EFFECT OF FINANCIAL LITERACY, EDUCATION LEVEL AND GENDER ON THE GROWTH OF SMES: EMPIRICAL STUDY ON THE COVID19 PANDEMIC CONDITIONS

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ABSTRACT

This study aims to examine the effect of Financial Literacy, Education Level and Gender on the Growth of Small and Medium Enterprises (SMEs) in the Creative Economy Sector in the Mandalika Special Economic Zone (SEZ). The data was collected using the survey sample method, and the number of samples in this study was 50 SMEs. The sample was taken using a simple random sampling technique. The independent free variables are Financial Literacy, Education Level and Gender, while the dependent variable is SME Growth. Technique Analysis data is multiple linear regression, which conducted using the 2016 version of SPSS. The results showed that financial literacy and education level have a positive and significant effect on SMEs growth. Meanwhile, gender has a positive, but not significant effect on the growth of SMEs.

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1. INTRODUCTION

The coronavirus (COVID-19) outbreak has weighed on many economic activities around the world. The rapid transmission of the virus has caused people around the world to simultaneously isolate following strict public health orders. The impact of this approach is that consumers stay at home, businesses lose income and lay off workers and the unemployment rate rise sharply. WHO's recommendation to reduce the spread of infection is through physical distancing policies by maintaining physical contact with others, as well as avoiding gatherings in one place (WHO, 2020). Some countries also implement "lockdown" policies up to a certain time limit, and some do not even set a deadline (BBC, 2020). This policy means closing some facilities and public places, restricting access between regions or borders between countries, and stopping air routes in and out of the country. There are also no exceptions to the travel limitation.

The possible long-term effects of the global crisis due to the COVID-19 pandemic have attracted the attention of scientists in all fields, as well as policymakers, governments, and individuals. One of the focuses of research that has received a lot of attention is to describe how companies can adapt in these conditions, especially small and medium-sized enterprises (SMEs). Since the beginning of this pandemic, scientists have begun to research the impact of this phenomenon on various aspects of business management by observing supply chain disruptions and their effects on demand, supply, employment rates, and financial fragility (Bartik et al., 2020; Cowling et al., 2020; Humphries et al., 2020; Juergensen et al., 2020; Kuckertz et al., 2020). The study has also examined how a company's capabilities and resources, including cultural and social aspects, can drive strategic performance during this COVID-19 crisis.

In addition, the modern business environment has created a necessity for business organizations, including SMEs, to develop the capabilities and skills needed to be able to reduce the risks and impacts of economic events and disasters such as the COVID-19 pandemic. It is proven that SMEs have an important role in terms of economic and social functions, for this reason, it is very important for SMEs to be able to survive and develop their business under any circumstances. Resilience of SMEs is an important strategic posture that must be developed to minimize disruption from such disasters (Hallak et al., 2018; Sheffi & Rice, 2005).

This condition causes the view of knowledge-based (KBV) to become more prominent, which basically proposes ways to improve the performance of business organizations, emphasizing the value and need to integrate individual and company-level knowledge into the organization's products and services (Hussain et al., 2018). Through the view of knowledge-based (KBV) could create a competitive advantage in complex business environments One of the effective tools of KBV is financial literacy which has been shown to have an impact on improving the performance of SMEs (Olga, 2011; Eniola & Entebang, 2016; Prisca, 2016; Putri et al, 2022). Financial literacy is the ability to adequately monitor financial resources and connect effectively with financial products and services. Financial literacy is about acumen and making effective decisions about the utilization of financial management. Financial literacy requires knowledge, skills, attitudes, and experience with the aim of maintaining the viability of the company and maximize profits.

The factors that cause business owners to make inappropriate, inadequate and ineffective financial decisions are due to lack of personal financial knowledge and complexity in financial transactions. Lack of business management skills can magnify financial barriers for SMEs. A low level of financial literacy characterized by limited ability to understand various forms of financing provisions can reduce the ability of SMEs to
develop their businesses. Financial literacy has proven important in improving transparency, efficiency, accuracy, and accountability so that organizations can achieve their goals (Koitaba, 2013). In addition, Siekei et al. (2013) proved that the effective application of financial literacy skills leads to improved business performance due to the increased ability to track business events through a financial report system.

Based on financial literacy theory and empirical evidence, there are differences in financial literacy among individuals and based on demographic characteristics (Agarwalla et al, 2015). This demographic dominance is age, gender, employment status, education, and location. Of all the factors proposed, gender is the most powerful factor that affects financial literacy. Previous research has shown that women tend to show lower levels of financial literacy compared to men (Chen & Volpe, 2002; Mandell, 2008; Lusardi et al, 2010). Agnew and Cameron-Agnew (2015) observed that the duration of time for financial discussions affects financial literacy and the tendency for gender bias in favor of men. There are differences in risk tolerance and computational ability between men and women. Women's low levels of financial literacy are associated with a lack of confidence about financial decisions, interest in investing and personal finance, and women's risk tolerance. As explained above, financial literacy has a positive and significant impact on improving the performance and growth of business organizations. However, a literature review of the effect of financial literacy on SME performance has not been widely conducted. For this reason, this study intends to fill the gap by identifying the relationship between financial literacy demographic factors to SME performance. This research was conducted on SMEs in the creative economy sector located in the Mandalika SEZ considering that the tourism sector is one of the sectors that has experienced the greatest impact from the Covid19 pandemic.

2. LITERATURE REVIEW

2.1. Financial Literacy

Financial literacy has been defined differently as a form of knowledge, ability or specific skills to apply financial knowledge, good financial behavior, and even financial experience (Hung et al, 2009). Financial literacy as sufficient knowledge of personal financial conditions and is the key to personal financial management. Financial literacy is defined in many studies as the field of personal finance, but not many define the concept of financial literacy in terms of the scope of managers and business people. Financing literacy is included as one of the important managerial competencies in the company and SME development (Spinelli et al, 2011). Business owners, regardless of their age, are consistently involved in decision-making activities related to the procurement, allocation and utilization of resources. Such activities almost always have financial consequences and therefore for these activities to be effective, business owners must have financial literacy skills (Oseifuah, 2010).

A financially literate SME owner is defined as someone who knows the most appropriate financing decisions to improve business growth and performance and knows where to get the most suitable products and services (USAID, 2009). Therefore, in this study, financial literacy is conceptually defined on how companies manage and strategize financial knowledge, which significantly influences the decisions, behavior, awareness and attitudes of SMEs about good decision making and ultimately achieving organizational performance.
2.2. Resource-based View Theory and Hypothesis Development

This research uses resource-based view (RBV) theory as the theoretical basis for hypothesis development. Previously it has been pointed out by some researchers that the most effective framework for understanding strategic management is the resource-based theory of enterprises. This theory mentions explicit strategic resources as a form of asset that creates a sustainable competitive advantage (Barney et al, 2001). However, SMEs have not gave special attention to the strategic management of SMEs in particular. Based on research conducted by Eniola & Entebang (2014) using the RBV concept, they propose that effective use of specific resources as a competitive and sustainable capability can support the formation of superior performance. The ability to maintain competitive advantage by an enterprise depends on their ability to maintain the heterogeneity of the source of knowledge. Thus, enterprises can count on the inability of resources to generate and maintain economic benefits in the form of profit growth. The financial literacy of SME owners can be considered an intrinsic resource that has the potential to affect economic performance.

According to Bosma and Harding (2006), many SMEs fail due to lack of financial literacy, inadequate business acumen, and poor financial knowledge, thus undermining their business activities. SMEs, regardless of their age, are consistently involved in decision-making activities related to allocation and utilization of resources. Such activities almost always have financial consequences and therefore, to be effective, SMEs must be financially literate (Oseifuah, 2010).

Drexler et al (2014) suggest that SMEs usually have low financial literacy and thus face barriers to making complex financial decisions. Research conducted by Oseifuah (2010) proves that financial literacy among young entrepreneurs contributes meaningfully to their business skills. Entrepreneurs who want to grow need to feel confident in their finances, as well as get adequate information (Kotzè & Smit, 2008). Low financial literacy of the SME’s owners is indicated by the limited ability to know their company's financial condition and will lead to low innovation that they can make to create competitive capabilities. It is further stated that the lack of ability to access various sources of financing caused due to low financial literacy. It means that financial literacy has a positive relationship with performance (Lusardi et al., 2010; Prisca, 2016; Eniola, 2016; Kulathunga et al., 2020). Research conducted by Lusimbo (2016) proves that one of the factors that affect business growth is financial literacy. SMEs that manage and inform their finances transparently and accurately will have a positive impact on the SME business itself (Rumbianingrum & Wijayangka, 2018). Based on the literature review, the following hypotheses were formulated:

H1: Financial literacy positively affects SMEs performance

Empirical and theoretical literacy offers a number of factors to explain the differences in financial literacy among individuals and various demographic categories (Agarwalla et al., 2015). This demographic dominance is age, gender, employment status, education, location, and others, where gender is the strongest factor that affects a person's level of financial literacy. Gender is something that makes a person feminine or masculine which is based on a person's basic biological condition and views on a person's biology related to one's culture (Handayani, 2020).

The theory of gender differences between men and women is divided into two approaches, namely: the social network structure approach and the social network source approach (Klyver and Terjesen, 2007). In the approach of social network structures there are "strong" and "weak" working ties. "Strong" work ties refer to men and "weak" work ties refer to women. From this approach, women are considered weak starting from building a
business, opening a network, being weak in business strategy. Therefore, these gender differences affect achievement in work (Bengtsson et al, 2012). There are stereotypes where women's productivity is lower than that of men (Seon, 2014). Research conducted by Romauli (2016) said that gender has a significant effect on the income earned. Research conducted by Yun (2017) also said that gender equality has a significant influence on business performance. Another previous research also proved that women tend to show lower levels of financial literacy compared to men (Chen & Volpe, 2002; Mandell, 2008; Lusardi et al, 2010). This difference comes from the difference in sources. Agnew and Cameron-Agnew (2015) observed that the timing of financial discussions in residence affects financial literacy and financial socialization in residences shows gender biases in favor of men. Yu (2014) explain the differences in risk tolerance and computational ability between men and women. Therefore, the following hypotheses were formulated:

**H2: Gender positively affects performance**

The problem of low-quality management indicates the low quality of human resources which can be seen from the low level of education of SME owners. Education and training are one of the important factors in developing human resources, not only increasing knowledge, but also improving work skills, thereby increasing work productivity (Nur Fajar & Widiyanto, 2020). Research conducted by Putu (2014) said that the level of education partially has a positive and significant effect on the income of SMEs. SME owners have a positive influence on the ability to access credit, the higher the level of education, the more likely they are to access banking services such as having an account in banking or taking credit (Fungacova and Weill, 2014). In addition, the higher level of education of SMEs is expected to make it easier for SMEs to understand the applicable laws and regulations (Marpaung 2016). Moreover, it was found that work experience, education level and length of business together had a significant impact on the income of the business (Chiliya, 2012). Therefore, the following hypotheses were formulated:

**H3: Education level positively affects performance**

### 3. RESEARCH METHOD

This study uses quantitative descriptive methods to describe the relationship between financial literacy, gender, education level and SME performance. The data collection method was a sample survey, where the respondents of the study were SMEs located in the Mandalika SEZ Area, Central Lombok Regency. The number of samples used was 50 SMEs selected using a simple random sampling technique. Research variables consist of dependent variables, namely SME performance which is defined as the achievements of a company in a certain time (Minuzu, 2010). Performance in this study was measured using five indicators, namely 1) sales growth; 2) capital growth; 3) an increase in the number of workers per year; 4) market growth; and 5) operating profit growth. Independent variables in this study are financial literacy, gender, and education level. Financial literacy is people's knowledge and skills in managing money by understanding banking, investing, making budgets and making personal savings aimed at helping individuals' financial condition remain stable. Indicators of financial literacy in this study are knowledge, behavior, skills and attitudes. Performance dan financial literacy indicators were measured using 5 scale of Likert. Then, the analytical tool used in this study is a multiple linear regression analysis model by using SPSS, to see the influence of financial literacy, gender, and education level of SME owners on performance.
4. RESULTS AND DISCUSSION

The results of the data analysis in this study are the result of direct interviews with respondents, namely SMEs engaged in the creative economy sector in the Mandalika SEZ Area, Central Lombok Regency. The number of tabulated questionnaires was 50 questionnaires and was further analyzed by multiple linear regression analysis using SPSS software.

4.1. Multiple Linear Regression Result

Performance in this study was measured using five indicators, namely 1) sales growth; 2) capital growth; 3) an increase in the number of workers per year; 4) market growth; and 5) operating profit growth. These indicators were measured by using 5 scale of Likert, namely: 1 = strongly low; 2 = low; 3 = moderate; 4 = high; and 5 = strongly high. Respondents’ responses to performance variable indicators are shown in Table 1 below.

Table 1. Description of SME Performance Variable

<table>
<thead>
<tr>
<th>Performance (Y)</th>
<th>SL</th>
<th>L</th>
<th>E</th>
<th>H</th>
<th>SH</th>
<th>Total</th>
<th>Average</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>New product development</td>
<td>4</td>
<td>0</td>
<td>7</td>
<td>14</td>
<td>25</td>
<td>50</td>
<td>4.12</td>
<td>High</td>
</tr>
<tr>
<td>Market improvement</td>
<td>4</td>
<td>0</td>
<td>7</td>
<td>13</td>
<td>26</td>
<td>50</td>
<td>4.14</td>
<td>High</td>
</tr>
<tr>
<td>Human resource development</td>
<td>9</td>
<td>0</td>
<td>4</td>
<td>12</td>
<td>25</td>
<td>50</td>
<td>3.88</td>
<td>High</td>
</tr>
<tr>
<td>Application of technology</td>
<td>13</td>
<td>15</td>
<td>16</td>
<td>6</td>
<td>0</td>
<td>50</td>
<td>2.3</td>
<td>Low</td>
</tr>
<tr>
<td>Decrease in net profit during the pandemic Covid19</td>
<td>38</td>
<td>6</td>
<td>4</td>
<td>2</td>
<td>0</td>
<td>50</td>
<td>1.4</td>
<td>Strongly low</td>
</tr>
<tr>
<td>Decline in sales during the pandemic Covid19</td>
<td>18</td>
<td>23</td>
<td>7</td>
<td>2</td>
<td>0</td>
<td>50</td>
<td>1.86</td>
<td>Low</td>
</tr>
<tr>
<td>Decline in out-of-county sales during the pandemic Covid19</td>
<td>42</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>50</td>
<td>1.26</td>
<td>Strongly low</td>
</tr>
</tbody>
</table>

Source: primary data

Based on Table 1, it shows that SMEs in the Mandalika SEZ area experienced a considerable decline in sales and affected their business growth. In addition, the results of the data tabulation show that SMEs in Mandalika SEZ tend to be lacking in developing new products and developing human resources. They are also classified as lacking market development and technology application. Therefore, based on the results of these data, it shows that the performance of SMEs in Mandalika SEZ is in the moderate level.

Table 2. Description of SME Financial Literacy Variable

<table>
<thead>
<tr>
<th>Performance (Y)</th>
<th>SL</th>
<th>L</th>
<th>E</th>
<th>H</th>
<th>SH</th>
<th>Total</th>
<th>Average</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Able to report business finances properly and correctly.</td>
<td>18</td>
<td>15</td>
<td>12</td>
<td>4</td>
<td>1</td>
<td>50</td>
<td>2.1</td>
<td>Low</td>
</tr>
<tr>
<td>Make a list of expenses and income in the previous month</td>
<td>22</td>
<td>14</td>
<td>9</td>
<td>3</td>
<td>2</td>
<td>50</td>
<td>1.98</td>
<td>Low</td>
</tr>
<tr>
<td>Create a business budget to manage every cash flow of business income and expenses.</td>
<td>21</td>
<td>18</td>
<td>6</td>
<td>4</td>
<td>1</td>
<td>50</td>
<td>1.92</td>
<td>Low</td>
</tr>
<tr>
<td>Have knowledge that investment is a potential long-term income</td>
<td>2</td>
<td>5</td>
<td>29</td>
<td>10</td>
<td>4</td>
<td>50</td>
<td>3.18</td>
<td>Moderate</td>
</tr>
<tr>
<td>Able to separate net profit and gross profit going</td>
<td>6</td>
<td>20</td>
<td>16</td>
<td>4</td>
<td>4</td>
<td>50</td>
<td>2.58</td>
<td>Low</td>
</tr>
<tr>
<td>Able to plan how and where my money is going</td>
<td>1</td>
<td>6</td>
<td>25</td>
<td>12</td>
<td>6</td>
<td>50</td>
<td>3.32</td>
<td>Moderate</td>
</tr>
<tr>
<td>Keep a daily bookkeeping for all the expenses</td>
<td>32</td>
<td>8</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>50</td>
<td>1.78</td>
<td>Strongly low</td>
</tr>
<tr>
<td>Determine the scale of priorities in the use of finances, and act rationally in issuing</td>
<td>8</td>
<td>11</td>
<td>17</td>
<td>10</td>
<td>4</td>
<td>50</td>
<td>2.82</td>
<td>Moderate</td>
</tr>
</tbody>
</table>
money
Saving money in the bank  44  3  3  0  0  50  1.18  Low
Control shopping  2  3  20  12  13  50  3.62  High
Able to plan and recap budgeting appropriately  14  15  13  6  2  50  2.34  Low
Knowing how to properly develop money  0  16  20  9  5  50  3.06  Moderate
Always be careful in doing credit  2  1  1  10  36  50  4.54  Strongly high
Rata-rata  2.65  Moderate

Source: primary data

Based on Table 2 above, it appears that there are varied results in the measurement of financial literacy in the Mandalika SEZ and from the overall statement indicates that the level of financial literacy of SMEs in the Mandalika SEZ is in the moderate level. Of the 13 questions, only two questions were responded highly by SMEs in the Mandalika SEZ area, namely the desire to control spending and always be careful in doing credit.

Based on the survey results, the level of education of SMEs in the creative economy sector in Mandalika SEZ is included in the moderate category, most of the SMEs owner have high school education. In addition, the survey results showed that 38 respondents were female and 12 were male. Therefore, it can be known that the average respondent is female.

Research model created using multiple liner regression is shown below:

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>15.830</td>
<td>0.000</td>
</tr>
<tr>
<td>Financial literacy</td>
<td>0.009</td>
<td>0.000*</td>
</tr>
<tr>
<td>Education level</td>
<td>0.190</td>
<td>0.004*</td>
</tr>
<tr>
<td>Gender</td>
<td>1.142</td>
<td>0.312</td>
</tr>
<tr>
<td>R square</td>
<td>0.356</td>
<td></td>
</tr>
</tbody>
</table>

Note: *Significant at 95% significance level

$Y = 15.830 + 0.009 X_1 + 0.190 X_2 + 1.142 X_3$

where:
$X_1 =$ financial literacy
$X_2 =$ education
$X_3 =$ gender
$Y =$ performance

The constant value of 1,073 means that if there are no independent variables consisting of financial literacy ($X_1$), education level ($X_2$) and gender ($X_3$), then the bound variable (SME growth) is 1,073. The regression coefficient of financial literacy is 0.443 and has a positive and significant influence on the growth of SMEs. Based on these results then the first hypothesis is accepted. The regression coefficient of the education level is 0.176 and has a positive and significant influence on the growth of SMEs. Therefore, the second hypothesis is accepted. Next, the regression coefficient of gender is 0.132 and has a positive but not significant influence on the growth of SMEs. This shows that the third hypothesis is not accepted.
4.2. Discussion

The level of financial literacy of SMEs in the Mandalika SEZ area is in the moderate category. Meanwhile, based on the results of hypothesis testing, it is shown that the financial literacy has a positive and significant effect on the growth of SMEs. This means that the higher the level of financial literacy of SMEs, the higher the growth of SMEs, and when the level of financial literacy of SMEs decreases, it will also reduce the growth of SMEs. Financial literacy is one of the factors that influence the company decision making such as paying bills on time, being able to choose and utilize financial products and services, and having good financial planning. Knowledge, abilities, attitudes and behaviors are indicators for measuring the level of financial literacy. Financial knowledge and capabilities can create a society that is literate in financial institutions, products and services so as to increase the growth of its business. Meanwhile, the proper financial attitude and behavior will encourage SMEs to have strong financial resilience so that they can face the financial crisis.

The level of education of SMEs in the Mandalika SEZ is in the low category, where a low level of education can affect the ability to improve their business. Based on the results of hypothesis testing, the level of education has a positive and significant effect on the growth of SMEs. The level of education is one of the factors that can improve the quality of human resources which has a significant effect on the growth of SMEs. With a better quality of human resources, it will increase the ability to achieve the productivity that the company wants to achieve. Furthermore, based on previous research, one of the demographist factors that also affects the growth of SMEs is gender. However, in this study, the results of hypothesis testing showed that gender did not have a significant effect on the growth of SMEs. This result implies that the ability of SMEs, both men and women, has relatively the same ability to develop their businesses.

5. CONCLUSION

The level of financial literacy of SMEs in the Mandalika SEZ area is in the moderate category. The financial literacy has a positive and significant effect on the growth of SMEs. It implies that the higher the level of financial literacy of SMEs, the higher the growth of SMEs, and when the level of financial literacy of SMEs decreases, it will also reduce the growth of SMEs. Financial knowledge and capabilities can create a society that is literate in financial institutions, products and services so as to increase the growth of its business. Meanwhile, the proper financial attitude and behavior will encourage SMEs to have strong financial resilience so that they can face the financial crisis. The level of education of SMEs in the Mandalika SEZ is in the low category. The level of education has a positive and significant effect on the growth of SMEs. The level of education indicates a quality of human resources, which will increase the ability to achieve the productivity of business. The other demographist factors, which is gender, did not have a significant effect on the growth of SMEs. This result implies that the ability of SMEs, both men and women, has relatively the same ability to develop their businesses.

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