The Influence of Education, Capital, and Technology Levels on the Competitiveness of Micro, Small, and Medium Enterprises (MSMEs) as Supporters of Sustainable Development in Sawan District

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Abstract.
This research aims to determine the role of external factors influencing the growth of MSMEs in supporting sustainable development. Of the 2365 MSME owners in the District of Sawan, a sample of 343 respondents was determined using the Slovin's formula. Data were obtained through interviews and questionnaires using multiple regression analysis techniques. Results of the study proves that (1) the level of education and the capital has a partially significant influence on the competitiveness of MSME businesses in the District of Sawan while technology has no significant effect; (2) the level of education, capital, and technology has a significant influence on the competitiveness of the MSMEs in the Subdistrict of Sawan; and (3) the magnitude of the effect of the level of education, capital, and technology to power the competitiveness of SMEs is at 51.3%, while 48.7% are influenced by variables that were not tested in the study.

Keywords: MSME, sustainable development, economic growth

1. Introduction

Globalization that appears at this time triggers the birth of free competition. The Asen Economic Community (MEA) is one of the strategic media to spur economic development in the Southeast Asian region. This condition of economic development can't be separated from economic actor such as Micro, Small and Medium Industries (MSMEs). SMEs an industry that currently is being grown and fairly stable in the middle of the challenges the economy. (Sadiqin, A., 2020; Harvie, C., & Lee, BC, 2002; Bhasin, BB, & Venkataramany, S., 2010). Enterprises Micro, Small, and Medium Enterprises (SMEs) are expected to be the perpetrator important in conditions like this, especially for countries...
developing as the State of Indonesia. (Sedyastuti, K et al) The existence of SMEs already shows the source of the power of entrepreneurship and opportunity field work were widely to the public. (Castrogiovanni, GJ, Urbano, D., & Loras, J., 2011; Tambunan, T., 2005; Harvie, C. 2010; Carvalho, L., & Costa, T., 2014). With the role of the MSMEs become one of the drivers of growth in the economy. In addition, MSMEs have a role in distributing construction results, MSMEs are guaranteed not to be affected by the crisis (Wulansari, 2015; Hodorogel, RG, 2009).

Various parties have to admit the importance of the existence of SMEs, then each region should seek to empower SMEs that exist in order to be able to continue to thrive and grow SMEs new because it can improve the opinion of the area. (Surya, B. et al., 2021; Harvie, C., 2004). District Buleleng are districts that exist in the Province of Bali which consists on nine sub-districts, 19 villages and 129 villages and a total area area of 1364.73 km2 with the distribution of population 598 inhabitants / km2 (BPS). With the situation in the geographical and administrative district of Buleleng are thus, provide opportunities great for the development of SMEs, various sectors of SMEs thrive in District Buleleng namely, sectors of trade, industry, agriculture and non-agriculture and various services. The development of the number of formal MSMEs in various sectors in Buleleng Regency tends to increase with a percentage increase of up to 5% each year. There are as many as 33 910 units of businesses from various sectors and spread in 9 sub-districts in the regency of Buleleng were recorded throughout the year 2019 on Disdagperinkopukm regency of Buleleng, the number is only increased 3% from the year before as many as 32 907 units of effort. Data that showed that the decrease in the percentage increase in the number of SMEs in the formal regency of Buleleng in the year 2019.

Based on the data in Table 1 were obtained in Disdagperinkopukm regency of Buleleng, the District ‘s most bit of the accretion of SMEs in the year 2019 is the District of Sawan, which is just as many as 30 units of businesses from various sectors.

<table>
<thead>
<tr>
<th>No.</th>
<th>Business Sector</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Trading</td>
<td>2,365</td>
</tr>
<tr>
<td>2</td>
<td>Industry</td>
<td>281</td>
</tr>
<tr>
<td>3</td>
<td>Agriculture Non-Agriculture</td>
<td>213</td>
</tr>
<tr>
<td>4</td>
<td>Services</td>
<td>167</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3,026</td>
</tr>
</tbody>
</table>
Sources: Disdaggerinkop Ukm Kabupaten Buleleng 2019

The data in Table 1 shows that there are a total of 3,026 units of business in the District of Sawan which are dominated by sector trade like store grocery or merchant dilution, because the sector is trading the most closed to the life of the community by providing various kinds of needs every day. With the fact that many people are more interested in opening a business trade, in addition to the items that could be sold and can also be used alone for the needs of families day-to-day, things have made over many competitors in the sector of trade compared to the sector that is more interesting to study.

However, many businesses trading in the District of Sawan were not able to withstand the face of the emergence of competitors new in the field of the same, especially in an era when all-round sophisticated competition of business is getting tight. Businesses that have been standing a long time can lose competitiveness with businesses that have capital that is large, technologically advanced and managed by employers and employees are educated highly. Some things that become a factor southwest competitiveness of businesses that should have been owned by each employer that is able to sustain its existence (Tambunan, 2017). These factors are the first level of education, the expertise of an entrepreneur can be seen from how broad his business horizons are. Insight entrepreneurs who widely are things most important to reform and had not made a secret public that reform is a key principal in the competition. Employers can take the path of education formal, in formal, non-formal and to be able to gain insight into the (A.Muri, 1982). Second, capital as a wealth that is owned by one’s own efforts, can be in the form of goods or money to earn profits in the future. The capital is used by those who have businesses in carrying out their business so that they can get development and maintain the existence of their business. Third, technology Technology is a tool that is used to accelerate the productivity within a business. Through the availability of equipment, it can facilitate personnel work in creating goods and later to provide additional productivity of labor work and adds to the level of innovation and creativity of the product that is able to compete with products from the efforts of others (Suharyadi, 2004).

MSMEs are one of the sectors that are able to become the backbone of the economy in Indonesia. As a developing country that seeks to improve various sectors, especially the economy. Where the growth of the economy is one of the indicators in the development of sustainability. (Assembly, G., 2015). SMEs as a sector that supports the growth of the economy should be developed, especially in conditions pandemic when this, where many sectors are exposed to impact negatively on the pandemic covid19, SMEs actually able to survive from the threat of recession.
2. Literature review

2.1. Power Competitiveness

Southwestern competitiveness is one of the ideas in general, used in economics, generally refers to the sole responsibility to fight the market in the case of companies and success in the competition is international in terms of countries. (GA Yuniarta, 2017). Southwestern competitiveness symbolizes the ability within the obtained results to be faster and certainly better than businesses or competitors. The indicator of the power of competitiveness that is used in the study is the growth of the value / volume of output, the share of the market, the value of turnover, profit, productivity / efficiency. (Tambunan, 2017).

Growth in the value / volume of output is output or product that is produced by an effort must be constantly being which signifies that the product one that can master the market compared to product kind of effort the other. The share of the market that is the power of competitiveness of a business can be seen from how large parts of the market that can be controlled by the business are. Market control assesses the relative performance of the company to competitors. It can characterize the power position of the company on a market. Turnover value is the total number of products that are successfully sold. Then designation turnover of this that can be declared as income gross or without depreciated costs. An attempt by the level of power the competitiveness of the high would have a value of turnover as well. Profit is the selling price for a product that has been depreciated along with other costs. It is the same with turnover, if the profit of a business is high, it is certain that the level of competitiveness of the business is also high. Then productivity / efficiency is a business with productivity and efficiency high indicating the level of power and competitiveness of businesses such. Productivity is high where someone in running his business doing his duty to the period quickly without sacrificing quality is determined.

2.2. Micro, Small, and Medium Enterprises (SMEs)

SMEs are businesses trading are taken care of by the agency. Businesses or individuals associated in business economics are productive simultaneously against the measure which is determined according to the law No. 20 of 2008 (Dina Amalia, 2018). SMEs is a small business that can provide assistance to the Indonesian economy. (Rudjito, 2003). The Declaration can help the economy of Indonesia due to the SMEs capable of realizing the field work of new and able to add foreign countries through the tax agency.
business. Then be drawn to the conclusion that SMEs are businesses in a variety of fields that are managed by the agency businesses or individuals as the motor driving the development of the economy of Indonesia. MSMEs have a role in economic activity because all economic actors are included in it.

2.3. Level of Education

Based on Presidential Instruction No. 15 In 1974, education is all something businesses in establishing motherland and build the capabilities of individuals, physical and spiritual which continued for the rest of life, either at school or outside on the activities of the development of the unity of Indonesia and the people are fair, prosperous repose Pancasila. Education is a form of investment in the sector and is the source of power of man who has a role in encouraging the development of the economy. Investments of this are the investment futures long due to the benefits of new could be felt after 10 years (Atmanti, 2005). Education is Life. (Redja Mudyaharjo, 2010) Education is all events in learning things that continue in all environments and throughout life. Education is all living conditions that can affect a person's development.

In studies of this indicator are used in a variable level of education to adjust to the atmosphere of the object that is observed that the level of education that is tangible education formal, in formal and education non-formal views on the terms of the object of research for the running of a business an entrepreneur not only gain knowledge about business in the school but can also learn self-taught from the experience they have. The level of education of a perpetrator of business may affect the knowledge, events, ideas and skills that are owned by entrepreneurs in order to build a business that is able to maintain the existence of the business.

2.4. Capital

Capital is all a form of property which is used as a production over many a fortune. (Slamet, 2014) Capital is an element that has a role important in the way of progress, due to the capital needed when the entrepreneur wants to build the company a new or used in developing a business that has been provided, without capital there is thus going to be able to affect the smoothness of doing business, with so may affect revenues were obtained. Adjusted together category scale businesses, SMEs are not in need of capital in the amount of which is very high.
Indicators of business capital as a prerequisite for business, use of extra capital, and the amount of capital. The capital used for the prerequisites in building a business is the absolute business capital needed to carry out business activities. Not be denied that every business or company requires capital or pay to be able to operate. Utilization of capital addition is helping the capital taken impossible used in establishing business with such volume or turnover of sales and profits were obtained capable of growing. The amount of capital is a business element that should be provided before carrying out activities. Large or small capital can have an influence on business development in achieving income. Big or little capital is needed depending on the large size of the business that will be built.

2.5. Technology

Technology is a tool used to increase productivity in a business. Through the availability of these tools, it will facilitate work in producing goods and can increase the productivity of workers and increase the level of product innovation and creativity so that they can compete with products from other businesses. There are many factors that influence the development of MSME technology, including the ability of human resources in developing technology, the willingness of capital to create technology (Todd, PR, & Javalgi, RRG, 2007). The task of research institutions to support technological developments and monetary and fiscal policy. (Suharyadi, 2004).

Technology is defined by the replacement in the task of making that arise in the way of production are available. (Suparmoko and Irawan, 2003). Therefore, there is always an effort to change the technique so that there is maximum use. Furthermore, it can be concluded that technology is part of an integral that can be found in a system, in order to facilitate human activities and simplify complex work, saving time and effort. Conveyed several dimensions related to the use of information technology. Usefulness along the two-element estimate separated on two groups of the expediency and effectiveness. (Nur Maflikhah, 2010)

3. Methodology

Type of study is a causal approach to quantitative analysis that is useful to measure a variable that can affect the variables more (Sugiyono, 2014). The population in the study of this is that all perpetrators of SMEs formally in District of Sawan, District Buleleng with a total of 2,365 with a sample that is used is 343 answering which is determined
through the use of formula Slovin and using purposive sampling. Respondents were used in making the samples, Enterprises Micro, Small, and Medium Enterprises (SMEs) in the District of Sawan, registered in the Department of Trade, Industry, Cooperatives and SMEs regency of Buleleng or is formal, and engaged in the business of trade. In studies it uses the source of primary data in the form of a questionnaire and a secondary that is in the form of a file or document from the Department of Trade, Industry, Cooperatives and SMEs regency of Buleleng. Before the questionnaire can be distributed to the respondents are required to be tested levels of validity and reliability is supported by means of SPSS 16.0 for Windows. The instrument is declared valid if the alpha error level is 0.05, the value of \( r \) count > \( r \) table or the value of sig. < 0.05, then it is declared reliable if an instrument has a Cronbach Alpha value > 0.60. Regression linear multiple is the technique of analysis that is used in this study.

4. Results and Discussions

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized 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>1</td>
<td>(Constant)</td>
<td>31,402</td>
<td>1,231</td>
<td>25,509</td>
</tr>
<tr>
<td>Tingkat Pendidikan</td>
<td>.261</td>
<td>.073</td>
<td>.191</td>
<td>3,595</td>
</tr>
</tbody>
</table>

Based on Table 2 can be considered the results of the test partial variable levels of education (X1) obtained values of significance which is 0.000 <0.05 then H0 is rejected and Ha accepted. With so can be drawn the conclusion that they are contributing positively were significant in partial or individually between the level of education to power the competitiveness of SMEs. In other words, there is an influence of education level on the competitiveness of micro, small and medium enterprises (MSMEs) in Sawan District.

Based on table 3, it can be seen that the results of the partial test of the capital variable (X2) obtained a significance value of 0.000 <0.05, so H0 is rejected and Ha is accepted. With so can be drawn the conclusion that they are contributing positively were significant in partial or individually between the capital of the southwest competitiveness.
of SMEs. In other words, there is an influence of capital on the competitiveness of micro, small and medium enterprises (MSMEs) in Sawan District.

Based on table 4, it can be seen that the results of the partial test of the technology variable (X3) obtained a significance value of 0.158 > 0.05, so H0 is accepted and Ha is rejected. It can be concluded that no contribution negatives are significant in a partial or individually between the variables of technology to power the competitiveness of SMEs. In other words, there is no influence of technology on the competitiveness of micro, small and medium enterprises (MSMEs) in Sawan District.

Based on Table 5 ANOVA above can be seen the results of the test are simultaneously that the value of the significance of 0.000 <0.05 then H0 is rejected. This is adjusted
to the decision-making criteria of the F test, it can be concluded that there is a simultaneous significant contribution between levels of education, capital and technology on the competitiveness of micro, small and medium enterprises (MSMEs) in Sawan District.

**Table 6: The Result of Calculation of the Coefficient of Determination (Adjusted R Square).**

<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>0.610</td>
<td>0.513</td>
<td>0.383</td>
<td>0.98281</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Teknologi, Tingkat Pendidikan, Modal

Based on Table 6 of the above obtained value correlation of 0.610. This value can be explained by the influence of the level of education, capital and technology on the competitiveness of SMEs in the strong category. From the table it, also obtained by the value of the coefficient of determination (R square) of 0.513. Then it can be interpreted that the effect of the level of education (X1), capital (X2) and technology (X3) to power the competitiveness of SMEs (Y) which is 51.3% and then 48.7% are influenced by variables outside the research.

**5. Discussion**

Based on the results of observations were made when distributing the questionnaire in order to obtain the data, researchers found the fact that the entrepreneur with the level of education that is high is more-sprightly in managing its business, such as serving customers, responding to requests, handling complaints, and always trying to innovate. The results of the analysis of the data in the study is to prove if the level of education has influenced partially were significant to power the competitiveness of SMEs. The result of this is in line also with research earlier that held that the level of education affects positively significant to power the competitiveness of SMEs, which are businesses that have to close their business due to not having factor southwest competitiveness, one of which is the level of education that support. (Annisa Diana Haq, 2016)

In addition to seeing from the variable level of education, found also the fact that the effort to supply the products / goods merchandise that is heterogeneous over many visitors rather than attempt a minimal supply of products / goods merchandise and kind the homogeneous. Enterprises are able to provide a supply of goods merchandise that many would prepare the capital is not a little. Capital has influenced partially were significant to power the competitiveness of SMEs. To support entrepreneurs to develop their businesses in the face of business competition, sufficient capital is needed to
support all business operational decisions. There is the influence of the characteristics of entrepreneurship, capital venture, and the role of business development service to the development of the business is the same. (Putri, et al 2014). Interpreted if the characteristics of entrepreneurship, capital venture, and the role of business development will thrive with good if managed with either.

While efforts are in operational use of technology advanced as one of the only computer / machine cashiers as a means of payment, more able to attract consumers to shop at businesses because of the system of payment which is practical and fast and reduces the level of errors. However, in some business technologies do not become the starting measuring crowd or whether consumers. Although the recording is manually using a paper store, wholesalers are still busy consumers, because the owner of the business is sure if employees have expertise in the system of recording it manually with either. That is why, in the results of the analysis of the data conducted, research that the technology has not had the effect of partially was significantly to power the competitiveness of SMEs. Obviously, the result is not in line with the theory that suggests that technology is one of one of the five factors that must be owned by an entrepreneur in order to be able to add to and improve the power competitiveness of a business.

Then the results of the test are simultaneously, by analyzing the data that is held on the study of this and supported based on the fact that encountered showed that the level of education, capital and technology have the effect of simultaneous were positively and significantly to power the competitiveness of businesses of micro, small and medium-sized enterprises (SMEs) in the District of Sawan. It is a consistent theory that there are five factors that must be owned by an entrepreneur in order to be able to add to and improve the power competitiveness of its business, the three factors most dominant are the level of education, capital and technology.

The level of education has a positive and significant effect on the competitiveness of MSMEs. This means that if the level of education of an entrepreneur is low, then power the competitiveness of its business will be lower, as well as vice versa, if the level of education of entrepreneurs higher then power the competitiveness of the business was going high. Capital has a positive and significant effect on the competitiveness of SMEs. This means that if the capital owned by an attempt was small, then power the competitiveness of its business will be low, otherwise if capital businesses are owned by large, then power the competitiveness of the business was going high. Technology does not have a positive and significant effect on the competitiveness of SMEs. This means that if the technology were used in an effort that is too limited, is not going to affect the power competitiveness of businesses.
5.1. MSMEs in Sustainable Development

Why should we care about sustainable development? Sustainable development has 19 focus of which is poverty Eradication, food security and nutrition, marine resources, ocean and seas, education, sustainable consumption and production, climate, Sustainable Cities and settlements, promoting equality, economic growth, energy, infrastructure, industrialization, ecosystems and biodiversity, water and sanitation, peaceful and non-violent societies institutions, gender equality and women’s empowerment, employment and decent work for all, means of implementation, health and population dynamics. (Assembly, G., 2015). As a country develops, the family principle gives the opportunity to citizens to develop the potential of which is owned by SMEs. Subdistrict Sawan as the region grows evolved through SMEs helped give contributions in growing the economy nationwide as reflected in the focus of sustainable development.

Some factors externally that affect the growth of SMEs in the District of Sawan are a force for growth in economic areas that further in the run length can affect the growth of the economy nationwide. This is because MSMEs are proven to be able to contribute to increasing job opportunities, income and reducing poverty. (Agyapong, D., 2010; Gupta, SL, & Ranjan, R., 2014). In economic macro, the role of SMEs in the growth of the economy is no doubt. In addition to alleviating poverty, creating opportunities of work, in some countries SMEs contribute to increasing the quantity of exports and products Domestic Gross. (Venkatesh, S., & Muthiah, K., 2012; Aris, NM (2007).

6. Conclusion

Based on the results of research and discussion of the hypotheses that have been explained. Furthermore, it can be concluded that.

1. Based on the t test, it can be concluded that there is a positive and significant influence between the level of education on the competitiveness of MSMEs in Sawan District. This shows that if the level of education is high, the competitiveness will increase. However, if the level of education is low, the competitiveness will decrease. This is indicated by the variable level of education (X1) has a significance value of 0.000 <0.05.

2. Based on the t test can be drawn from the conclusion that there is a positive and significant influence between capital on the competitiveness of SMEs in the District of Sawan. This shows that if the capital owned is large, then the competitiveness
increases. Vice versa, if the capital owned is small, then the competitiveness decreases. This is indicated by the modal variable (X2) having a significance value of 0.000 < 0.05.

3. Based on the t test, it can be concluded that there is no influence between technology on the competitiveness of MSMEs in Sawan District. Shows that the presence or absence of technological updates used in a business does not affect the competitiveness of the business. This is indicated by the technology variable (X3) having a significance value of 0.158 > 0.05.

4. Based on the F test, it is stated that there is a positive and significant influence on the level of education, capital and technology on the competitiveness of MSMEs in Sawan District, as evidenced by a significance value of 0.000 < 0.05. In this case, it shows that the three variables used in this study are a factor of competitiveness because they have a positive and significant influence. Businesses with a high level of education, able to manage large capital and use advanced technology or technological renewal so as to increase the competitiveness of the business.

References


