Intellectual Capital's influence on the Financial Performance of Manufacturing Companies

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Abstract

This study aims to see the effect of intellectual capital on the financial performance of companies listed on the Indonesia Stock Exchange (BEI) in 2014-2016. This research is a quantitative research. This research was conducted at the Indonesia Stock Exchange through a representative of the Capital Market Information Center (PIPM), which is located at Jl. Dr. Sam Ratulangi No. 124, Makassar. Our research was conducted in two months, from March to April 2018. The population of this study were all manufacturing companies listed on the Indonesia Stock Exchange in the observation period from 2014 to 2016. While the sample of this research is a company selected from the population with purposive sampling criteria, namely as many as 10 companies. Sources of data in this study are secondary data. The data collection method used is the documentation method. The statistical method used to test the hypothesis is to use multiple regression with the help of SPSS for windows software. Our research results show that Human Capital Efficiency (HCE) has a positive and significant effect on Return On Assets, Structural Capital Efficiency (SCE) has a positive and insignificant effect on Return On Assets. And Capital Employed Efficiency (CEE) has a positive and significant effect on Return On Assets.

Keywords: Intellectual Capital, Financial Performance

1. Introduction

In this era of globalization, companies are increasingly motivated and motivated to improve their performance so that they are able to compete and maintain the sustainability of the company's operations. The company must immediately change its strategy from a labor-based business to a knowledge-based business, so that its main characteristic is becoming a science-based company. (Sawarjuwono, 2003) believes that the prosperity of a company will depend on a transformation and capitalization creation of knowledge itself. In facing competition and the development of today's business world, people have realized that intellectual capital is a force that can drive economic growth. Therefore, intellectual capital plays an important role in today's business world. Of course, based on the changes that have occurred, the identification, measurement and disclosure of accountants for these changes in financial statements will certainly bring new challenges. However, this also makes it difficult to estimate the firm's value. Because it is not only physical assets, but we also have to estimate the Intellectual Capital (IC) value of a company (Ulum, 2008). The emergence of this difficulty is due to the nature of Intellectual Capital (IC) which is intangible assets (intangible assets).

The importance of intellectual capital can be seen when an investor decides to invest in a company. For making investment decisions, investors need information about the state of the company (Humaira & Sagoro, 2018). The condition and success of a business can be seen from the company's financial performance which is displayed through its financial statements. Companies should be able to display financial performance in which liquidity, solvency and profitability are guaranteed from time to time. A level of profitability high in the company will increase the company's competitiveness (Dewi, 2008). A high profit rate indicates future growth of the company. Company activity shows the level of effectiveness that is in the company. The existence of a high level of effectiveness indicates a high growth opportunity for the company in the future.
The company value is determined through the management performance and the company's financial performance (Hasnawati, 2005). Management performance can be seen from the internal conditions of the company, how managers manage the company effectively and efficiently in realizing the company's stated goals, while financial performance can be seen from the financial condition in the company's financial statements. The success of the company is not only seen from the performance that can be measured through the company's current financial ratios, but the existing resources in the company should be able to produce financial performance that continues to increase from year to year, so that the company's survival can be guaranteed (Arianie & Puspitasari, 2017). The survival of the company and the company's financial performance are not only generated by tangible assets, but more importantly, intangible assets in the form of human resources (HR) that manage and utilize existing company assets. Intellectual Capital is a way to gain a competitive advantage and is a very important component for the prosperity, growth and development of companies in the new knowledge-based economy. Increasing attention to intellectual capital in providing added value and excellence for the company, but the exact measurement has not been determined. Some experts define Intellectual Capital in three categories, namely human capital, structural (organizational) capital and relational (customer) capital (Firer & Mitchell Williams, 2003).

Developments and innovations force the company to improve its strategy and also require the company to present the company's financial statements as well as possible. (Rafinda et al., 2013) Andi stated that the preparation of financial statements by a company is a form of management responsibility to stakeholders. According to (Jafri & Mustikasari, 2018) aset tak berwujud perlu dievaluasi agar laporan keuangan lebih informatif, sehingga perusahaan dengan aset berupa modal intelektual dapat sepenuhnya melaporkan seluruh nilai perusahaan. Pengungkapan Intellectual Capital dalam laporan keuangan ini menjadi suatu kebutuhan yang sangat penting untuk dilakukan. Dengan adanya pengungkapan dan pengelolaan Intellectual Capital yang efektif dan efisien, dapat membantu meningkatkan kinerja keuangan perusahaan dan tentu saja akan menumbuhkan kepercayaan dari stakeholder (Yulandari & Gunawan, 2019).

When stakeholders begin to trust the company's financial performance, going concern will also increase and can affect the return company's stock. Therefore, disclosure of intellectual capital is able to provide a positive signal for investors and attract investors to invest in a company (Septia, 2018).

In Indonesia, the phenomenon of Intellectual Capital (IC) began to emerge after the existence of PSAK No. 19 (revised 2011) regarding intangible assets. According to PSAK No. 19, intangible assets are non-monetary assets that can be identified and have no physical form, and are owned for use in producing or delivering goods or services, leased to other parties, or for administrative purposes (IAI, 2011). One of the information needed by investors to assess a company's capability is information on Intellectual Capital (IC). This information is needed to create better future wealth. Its development has attracted the attention of researchers over the past few years (Nurhayati et al., 2019). Based on accounting research, Intellectual Capital (IC) is associated with intangible assets, knowledge, and innovation which are described as valuable assets that are increasingly developing in a knowledge-based economy. The accounting profession today must be able to make it happen in an account (Firer & Mitchell Williams, 2003). Based on the Resource-Based Theory, it is concluded that Intellectual Capital (IC) meets the criteria as a unique resource capable of creating a company's competitive advantage so that it can create value for the company, and can be used to formulate and implement strategies so as to improve company performance for the better.

Until now, research on intellectual capital which is related to company performance has been carried out a lot, both domestically and abroad and has also produced various research results. The relationship between the Value Added Intellectual Coefficient (VAIC™) which consists of three components, namely Human Capital Efficiency (HCE), Capital Employed Efficiency (CEE), and Structural Capital Efficiency (SCE). Human Capital Efficiency (HCE) indicates the ability of the workforce to generate value for the firm from the funds spent on that labor. Structural Capital (SC) is the infrastructure owned by a company in meeting market needs. Structural capital is the supporting infrastructure for humans capital as a means and infrastructure to support employee performance. Therefore, even if employees have high knowledge, but the supporting facilities and infrastructure are not sufficient, the employees' capabilities will not generate intellectual capital. Capital Employed Efficiency (CEE) is an indicator of the efficiency of the added value of capital used. CEE is the ratio of VA to CE. CEE describes how much added value a company generates from the capital it uses. CEE is a calculation of the company's ability to manage capital (Nurhayati et al., 2019). There have been many studies similar to this research, including research conducted by (Dwi, 2012) in banking companies at Bank Indonesia in 2006-2009 about the influence of Intellectual Capital on the Return on Assets (ROA) of banks shows that there is a positive influence between the two variables.

In this study, the objects to be tested are consumer goods sector manufacturing companies listed on the IDX with a three-year period, namely 2014 to 2016. Manufacturing companies in the consumer goods sector were selected as objects in this study because manufacturing companies in the consumer goods sector are urgently needed. Human resources who have special expertise and skills in carrying out company operational activities. The motivation for this study was due to the inequality of research results between previous studies. Another motivation is that there are suggestions for future research to use other performance measures in order to produce a better R square. Based on research conducted by (Yulandari & Gunawan, 2019), shows that the R square value obtained is relatively small, which is less than 10%. According to Ghozali (2011), a small R square value means that the ability of the independent variables to explain the variation of the dependent variables is very limited, so it is necessary to measure other performance variables which are expected to increase the R
This study aims to analyze the effect of intellectual capital (IC) on the financial performance of public companies in Indonesia, based on this research (Ulum, 2008) who examined the effect of Intellectual Capital (IC) on the financial performance (ROA and EPS) of public companies in Indonesia. This study adds the ROE variable which refers to the research (Nurhayati et al., 2019), because Intellectual Capital (IC) is an intangible asset that plays an important role in increasing company competitiveness, and is also used effectively to increase company profits, and ROE is the ratio used to determine the company's capital ability to generate profits.

The contribution of this research is that companies can understand the characteristics of Intellectual Capital (IC) that require attention in order to improve performance and vice versa, companies can get information about the components of Intellectual Capital (IC) which are the main drivers or creators of company value. Furthermore, this can be applied to the company's resource management strategy in order to gain a competitive advantage.

This study uses three types of theory as the foundation, namely: Signaling Theory, Resources Based Theory / Resources Based View, and Stakeholder Theory. Signaling theory explains that existing information will provide an attractive signal to generate a positive response. Financial statement information will provide a signal for investors and other parties to make decisions. Financial statement information becomes important information in the correct decision-making process. Resource-based view (RBV) considers company resources as the main driver of company competitiveness and performance. These resources include tangible assets and intangible assets that are used effectively and efficiently to implement certain competitive and profit strategies. According to (Fontaine, 2006) Stakeholders are any groups or individuals who influence or are influenced by the achievement of organizational goals, but in 2004 Freeman defined stakeholders as a group that is very important for the continuity and success of the company.

Intellectual Capital (IC) is an invisible asset and it is a combination of human, process and customer factors that give a company a competitive advantage. Intellectual Capital (IC) is recognized as one of the most important intangible assets in the information and knowledge era. Intellectual Capital (IC) by (Nurhayati et al., 2019), refers to the knowledge and abilities possessed by a social collectivity such as an organization, intellectual community, or professional practice. Intellectual Capital (IC) represents a valuable resource and the ability to act based on knowledge. (Oktari et al., 2016) defines intellectual capital as material that has been formalized, acquired, and utilized to produce higher value assets. (Yuniasthi et al., 2018) states intellectual capital as intellectual material, which includes knowledge, information, intellectual property and experience that can be used collectively to create wealth. Meanwhile (Sunarsih & Mendra, 2017) argue that intellectual capital is information and knowledge that is applied in work to create value.

Fontaine, (2006) gives the view that company performance is the result of many individual decisions made continuously by management. From this point of view, it can be seen that performance is an indicator of good or bad management decisions in decision making. Company performance is a description of the company's financial status, which can be analyzed through financial analysis, so that it can be seen whether the company's financial status is good or bad, which reflects the performance of a certain period of work. Measurement of company performance is indispensable in relation to customer satisfaction, internal processes, and activities related to improvements and innovations in organizations that lead to future financial returns (Sulasatri, 2013).

One way to assess a company's financial performance is to use financial ratio analysis. Types of financial ratio analysis are used to analyze the company's financial performance according to (Ismanu & Kusmintarti, 2018) are as follows: (1) Liquidity ratio is a ratio that aims to determine the company's ability to pay short-term obligations. (2) The solvency ratio is the ratio to determine the company's ability to pay its obligations if the company is liquidated. (3) Profitability ratio is the ratio to determine the company's ability to generate profits at a certain level of sales, assets and share capital. (4) The activity ratio is the ratio to measure the effectiveness of the company in utilizing existing resources under its control. (Asna & Graha, 2006) states that ratio analysis shows the relationship among selected items of financial statement data. To perform financial ratio analysis, it is necessary to calculate financial ratios that reflect certain aspects. Ratio analysis according to (Khimawati & Agustina, 2015) is a relationship or balance (mathematical relationship) between a certain amount and another. By using ratio analysis, it can be seen whether the good or bad condition or financial position of the company, especially if the ratio is compared with the ratio used as the standard.

In order to obtain good financial ratios and financial information, companies need to manage their assets so that they can be used effectively and efficiently. Asset management is not only carried out on tangible assets, but intangible assets such as Intellectual Capital need to be managed in such a way as to become the Company's competitive advantage. Intellectual Capital is the main key to the Company's success. Without the existence of intellectual capital, the company will not be able to run its business even with abundant wealth, because it is human capital that empowers all company assets to achieve the company's goals.

According (Fontaine, 2006), the benefits of company performance appraisal include: to measure organizational achievement within a certain period of time, performance evaluation can also be used to evaluate the company's contribution to the achievement of overall company goals, can be used as a basis for determining future corporate strategy, providing guidance in decision making and activities organization, and the final benefits become the basis for determining investment policies to increase the efficiency and productivity of the company.

Margaretta et al., (2019) revealed that there are several objectives of evaluating company performance, including:
determining the level of liquidity, determining the level of solvency, determining the level of profitability or profitability, and determining business stability. To measure company performance, measuring tools are used to evaluate the company's financial statements. The financial report is a summary of the recording process and a summary of financial transactions that occurred during the year. Complete financial statements typically include balance sheets, income statements, changes in the statement of financial position (which can be disclosed in various ways, such as a cash flow statement or a statement of funds flows), notes and other reports, and explanations. Material that is part of the financial statements. Financial reports are used to evaluate the company's financial performance. Financial reports are also the basis for investors to make decisions to buy, hold or sell investments, because we can assess the health of the company based on the company's financial statements. According (Margaretta et al., 2019) evaluation of a company's financial performance is usually measured by financial ratios. Company performance can be measured by financial and non-financial elements, the financial elements used in this study are return on assets (ROA), asset turnover (ATO), growth in revenue (GR), and market to book value (MB) while measuring non-financial using a balance scorecard developed by Kaplan and Norton (Hartono, 2001).

Profitability is the ability of a company to generate profits within a certain period of time. Good profitability will encourage investors to invest in the company. Return on Asset (ROA) describes the ratio of annual profit after tax to total assets. Return On Assets is the ability of a business unit to earn a return on a number of assets owned by the business unit (Karlina et al., 2019). This ratio measures the rate of return on investment that the company has made using all its assets. Profitability ratio according to (Masitah & Harahap, 2018) is measuring the company's ability to generate profits (profitability) at the level of sales, assets, and certain share capital. While (Anita & Dewi, 2019) states that the profitability ratio profitability ratio is a ratio that measures the efficiency of the use of company assets. The financial performance used in this study is part of the profitability ratio, namely Return on Assets. Return on Asset according to (Dwi, 2012) is a ratio that measures the company's ability to generate net income based on a certain level of assets. A high ratio indicates the efficiency of asset management, which means management efficiency.

Intelligent Capital is an intangible asset or intangible asset that is gross to the eye. According to (Purnomosidhi; Setiono & Rudiawarni, 2017), Intellectual Capital is information and knowledge that can create value opportunities for any company. At the same time (Sawarjwono, 2003) points out Intellectual Capital is a material knowledge (knowledge, information, intellectual property, experience) that can be used to create wealth. According to the stakeholder theory concept, Pulic divides the classification of intellectual capital in terms of value added obtained from the difference between the company's income (input) and all costs (output). Furthermore, the added value of Intellectual Capital is divided into capital employment (VACA), human capital (VAHU), and structural capital (STVA). High human capital will be able to encourage increased financial performance. Human capital is a combination of knowledge, skills, innovation and a person's ability to carry out their duties so that they can create value. Human capital reflects the collective ability of a company to produce the best solutions based on the knowledge possessed by the people in the company.

Structural capital is an organizational capability covering infrastructure, information systems, routines, procedures and organizational culture that supports employee efforts to produce optimal intellectuals. In an organization that has good procedures, intellectual capital will achieve optimal performance (Septia, 2018). Relation capital is a harmonious relationship between a company and its partners. Relational capital is knowledge that is formed in marketing channels to develop a company's potential through business operations. High relational capital will be able to encourage improvements in financial performance.

In this study, the Intellectual Capital measurement technique used was the Pulic model measurement technique. The combination of the three value added from Human Capital Efficiency (HCE), Structural Capital Efficiency (SCE), Capital Employed Efficiency (CEE) is symbolized by the name VAIC™ developed by Pulic. (1998). VAIC™ starts with calculating the value added (VA). According to Pulic (1998), VA is calculated as the difference between Output (total sales and other income) and Input (selling expenses and other expenses, except employee expenses). This method consists of calculations of human capital efficiency (HCE), structural capital efficiency (SCE), and capital employed efficiency (CEE)(Nurhayati et al., 2019).

Human Capital Efficiency (HCE) indicates the ability of the workforce to generate value for the company from the funds spent on that labor. HCE shows how much Value Added (VA) can be generated with funds spent on labor (Ulum, 2008). Structural Capital (SC) is the infrastructure owned by a company in meeting market needs. Structural capital is the supporting infrastructure for human capital as a means and infrastructure to support employee performance. CEE is an indicator for VA created by one unit of physical capital. This ratio shows the contribution made by each CE unit to the company's VA (Nurhayati et al., 2019).

2. Research Design and Method

This research is a quantitative research. This research was conducted in less than 2 (two) months, namely from March to April 2018. The population of this study were all manufacturing companies listed on the Indonesia Stock Exchange in the observation period from 2014 to 2016. While the sample of this study was Companies selected from the population with
purposive sampling criteria, namely as many as 10 companies. Sources of data in this study are secondary data, namely data that we obtain indirectly or through intermediary media. The data in question is financial statements. The data collection method used is the documentation method. The statistical method used to test the hypothesis is to use multiple regression with the help of SPSS for windows software. The several test stages in this research are: descriptive statistical analysis, and classical assumption test.

3. Results and Discussion

Result Analysis

Based on the results of descriptive statistics, there were 30 observational data obtained from the results of the multiplication between the study period, namely for 3 years from 2014 - 2016 with the number of sample companies, namely as many as 10 companies.

Table 1. Statistik Deskriptif

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCE</td>
<td>30</td>
<td>1.19</td>
<td>6.31</td>
<td>3.2073</td>
<td>1.44806</td>
</tr>
<tr>
<td>SCE</td>
<td>30</td>
<td>.16</td>
<td>.84</td>
<td>.6148</td>
<td>.18867</td>
</tr>
<tr>
<td>CEE</td>
<td>30</td>
<td>.19</td>
<td>2.32</td>
<td>.5513</td>
<td>.47915</td>
</tr>
<tr>
<td>ROA</td>
<td>30</td>
<td>3.63</td>
<td>43.17</td>
<td>12.4030</td>
<td>9.60719</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>30</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The table shows the minimum value of Human Capital Efficiency (HCE) of 1.19 and the maximum value of 6.31. The average value of 3.2073 indicates that the Human Capital Efficiency (HCE) has a high enough effect. The standard deviation of Human Capital Efficiency (HCE) is 1.44806. The minimum value for Structural Capital Efficiency (SCE) is 0.16 and the maximum value is 0.84. The average value of 0.6148 indicates that Structural Capital Efficiency (SCE) has a high enough effect. The standard deviation of Structural Capital Efficiency (SCE) is 0.57141. The minimum value for Capital Employed Efficiency (CEE) is 0.19 and the maximum value is 2.32. The average value of 0.5513 indicates that Capital Employed Efficiency (CEE) has a high enough effect. The standard deviation of Capital Employed Efficiency (CEE) is 0.47915. The minimum value of Return of Assets (ROA) is 3.63 and the maximum value is 43.17. The average value of 12.403 indicates that the Return of Assets (ROA) has a high enough effect. The standard deviation of Return of Assets (ROA) is 9.60719.

The normality test is used to determine whether in a regression model, the resulting error has a normal distribution or not. In this study, to test the normality of the data, the Normal P-P Plot of Regression Standardized Residual graph is used. Based on Figure 1, it can be seen that the dots spread around the diagonal line, and the direction of the spread follows the direction of the diagonal line. This shows that the regression model is feasible because it meets the assumption of normality.

The multicollinearity test aims to see whether or not there is a high correlation between the independent variables in a multiple linear regression model. Based on table 2, it can be seen that the Human Capital Efficiency (HCE), Structural Capital Efficiency (SCE) and Capital Employed Efficiency (CEE) variables have a tolerance value above 0.1 and VIF is less

Figure 1. Normality Test Results

The multicollinearity test aims to see whether or not there is a high correlation between the independent variables in a multiple linear regression model. Based on table 2, it can be seen that the Human Capital Efficiency (HCE), Structural Capital Efficiency (SCE) and Capital Employed Efficiency (CEE) variables have a tolerance value above 0.1 and VIF is less
than 10. This means that the regression equation model does not exist multicolinearity symptoms so that the data can be used in this study.

**Table 2. Multicollinearity Test Results**

<table>
<thead>
<tr>
<th>Model</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tolerance</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
</tr>
<tr>
<td>HCE</td>
<td>.107</td>
</tr>
<tr>
<td>SCE</td>
<td>.131</td>
</tr>
<tr>
<td>CEE</td>
<td>.508</td>
</tr>
</tbody>
</table>

a. Dependent Variable: ROA

The autocorrelation test aims to test whether in a linear regression model there is a correlation between confounding error in period t and confounding error in period t-1 (previous). From table 3, the Durbin-Watson coefficient is 0.944 and the F table value is 73.497. Where the value of DW < F table (0.944 < 73.497) thus, it can be concluded that in the regression between the independent variables Human Capital Efficiency (X1), Structural Capital Efficiency (X2) and Capital Employed Efficiency (X3) on Return On Assets (Y) there is no autocorrelation.

**Table 3. Autocorrelation Test**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.946*</td>
<td>.895</td>
<td>.882</td>
<td>3.29529</td>
<td>.944</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), CEE, SCE, HCE
b. Dependent Variable: ROA

The heteroscedasticity test aims to see whether there is an inequality of variance in the residuals from one observation to another. Based on Figure 4, the scatterplot graph shows that the data is spread out on the Y axis and does not form a clear pattern in the distribution of the data. This shows that heteroscedasticity does not occur in the regression model, so the regression model is appropriate to be used to predict Return On Assets with influencing variables, namely Human Capital Efficiency (X1), Structural Capital Efficiency (X2) and Capital Employed Efficiency (X3).

**Figure 2. Heteroscedasticity Test Results**

After the classical assumption test results are carried out and the overall results show that the regression model meets the classical assumptions, the next step is to evaluate and interpret the multiple regression model.

**Table 4. Regression Test Results**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>-6.684</td>
<td>2.703</td>
<td>-2.472</td>
</tr>
<tr>
<td>HCE</td>
<td>3.797</td>
<td>1.291</td>
<td>.572</td>
<td>2.941</td>
</tr>
<tr>
<td>SCE</td>
<td>2.127</td>
<td>8.967</td>
<td>.042</td>
<td>.237</td>
</tr>
<tr>
<td>CEE</td>
<td>10.162</td>
<td>1.792</td>
<td>.507</td>
<td>5.672</td>
</tr>
</tbody>
</table>

a. Dependent Variable: ROA
Based on the table above, the regression equation formed in this regression test is:

\[ Y = -6,684 + 3,797 X_1 + 2,127 X_2 + 10,162 X_3 + e \]

This model can be interpreted as follows: 1). The constant value of -6,684 is this indicates that, if the independent variable (Human Capital Efficiency, Structural Capital Efficiency and Capital Employed Efficiency) is zero (0), then the value of the dependent variable (Return On Asset) is -6,684 units. 2). The regression coefficient for Human Capital Efficiency (b1) is 3,797 and is positive. This means that the value of the Y variable will increase by 3,797 if the value of the X1 variable has increased by one unit and the other independent variables have a fixed value. The coefficient which is positive indicates that there is a direct relationship between the Human Capital Efficiency (X1) variable and the Return On Asset (Y) variable. The higher the X1 variable the higher the Return On Asset (Y) value. The higher the Structural Capital Efficiency ratio owned by the company, the higher the Return On Assets. 3). The regression coefficient for Structural Capital Efficiency (b2) is 2,127 and is negative. This means that the value of the Y variable will increase by 2,127 if the value of the X2 variable has increased by one unit and the other independent variables have a fixed value. The coefficient which is positive indicates that there is a direct relationship between the Structural Capital Efficiency (X2) variable and the Return On Asset (Y) variable. The higher the company's Capital Employed Efficiency, the higher the company's Return On Assets.

The coefficient of determination test aims to determine how much the ability of the dependent variable can be explained by the independent variable. Table 5 shows the R number of 0.946 which indicates that the relationship between return on assets and the three independent variables is strong, because it is in a very strong definition where the number is above 0.8. While the R square value of 0.895 or 89.5% indicates that the variable Return On Assets can be explained by the Human Capital Efficiency, Structural Capital Efficiency and Capital Employed Efficiency variables of 89.5% while the remaining 10.5% can be explained by other variables not found in this study.

Table 5. R2 Test Results

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.9464</td>
<td>.895</td>
<td>.882</td>
<td>3.29529</td>
<td>.944</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), CEE, SCE, HCE
b. Dependent Variable: ROA

Table 4 shows that Human Capital Efficiency has a significant level of 0.007, which is less than 0.05. This means that H1 (Human Capital Efficiency) is accepted and Ho is rejected, so it can be said that Human Capital Efficiency has a significant effect on Return On Assets. The t value of +2.941 indicates that the effect is positive on the dependent variable. Structural Capital Efficiency has a significant level of 0.814 which is greater than 0.05. This means that H2 (Structural Capital Efficiency) is rejected and Ho is accepted, so it can be said that Structural Capital Efficiency has no significant effect on Return On Assets. The t value of 0.237 shows that the effect is positive on the dependent variable. Capital Employed Efficiency has a significant level of 0.000, which is less than 0.05. This means that H3 (Capital Employed Efficiency) is accepted and Ho is rejected, so it can be said that Capital Employed Efficiency has a significant effect on firm value. The t value of +5.672 shows that the effect given is positive on the dependent variable.

**Discussion**

Hypothesis test results show that Human Capital Efficiency (HCE) has a positive and significant effect on Return On Assets. The greater the Human Capital Efficiency (HCE), the higher the Return On Assets. Human capital will increase if the company is able to use the knowledge possessed by its employees. Companies that have good human capital will create sources of innovation and company progress. The higher the HCE, the higher the ROA of the company. Therefore, Human Capital Efficiency (HCE) has a positive effect on ROA. When the company's Human Capital Efficiency (HCE) is high, it will provide good news for investors so that changes in stock trading volume are positive. Hypothesis test results show that Structural Capital Efficiency (SCE) has a positive and insignificant effect on Return On Assets. This means that partially SCE has a positive effect on the Return On Asset variable, although the increase or decrease in SCE does not have a significant effect on Return On Assets. Structural capital gives the company the ability to fulfill the company's routine processes and structures that support employees' efforts to produce optimal intellectual performance. Hypothesis test results show that Capital Employed Efficiency (CEE) has a positive and significant effect on Return On Assets. The positive effect shows that the effect of Capital Employed Efficiency (CEE) is in the same direction as Return On Asset, or in other words, a good / high Capital Employed Efficiency (CEE) will affect Return On Asset.
4. Conclusions

The conclusion of our research is: Human Capital Efficiency (HCE) has a positive and significant effect on Return On Assets in manufacturing companies listed on the Indonesia Stock Exchange for the observation period 2014-2016. Structural Capital Efficiency (SCE) has a positive and insignificant effect on Return On Asset in manufacturing companies listed on the Indonesia Stock Exchange for the 2014–2016 observation period. Capital Employed Efficiency (CEE) has a positive and significant impact on Return On Assets in manufacturing companies listed on the Indonesia Stock Exchange for the 2014-2016 observation period.

References


