Measuring the Root Determinants of Income Level and The Impact on the Financial Literacy of MSME Actors

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Abstract
This research was conducted to see the effect of the variables of education level, gender, and business time on financial literacy with income level as an intervening variable in the UMKM of Kalongan Village. Descriptive quantitative approach used in research. The population in this study were SMEs in the Kalongan Village Area, totaling 116 SMEs and the sampling technique used was a census. Micro, Small & Medium Enterprises (MSMEs) play a crucial role in economic growth by expanding business opportunities and generating employment. However, the income level of MSMEs has been affected by the COVID-19 pandemic, leading to decreased financial stability. This study examines the root determinants of income levels in MSMEs and their impact on the financial literacy of actors in Nglebur Village, Indonesia. The research explores the influence of education, gender, and business experience on income levels. Additionally, it investigates how income levels affect the financial literacy of MSME actors. The study utilizes quantitative research methods, including data collection through questionnaires and analysis using descriptive statistics, validity tests, reliability tests, and multiple linear regression analysis. The findings reveal that education, gender, and business experience significantly influence income levels in MSMEs. Moreover, the income level has a significant impact on financial literacy among MSME actors. These results highlight the importance of promoting education and gender equality to enhance income levels and improve financial literacy in MSMEs. The study provides valuable insights for policymakers, MSMEs, and stakeholders to design targeted interventions that can enhance the economic growth and financial well-being of MSME actors.

Keywords: Gender, Financial Literacy, Income, Education, Time of Business

INTRODUCTION
Micro, Small & Medium Enterprises (MSMEs) are one of the strategic economic activities that have an important role for the growth of the community’s economy. The important role referred to by this is that apart from being able to expand business opportunities, MSMEs also provide benefits such as expanding employment opportunities which are really needed by the community in order to support their daily economic needs. Therefore, MSME is one of the important pillars for economic growth in society. Economic growth is really needed in every region, because there is an increase in economic growth which shows the prosperity reflected in these MSMEs. Nglebur Village is a small, remote village, but in this village there are many traders lining the roadside to sell their wares.

<table>
<thead>
<tr>
<th>No</th>
<th>Type of business</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mobile Vegetable Traders</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>Mobile Food Snacks</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>Coffee shop</td>
<td>6</td>
</tr>
<tr>
<td>4</td>
<td>Haberdasher</td>
<td>103</td>
</tr>
<tr>
<td>5</td>
<td>Food stalls</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>116</td>
</tr>
</tbody>
</table>

Source: Field Survey, 2022
The welfare of MSMEs can be measured by increasing the income of MSMEs, but with the pandemic outbreak that has occurred, this has caused a decrease in the income level of traders in Kalongan Village. MSMEs there experience delays in development. In the last three years, MSME income has decreased, presumably because the level of education influences the progress of a business. Education is a process of learning about knowledge, abilities and skills that can be seen from everyone's habits, which become a legacy from previous people until now. Income is the amount of money received by a person at work. If someone has a higher education then that person will get a better job where the job gets a big wage. This is evidenced by research conducted by Maheswara (2016) if the education level is low, the income level will decrease. Education itself becomes a pioneer in the future development of a business. This is also supported by Fitria's research (2014) which states that the lower the education of a trader, the smaller the income he gets. Amnesia (2013), Nugraha (2013), and Tua (2013) stated similar research like Fitria (2014). The following is a table regarding education in Kalongan Village, Ungaran Regency. This is also supported by Fitria's research (2014) which states that the lower the education of a trader, the smaller the income he gets. Amnesia (2013), Nugraha (2013), and Tua (2013) stated similar research like Fitria (2014). The following is a table regarding education in Kalongan Village, Ungaran Regency. This is also supported by Fitria's research (2014) which states that the lower the education of a trader, the smaller the income he gets. Amnesia (2013), Nugraha (2013), and Tua (2013) stated similar research like Fitria (2014). The following is a table regarding education in Kalongan Village, Ungaran Regency.

<table>
<thead>
<tr>
<th>No</th>
<th>Year</th>
<th>SD</th>
<th>Junior High School</th>
<th>Senior High School</th>
<th>Diploma</th>
<th>Bachelor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2019</td>
<td>1,856</td>
<td>546</td>
<td>415</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>2</td>
<td>2020</td>
<td>2,189</td>
<td>617</td>
<td>448</td>
<td>7</td>
<td>15</td>
</tr>
<tr>
<td>3</td>
<td>2021</td>
<td>2,368</td>
<td>666</td>
<td>481</td>
<td>11</td>
<td>19</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>6,413</td>
<td>1,883</td>
<td>3,441</td>
<td>23</td>
<td>46</td>
</tr>
</tbody>
</table>

Source: Dukcapil Ungaran Regency, 2022

From the table it can be seen that the education that has the highest vulnerable scale is 6,413 with an elementary education level in three periods, while the data with the lowest level of education is the Diploma level with a total of 23. From this data the researchers know how low the educational level of Kalongan Village is. The education level that had a significant increase was the junior high school level. It was recorded that in 2019 there were 546, in 2020 there were 617, and in 2021 there were 666 people. This education must be improved again so that they can become a generation that can be used as role models.

Another factor that can influence income is gender. Gender is a characteristic or division of human sex that is determined biologically which is attached to a certain sex. Gender affects income, because the existence of gender itself shows the level of one's productivity in running a business. Viewed universally, that the level of productivity of a man is higher than the level of productivity of women. This is influenced by factors that are owned by a woman such as: physically less strong, when working women tend to use feelings or biological factors such as having to take leave in childbirth. However, sometimes the productivity of women is higher than that of men, such as requiring patience and thoroughness in work. Gender itself can show one's productivity. Mahendra's research (2014) states that the lower the productivity of a trader, the lower the income will be. Herawati & Hadi (2013) also said that gender will affect the level of work productivity, so it will have an impact on worker income. Sasmitha (2017) also said similar to Mahendra (2014). The following is the gender data for the Kalongan village community, Ungaran Regency. Herawati & Hadi (2013) also said that gender will affect the level of work productivity, so it will have an impact on worker income. Sasmitha (2017) also said similar to Mahendra (2014). The following is the gender data for the Kalongan village community, Ungaran Regency. Herawati & Hadi (2013) also said that gender will affect the level of work productivity, so it will have an impact on worker income. Sasmitha (2017) also said similar to Mahendra (2014). The following is the gender data for the Kalongan village community, Ungaran Regency. Herawati & Hadi (2013) also said that gender will affect the level of work productivity, so it will have an impact on worker income. Sasmitha (2017) also said similar to Mahendra (2014). The following is the gender data for the Kalongan village community, Ungaran Regency. Herawati & Hadi (2013) also said that gender will affect the level of work productivity, so it will have an impact on worker income. Sasmitha (2017) also said similar to Mahendra (2014). The following is the gender data for the Kalongan village community, Ungaran Regency.
for the Kalongan village community, Ungaran Regency.

Table 3. Population Data for Kalongan Village Gender for the 2019-2021 Period

<table>
<thead>
<tr>
<th>No</th>
<th>Year</th>
<th>L</th>
<th>%</th>
<th>P</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2019</td>
<td>2,544</td>
<td>32%</td>
<td>2,653</td>
<td>37%</td>
</tr>
<tr>
<td>2</td>
<td>2020</td>
<td>2,683</td>
<td>34%</td>
<td>2,702</td>
<td>33.2%</td>
</tr>
<tr>
<td>3</td>
<td>2021</td>
<td>2,741</td>
<td>34.4%</td>
<td>2,768</td>
<td>34%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>7,968</td>
<td>100.4%</td>
<td>8,123</td>
<td>104.2%</td>
</tr>
</tbody>
</table>

Source: Dukcapil Ungaran Regency, 2022

Based on the table it can be seen that the population in the 2019-2021 period for the majority of the population is filled by women, it was recorded that the total female population was 8,123 with a percentage of 104.2% in the three periods. It was recorded that the female population in 2019 was 37%, in 2020 it was 33.2% and 34%, this figure is higher than the percentage of men.

In addition to education and gender factors, there is a business time factor that will also affect income. The length of time a business person has been in pursuing his business will affect his professional ability or expertise, so that he can increase efficiency and be able to reduce production costs to a lesser extent than sales results. The effect of business time on income levels has also been proven in research by Purnama (2014) and Wulandari (2017) which states that the lower the time a business stands will be able to affect its professional abilities, increase a skill and customers will also increase the income earned. Nainggolan (2016) states that the lower the experience in doing business, the smaller the income earned. The following is the old business table:

Table 4. Old MSME Business Data in the Kalongan Village Area

<table>
<thead>
<tr>
<th>No</th>
<th>Length of Business/Year</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1 - 2.75 years</td>
<td>54</td>
<td>48</td>
<td>35</td>
</tr>
<tr>
<td>2</td>
<td>2.76 - 4.51 years</td>
<td>25</td>
<td>23</td>
<td>20</td>
</tr>
<tr>
<td>3</td>
<td>4.52 - 6.27 years</td>
<td>25</td>
<td>25</td>
<td>21</td>
</tr>
<tr>
<td>4</td>
<td>6.28 - 8.03 years</td>
<td>17</td>
<td>15</td>
<td>13</td>
</tr>
<tr>
<td>5</td>
<td>8.04 - 9.79 years</td>
<td>15</td>
<td>15</td>
<td>12</td>
</tr>
<tr>
<td>6</td>
<td>9.80 - 11.55 years</td>
<td>17</td>
<td>15</td>
<td>11</td>
</tr>
<tr>
<td>7</td>
<td>11.56 - 13.31 years</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>8</td>
<td>13.32 - 15.07 years</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>157</td>
<td>145</td>
<td>116</td>
</tr>
</tbody>
</table>

Source: Field survey, 2022

From the table above, it is known that MSMEs in the Kalongan Village Area have decreased every year, this can have an effect on income levels which also decline. The highest range is traders who stand between the vulnerable scale of 1-2.75 years where in 2019 it reached 54, then in 2020 it fell 6% to 48, then in 2021 it decreased by 13% to 35. Traders who are able standing up to a vulnerable scale of 13.32-15.07 only 1 UMKM, this can be used as a role model or lesson for other MSME actors so they can prosper their business.

As a result of the penf the income of MSMEs decreases, it will have an impact on financial literacy. Financial literacy can be interpreted as a person's ability to understand and evaluate information in making decisions by understanding the financial consequences that arise (Khrisna, 2010). Every individual needs basic financial knowledge to manage financial resources effectively, especially for business people who frequently carry out activities in making financial decisions. This lack of financial literacy creates obstacles to prosperity. When business people get low income, the level of financial literacy will also decrease. This is evidenced in Damayanti's research (2018) which states that the lower the income level, the lower the level of financial literacy. This is none other than research conducted by ANZ (2011) which says that income levels can affect people's financial literacy. Therefore, Amaliyah & Witiastuti (2015), Damayanti (2018) believe that the level of income can have a positive and significant effect on financial literacy in society, especially for people who are SMEs.

METHODS

Types of research
In this study, researchers used quantitative research because the data obtained was in the form of numbers. Quantitative data obtained in this study came from filling out questionnaires as a research instrument.

Data source
The data sources used are primary data and secondary data. In this study, the primary data was obtained from distributing questionnaires that had been prepared in the form of a series of statements or questions according to the variables to be used as research, namely income level, gender, business time, financial literacy and finally the level of income by a number of MSME actors in Kalongan Village Area, Ungaran Regency. For secondary data is data that has been collected by other parties. Secondary data obtained for this research is data from literature, scientific publications related to MSMEs and also from related agencies such as the Cooperatives and MSMEs office, the Ungaran Regency Industry and Trade office, and the Central Statistics Agency (BPS).

Descriptive statistics
Descriptive analysis is used to provide an overview of the research variables from the respondents' answers. This analysis was carried out on the data obtained from the results of the questionnaire answers and was used to analyze data in the form of numbers. This analysis uses the 3 box criteria (Three-Box Method). The use of the Three-Box Method is divided as follows.

<table>
<thead>
<tr>
<th>Box</th>
<th>Values</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.00 - 45.33</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>45.34 - 80.67</td>
<td>Currently</td>
<td></td>
</tr>
<tr>
<td>80.68 - 116</td>
<td>Tall</td>
<td></td>
</tr>
</tbody>
</table>

Instrument Test
The validity test is used to determine the feasibility of each item in each questionnaire in defining a variable. The validity test was carried out by comparing the calculated r values (correlated item-total correlations) with the r table values. If the value of r count > r table and is positive at a significant 5% then the data can be said to be valid. Vice versa.

In the instrument reliability test, it can be seen from the value of Cronbach alpha (α) in each variable. Cronbach alpha is used to determine interitem consistent reliability or to test the consistency of respondents in responding to all items. It is said to be reliable or reliable if Cronbach alpha has a value greater than 0.7.

Classic assumption test
In the normality test, the residual data is considered normally distributed if the significance value is > 0.05. In the multicollinearity test, multicollinearity does not occur if VIF < 10 and the tolerance value is > 0.10. In the heteroscedasticity test, heteroscedasticity occurs when the significance value is > 0.05. In the autocorrelation test, autocorrelation occurs if DW < DL or DW > (4-DL ), and definite conclusions cannot be reached if the DW is between DL and DU or between (4-DU) and (4-DL).

Multiple Linear Regression Analysis
Performed to see the possibility of capital structure, intellectual capital, and profitability (independent variable) on firm value (dependent variable).

This analysis can be done using the following formula:

\[ \text{Stage 1 : } Y_1 = a + b_1X_1 + b_2X_2 + b_3X_3 + e \]
\[ \text{Stage 2 : } Y_2 = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4Y_1 + e \]

Where:
- Y1, Y2 = Dependent variable
- α = Constant
- β1 - β3 = Regression coefficient
- X1, X2, X3 = Independent variables
- e = term error

\[ t \text{ test} \]
In the t test, H0 is accepted while Ha is rejected if the significance value is > 0.05. Furthermore, if t count < t table and -t count > -t table, then H0 is accepted while Ha is rejected.

Coefficient of Determination (R2)
The coefficient of determination shows the number in R2 that will be converted into percent, which is between zero and one. While the value of determination is determined by the Adjusted R Square value. If the value of R2 is small, then there are limited independent variables when explaining the dependent variable. If the value is close to one, then the independent variables show the information needed to predict the diversity of the independent variables.

Path Analysis (Sobel Test)
To examine the effect of intervening variables used path analysis method (Path Analysis). Testing the mediation hypothesis can use a procedure developed by Sobel and known as the Sobel test (Sobel test) (Ghozali, 2011). The Sobel test is carried out by testing the strength of
the indirect influence between the independent variable (X) on the dependent variable (Z) through the intervening variable (Y).

RESULTS AND DISCUSSION
1. Instrument Test
   a. Validity test
      The validity test was carried out by comparing the rcount value with rtable at a significance of 5% and N = 116, the rtable value was 0.182. The results of data processing show that the value of rcount > rtable means that the items on the instrument being tested are valid.
   b. Reliability Test
      Reliability is an instrument that can be trusted enough to be used as a data collection tool because the instrument is good. In this study the reliability test used was the Cronbach’s Alpha formula with a standard value of 0.7. The results of the reliability calculation show that all the variables used in this study are reliable, because they have a Cronbach Alpha coefficient value greater than the critical value of 0.7.
2. Classic assumption test
   a. Normality test
      The normality test in this regression uses the Kolmogorov-Smirnov method. This KS test is a test of difference between the data tested for normality and standard normal data. The results of data processing show that the research variables, namely income level (Y1), financial literacy (Y2), education (X1), gender (X2), and business time (X3) have a probability value of 0.122 (Y1), 0.115 respectively (Y2), 0.159 (X1), 0.159 (X2) and 0.090 (X3) where the probability value is greater than 0.05, it can be concluded that the population is normally distributed.
   b. Multicollinearity Test
      To detect the presence or absence of multicollinearity generally by looking at the Tolerance and VIF values in the linear regression results. The tolerance value of all independent variables is > 0.10 and the VIF value is < 10, so that multicollinearity does not occur.
   c. Heteroscedasticity Test
      The Glejser test is carried out by regressing the independent variables with their residual absolute values.
      Based on these data, it can be concluded that the significance value of all variables in the Glejser test step 1 is greater than 0.50, which means that residual data does not occur heteroscedasticity, whereas in the Glejser test step 2, the income level variable has a significance value of 0.001 which is smaller than 0.50 which means it means that the residual data has heteroscedasticity and other variables have a value greater than 0.05, which means there is no heteroscedasticity.
   d. Multiple Linear Regression Analysis 1
      1) The constant (α) = 2.975
         If education (X1), gender (X2), and business time (X3) are equal to 0 or omitted, then the level of income (Y1) will increase by 2.975 units.
      2) Value b1 = 0.358
         The education variable has a regression coefficient of 0.358 and the direction is positive, meaning that if education increases, the income level will increase by 35.8% assuming gender and business time are considered constant.
      3) Value b2 = 0.205
         The gender variable has a regression coefficient of 0.205 and the direction is positive, meaning that if gender increases, the income level increases by 20.5% assuming the variables of education and business time are considered constant.
      4) b3 value = 0.227
         The business time variable has a regression coefficient of 0.227 and the direction is positive, meaning that if business time increases, the income level increases by 22.7% assuming the variables of education and gender are considered constant.
   e. Multiple Linear Regression Analysis 2
      1) The constant (α) = -5.425
         If education (X1), gender (X2), business time (X3) and income level (Y1) are equal to 0 or eliminated, then financial literacy (Y2) will decrease by 5.425 units.
2) Value $b_1 = 0.488$

The education variable has a regression coefficient of 0.488 and the direction is positive, meaning that if education increases, financial literacy increases by 48.8% assuming the variables of gender, business time and income level are considered constant.

3) Value $b_2 = 0.502$

The gender variable has a regression coefficient of 0.502 and the direction is positive, meaning that if gender increases, financial literacy will increase by 50.2% assuming the variables of education, business time and income level are considered constant.

4) Value $b_3 = 0.164$

The business time variable has a regression coefficient of 0.164 and the direction is positive, meaning that if business time increases, financial literacy will increase by 16.4% assuming the variables of education, gender and income level are considered constant.

5) $b_4$ value = 0.474

The income level variable has a regression coefficient of 0.474 and the direction is positive, meaning that if income increases, then financial literacy will increase by 47.4% assuming the variables of education, gender and business time are considered constant.

3. Goodness Of Fit
   a. Partial Parameter Significance Test (t test)

   The t test is used to test the variables that influence the independent variables on the dependent variable individually (alone), so the t test is used. The t table formula = the number of respondents minus two or written by the formula: $t_{table} = 116-2 = 114$, found the value of $t_{table} = 1.65833$.

b. The coefficient of determination $R^2$

The results of the analysis of the coefficient of determination in multiple linear regression 1 with an $R^2$ (Adjusted R Square) value of 0.276, which means that the influence of the independent variables of education, gender and time of business on the income level variable is 27.6% while the remaining 72.4% is influenced by other factors that not investigated such as business capital, location, age, and working hours. The results of the analysis of the coefficient of determination in multiple linear regression 2 with an $R^2$ (Adjusted R Square) value of 0.610 which means the effect of the independent variables of education, gender, business time and income level on the level variable income of 61% while the remaining 39% is influenced by other factors not examined such as age, work experience, parental education, and place of residence.

4. Path Analysis
   a. Sobel test

   Sobel test is a test to find out whether the relationship through a mediating variable is significantly capable of being a mediator in the relationship. The result is as follows:
CONCLUSION

The level of education has a positive and significant effect on income levels (Case Study on MSMEs in the Kalongan Village Area), then H1 is accepted. Gender has a positive and significant effect on income levels (Case Study on MSMEs in the Kalongan Village Area), then H2 is accepted. Business time has a positive and significant effect on the level of income, then H3 is accepted. The level of education has a positive and significant effect on financial literacy (Case Study on MSMEs in the Kalongan Village Area), then H4 is accepted. Gender has a positive and significant effect on financial literacy (Case Study on MSMEs in the Kalongan Village Area), then H5 is accepted. Business time has a positive and significant effect on financial literacy (Case Study on MSMEs in the Kalongan Village Area), then H7 is accepted. Income level is unable to mediate the relationship between education level and financial literacy (Case Study on MSMEs in the Kalongan Village Area), then H8 is rejected. Income level is not able to mediate the relationship between gender. financial literacy (Case Study on MSMEs in the Kalongan Village Area), then H9 is rejected. Income levels are unable to mediate the relationship of business time to financial literacy (Case Study on MSMEs in the Kalongan Village Area), then H10 is rejected.

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