values while the vertical axis describes residual standardised values. If scatterplots form a pattern, it indicates the presence of heteroskedasticity problems in the regression model formed.

Figure 1. Result of Heteroscedasticity Testing

4.2. Hypothesis Testing

Multiple linear regression analysis aims to analyse the effect of capital, working hours, and length of business on income. The test results can be viewed in Table 3 below:

Table 3. Results of Hypothesis Test using Multiple Linear Regression Analysis

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardised Coefficients</th>
<th>Standardised Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>2.891</td>
<td>1.434</td>
<td></td>
<td>2.016</td>
</tr>
<tr>
<td>Capital</td>
<td>0.237</td>
<td>0.099</td>
<td>0.262</td>
<td>2.389</td>
</tr>
<tr>
<td>Working hours</td>
<td>1.152</td>
<td>0.178</td>
<td>0.735</td>
<td>6.462</td>
</tr>
<tr>
<td>Business length</td>
<td>0.725</td>
<td>0.101</td>
<td>0.422</td>
<td>2.744</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Income
Table 3 captures the result of hypothesis testing. The constant of 2.891 with a positive relationship direction indicates that if the variable capital, working hours, and length of business are considered constant, then income has been formed by 2.891. The regression coefficient of capital's effect on income is positive at 0.237. If the capital is increased by one unit, it will increase revenue by 0.237. The regression coefficient of the effect of working hours on income is positive at 1.152. If working hours are increased by one unit, it will increase income by 1.152. Working hours have a very large influence on the income of shellfish artisans because the more working hours used, the production of baskets produced will be more and have an impact on the income of basket craftsmen. The regression coefficient of the long-standing influence of the business on income is positive at 0.725. If the length of the business is increased by one unit, it will increase revenue by 0.725.

Besides that, the t-test is a test performed to determine the degree of significance of the effect of an independent variable on a dependent variable, assuming that the other variable is constant. The t-test results are significant at $= 0.05$ with the t value for $n = 30 – 2 = \text{df}$ is 2.048. For this reason, $t$-stat = 2.389 means that the capital has a significant effect on the income of basket craftsmen. Also, working hours significantly affect basket craftsmen's income at a significant level is $= 0.05$ with the t-value for $n = 30 – 2 = \text{df}$ is 28, and t-table is 2.048. For this reason, $t$-stat = 6.462 is higher than t-table. It means that working hours have a significant effect on the income of basket craftsmen. For the length of business, this study found that $n = 30 – 2 = \text{df}$ is 28 is t-table is 2.048. For this reason, the t-stat is 2.744 is higher than the t-table, meaning that the length of the business significantly affects the income of basket craftsmen in Nagori Sigodang, Panei District, Simalungun Regency, Indonesia.

The F test, known as the simultaneous test, shows whether all independent or free variables are included in the model, which has a shared influence on dependent variables.

Table 4. Result of ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>196,016</td>
<td>3</td>
<td>65,339</td>
<td>63,664</td>
<td>0.000*</td>
</tr>
<tr>
<td>Residual</td>
<td>26,684</td>
<td>26</td>
<td>1,026</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>222,700</td>
<td>29</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent variable: Income  
b. Predictors: (Constant), Business Length, Capital, Working Hours

Table 4 presents the result of ANOVA test. Using $\alpha = 5$ percent and F-table is 2.980, this study found that F-stat is 63,664 and higher than F-table. It means that capital, working hours, and business length significantly affect the income of basket craftsmen in Nagori Sigodang, Panei Subdistrict, Simalungun Regency, Indonesia. In addition, the coefficient of determination is the percentage of the magnitude of the effect of independent variables on the dependent variables, namely by squaring of correlation coefficients.

Table 5. Result of Coefficient Determination.

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.738*</td>
<td>0.680</td>
<td>0.666</td>
<td>101,306</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Business length, Capital, Working Hours  
b. Dependent variable: Income

Table 5 displays the result of the coefficient determination (Adjusted R-Square) is 0.680, which means 68.0% of the high-low income can be explained by capital, working hours, and length of business. In comparison, the remaining 32% is influenced by other factors not included in this research, such as product innovation and costs. The results of calculations obtained value R is 0.738, meaning the relationship between capital, working hours, and length of business with income correlation is strong.

5. Conclusions

This study concludes that capital, working hours and business length have a significant effect on the income of basket craftsmen in Nagori Sigodang, Panei Subdistrict, Simalungun Regency, Indonesia partially
and simultaneously, and its exogenous variables contributed as much as 73.8 percent to income. It means the relationship between capital, working hours, and business length with income correlation is strong.

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References


