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Analysis of Intellectual Capital Competitive Advantage Concept in Cocoa Industry In Jember

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ABSTRAK: *Cocoa is one of the mainstay commodities that has a significant role for the national economy, especially as a provider of employment, sources of income and foreign exchange. The government needs to encourage the establishment of cocoa industry and efficient marketing. The development of the downstream industry includes the development of small and medium enterprises (SMEs) in the field of chocolate processing. SMEs who want to grow and develop in conditions of intense competition when the core must have a competitive advantage. Intellectual capital is intellectual material that has been formalized, captured, and utilized to produce assets of higher value of cocoa product.The population of the research is the cacao industry employees in Jember. The number of samples was 110 respondents through purposive sampling method.The data analysis method used to test the hypothesis is structural equation modeling (SEM). All hypotheses proved to have an effect on each dependent variable.*

KEY WORDS*: cocoa industry, competitive advantage, intellectual capital*

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I. INTRODUCTION

Chocolate is produced from cocoa fruit seeds which have the same processing and aroma as those on the market. Cocoa fruit seeds (chocolate) that have been fermented into powder called cocoa powder. Chocolate in the form of powder is used as an ingredient to make various kinds of food and beverages, such as milk, jam, bread, and others. Seedless chocolate fruit can be fermented to be used as animal feed.

Cocoa is one of the mainstay commodities that has a significant role for the national economy, especially as a provider of employment, sources of income and foreign exchange(Rubiyo and Siswanto, 2012)[1].The government spawned cocoa production in 2020 with an area of around 2 million hectares of cocoa (Mulyono, 2016)[2].

To achieve the goals and objectives of cocoa agribusiness development, policy support is needed, among others: The government needs to encourage the establishment of SME-scale chocolate industry businesses and efficient marketing. The Ministry of Industry is committed to spurring the development of downstream cocoa processing industry in the country because it will increase added value, industrial structure and community welfare (Mulyono, 2016)[2]. What's more, this industry is one of the priority sectors that must be developed according to the 2015-2035 of National Industrial Development Master Plan(Mulyono, 2016)[2].

Although currently the cocoa processing industry has begun to emerge, it is still not optimal because the cocoa processing industry in Indonesia still operates far below its production capacity. The Fiscal Policy Agency, Ministry of Finance, released data that in 2011 the total installed capacity of the cocoa processing industry in Indonesia reached 469,000 tons, but the utilization capacity was only 280,000 tons or only 59.7 percent (Mulyono, 2016)[2].

The development of the downstream industry includes the development of small and medium enterprises (SMEs) in the field of chocolate processing. SMEs who want to grow and develop in conditions of intense competition when the core must have a competitive advantage. Competition is the core of company success and failure. Competition determines the accuracy of the activities of companies that can support their performance, such as innovation, cohesive culture or good implementation. Competitive strategy is the search for competitive positions that are profitable in an industry, because of the fundamentals where competition occurs (Porter, 1980)[3]. According to Wang (2014)[4] competitive advantage is a unique position that is developed by the company in the face of competitors, which allows companies to outperform them consistently. According to Coyne (1986)[5], competitive advantage has meaning only when perceived in the market and reflected in the product attributes which are the criteria for purchasing decisions. Meanwhile, according to Barney (1991)[6], excellence will be sustainable only if competitors cannot easily imitate it. To succeed, a business must have several advantages over competitors. These advantages can be created in the form of greater

differentiation, with which consumers obtain unique and interesting products. Other alternatives can create excellence in the form of more costslow, so consumers can receive products at prices lower than competitors.

II. LITERATURE REVIEW

2.1 Intellectual Capital

According to Schiuma & Lerro (2008)[7] intellectual capital is intellectual material that has been formalized, captured, and utilized to produce assets of higher value. Every organization places intellectual material in the form of assets and resources, perspectives, and explicit and hidden capabilities, data, information, knowledge, and possibly policies.

Thus, intellectual capital is knowledge, but not all knowledge includes intellectual capital. Thus, the scope of intellectual capital is narrower than knowledge. Intellectual capital is part of knowledge that can benefit the company. Benefits here mean that knowledge is able to contribute something or contribute that can give added value and different functions for the company. Different means that knowledge is one of the identification factors that distinguishes an enterprise from another company (Musanganya & Sinumvayo, 2017)[8].

A company leader must know and carry out what must be done in order to create ownership for the company. That is structural capital. 3) Customer Capital; Customer capital or customer capital is an organizational relationship with people who do business with the organization. Saint-Onge gives the definition of customer capital as depth (penetration), width (coverage), and loyalty (loyalty) of the company. Schiuma & Lerro (2008)[7] adding customer capital is the tendency of customers of a company to keep doing business with the company. Customer capital appears in the form of learning processes, access, and trust.

2.2 Competitive Advantage

Wheelen and Hunger (2012)[9] stated that competitive advantage is a collection of strategies to determine the superiority of a company from competition among other companies. Competitive strategies include low costs and differentiation. Next combined the two strategies are called focus. According to Hameed (2009)[10] competitive advantage is the function of identifying the right market product dimensions for company positioning. According to Porter (1996)[3], competitive advantage is an effort to create better customer value than its competitors by carrying out specific activities economically or superior qualityservice or a combination of both compared with its competitors. Competitive advantage can also come from the resources owned by the company, this perspective is known as the Resource Based View (RBV) or a resource-based perspective that was coined by Hameed (2009)[10]. According to him, competitive advantage can be achieved by creating economies of scale, improving management capabilities and technological capacity. Competitive advantage is basically something that is dynamic, and cannot be maintained. This is because today's competition and future competition must be seen as competition with high dynamics and not something static so that it requires the right strategy.

Competitive advantage according toKraatz and Zajac (2001)[11]is related to the ability of an organization to formulate a strategy that places it in a favorable position compared to other companies in the industry. The company gains competitive advantage if it is able to leverage its capabilities effectively. These capabilities include physical and financial assets, competencies, organizational processes, company attributes, information, knowledge, which are controlled by the company which enables companies to design and implement their competitive strategies. Day & Wensley(1988)[12] reveals that competitive advantage must be seen as a dynamic process. This process consists of; sources of advantage, positions of advantage, achievement of outcomes, and investment in profits to maintain superiority.

CONCEPTUAL FRAMEWORK FOR RESEARCH AND HYPHOTESE

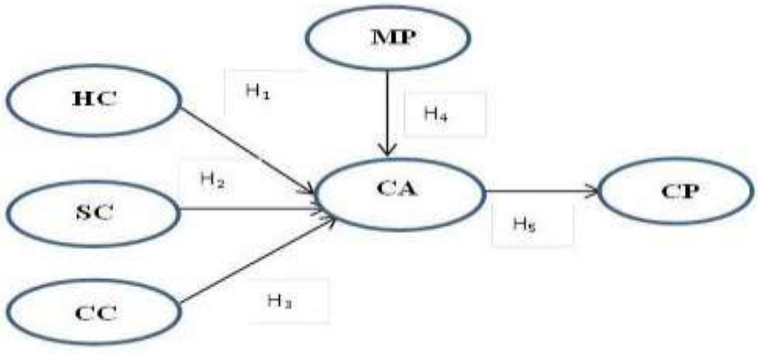

Figure 1 Research Model

Information:
HC = Human Capital
SC = Structural Capital
CC = Customer Capital
MP = Management Practices
CA = Competitive Advantage
CP = Company Performance
H_1-H_5 = Research hypothesis

Hypothesis:
H_1 : Human capital has significant effect on competitive advantage
H_2 : Structural capital has significant effect on competitive advantage
H_3 : Customer capital has significant effect on competitive advantage
H_4 : Management practice has significant effect on competitive anvantage
H_5 : Competitive advantage has significant effect on company performance

III. METHODOLOGY

4.1 Research Design

The research method used is explanatory survey research method, which is a study that uses a questionnaire as the main data collection tool, which explains the role of independent variables on the dependent variable studied. This type of research is descriptive and verification, where the purpose of descriptive research in this case is to get an overview of; human capital, structural capital, customer capital; competitive advantage; and the performance of the cocoa industry organization in Jember. While verification research with the help of statistical measures that are relevant to the data, is intended to test hypotheses about how much influence human capital, structural capital and customer capital have on competitive advantage, and their implications for organizational performance in the cocoa industry in Jember.

4.2 Populasi dan Sampel

Population is a collection of individuals or objects of research that have the qualities and characteristics set. Based on these qualities and characteristics, the population can be understood as a group of individuals or objects of observation that have at least one characteristic equation (Cooper and Emory, 1999:214)[13]. The population of the research is the cacao industry employees in Jember. The number of samples was 110 respondents through purposive sampling method. Sample criteria:
a. The company has been established for at least 1 year.
b. Companies in the Small, Medium and Large categories

4.3 Data Analysis

The data analysis method used to test the hypothesis is structural equation modeling (SEM). This study aims to examine and analyze the causal relationship between exogenous and endogenous variables both endogenous intervening and endogenously dependent, while examining the validity and reliability of the overall research instrument. Structural equations contained in the conceptual model of research can be seen in Table 1.

Table 1 Structural Equation Research

No.	Persamaan Struktural
1	$Y_1 = \gamma_{1.1}X_1 + \varepsilon_1$
2	$Y_2 = \gamma_{2.1}X_1 + \beta_{2.1}\ Y_1 + \varepsilon_2$
3	$Y_3 = \gamma_{3.1}X_1 + \beta_{3.1}\ Y_1 + \beta_{3.2}\ Y_2 + \varepsilon_3$
4	$Y_4 = \beta_{4.1}Y_1 + \beta_{4.2}\ Y_2 + \beta_{4.3}Y_3 + \varepsilon_5$

Source: Data porpcee gy reaearch
Wherein:
β, γ = (betha, gamma) Koefisien Patheach variabel variabel
X_n = Endogen Variables
Y_n = Exogen Variabel
ε = Error

IV. ANALYSIS

5.1 Result and Discussion

1. Barriers to the Cocoa Industry
a. The quality of Indonesian cocoa products to be able to compete in international markets.
b. Only quality cocoa products can be exported from the country as of May 2016
c. The quality of Indonesian cocoa is still low and it is difficult to meet the Indonesian National Standard (SNI) 2323: 2008/2010.
d. It is difficult to force farmers to make fermented cocoa.Low consumption of domestic cocoa
2. Analysis of the influence of intellectual capital

In terms of sex, the majority of the cocoa industry employees are women. This is because this business was originally only as a time filler for housewives and is also a family business inheritance, but because it is profitable, the housewives explore it so that it is pursued until now. Employees of the old cocoa industry are relatively young and still enter productive age. Respondents are predominantly those who are married, compared to those who are single or unmarried, this indicates that the family has a role in helping to get maximum benefit. Employees have a good level of education (dominated by high school education) because they think that with good education will improve their thinking ability to improve their business. Respondents were more types of businesses in the field of producing beverage products, namely 57 people or 54.9%.

Based on the results of the analysis of the research instrument (questionnaire questionnaire) and then scaling analysis, the data obtained will be used to analyze and test the research hypothesis. Thus, assistance is needed in the form of theoretical and conceptual tools to create structures and sub-structures to position the position and position between concepts, so as to reveal the relationship of variables, as well as reveal causal relationships between variables. The review of the inter-concept relationship that is suitable for the analysis of causality relationships is described in the form of SEM analysis using Lisrel version 8.7 software.

Based on the results of processing with the Lisrel 8.70 program, the CFA measurement model for each variable relationship and its indicator is indicated by the loading factor of each indicator, as follows

1. Human Capital(ξ_1)

Human capital formed by 3 (three) dimensions with 15 indicators states that the commitment dimension measured by 7 indicators has a loading factor value of 0.806 with r^2 value of 70.8%. Whereas the competency dimension measured by 5 indicators has a loading factor value of 0.833 with r^2 value of 83.8%. The next dimension as a form of human capital is the contribution measured by 3 indicators has a loading factor value of 0.712 with r^2 value of 65%. Based on these results it can be seen that human capital formed by 3 (three) dimensions shows the results that the competency indicator has a greater influence than the indicators of commitment and contribution. This indicates that to be able to compete and have the advantage of cocoa products, what is needed is the competence of employees, because high competence will improve the quality of the products and services produced. Even so with high competence still must be supported with high commitment also to happen harmony in work. With a good commitment from employers and employees, the company's goals will be achieved and always meet the desired targets. Although it is not considered important but the dimension of contribution is something that cannot be forgotten as a form of variable human capital, because all parties must have competence wants can be achieved well and will benefit all parties.

2. Structural Capital (ξ_2)

Structural capital formed by 2 (two) dimensions with 14 indicators, stating that the means measured by 6 indicators have a loading factor of 0.867 with r^2 value of 80.6%. While the infrastructure measured by 8 indicators has a loading factor value of 0.811 with r^2 value of 90.8%. Based on these results it can be seen that the infrastructure has a greater influence than the means. Nevertheless, these two things are very important because with these facilities and infrastructure that can make employees work optimally and employers must provide what is needed by employees, especially those related to administration and production processes, because if not provided, the production process may stop and the target is not will be achieved.

3. Customer Capital(ξ_3)

Customer Capital which is formed by 3 (three) dimensions with 10 indicators, states that the number of customers measured by 4 indicators has a loading factor value of 0.816 with r^2 value of 84.1%, while the number of suppliers measured by 4 indicators has a loading factor value amounting to 0.832 with r^2 value of 80.3%. The last form of customer capital is the market reach measured by 2 indicators having a loading factor value of 0.442 with r^2 value of 23.5%. Based on these results it can be seen that customer capital as measured by 3 dimensions as forming dimensions shows the results that the number of customers has a greater loading factor than the number of suppliers and market reach. This indicates that the most important thing to achieve the target

is the number of customers, because the most difficult to achieve the target is to find existing customers and customers must be maintained in order to remain a customer. Suppliers are dimensions that are no less important, because with suppliers that provide the best supply material will improve the quality of the product being traded. Market reach is the last dimension as a form of customer capital that gives the smallest value, however, the market reach cannot be ignored the better the market reach, it will increase or develop the results of the products produced.

4. Management Practice(ξ_4)

Management Practice, which is formed by 10 (ten) indicators, has a loading factor of 3.014 with r^2 value of 32.0%. Based on these results it can be seen that management practices show the results that the most important thing to achieve the target is the number of customers, because the most difficult to achieve the target is to find existing customers and customers must be maintained in order to remain a customer. Suppliers are dimensions that are no less important, because with suppliers that provide the best supply material will improve the quality of the product being traded. Market reach is the last dimension as a form of customer capital that gives the smallest value, however, the market reach cannot be ignored the better the market reach, it will increase or develop the results of the products produced.

In general, respondents were quite aware of the variables of management practices that exist in each company, seen from the results of questionnaires that were responded positively. The average respondent's answer to the ten indicators is close to 4, meaning that respondents consisting of employees or managers, have given a high enough value to management practices that have been applied in their respective companies. Judging from the Standardized Regression Weight value, the biggest contributing indicator is individual performance indicators and technical training.

5. Competitive Advantage(η_1)

Competitive advantage formed by 4 (four) dimensions with 11 indicators, states that the dimensions of product uniqueness measured by 3 indicators have a loading factor value of 0.851 with r^2 value of 65.3%. Whereas the superiority dimension that is measured by 4 indicators has a loading factor value of 0.563 with r^2 value of 23.8%. Product advantages measured by 4 indicators have a loading factor value of 0.412 with r^2 value of 10%. The next dimension as a form of competitive advantage is service excellence measured by 2 indicators having a loading factor value of 0.286 with r^2 value of 5.8%. Based on these results it can be seen that the competitive advantage measured by 4 dimensions shows the results that the uniqueness of the product has a greater value loading factor compared to price advantages, product excellence, and service excellence. This indicates the price advantage is also very important to improve competitive advantage, with competitive prices with good quality, the buyer or customer will not go elsewhere but will still buy our products. Product excellence and service excellence provide the smallest average value, and entrepreneurs still do not fully use the dimensions of product excellence and service excellence as one of the competing dimensions due to limited human resources and capital.

6. Organization Performance (η_2)

Organizational performance formed by 2 (two) dimensions with 7 indicators states that the financial dimensions measured by 3 indicators have a loading factor value of 0.829 with r^2 value of 67.2%. While the non-financial dimensions measured by 4 indicators have a loading factor value of 0.831 with r^2 value of 0.873. Based on these results it can be seen that organizational performance measured by 2 dimensions shows that the non-financial dimension has a greater loading factor than financial dimension. This indicates that the company believes that if the sales target is achieved it will increase profits or profits that increase as well. Therefore, entrepreneurs are always competing to improve quality so that the sales target is achieved. This is done by increasing the ability of employees for the production department or involving the administration and general departments in training activities or technical guidance, for example being included in skills improvement training activities, service improvement training and how to conduct promotions through promotional channels that can improve organizational performance. This is usually held by the partnership of the Office of Cooperatives and SMEs in Jember. To be able to find out whether the models used in SEM have met the Goodness of fit measures (GOF) or not, so the model obtained from the comparison between data and models is good, it can be seen in Table 2 as follows:

Table 2 Goodness of Fit (GOF) Index

GOF	Estimation	Result
Statistik Chi-Square (λ^2)	189,940	Fit
P-Value	0,000	Fit
Non-Centrality Parameter (NCP)	129,835	Fit
Goodness-of-fit Index(GFI)	0,883	Fit
Root mean square error of approximation (RMSEA)	0,071	Good Fit
Expected cross-validation index (ECVI)	2,620	Good Fit
Tucker-Lewis Index (TLI) atau Non-Normed Fit Index (NNFI)	0,928	Good Fit
Normed Fit Index (NFI)	0,916	Good Fit
Adjusted Goodness of Fit Index (AGFI)	0,874	Fit
Incremental Fit Index (IFI)	0,945	Good Fit
Comparative Fit Index (CFI)	0,944	Good Fit
Parsimonius Goodness of Fit (PGFI)	0,822	Fit
Parsimonious Normed Fit Index (PNFI)	0,804	Fit

The results of model conformity test indicate that the model used meets GOF criteria. The results of the calculation of the measurement of model accuracy (Goodness of Fit measures) show the model of the influence of human capital, structural capital, and customer capital on competitive advantage and its impact on organizational performance is a good model to describe the relationship of the variables under study.

Relationship coefficient values of all variables in each structural model formed show the influence of these variables on other variables. The relationship coefficient which shows the effect of the independent variable on the dependent is expressed by the gamma coefficient (γ), while the relationship coefficient of the dependent variable on the other dependent variables is expressed as beta (β).

V. CONCLUSION

Based on secondary analysis and primary data and SEM results and testing hypotheses from research data on the cocoa industry in Jember, it can be concluded as follows:

1. Human capital is in a pretty good category, meaning that human capital in the cocoa industry is still considered to be coaching. Employees are considered to have competence and contribute to the company. However, there are still some aspects of weakness, namely the need to improve human capital to improve their abilities and skills.
2. Structural capital is in a fairly good category towards good, meaning that the structural capital that already exists in the cocoa industry in Jember, with the availability of the required facilities has been fulfilled properly, although there are still some aspects of weakness that need to pay attention to entrepreneurial functions that have been implemented necessary to be able to encourage creativity and innovation.
3. Customer capital is in a fairly good category towards good, meaning that customer capital already exists in the cocoa industry in Jember, where employers and employees have the desire to improve and develop relationships with suppliers or relations and develop their market reach, however there are still some weaknesses, namely strengthen the management and entrepreneurial spirit of SMEs, especially creative products, one form of developing creativity and innovation that develops today can be the basis for growing customer capital in SMEs creative products for example in intelligence learning is Mind Mapping.
4. Competing advantages are in a pretty good category towards good, meaning that the competitive advantages that exist in SMEs Creative products are currently quite good, this is indicated by a fairly good way of working, namely entrepreneurs and UKM employees Creative products continue to strive to improve all quality for excellence competing, there are some that need to be improved, namely: price excellence, product excellence and service excellence.
5. Organizational performance is in a good enough category towards good meaning good, indicated by the presence of strong and unyielding cocoa industry employees who can still compete with big entrepreneurs, because the creative cocoa industry has different motivations, innovations and creative resources. However, there are still aspects of weakness, that cocoa entrepreneurs still cannot control the high production costs due to the impact of fuel price fluctuations.

Implication

Momentum is conducive to developing this cocoa processing industry must be supported by various facilities from the government. The Investment and Coordinating Board is expected to provide investment permits for the cocoa processing industry, the Ministry of Public Works and Public Housing, which is responsive in providing adequate infrastructure.

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