Green Intellectual Capital and Financial Performance of Corporate Manufacture In Indonesia

Erinos NR 1, Rahmawati 2
1Economic Faculty Padang State University and Doctoral Economic Student Programe, Sebelas Maret University, Indonesia
2Doctoral Economic and Business Programe, Sebelas Maret University, Indonesia

ABSTRACT: This study aimed to influence of green intellectual capital to financial performance in Indonesian Stock Exchange. The independent variable is element of Green Intelectual Capital consisting intellectual capital and Corporate social responsibility (CSR). Intellectual Capital calculation using Pulic methods, that is consisting of VACA (Value Added Capital Assets), VAHU (Value Added Human Capital), STVA (Structural Value Added). Corporate Social Responsibility (CSR) measured by action of corporate to public environment. Financial performance is measured by using the Return On Assets (ROA). The research is using secundery data from companies annual report. Data analysis is multiple regression and then measured by Guilford standar value (1956). Result of research found that green intellectual capital has positive effect to financial performance but the effect is not significant. It is caused by imbalance investment in intellectual capital elements. Invest in human capital and than invest in STVA enough to high but invest to VACA is very low. CSR action by corporate is not influence to financial performance. They are more interested to low price and high quality product. This study suggests, invest to intellectual capital must be balanced to achieve high financial performance in future and CSR action by corporate subject to increase people income.


1. INTRODUCTION

The performance is results achieved by the management of operating activities that have been performed (Ingram, 2006). The above the average performance can be achieved by the company if the company has a competitive advantage and performance planning system (Kreklow, 2005). The best performance planning system is that links routines to the strategy (Chung, Yau, Sin, Tse, Chow and Lee, 2008).

West, Cronk, Goodman, and Waymire (2010) describes the measurement of performance in the new context of is the synonymous with responsibility accounting. Performance is determined by actions taken by management. To achieve a high performance, organization should has a effective teamwork across departments within an organization (Ingram, 2006).

Many factors affect the financial performance, including the intellectual capital Intellectual defined as intangible assets owned by the company (Dalkir, Wiseman, Shulha, and Intyre, 2007; Blaise, Kerri, and Carson, 2007; Ahangar, 2011; Ericson and Call 2008). Intellectual capital is a difference between the market value and the book value (Holland, 2009; Cezair, 2008).

Research conducted by the researchers on the Intellectual Capital found different results. Intellectual capital positively influence on the performance (Ericson and Call, 2008; Shabarati et al., 2010; Helena, Pedro, and Jardon, 2010; Blaise et al. (2007) found intellectual capital negatively affect performance.

Chang and Chen, (2012) argue to improve financial performance not only by intellectual capital, but also the surrounding environment as well as the concern for the environment. This concept is known as the green intellectual capital (Chen, 2008; Chang and Chen, 2012). The companies must implement corporate social responsibility (CSR).

Research on CSR also find difference results. Ameer and Othman (2012); Clacher and Hagendorff (2012); Jo and Harjoto (2012) found a positive effect between CSR and financial performance of the company. On the contrary Laan, Ees, Itteloostuin (2008); Bair and Pinar (2012) found a negative influence. Other variables that also affect the performance is a non-executive director (board of commisioners). Maki et al. (2009) finds Intellectual capital positively impact the financial performance. Abidin, Mustaffa, Jusoff (2009) found independent commisioners have important role improving intellectual capital which leads to the difference financial performance.
2.1 Green Intellectual Capital

Green intellectual capital is defined as the whole of intangible assets, knowledge, capabilities and relationships of the company that is able to maintain and preserve the environment of the company (Chen, 2008). Chen (2008) suggests to measure green intellectual capital by integrating the CSR and management intellectual capital. Chen (2008) argues that already a lot of research that examines the intellectual capital, however, no study has tried to explore whether intellectual capital that related to environmental management. Chen (2008) found the green elements of intellectual capital positively influence on competitive advantage.

Intellectual capital is a combination of human capital, structural capital and social capital (Dalkir et al. 2007). The basic concept of intellectual capital is the excess of the market price to the book value (Holland, 2009; Cezair, 2008). The market value is the value of companies in the market that if it were all shares held for sale, while the book value is the value recorded in the financial statements. Ahangar (2011) explain the excess was due to the ideas, knowledge and new discoveries are applied within the company.

Research on intellectual capital concludes with different results. Ericson et al. (2008, 2007) found a positive and significant relationship between intellectual capital and ROA, then Ericson and Call (2012) explains that the higher the intellectual capital, the company's performance is also higher. Shabarati et al. (2010) find more and more effectively manage the intellectual capital will influence positively to financial performance. Appuhami (2007) found a positive and significant relationship between intellectual capital with capital gain. Different findings obtained by Blaise et al. (2007) who found that intellectual capital has negative impact on financial performance.

2.2 Human Capital

Human capital is an investment to improve the competence of employees so they can work more effectively and efficiently (Binasrav, 2011). The goal is to create a competitive advantage (Binasrav, 2011). Human capital includes knowledge, skills and experience, the ability of innovation, creativity, problem-solving skills, expertise, leadership, managerial and entrepreneurial skills, previous experience, the capacity of team work, flexibility and so on (Blaise et al., 2007).

Helena et al. (2010) revealed that in creating value, human capital is the main element. Gates and Langevin (2009) found a positive effect on the human capital management performance, the same was found Veltriy (2009). Ahangar (2011) finds human capital can increase sales growth and employee productivity. Chen and Lin (2011) explains that human capital can increase competitive advantage and is regarded as an investment instead of an expense.

2.3 Structural Capital

Structural capital is the investment made by the company to the applied system (Ahangar, 2011). Veltriy (2009) found a positive effect of structural capital on performance. The more sophisticated systems are used then the earnings per share is also higher. Maki et al. (2009) found structural capital has positive effect on earnings per share. Firer and Williams (2011) analyze it in terms of profitability and found a positive relationship between structural capital and profitability.

Slightly has different from the findings of other researchers, research conducted by Karasova (2010) found the effect structural capital to performance only to a certain extent. Ahangar (2011) found no significant relationship between structural capital and performance, while Ashton (2005) found the technology (structural capital) is not linked to performance and Maditinos et al. (2011) found structural capital does not have a relationship with the book value and the market price.

2.4 Relational Capital

Relational capital is company investment to foster its relationship with customers and suppliers, so as that lead to increase the company's reputation (Esther, Rabitino, 2011). Reputation associated with the trust from customers and suppliers. Their research found that relational capital influence business success. Veltri (2009) also found the same thing. Kianto and Waajakoski (2010) only found an indirect relationship with performance.

2.5 Corporate Social Responsibility (CSR)

Chen (2011) defines corporate social responsibility (CSR) as a situation where the company is involved in social actions that are beyond the interests of the company and are required by law. Jo and Harjoto (2012) found a significant positive correlation between CSR report with financial performance. Hagendorff dan Clacher (2012) found the effect of CSR on stock prices, while Yip et al. (2012) found the effect of CSR on income. Baird and Pinar (2012) found it very different that found CSR has negatively affect the stock price.

CSR report published by the company reflects the social action they really are, the Company can demonstrate ethical commitment through charitable contributions, and through the use of resources and

II. LITERATURE REVIEW

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expertise to benefit society, such as reducing waste, hiring minorities, and care for the environment (Hoffman 1986 in Yip (et al. 2012).

Research on CSR in Indonesia conducted by the Goddess (2011) found the higher the financial performance, the implementation of CSR will also be higher. Luthan (2011) also found a positive association of social performance and financial performance, so the higher the social performance that made the financial performance is also higher.

Different things discovered by Rakhiemah and Agustia (2009) found that CSR does not significantly affect the financial performance, the matching is also found by Yaparto, Frisko and Eriandani (2013); Arli and Lasmono (2010 in Gupta and Hodges (2012) founded CSR negative effect on performance, consumers in Indonesia are further described consumers are less concerned about the implementation of CSR because they are still struggling in basic needs, so consideration is related to the quality and price.

2.6 Control Variabel
The Board of Commissioners is the highest position organ in the organizational structure of the company, thus the executive is responsible to the Board of Commissioners. Further more Maki et al. (2009) describes the functions of the board of commissioners is to oversee the activities of management related to procurement, production, system development, marketing, research and development, general administration. Commissioners are not the active agents executing the management work.

Research of Abidin et al. (2009) found the independent board has positive effect on the financial performance. Research conducted by Bhagat and Black (1999) in Abidin (2009) explain his findings that the independent commisioners do not always have a positive impact on performance. This is due to the independent commisioners do not play an effective role on the company. This is further confirmed by Agrawal and Knoeber (1996) in Abidin (2009) who found a negative relationship between independent commisioners with the company's performance.

2.7 Financial Performance
Ingram (2006) describes the performance as the results achieved by the management operating activities that have been done. Tan and Lipe (1997) argue that high performance is not required to justify for business people, and all you need is the good performance and that can achieve its goals. When performance goes down then the manager tried to find the cause of low performance and fix it to improve the performance in future.

One of the tools to measure the financial performance is Return On Asset (Berstein and Dwill, 1998). ROA is a company's ability to generate returns from assets invested by the shareholder (Palepu and Healy, 2008). ROA shows the ability of management to manage the company's assets entrusted to it. The management of the company as a whole must satisfy both parties so that the ability of management to manage the company very tested here.

2.8 Research Hypothesis
In this study, green intellectual capital is a constructs, so it does not become the object of this study, the analysis is only used to describe the magnitude of the effect of green intellectual and then relate to value analysis from Guilford (1956) so that it can be known high performance achieved, thus can be found which elements influential form of financial performance - ROA.

The relationship between each of the independent variable and corporate performance is hypothesised as follows:
H1: VACA (Value Added Capital Asset) has effect on financial performance proxied by ROA.
H2: VAHU (Value Added Human Capital) effect on financial performance proxied by ROA.
H3: STVA (Structural Capital Value Added) has effect on financial performance proxied by ROA.
H4: Corporate Social Responsibility (CSR) effect on the financial performance of ROA.

III. RESEARCH METHODOLOGY
3.1 Sample Design
This study was performed on companies listed on the Stock Exchange. The number of companies that meet the criteria amounted to 117 units. When the analysis is done 11 companies do not meet the requirements, that totaling 106 companies were analyzed.

3.2 Variables Measurement
1. To calculate Value added is done reducing sales minus the cost of production but not including labor costs. Thus it is seen that calculated value added value is the excess value of sales on the value of the raw materials that have been processed to finished goods.
2. Measurement VACA done by calculating the value added compared to the total assets.
3. Measurement VAHU calculated from the comparison of value added and the total direct and indirect labor costs.
4. STVA measurement is the value added minus total labor costs compared with the value added itself.
5. Corporate Social Responsibility, CSR is measured by looking at the activity of the company to implement its CSR reporter on the financial statements. CSR measures being taken ISO 26000. If companies do given the value 1, otherwise the value 0.
6. To calculate ROA is done by calculating the net income compared to the total assets of the company.

IV. TESTING RESULTS

4.1 Descriptive Statistics Test Results
Based on the descriptive test results for all variables presented shows that the financial performance. ROA with an average value of 0.0802 or 8.02%. VACA, the average value is 0.3925, this value is very low. VAHU is 4.633, this value is very high, while STVA is 0.7208, the assessed value is quite high. CSR is 0.7208 or 72.08% of samples has implement the ISO 26000 standard.

4.2 Hypothesis Testing
As an initial reference, the statistical analysis found that green intellectual capital affect the financial performance. F test value is 0.000 and the coefficient of determination (Adj. R2) is 0.0219, or 21.9%. Based on the interpretation and percentage value can be seen the positive effect of green intellectual capital on the financial performance ROA, but the effect is very low because it is located in the quartile 1. This is because the effect is below 40%.

4.2.1 Testing Hypothesis 1
Based on the statistical results found VACA has positive and significant impact on financial performance ROA, with a P value is .000 and coefficient value test of .425 or 42.50%. When associated with a table Guilford (1956), it can be categorized as the middle category because they are in quartile 2, the percentage between 40%-60%.

4.2.2 Testing Hypothesis 2
Results of statistical analysis found that the value added human capital (VAHU) has not positive and significant effect on the financial performance ROA dengan test P value of .118>.05, because it had no effect, the result is not associated with a table of Guilford.

4.2.3 Hypothesis Testing 3
Results of statistical analysis found that structural capital value added (STVA) has no effect on the financial performance of ROA. This is due to the calculated value P is equal to .745.

4.2.4 Hypothesis Testing 4
Results of statistical analysis found that the implementation of CSR by companies has not positive and significant impact on financial performance of ROA. THE test P value IS .804>.05, therefore this result is not associated with Guilford table.

V. DISCUSSION OF RESULTS
Results of statistical calculations explained that the green intelectual capital has significant and positive effect on the company's financial performance ROA controlled by commissioners independen. Although the result has a positive effect, but if it is related to the size stated by Guilford (1956) they are low due to the effect are below 40% (.219).The effect are described in the discussion of the elements that make up the green intellectual capital.

5.1 Value Added Capital Asset (VACA) Against Financial Performance
Results of this study found VACA (value added capital assets) positive effect on the financial performance seen from the side ROA controled by independen commissioner. VACA which is a form of the company's ability to manage its resources in the form of capital assets. VACA an value added obtained from the difference between the sale with the cost of production but does not include wage costs divided by total assets. VACA is the value added of the raw material after processed using machine production divided by total assets of the company. The expected value of the minimum is one to achieve high performance (top performers), which means the value added obtained is equal to the net value of existing assets.

VACA (value added capital assets) is the key to the success of the company to achieve the desire of shareholders and potential investors. This VACA become hope to be able to continue to exist in the world of business. Results of a descriptive study found that VACA average is only 0.3925 far below the expected.
The low value of VACA is a major source of failure of management to achieve high financial performance. VACA value is the lowest value among the elements of intellectual capital, but it is the only element of green intellectual capital that affect the financial performance of ROA. Its influence is quite high according to the value of Guilford table. The low value of this VACA could indicate several things: a. Effiesiency and lack of effectiveness in the production process; b. The use of less sophisticated technology in the production process; c. The determination of the cost of production is not based on activity; d. Lack of management capabilities creates a different product with competitors.

The low value of VACA, causing management difficulties to increase profits. VACA reflects the assets owned are no longer productive. To improve VACA company must make an additional investment to sophisticated machines that are more capable of producing more effiesien, cheaper and more attractive form so that the products attract more consumers to buy them.

To increas VACA by the company is very necessary. Management creativity creates new products but still related to old products is needed. For example, add product function, reduce the size of the product or the other and will be seen by consumers as a new product as the improvement of old products.

5.2 Value Added Human Capital (VAHU) Against Financial Performance

Results of statistical explained that VAHU (value added human capital) has no positive effect on the financial performance which is controlled by an independent commissioner. Descriptive the results statistical analysis showed very high VAHU value which is equal to 4.463. This value is the highest among the elements of intellectual capital. VAHU high value reflects the company's employees who already have a high talent to run the company's operations. VAHU high value results high financial performance. VAHU explain human capital possessed by already have a high talent, but they are not supported by adequate facilities. The effect of the human capital can not work effectively and efficieinly, in other words a high ability human capital can not be used optimally because of the technology used by the company is still very old. Production manager can not produce to fit the market demand for production machines (VACA) they have still old-fashioned technology and low capacity. The effect manager (VAHU) can only work in accordance with the capabilities of existing machines. These factors lead to low production performance. The so low performance VAHU that cause has no effect on the financial performance.

5.3 Value Added Structural Capital (STVA) Against Financial Performance

Results of statistical analysis of the study explained that the Value Added Structural Capital (STVA) also had no effect on the financial performance. The average value of descriptive statistics for this STVA is 0.780. This value is relatively high, to achieve the high performance required value of at least one, but the results of the study found there is no effect of this STVA. It can explain STVA has not influence on financial performance due to low (slightly) the level of work performed by this STVA. Low levels of employment due to the low value of the existing VACA. STVA related to corporate culture, management processes, information systems, networking systems, financial relations, customer loyalty, company names, and so on. This shows management process, information systems, networking systems owned could not run optimally. The effect is the company must pay a relatively large to process a simple task. Low STVA effect to the financial relations, customer loyalty, company names lower in the eyes of consumers.

If things like this are not recognized by management, the effect is the reduction of financial relations, customer loyalty, company names are lower in the eyes of consumers. If this continues then certainly the destruction of existing companies soon. To get out of this problem then the only way that can be taken is to invest in VACA. Companies must swap the old-fashioned machines with advanced and flexible machines, so STVA company owned also runs effectively and efficiently.

5.4 Corporate Social Responsibility (CSR) Against Financial Performance

Results of the study explained that the implementation of CSR did not affect the financial performance of ROA. There is not influential CSR implementation due to ignorance of Indonesian consumer society on the implementation of CSR. In the terms of the percentage of CSR implementation has been quite high.

Society of Indonesian consumers still choose the cheap product, high quality goods ignoring whether the product is manufactured by a company that runs CSR or not. Whether the company is polluting the environment or not, they do not care. Meanwhile the government has made it compulsory for companies to implement CSR, but implementation is left to the company itself. Implementation of CSR by companies less bring economic change to the people close to the location of the plant. The provision of such assistance is only temporary and does not bring economic influence on the surrounding community, for example, for the celebration of August 17, to sponsor specific events. Thus seen the lack of a standard size on the implementation of CSR issues.
The different sizes CSR activities undertaken Indonesia, because until now there has been no agreement among experts on the definition of measurable on CSR, thus each company to translate the understanding of CSR in accordance with their own interests let execution delivered directly to the companies that run by the government, Thus the public at the location of the manufacture plant has not been felt the positive impact of the company's presence.

VI. CONCLUSION

The low influence of green intellectual capital on the financial performance ROA due to lower VACA value of the company, in terms of VACA is the only variable that affects the company's financial performance. The low value of VACA cause other elements of green intellectual capital can not work optimally. This is the reason why the company's performance is low.

VACA low value, high value STVA and VAHU, all this explains the lack of balance in investment. So companies have to change their mindset of the investment. Investments should be balanced, the balance of investment will be able to create synergies to accelerate and improve financial performance.

The uninformative implementation of CSR on financial performance, explains the Indonesian society consumer is less concerned to the environment due to the low level of their income. They only need high quality products and low prices. In addition, the implementation of CSR undertaken by the company are not touching their life, although the level of implementation is already quite high.

In the future, the company's management should recalculate its intellectual capital, it is useful to know the weaknesses in the company. Related to the implementation of CSR, the implementation of CSR should be related to the economic development of the surrounding communities so they can improve their economy. Thus the existence of the company perceived by society so that it can create a sense of "self of belonging" to the company.

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