

Analysis of Competitiveness Determinants of the Woodcraft Industry in Bali

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Abstract—*This study is motivated by the importance of the role of small and medium scale industries (SMIs) in Bali as a supporting sector for cultural tourism and community income sources. This study aims to analyze the competitiveness determinants of the woodcraft industry in Bali. Data was obtained through questionnaires distribution to the entire population of SMIs that received the implementation of corporate social responsibility. The research approach used is a quantitative approach (positivism) to find out the associative level of one variable with the other variables as well as to test the research hypothesis. The number of variables analyzed in this study are 4 variables. The independent variables include: Business Competency Variables, Government Role, CSR implementation. While the dependent variable is competitiveness. The results of the study prove that competency, government policy, CSR implementation, and the potential social capital affect the competitiveness of the woodcraft industry in Bali. Business competency is proven to be the most influential factor in the competitiveness of the woodcraft industry in Bali.*

Keywords—*determinants; competitiveness; competencies; implementation of CSR; the woodcraft industry*

I. INTRODUCTION

The important role of Small and Medium Industries as business actors is shown through the indicators, namely the large number and moves in various business sectors and touches the interests of the community. In addition to being the largest business sector contributing to national development, Small and Medium Industries also create considerable employment opportunities for domestic workers, so their role is very important in helping government efforts to reduce unemployment. Reference [1] states that Small and Medium Industries began to be a quite warm topic since the emergence of the thesis of *flexible specialization* in the 1980s, which was based on the experience of Small Scale and Medium Scale Industrial centres in several countries in Western Europe, especially Italy. This shows that small industries in centres can develop more rapidly, are more flexible in facing market changes, and can increase their

production compared to small industries individually outside the centre.

The industrial sector has a variety of products compared to other sectors. The industrial sector is more promising when compared to other sectors, the industrial sector does not depend on natural conditions such as the weather. The development of the craft industry in Bali is currently growing rapidly, this is due to the demand for handicraft products as part of the development of the tourism industry. The development of the handicraft industry in Bali varies according to the potential of each region. The development of the woodcraft industry is so rapid, including one of them is the woodcraft industry which is developing well in small and medium scale industries.

The development of woodcraft exports in Bali from year to year is increasing, even according to the Disperindag of Bali Province (2018) from 2013 to 2016 to become the leading export. This condition causes the wood craft industry has a very significant contributed to the supply of labour. This also shows that the woodcraft industry is a potential industry to be developed as the main export commodity, supporting the tourism sector and increasing the income of artisans.

Production of wood crafts in Bali from 2013 to 2017 shows fluctuating growth. This is indicated by an increase in production from 2013 to 2014 of 22.5 percent. From 2014 to 2015 it increased by 2.08 percent. This increase is far smaller than the increase in the previous year. In fact, from 2015 to 2016 it decreased by 18.8 percent and in 2017 it experienced a greater decline of 30.51 percent. This condition shows the problem of competitiveness in the woodcraft industry in Bali.

Research on the competitiveness of SMIs in Indonesia has been carried out. Research of [2] found a positive role in increasing export-oriented competitiveness in the DKI Jakarta region from a number of variables such as product excellence, innovation by entrepreneur, human resources and marketing by utilizing technology. A more specific study was reported by [3] on the competitiveness of local products, and [4] on the

importance of partnerships in an effort to improve competitiveness raised from the *profile* of small-scale industrial villages in East Jakarta. The results of the study in general provide an overview of capital constraints, limited marketing networks, and problems with less skilled resources.

Government policy to grow the SMIS, even though it has been refined from year to year, it is felt not to be fully conducive. This can be seen from the occurrence of unfair competition between small entrepreneurs and big entrepreneurs. With the enactment of law No. 22 of 1999 concerning Regional Autonomy, regional authority has the autonomy to regulate and manage local communities. This system change has implications for small and medium businesses in the form of new levies imposed to the SMIS. If this condition is not immediately addressed, it will reduce the competitiveness of the SMIS.

Reference [5], states that the government has a strategic role in empowering SMIs in Indonesia. The same thing was conveyed by [6] and [7]. The government's role turned out to be largely geared to the empowerment and advocacy in order to raise the competence SMIs businesses. Another role of the government is to provide funding facilities [8] [9]. The government also plays a role in assisting in business partnership [10] [11].

Reference [12] and also in line with [13] stating that the development and empowerment of the government in the long term can play a role in increasing sustainable competitiveness. Reference [14], and [15] put more emphasis on government assistance in the context of business partnerships so that it became the foundation for long-term competitive business development. The development and empowerment of the SMIs has received great attention from the government given its role in the development of a populist economy through a labour-intensive production process that is able to absorb a lot of labour, and expand employment opportunities and increase income. According to the National Development Planning Agency (Bappenas), the development of SMIs has not been balanced by the prevalence of improving the quality of SMIs. The classic problem faced is low productivity. This situation is caused by internal problems faced by SMIs, namely: low quality of human resources in management, mastery of technology, and marketing.

Human resources (human capital) refers to the knowledge, attitudes and *skills* that are developed and assessed to be potentially productive economically [16]. Human resources are also core sources to gain *competitive advantage* in the organization. Human resources have a very large contribution and become an asset that is very decisive in achieving the desired goals, so that the utilization and management of appropriate human resources is needed. Human resources include two aspects, namely: (1) quantity, which involves the quantity or number of people, which will only burden development if it does not have good quality; (2) quality, concerning the quality of human resources both physical and non-physical abilities (intelligence and mental). For this reason, in the interests of accelerating development in various fields, improving the quality of human resources is the main requirement.

Government policy to develop micro, small and medium industry (SMIs), even though from year to year continues to be refined, it is felt not to be fully conducive. This can be seen from, among others, the occurrence of unfair competition between small entrepreneurs and big entrepreneurs. Reference [12], and [13] states that coaching and empowering the government in the long term can play a role in increasing the competitiveness of SMIS in a sustainable manner. The government assistance in the context of business partnerships is the foundation for developing long-term competitive business.

Competence is an ability to carry out or do a job or task based on skills and knowledge and supported by the work attitude demanded by the job. Thus, competence indicates skills or knowledge characterized by professionalism in a particular field as the most important, as the superior of the field. Reference [17] states that competence is the basic character of people who identify ways of behaving or thinking, which apply in a very broad range of situations and play role for a long time. Competence is productive behaviour that must be possessed and showed by someone in carrying out a job in order to achieve extraordinary achievement.

The implementation of *Corporate Social Responsibility* (CSR) is a form of concern of the company towards its environment which in this case the form of its concern for SMIs in the form of *community development, charity, or philanthropy* which is currently developing in Indonesia is still a community service or environment that is not far from the location where the business world conducts its activities. In this study several indicators measured were: (1) marketing assistance, (2) product assistance, (3) labour competency assistance, and (4) financial assistance.

The implementation of CSR depends on the regional topology, organizational structure and background of the business organization. The implementation of CSR will contribute to the development of business continuity [18] including the SMIS Wood crafts. Reference [18] also argued that there was a relationship between CSR and business competencies, so that it would be provide a positive financial response for businesses at both the micro and macro levels. Therefore the government plays an active role in promoting CSR to be accepted and implemented by businesses. Based on background behind the problem, the purpose of this study was to analyse the influence of: (1) competency on competitiveness, (2) the role of the government on competitiveness, (3) implementation of CSR on competitiveness, (4) the government's role on competency and (5) implementation of CSR to competence.

II. METHOD

The research approach used is a quantitative approach (*positivism*) to find out the associative level of one variable with the other variables as well as to test the research hypothesis. The number of variables analysed in this study are 4 variables. The independent variables include: Business Competency Variables (X1), Government Role (X2), CSR implementation (X3). While the dependent variable is competitiveness (Y). The research location is in the

woodcraft industry in Bali. The research sample used a purposive sampling method with a total sample of 114 woodcraft industries. Data was collected through questionnaires using 5 Likert scales. Quantitative analysis uses structural equation analysis (SEM) with alternative Partial Square Least PLS (*component based SEM*).

III. RESULTS AND DISCUSSION

A. Overview

The woodcraft industry in Bali is largely a private business. This shows that the interest of the community in regencies / cities in Bali in entrepreneurship in the field of wood craft is quite high and opens up business opportunities for other communities. The wood craft industry is a transformation of the socio-cultural life of the community amid the progress of tourism. This condition causes in the future in the aggregate the growth of the handicraft industry sector to lead to regional economic development. In terms of employment, the average woodcraft industry entrepreneur has 8 (eight) workers and the largest number are 41 people with a composition of male workers as much as 88 percent and women as much as 12 percent. The composition of the workforce in the woodcraft industry is indeed dominated by male workers. The number of workers is also generally not a lot, this is because the process of industrial work requires considerable time and certain expertise. The average monthly salary received by workers is Rp.5, 000,000.00 with the lowest range of Rp.650,000.00 per month. The business prospects in the wood processing industry in Bali Province can be seen from the profits obtained by woodcraft industry entrepreneurs ranging from Rp. 4,500,000.00 to Rp. 35,000,000.00 in one month with an average monthly turnover of Rp. 40,000,000.00. While in terms of assets owned to reach Rp. 280,000,000.00. Seen from the composition of assets and turnover shows that the woodcraft industry is quite promising profits as a driver of the economy of the community in Bali Province.

Production of woodcraft is made based on orders from consumers and the overall production process is quite smooth even though a small portion still fluctuations in production. The technology used in production uses a lot of machinery and this is considered to be enough to help accelerate the process of woodcraft. In addition, wood industry entrepreneurs also continue to develop innovations in sculpture designs that are produced so that they have high selling power and are able to compete both in the domestic and foreign markets. The assurance of the production process is an important stage that determines the continuity of the wood industry. Based on data from a survey of 114 wood industry entrepreneurs in Bali in 2018 it is known that, about 90 percent of the raw material supply for the wood processing industry in Bali Province is still imported from outside the Province of Bali. This figure shows that the wood industry entrepreneurs in Bali Province are very dependent on the availability of raw materials from outside. This condition makes production costs increase, because the wood industry entrepreneurs must allocate the cost of transportation services that are not small to bring in raw materials from outside the region.

The high fluctuating effect of changes in performance on carving craft production is due to changes in transportation costs and production operating costs, so that a price increase occurs which is not offset by the amount of product selling price increases. In overcoming things, most wood industry entrepreneurs choose to increase employee work hours, rather than having to reduce the number of employees, so they can produce more. As a result of the increase in production costs which not only have an impact on increasing working hours, but the profits, turnover, selling prices, and prices of raw materials are also affected. So that cooperation from the government is needed in overcoming this. Marketing of woodcraft products in Bali Province is spread in various regions ranging from marketing in local, domestic, regional and international areas.

B. Model Testing

Before conducting a hypothesis test, first test the validity and test the reliability of variables to evaluate the model. The AVE and Communality values in table 1 show each construct greater than 0.5, which means that each indicator in each construct, is a measure of each construct and measuring indicators for each construct for different constructs not mutually correlations or constructs in this study have convergent validity and discriminant validity. The Composite Reliability and Cronbach Alpha values shown in table 1 are more than 0.6, which means that the indicators of the constructs used in this study have accuracy, error-free and consistency. Table 1 also shows the value of R2 to measure inner models where 0.349 for competence and 0.645 for competitiveness which indicates that competitiveness variables are explained by variables of competence, government policy and CSR Implementation.

TABLE I. OUTPUT OVERVIEW ALGORITHM

	AVE	Communality	Cronbach Alpha	Composite Reliability	R-Square
X1^a	0.648	0.726	0.727	0.846	0.349
X2	0.680	0.767	0.764	0.864	
X3	0.663	0.759	0.748	0.855	
Y	0.614	0.796	0.789	0.864	0.645

^a X1: Competence; X2: Government Policy, X3: CSR Implementation; Y: Competitiveness

Next is the hypothesis test (H) 1, 2, 3, 4 and 5 where based on the bootstrapping process the t-statistic value above is 1.645 with a significance level of five percent (5%) and all the coefficient values are positive, then all hypotheses are accepted.

C. Discussion

- Competence and Competitiveness

The results of this study are in line with the research of [2] and [4]. The results of the study show that the competency variable affects the competitiveness variable. In this study competency variable are the greatest variable influence on competitiveness variable. This is because the woodcraft

Industry in Bali already has human resources with honed skills with an average work experience of more than twenty years, they also receive additional training to improve their abilities, so they have their own characteristics and creativity that are not easily imitated by other timber industries. In addition, they have used technology for production and marketing so that products can be easily known to consumers, and they can be compete with the woodcraft industry from outside Bali.

- Government Policy, Competence and Competitiveness

The results of the study show that the government is very instrumental in order that the woodcraft industry in Bali has competitiveness. The results of this study are in line with the research of [12] and [13]. The role of the government to improve the competitiveness of the industry is carried out by supporting the industry directly and by showing its support to the industry. However, the role of the government in creating competitiveness directly is still less compared to its role in increasing industrial business competencies. Because the role of the government is not as a business actor but acts as a facilitator. It means that the involvement of the government's role in increasing competitiveness more is indirectly.

This role can be seen from the provision of regulations, providing technical support and providing access and regulation in funding. For example the government makes regulations that do not hamper the production process, provide training that can improve labour competencies and have easy credit regulations with low interest for the woodcraft industry in Bali. This causes the woodcraft industry to have competitiveness, so this variable is dominant which makes the competency variable as the main variable affecting the competitiveness variable.

- CSR Implementation, Competence and Competitiveness

This CSR is a CSR from the private sector, aimed to increasing the competitiveness of the woodcraft industry in Bali. The results of the study indicate that the implementation of CSR can improve the competitiveness of the woodcraft industry in Bali. The results of this study are in line with research of [18]. CSR implementation can improve business competencies so that they can have competitiveness to compete with other woodcraft industries both in terms of products and marketing. This is because, CSR implementation is carried out through mentoring by creating a community, providing motivation to improve workforce competencies, and providing direction in marketing, so that it can contribute to business sustainability so that the Industry of woodcrafts in Bali can improve business competency and competitiveness products with other woodcraft industries. The implementation of CSR can also play a direct role because with the assistance and community, the private sector can collaborate directly with the industry, for example the private sector directly markets products produced by the Wood Crafts Industry in Bali both domestically and internationally.

The researcher also observed the woodcraft industry in Bali to describe the reality of the industrial conditions and testing so that the results of the research could have more implications. The results of observations show that most of them are personally owned businesses. This industry stands in

Balinese society as a transformation of the socio-cultural life of the community along with the development of Bali tourism. This means that the interest of the community in regencies / cities in Bali in entrepreneurship in the field of woodcraft is quite high because it opens business opportunities for the community not only the owners but also the surrounding community. This condition in the future will cause the growth of this sector and will encourage the growth of the regional economy.

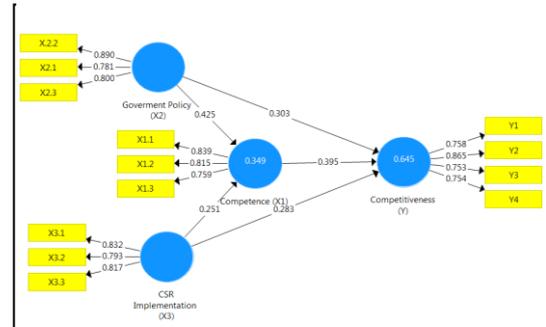


Fig. 1. Figure and Research Results

The observation also shows that the woodcrafts industry in Bali employs an average of eight workers with male workers dominated. This is because work in the woodcraft industry requires more physical durability, focus and high idealism. Indeed, physical durability and idealism remains the same, but social life in Bali causes female workers to be somewhat less focused because of their involvement in these social conditions. The number of workers is indeed not much because the process of working on a product in this industry requires a considerable amount of time with certain expertise because of the idealism to produce a product that is creative and has a certain characteristic.

Judging from the composition of assets and sales results, it is indicated that the woodcraft industry is quite promising profits as a driver of the economy of the people in Bali Province. This is indicated by the product of the wood craft industry in Bali which always gets orders from consumers with a fairly smooth production process even though a small portion still experiences fluctuations in production. These fluctuations are due to changes in transportation costs and production operating costs, but are not balanced with the magnitude of the increase in product selling prices. To overcome this, most wood industry owners choose to increase employee work hours, so that production can increase and also turnover can increase.

IV. CONCLUSION

The use of models and test results gives conclusions, first, the variables of competence, government policy and CSR Implementation are determinants of competitiveness variables. In addition, Government Policy variable and CSR Implementation variable become determinants of Competence variable. This means that these variables can predict and explain the competitiveness variable of the woodcraft industry in Bali, so competence becomes the main variable that influences competitiveness. However, this study does not

examine skill entrepreneurs, the role of the market, the role of raw materials, the role of the surrounding environment, the efficiency of the company and the role of consumers that can enhance the competitiveness of the woodcraft industry in Bali.

Second, the competence variable is the main variable that influences the competitiveness of the woodcraft industry in Bali, while the CSR Implementation variable is the weakest factor that influences competitiveness. This study also shows that the Government Policy variable has a greater role in increasing the competence of the woodcraft industry in Bali to increase competitiveness compared to CSR Implementation. Therefore a longitudinal study is needed to examine the extent to which CSR implementation that has been carried out by the private sector has an impact on the woodcraft Industry in Bali.

Based on result of observations, the woodcrafts industry promising as an economic driver of the community in Bali Province because of the transformation of the socio-cultural life of the community along with the development of Bali tourism. However, more in-depth research is needed to conduct in-depth interviews so as to increase the competence and competitiveness of the woodcraft Industry in Bali.

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