Intellectual capital and corporate social responsibility in banking industries in Indonesia

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ABSTRACT
This study aimed to get empirical evidence on the relationship of the intellectual capital of the company with its corporate social responsibility. The data used in this study were the banking industry companies listed on the Indonesia Stock Exchange. The sample in this study was banking company in Indonesia, which has been qualified sampling. The analysis tool to test the hypothesis was multiple regression analysis using SPSS. The results of this study showed that the disclosure of intellectual capital significantly influenced social responsibility. In addition to the control variables of this study, the performance of the company had an influence on social responsibility. This is because of the human resources owned by a company would be able to work optimally with the support of enterprise systems is good, the good quality system and strong customer capital. The implication of research is company's performance especially on social responsibility, which is the most investors in Indonesia are still oriented on profit, the greater the profit that has the company cares about the environment.

1. INTRODUCTION
Intellectual Capital is one of the approaches used for assessing and measuring the intangible assets that have been the focus of attention in various fields such as a good management, information technology, sociology, and accounting (Petty and Guthrie 2000 in Ulum, Ghozali & Chariri 2008). In addition, according to Abidin (2000), intellectual capital is still not widely known in Indonesia. This is due to the firms in Indonesia that prefer to use conventional capital to build the business so that the resulting product is still poor technological content. In Indonesia alone if it is observed, many well-known brands that do not produce their own products it sells. These companies are basically selling brand that is due to the small number of the company’s attention to the three components of intellectual capital. They are human capital, structural capital, and customer capital.

Issues of research on intellectual capital began to develop after the emergence of IAS 19 on intangible assets. According to SFAS No. 19, intangible
assets are non-monetary assets that can be identified and does not have a physical form for use in generating or delivering goods or services, leased to other parties, or to go an administrative (IAI 2006). Until now, measurements intellectual capital itself is still growing so there are no specific standards for these measurements. Pulic (1998; 1999) did not directly measure the intellectual capital of the company, but they offered a measure to assess the efficiency of the added value which is the result of the company’s intellectual ability, it called Value Added Intellectual Coefficient - VAICTM. The purpose primary knowledge-based economy is to create added value. Meanwhile, in order to create value added takes the exact size of the physical capital and intellectual potential (represented by employees with potential and Traffic attached to them). VAICTM shows how the company’s resources, namely physical capital (VACA - value added capital employed), human capital (VAHU - value added human capital), and structural capital (STVA - structural capital value added) has been utilized by the company efficiently.

Implementation of intellectual capital is something new and still cannot find the answer to what the value of a company is. Added value is derived from a production capability Companies to customer loyalty to the company (Widjanarko 2006). Listianingsih & Mardiyah (2005) financial report is information as the reflection about the company’s performance, especially in terms of profitability.

Profitability is the company’s ability to generate profits so as to increase the shareholder value of the company. Hackston & Milne (1996) said that the profitability is factor, which makes management, becomes free and flexible in expressing social accountability to shareholders. Companies concern to community is willing the management to make companies profitable (Anggraini & Retno 2006). Likewise, with company size is a variable that is often used in explanation of social disclosure by the company in reports annual. Big companies disclose more information than small company does. This is because big companies will face the risk larger than the small firms will.

Social responsibility (Corporate Social Responsibility/CSR) is done because the company’s presence in the neighborhood directly impact on the external environment. Companies must prevent negative things happen because those can trigger a claim (the legitimacy) of the community (Hadi 2011). Hadi (2011) said that the pressure or the claims of the society encourage companies to participate actively in social welfare activities. Their claims from the public as well as setting government make the company reducing the negative impact because of the operational activities of the company.

CSR is practiced in earnest; it will have a good impact for the company. Because it can strengthen communication with stakeholders, align the vision, mission, and principles of the company associated with the practice and the company’s internal business activities. In addition, it can encourage improvement companies on on-going basis as a form of risk management, protect reputation, as well as to gain the competitive advantage in terms of capital, labor, suppliers, and market share (Kusumadi-laga 2010).

Research on the intellectual capital of the CSR was conducted by Razafindrambinina & Karidi-mejo (2011) with the result that the intellectual capital in the aggregate does not have a significant relationship with CSR, but one of its components, namely capital employed efficiency affect the disclosure of CSR. In contrast to research conducted Ratnaningrum & Nasron (2014) with the results of intellectual capital has a significant relationship with CSR, which indicates that the company is able to utilize and maximize the expertise, knowledge, so that cares about the environment.

Research related to financial performance and the size of the company towards CSR was conducted by Rosmasita (2007), its showed a significant relationship between firm size and social responsibility disclosure. While Machmud (2008), did not find a relationship of two variables. The relationship disclosure of corporate social responsibility with profitability also happened inconsistent outcome. Opposite result was found by Hackston & Milne (1996) who stated that there is a positive relationship between profitability and corporate social responsibility. Those studies have different result, so the writer wanted to do re-research to get better results with one of the industry, which is more focused on intellectual capital, and social responsibility is a company engaged in the banking industry. Based Kurnianto (2010) in Haryani (2015), the implementation of CSR in the banking industry has the goal of making CSR as one of the ways companies to manage their business not only for shareholders but for other stakeholders. Based on the explanation above, we formulate the issues to be discussed is whether intellectual capital has an influence on the responsibility social. This study aimed to get empirical evidence on the relationship of the intellectual capital of the company with its corporate social responsibility.
2. THEORETICAL FRAMEWORK AND HYPOTHESES

Stakeholder Theory
Companies today are not only accountable to shareholders, but also responsible to the public/stakeholders (Hadi 2011). According Gutrie (2003) in Purnomosidhi (2006), this theory expects that management to stakeholders report the company’s activities, though later they do not put on such information. Because accountability is on not only economic or financial performance, but also the company needs to do more than intellectual capital disclosures required by the authorities. One of the factors influencing the intellectual capital disclosures in the financial statements are if the better performance of the intellectual capital in a company is, the higher the level of disclosure in the financial statements is. This will have an impact on increasing the confidence of stakeholder to the company (Ulum 2008). If managers can optimally manage the organization, then the resulting value creation is getting better. Good management of the potential of these companies will push the company’s financial performance for the needs of stakeholders (Ulum 2008). However, corporate responsibility is not limited to the company’s financial performance, but also must be responsible for social and environmental problems posed by the operational activities of the company (Cahyono 2011). The practice of CSR plays an important role for the company. Because the company is in society and the possibility of its activities have social and environmental impacts. With the disclosure of CSR, the company is expected to meet the needs of information required and the support of stakeholders in order to support the company in achieving the goals, which guarantees its stability and continuity of business (Hadi 2011).

Intellectual Capital (IC)
Some researchers argue that there is not the exact definition of intellectual capital (Marr et al. 2004; in Beattie & Thomson 2007). Gu and Lev (2004) in Beattie & Thomson (2007) defined intangible assets as R & D, software, brand enhancement, employee training and development of organizational capital. However Edvinsson and Malone, 1997; in Luthy, 1998) argue that intellectual capital consists of three general categories, namely: 1) Human Capital, which consists of insights, skills, and abilities of employees. Human capital is a combination of organization with the ability of people in the company to solve or provide solutions to business problems. 2) Structural Capital, an organization’s ability to meet the routine of the company and the structure that supports employee efforts to produce intellectual performance is optimal and overall business performance. Structural capital consists of the image of the organization, enterprise information systems, organizational culture, management philosophy, and intellectual property owned by the company (Bontis 2000; in Sawarjuno & Kadir 2003). 3) Relational Capital/Consumer Capital is a harmonious relationship which is owned by the company with its partners, both suppliers and reliable quality, loyal customers, relations with the government and with the surrounding communities (Bontis 2000; in Sawarjuno & Kadir 2003). The era of a global economy that leads to the knowledge and information-based economy led to a paradigm shift for the company. This is to enable companies to be ready to compete to enter the market with value creation of products and services produced. It is for the market competitive, the necessary accuracy of the company’s activities, such as innovation and good work culture. As well as to increase, the performance of which became the company is capital in the form of knowledge or often also referred to as intellectual capital.

Corporate Social Responsibility/CSR
Currently the company must report any activity of the company, not just operational report but the reports about the company’s concern surrounding environment. The report is non-financial, and voluntary informs the stakeholders. Abrar (2008) said that CSR concerns about the relationship between companies and communities around the company’s operation. Deegan, Rankin & Tobin (2002) stated that any large enterprise can be transformed into a social enterprise, in which the entity and the decision taken is for public or social. Crowther et al. (2008) stated that the business turned into a social problem into economic opportunity and economic advantages, the production capacity, human competence, sufficient income, and in wealth. The current P companies would benefit not only the advantages of doing business, but also on good terms with stakeholders so that the company can maintain the viability of their business. The existence of a company can change society, either towards positive or negative, so the company must prevent the negative things happening. It could trigger claims/legitimacy of the people (Hadi 2011). One form of accountability of CSR can be seen from sustainability reporting framework. Finch (2005) in Nilhasanah (2015) said that the motivation of companies using sustainability reporting framework is
to communicate the performance of management in achieving the company's long-term benefit to stakeholders, such as improving financial performance, the increase in competitive advantage, maximizing profits, and the company's success in the long term.

**Profitability**

Profitability is the company's ability to generate profits to increase the shareholder value of the company. Hackston & Milne (1996) argued that the profitability is the factor that makes the management to be free and flexible in expressing social accountability to shareholders. The company's concern society requires management to make the company become profitable (Anggraini and Retno 2006).

**Company Size**

Company size is a variable that is often used in the explanation of social disclosure by the company in the annual report. Big companies disclose more information than small firms. This is because big companies will face greater risks compared with small companies. The size of the company can influence corporate social performance for large companies take the view that further, so more participate in the growth of corporate social performance (Machmud 2008).

**Hypothesis**

Stakeholder theory states that the company is not the only entity that operates for its own account but it must provide benefits to stakeholders (Ghozali and Chariri 2007). The company will be able to compete and gain maximum benefit if it is able to use a variety of its resources well. With maximum results obtained from the use of various resource companies will show how a company's performance has done well. Intellectual capital is a resource that is scalable for increased competitive advantage, because the intellectual capital of the company will be able to use corporate resources efficiency, economical and effective. Therefore intellectual capital will contribute to the company's financial performance (Harrison and Sullivan 2000, in Ulum, Ghozali & Chariri 2008). Human capital, structural capital and customer capital as construct of variable forming have the main gauge of intellectual capital, which have collectively role in improving corporate performance. Human resources (human capital) owned by a company will be able to work optimally without the support of enterprise systems (structural capital) are good, so the resources of the company quality system and good company will be more perfect if it is supported by a customer relationship (customer capital) strong, so these three things when used with the maximum will have an impact on the value of intellectual capital of a company. Companies that have good intellectual capital will be more likely to make corporate social responsibility well. Based on the explanation above, the hypothesis that is tested in this study, namely:

H1: Intellectual capital influences on corporate social responsibility.

**3. RESEARCH METHOD**

The study population was the whole banking company in Indonesia with the observation of 3 years. The measurement used a variable cost allocation of responsibility social (Hapsari & Haryadi 2015). The sample in this study was all banking company in Indonesia. The banking sector is a sector that is very relevant use of that accounting record, disclosure of intellectual capital and financial reporting to the public. As for Criterion sampling:

1. Banks listed in the Indonesia Stock Exchange
2. Banks that have issued financial statements for three consecutive years from 2012 to 2014 year.
3. The Bank did not acquire negative earnings during the period of observation. This is due to the negative earnings will cause the value of the company's intellectual capital to be negative as well.
4. Bank expressed its social responsibility in the financial statements.
5. Banks that use rupiah currency in its financial reporting.

**Operational of Variables (Independent Variable)**

Intellectual capital is the independent variable used in this study developed by Pulic A. (2000) were using a combination of three value added symbolized by VAIC™. These three elements are:

- Value Added Capital Employee (Vace), Value Added Human Capital (VAHC) and Value Added Structural Capital (VASC). Where the measurement is as follows:

  \[ VA = OUT - IN. \]  

  (1)

  Value Added (VA), which is the difference between output and input.

  \[ OUT = total sales and other revenue \]

  \[ IN = Costs and expenses (other than personnel expenses) \]

  Value Added Capital Employee (VACE), illustrates the contribution of each unit CE to value added (value added) companies.

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CE = Available funds (equity, net income)  
\[ VACE = VA / CE. \]  

Value Added Human Capital (VAHC), shows the contribution of each rupiah invested human capital (human capital) to value added (value added) of the company.  
\[ VAHC = VA / HC. \]  

Value Added Structural Capital (VASC), is a ratio that measures the number of SC required to produce 1 rupiah value added (VA), which indicates the success of the SC on firm value.  
\[ VASC = SC / VA. \]  

Value Added Intellectual Coefficient (VAICTM), is an organization's intellectual abilities which became independent variables in this study. Performance intellectual capital is the value added created by all its components, namely human capital, capital structure and capital employee. The combination of these three components is symbolized by VAICTM.  
\[ VAICTM = VACE + VAHC + VASC. \]  

Companies that enhance the activities of corporate social responsibility to improve the image of the company that will relate to the profitability of the company called the Return on Assets (ROA). While the company has a large amount of the total assets, the management will be free to use the assets belonging to the company's social activities. Where the total assets in this shortened by SIZE.  

The coefficient of determination (R) is used to describe how far the ability of the model's become clear k variations dependent variable  

The significance level used in this study was 0.05 (\( \alpha = 5\% \)).  

**4. DATA ANALYSIS AND DISCUSSION**

Population used in this study was the banking sector companies listed on the Indonesian Stock Exchange. The sample used in this research was the banking sector companies listed on the Indonesian Stock Exchange in the period 2012 to 2014 and did delisting during the period. The sampling technique in this study applied purposive sampling method. The number of banking companies listed on the Stock Exchange during the study period 2012-2014 amounted to 43 companies. Using the criteria established at the beginning of the study, the description of the sample in this study as shown in Table 1.

Descriptive statistics provide a preliminary description of research variables and used to determine the characteristics of the samples used in the study. In this study, descriptive statistics were used covering an average (mean), standard deviation, variant, maximum, and minimum.

Classic assumption test is performed to determine whether the data have fulfilled classical assumptions and can be applied to the regression model. Classic assumption test used in this study include normality test, heteroscedastisity and test autocorrelation.

This hypothesis test is a statistical test results of the research were obtained acceptance or rejection of the hypothesis of this study consists of:

1. **Simultaneous Significance Test (Test F)** indicates whether all the independent variables or free inclusion in the model has an effect on the dependent variable. Tests carried out using a 0.05 significance level.
2. The coefficient of determination (R) is used to describe how far the ability of the model's become clear k variations dependent variable  
3. **Hypothesis testing is done by t test**. T statistical test used in this study to show how far the distant influence of the independent variables individually in explaining the variation of the dependent variable. The significance level used in this study was 0.05 (\( \alpha = 5\% \)).

Descriptive statistics provide a snapshot or a description of a data seen from the average (mean), standard deviation, variant, maximum, and minimum.
added value tends to be high as the average value VAIC above 6.4 which shows the average banking company in the category of top performers or companies with intellectual capital performance was very good.

The maximum value for the variable that is equal to 68.6952 VAIC owned by Bank of East Java tbk. This indicates that the Bank of East Java tbk has the best performance in the utilization of intellectual capital in creating added value. The company is included in the category of performers common enterprise, which meant that the utilization of intellectual capital to create value-added quite normal, because VAIC value is between 1.5 and 2.49. Standard deviation value of 12.6955, which was smaller than the average value, indicates that the data used to calculate the variable VAIC varied.

Variable Financial Performance proxied by the ROA had an average value of 0.0125, or 1.25%. This value was greater than the value of the minimum limit in accordance with the provisions ROA BI No. 23/67/KE/DIR/1991 which specified that the limit value minimum ROA was 1% .This indicates that the average level of the financial performance of banking companies sampled in this study are in the safe zone. The maximum value of ROA amounted to 0.0515 or 5% owned by Bank Rakyat Indonesia Ltd, which indicated that the company has the best financial performance. Standard deviation amounted to 0.012574 or 1.25%. this value lower than the average indicates that the data for the ROA does not vary. Company size is proxied by the variable SIZE has an average value of 31.60. The maximum value is owned by Bank Rakyat Indonesia Ltd at 34. This value indicates that the Bank Rakyat Indonesia Ltd has a high number of assets. A minimum value of 24 owned by Woori Bank Indonesia show you the lowest enterprise value of the assets.

### Table 1  
Population and Sample  
<table>
<thead>
<tr>
<th>Company Research Samples</th>
<th>Total Company</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banking companies listed on the Stock Exchange in 2012-2014</td>
<td>43</td>
<td>100</td>
</tr>
<tr>
<td>Banking company did not publish financial reports for three consecutive years from 2012 to 2014 year.</td>
<td>(10)</td>
<td>(23.25)</td>
</tr>
<tr>
<td>Companies that did not publish the cost of social responsibility</td>
<td>(7)</td>
<td>(16.27)</td>
</tr>
<tr>
<td>Banking companies obtained negative earnings during the period of observation. This was due to the negative earnings that will lead to negative capital value of company intellectual anyway.</td>
<td>(2)</td>
<td>(4.65)</td>
</tr>
<tr>
<td>Banking companies used set money aside rupiah</td>
<td>(3)</td>
<td>(6.97)</td>
</tr>
<tr>
<td>The number of companies that meet the criteria of the study and the research sample</td>
<td>21</td>
<td>48.86</td>
</tr>
<tr>
<td>Total observation (21 x 3 years)</td>
<td>63</td>
<td></td>
</tr>
</tbody>
</table>

Source: Secondary data is processed 2016

### Classical Assumption Test Results

- Normality test

Normality test was done with a view to testing whether both independent variables and the dependent variable have a normal distribution or not (Ghozali 2011). In this study, the normality test used was the Kolmogorov-Smirnov test to see Asymp value. Sig (2-tailed) with a probability of 0.05. Normality test results for variables are normally distributed (see Table 2).

Multicolinearity test was conducted to test whether the regression model found a correlation between the independent variables. The model is said to be good if there is no correlation between the variables independent (Ghozali 2011). To see whether or not Multicolinearity problem can be seen from the Tolerance and Variance Inflation Factor (VIF). The test results Multicolinearity with VAIC variables, ROA and each size has a tolerance value of 0.878 > 0.1 and VIF amounted to 1.139 <10 so that it can be concluded there was no multicollinearity.

Testing heteroscedastisity aims to test whether in regression model there occurred the inequality variance of residual observation one to another. In this study to test the use of heteroscedastisity, Glejser test is done by regressing the independent variables to the absolute value residual (Ghozali 2011). The test results of heteroscedastisity free VAIC variable heteroscedastisity problems and accompanied by using graphic scatter plot as shown in Figure 2.

Autocorrelation test is performed to determine whether there is a correlation between bullies error in period t with an error in period t-1. Testing autocorrelation done by looking at the value of or coefficient Durbin Watson (DW). The autocorrelation test results in this study resulted in 1.739 <1.872 <2.61, it can be concluded there is no autocorrelation.
The coefficient of determination used to test the goodness of fit of the regression model, i.e. how much influence the independent variable on the dependent variable is.

The value of adjusted $R^2$ of 25.1%, which means that the variable independent in this model can explain 25.1% influence on variable dependent. Whereas, 74.9% is explained by other variables that cannot be explained by the variables in this model (see Table 3).

Based on the above test calculate the value of $f$ for $f_{\text{count}} = 4.247$ and $f_{\text{table}} = 2.74$ for $DF1 = 4$ and $DF2 = 26$. Value of significance of 0.014 indicates that the value is less than 0.05. If it is seen from these results $f_{\text{count}}$ is greater than $f_{\text{table}}$, so it could be concluded that, overall, the independent variables consisting of IC, ROA and SIZE are used in this study were able to explain the dependent variable, namely CSR (see Table 4).

Intellectual capital Variable name has significance 0.006 and the coefficient value is 0.511. The intellectual capital influenced on the responsibility of social enterprise (CSR). Variable of ROA has a significance of 0.017, which meant that the significance value $< 0.05$. Then it could be inferred statistically ROA has a relationship with CSR. SIZE variable is not related to CSR for significance SIZE 0.173 $> 0.05$ (5%). Therefore, it could be concluded that the IC and ROA have a relationship with CSR (see Table 5).

Discussion

The hypothesis in this study tried to see if there is relationship intellectual capital with corporate social responsibility (CSR). The results of hypothesis testing pointed out that intellectual capital significantly influence the corporate social responsibility. Result of testing regression obtained significance value of 0.006. Due to the significant value of $< 0.05$, then H1 could be accepted. This means that the intellectual capital affect CSR. The results of this study indicate that the intellectual capital in your proxy with human resources, the stem firm and relationships customer good will more likely have a corporate social responsibility is also good. Human capital owned by a company will be able to work optimally without the support structure of the company (structural capital) was good. Enterprise resource quality systems and good company will be more perfect if supported by customer capital strong. Therefore, three things when it used with maximal impact on the company's desire to have a social responsibility.

The results of testing the hypothesis point out that ROA has significant effect on the corporate social responsibility. The results of this analysis are in line with research conducted by Hackston & Milne (1996) which states that there is a positive relationship between profitability and corporate social responsibility. This showed that the profitability is the factor, which made management, be-

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**Table 2**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Kolmogorov-Smirnov</th>
<th>Asymp. Sig. (2-tailed)</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>VAIC</td>
<td>.111</td>
<td>0.065</td>
<td>Normal</td>
</tr>
<tr>
<td>ROA</td>
<td>0.100</td>
<td>0.200</td>
<td>Normal</td>
</tr>
<tr>
<td>SIZE</td>
<td>.111</td>
<td>0.062</td>
<td>Normal</td>
</tr>
</tbody>
</table>

Source: Secondary data is processed 2016
comes free and flexible in expressing social accountability to shareholders. Concern companies towards society wanted the management make profitable company (Anggraini & Retno 2006).

As for the variable size of the company (SIZE) to the CSR, the results showed that SIZE did not affect the liability of social (CSR). This suggested that company size was not able to affect social performance of big company because the company did not necessarily take the view further, so they more participate in the growth performance of social companies.

5. CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATIONS

This study was conducted to investigate the effect of intellectual capital on corporate social responsibility. Intellectual capital affects the liability social companies. This is because the human capital owned by a company would be able to work optimally without the support of enterprise systems (structural capital) is good, so the resources of the company quality system and good company will be more perfect if supported by strong customer capital too. Therefore, these are three things when used with maximal will impact on the company’s desire to improve the company’s concern for the environment around them in the form of corporate social responsibility.

The company’s performance especially has an effect on corporate social responsibility. The implications research shows that most investors in Indonesia are still oriented on profit; the greater the profit that has the company cares about the environment. While the variable size of the company does not have a significant relationship to social responsibility, because it is not necessarily for big company to expresses the social performance or to cares about the environment.

This research was conducted with a sample of the type of industrial banking, so it can do the research with samples of all types of manufacturing or classification of other industries to be able to compare, especially related to social responsibility and intellectual model. In addition, the use of intellectual model is by using proxy disclosure of intellectual model.

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