

# **THE INFLUENCE OF INTELLECTUAL CAPITAL ON FINANCIAL PERFORMANCE**

**(Study on Pharmaceutical Companies Listed on the Indonesian Stock Exchange in 2007 to 2012)**

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## **Abstract**

The purpose of this study is: 1) To analyze the simultaneous influence between intellectual capital which includes Value Added Capital Employed, Value Added Human Capital, Structural Capital Value Added on financial performance 2) To determine the partial influence between intellectual capital which includes Value Added Capital Employed, Value Added Human Capital, Structural Capital Value Added on financial performance and 3) To find out intellectual capital variables that have a dominant influence on the financial performance. This research was conducted at the pharmaceutical company listed on the Indonesia Stock Exchange in 2007 to 2012. In order to know the influence that occurs among the independent variables (Value Added Capital Employed, Value Added Human Capital, and Structural Capital Value Added) on financial performance using the regression analysis, F test and t test were conducted.

Type of research is explanatory that is the researchers explain causal relationships between variables through hypothesis testing. Population and sample in this study is a pharmaceutical company listed on the Indonesia Stock Exchange in 2007 to 2012. The sampling technique used is census sampling so it can be determined the total sample of 7 companies and the research instruments were tested using classical assumption test. The hypothesis testing was using the F and t test to analyze the data to be used in Multiple Regression Analysis.

The analysis result shows that there are simultaneously and partially significant influence between intellectual capital which include Value Added Capital Employed, Value Added Human Capital, Structural Capital Value Added on financial performance on pharmaceutical company listed on the Indonesia Stock Exchange in 2007 to 2012. Value Added Human Capital variable have a dominant influence on financial performance of the pharmaceutical company listed on the Indonesia Stock Exchange in 2007 to 2012.

**Key Words: Value Added Capital Employed, Value Added Human Capital, Structural Capital Value Added and Financial Performance**

## **Backgrounds**

The global pharmaceutical industry has shown rapid growth over the years and emerged as one of the fastest growing industries in the world. Indonesia's pharmaceutical market is one of the fastest growing in Asia, expanding at an annual rate of 12.5 percent. It is currently worth \$4.5 billion, about the same size as Taiwan's pharmaceutical market. But while Taiwan's economy is mature, Indonesia's is still developing. GDP growth in the country of 250 million is predicted to reach 6.3 percent in 2013. Indonesia's medicine spending per capita is also increasing rapidly. (<http://www.pacificbridgemedical.com/publications/2013-indonesia-pharmaceutical-market-update/>).

By the year 2015, the typical Indonesian will spend more than \$140 annually on their healthcare needs. The future of the Indonesian medicine market is favorable. The existence of these opportunities directly provides broad opportunities for companies or investors to achieve optimal profit. Efforts to achieve company goals, there are several ways that can be taken includes: by increasing sales volume, efficiency costs, and optimizing the company's assets either in the form of tangible assets and intangible assets. Business community began to realize that the ability to compete not only in the possession of tangible assets, but more on innovation, information systems, organizational management, and human resources owned. Therefore, business organizations increasingly emphasize the importance of knowledge assets as a form of intangible assets. Knowledge is recognized as an essential component of business and more sustainable strategic resources to gain and maintain competitive advantage.

One of the approaches used in the assessment and measurement of these knowledge assets is intellectual capital which has been the focus of attention in many fields, such as management, information technology, sociology, and accounting. Resource based view stated that intellectual capital is a company resource that plays an important role, as well as physical capital and financial capital. Intellectual capital productivity is highly dependent on how the effectiveness of the people who share their competence with those who can use it (Stewart, 1997:76). Based on the context, companies need to develop a strategy to compete in the market. In principle, the sustainable and the capabilities of a company is based on intellectual capital, so that all available resources can create value added.

Components of intellectual capital consist of human capital, structural capital, and customer capital. From these three components, customer capital is the most valuable asset of all three intellectual assets. Customer capital is a relationship between the company and the consumer, which can help the company to maintain its existence as it relates to customer satisfaction toward the facilities offered by the company. Customer capital indicators are easier to find, viewed from the market share, customer retention, product and company facilities, as well as customer loyalty. Consumers have different outlook on the facilities offered by the company, some assessing from the excellence, and some assessing from the benefits. Relationships and good service from the company strongly support for consumers to use the facilities, as well as trust the services of the company. Therefore customer capital needs to be considered in the company.

The results from Mohammad Alipour (2012) indicates that the value added intellectual capital and its components have a significant positive impact to the

profitability of the company. VAIC<sup>TM</sup> method used to measure the performance of intellectual capital can be an important tool for the decision makers. Integrating intellectual capital in their decision-making process, allow the insurance companies make a benchmark themselves in accordance with the intellectual capital efficiency and develop strategies to improve their corporate performance. According to Dimitrios Maditinos *et al.* (2011) shows that there is a statistically significant effect between value added human capital and financial performance. This reflects the fact that the intellectual capital is increasingly recognized that strategy includes assets that are essential to a sustainable competitive advantage companies.

According to the journal by V. Murale *et al.* (2010) obtained results that intellectual capital are recognized as assets of the major company capable of generating sustainable competitive advantage and superior financial performance (Barney, 1991). An empirical evidence of this study indicates that there is a significant positive relationship between the market value toward book value and intellectual capital of the company. Besides that, this study indirectly proves a positive relationship between the market value towards the book value and the company's financial performance because previous studies have shown a positive relationship between VAIC financial performance and corporation (Barney, 1991; Pulic, 2000b). Furthermore according to Akbar Yusuf *et al.* (2012) expressed human capitals only have positive impacts on financial performance, while the relation with market value is not significant.

From the quote of above research it can be concluded that the relationship between intellectual capital and financial performance as described by Chen *et al.* (2005) high appreciation of a company from the investor is believed to be caused by the company's intellectual capital. Financial performance is influenced by the intellectual capital, in which intellectual capital elements of intangible assets that brings a value added and as consideration investors to invest in. Financial performance measurement in this study was associated with a Market to Book Value. If the analysis of intellectual capital associated with it can be seen that the better management of intellectual capital then the maximum market price of the shares to be achieved by the company.

## **BASIC THEORY**

### **Intellectual Capital**

The phenomenon of intellectual capital has grown in Indonesia since 2000. Since that is known the intellectual capital definition from researchers both inside and outside the country. Many researchers give the definition of intellectual capital. Stewart (1997) in Tan *et al* (2007) in Ulum (2009) mention intellectual capital is intellectual material (knowledge, information, and experiences) that can be used to create wealth. Intellectual capital is a collective sense power or set of useful knowledge. According Thomas A. Stewart (1997:56) intellectual capital is essential because an organization which is not managing knowledge is not noticed the business well. There is a reason why people just give a little attention to intellectual capital is that they cannot see the benefits of the power of thought in their investment remuneration (Thomas A. Stewart 1997:60).

### **Intellectual Capital Component**

Sawarjuwono and Kadir (2003) mentions in his research with the more precious intellectual capital as a corporate asset then it becomes an important concern by management and accountants to measure, identify and revealed it in its financial statements which is intellectual capital divided into three elements: human capital, regarding the knowledge and skills of employees, structure capital regarding technology and information infrastructure which is used by the company, customer capital regarding customer relationships. These three elements interact dynamically, as well as continuous and extensive so that it will generate value for the company.

Other practitioner who's also stated that intellectual capital consists of three main components (Edvinsson *and* Malone, 1997:34-36), namely:

a. Human capital

All individual capabilities, the knowledge, skill, and experience of the company's employees and managers, is included under the term human capital. But it must be more than simply the sum of these measures; rather, it also must capture the dynamics of an intelligent organization in a changing competitive environment. Human capital is the lifeblood of intellectual capital. This is where the source of innovation and improvement, but it is a difficult component to measure. Human capital also the source place of very useful knowledge, skills, and competencies within an organization or company. Human capital reflects the collective ability of the company for produce the best solutions based on the knowledge possessed by a person in the company. Human capital will be increased if the company is able to use the employee's knowledge.

b. Structural capital

Structural capital might best be described as the embodiment, empowerment, and supportive infrastructure of human capital. It is also the organizational capability, including the physical systems used to transmit and store intellectual material. It includes such factors as the quality and reach of information technology systems, company images, proprietary databases, organizational concepts, and documentation. Traditional items such as intellectual properties including patents, trademarks, and copyrights. Structural capital is also the organizations or companies' ability to meet the company's routine processes and structures that support employee efforts for produce optimal intellectual performance and overall business performance. An individual could have a high intellectual level, but if the organization has poor systems and procedures that intellectual capital could not achieve optimal performance and existing potential could not be fully utilized.

c. Relational capital or customer capital

Customer capital is broken out as a separate category, equivalent to structural and human capital. It is an interesting idea, suggesting both that the relationship of a company to its customers is distinct from that of its dealings with employees and strategic partners, and that this relationship is of absolutely central importance to the company's worth. This element is a component of intellectual capital that gives real value. Customer capital or relational capital is the harmonious relationship (association network) owned by the company with the partners, whether comes from the reliable and quality

suppliers, comes from loyal customers and were pleased with the service the company concerned, or from the company's relationship with the government and with the surrounding community. Relational capital could arise from different parts outside the company that could add value to the company. Brinker (2000) as quoted by Sawarjuono and Kadir (2003) suggested measurement of the following points present in customer capital, that is:

- 1) Customer profile. Who are our customers, and how they differ from customer owned by competitor. What potential that we have to increase loyalty, getting new customers, and take customers from competitors.
- 2) Customer duration. How often does our customer turn to us, what we know about how and when customers will become loyal customers, as well as how often the frequency of our communication with customers.
- 3) Customer role. How do we involve the customer into product design, production, and service.
- 4) Customer support. What kind of program is use to determine customer satisfaction.
- 5) Customer success. How large is the average year purchases made by customers.

### **Financial Performance**

Financial Performance according to Tampubolon (2005:20) is the measurement of the performance of the company arising as a result of the decision-making process because it involves the use of capital management, efficiency and profitability of the company's. Financial performance is an instrument to measure the company's financial performance through its capital structure. Company performance assessment must be known the output and the input. Output is the result of an employee or company performance, while the inputs are the skills or the tools used to obtain these results.

In this study the financial performance proxied by Market to Book Value (MBV) or Price Book Value (PBV) is the ratio of a firm's market capitalization to the book value of stockholders' equity. It is one of many financial ratios used to evaluate a firm (Berk *et al.* 2012:30). According to Maureen McNichols *et al.* (2010) Market to Book Value (MBV) ratio generally defined as the market value of the company's equity divided by book value of equity. It is also understood that this ratio shows quite a variation not only from time to time, but also at a given point in time, in the industry, and even in the whole companies in the same industry. In addition Brigham and Ehrhardt (2005:455) also argued that the ratio of a stock's market price to its book value gives another indication of how investors regard the company. Company with relatively high rates of return on equity generally sell at higher multiples of book value than those with low returns.

### **Hypothesis I**

H<sub>1</sub>: There is significant simultaneously influence of intellectual capital which includes Value Added Capital Employed, Value Added Human Capital, Structural Capital Value Added to the financial performance on

pharmaceutical company listed on the Indonesia Stock Exchange in 2007 to 2012.

### **Hypothesis II**

H<sub>2</sub>: There is partial influence of intellectual capital which includes Value Added Capital Employed, Value Added Human Capital, Structural Capital Value Added to the financial performance on pharmaceutical company listed on the Indonesia Stock Exchange in 2007 to 2012.

### **Hypothesis III**

H<sub>3</sub>: Value Added Human Capital has a dominant influence to the financial performance on pharmaceutical company listed on the Indonesia Stock Exchange in 2007 to 2012.

## **RESEARCH METHODOLOGY**

### **Types of Research**

Type of research is explanatory research that is the researchers explain causal relationships between variables through hypothesis testing (Singarimbun and Effendi, 1995:5).

### **Population and Research Sample**

Santoso and Tjiptono (2006:79), population is a group of people or objects that are the same in one or more of the subject matter and form in a research. Sample according to Santoso and Tjiptono (2006:80), a part or a certain number of samples taken from a population and studied in detail. Based on the above description it can be concluded the sample is part of the number and characteristics possessed by the population. In this research the entire population is made the object research that is 9 pharmaceutical companies listed on the Indonesia Stock Exchange in 2007 to 2012.

The sample in this research is part of the whole individual who becomes the object research. Besides that the sampling is intended to obtain information about the objects of research by observing some populations. The sampling technique used in this research is census sampling that is all of population can be research sample but on condition that the company does not lose in 2007 until 2012. Based on the results of sampling technique in this study the number of samples taken as many as 7 companies.

### **The Definition of Variable**

#### **a. Independent Variable**

The independent variable in this research is the intellectual capital.

Intellectual capital measurement itself uses three proxies that are:

#### **1. Value Added Capital Employed (VACA)**

VACA is ratio between value added (VA) with Capital Employed (CE). This ratio is an indicator of the value added created by one unit of physical capital with the following formula:

$$\text{VACA} = \text{VA/CE}$$

Where:

- a. VACA = Value Added Capital Employed: ratio VA to CE.
- b. VA = Value Added (output-input)
- c. Output = Total sales and other income.
- d. Input = total sales expenses and other expenses (besides employee costs).

- e. CE = Capital Employed: available funds (equity, net income) (Ihyaul Ulum, 2009:89).

(Pulic, 1999) assume that if a unit of capital employed produces a larger return in a one company other than in the another company, then the first company is better in utilization of its capital employed. Thus the use of more capital employed is part of the company's intellectual capital. When comparing more than a group of companies, Value Added Capital Employed become an indicator of the company's intellectual ability to utilize physical capital preferable.

## 2. Value Added Human Capital (VAHU)

VAHU is how much value added created by the spending dollars of workers. The relationship between value added and human capital indicate the ability of human capital to make the value in a company. So the relationship between value added and human capital indicate the ability of human capital to form a corporation with values in the following formula:

$$\text{VAHU} = \text{VA}/\text{HC}$$

Where:

- a. VAHU = Value Added Human Capital: ratio from VA to HC
- b. VA = Value Added (output-input)
- c. Output = Total sales and other income.
- d. Input = total sales expenses and other expenses (besides employee costs).
- e. HC = Human Capital: labour expenses such as salaries and allowances, post employment benefits, and professional fees.

When Value Added Human Capital compared to more than a group of companies, Value Added Human Capital become an indicator of the quality of the company's human resources. Value Added Human Capital is also as the company's ability to generate value added every dollar spent on human capital (Ihyaul Ulum, 2009:89).

## 3. Structural Capital Value Added (STVA)

STVA shows the contribution of structural capital (SC) in the formation of values. In Pulic model, structural capital is value added reduced with human capital. Contribution of human capital to the formation of the value, is larger structural capital contribution with the following formula:

$$\text{STVA} = \text{SC}/\text{VA}$$

Where:

- a. STVA = Structural Capital Value Added: ratio from SC to VA
- b. SC = Structural Capital: VA-HC
- c. VA = Value Added (output-input)
- d. Output = Total sales and other income.
- e. Input = total sales expenses and other expenses (besides labour expenses).

- f. HC = Human Capital: labour expenses (Ihyaul Ulum, 2009:89-90).

These ratios are the calculated intellectual ability of a company. This formulation is the number of coefficients mentioned earlier. The result is a new and unique indicator that is the VAIC<sup>TM</sup> (Value Added Intellectual Coefficient), as follows:

$$\text{VAIC}^{\text{TM}} = \text{VACA} + \text{VAHU} + \text{STVA}$$

b. Dependent Variable

The dependent variable in this research is financial performance. Financial performance measurement itself using a proxy, that is: Market to Book Value which is a ratio used to measure the market performance of the stock market value to book value. Market Value is stock prices in the stock market at a given time which determined by the market participants, that is by demand and supply in the concerned stock exchange market. Book value per share is common equity divided by shares outstanding. Book Value (BV) mathematically formulated as follows:

$$\text{Book Value per share (BV)} = \frac{\text{Common equity}}{\text{Shares outstanding}}$$

After company calculate Book Value (BV), they divide the market price by the book value to get a Market to Book Value (MBV) ratio. Market to Book Value as a measure of the performance of share market value to the book value can be formulated as follows:

$$\text{Market to Book Value (MBV)} = \frac{\text{Market price per share}}{\text{Book value per share}}$$

### Descriptive Statistics Test

Descriptive statistics intended to illustrate and briefly present information from a large number of data relating with level of intellectual capital disclosure by companies. With descriptive statistics raw data in the form of information on how the companies included in the sample categories of intellectual capital disclosures will be converted into a form which can provide information to describe a set of factors in a state that includes the frequency, mean, maximum, minimum, and standard deviation.

### Hypothesis Testing

The research hypothesis will be tested using statistical techniques using a model. The model used to analyze the effect of independent variables on the dependent variable is multiple regression, is generated by inserting variable data input to the regression function. Analysis of data by using multiple regression to examine the independent variables on the dependent variable. Dependent variable is the market-based corporate financial performance and the independent variable in this study is the intellectual capital that includes Value Added Capital Employed, Value Added Human Capital, and Structural Capital Value Added. In the multiple linear regression testing will be obtained the results from F-test, that is to determine the effect of independent variables collectively to dependent variable. While the t-test that is to determine the effect of independent variables to dependent variable individually. Regression equation used in this study is as follows:



$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$$

Explanation:

|           |                                                  |
|-----------|--------------------------------------------------|
| Y         | : Financial Performance (Market to Book Value)   |
| $\alpha$  | : Constanta                                      |
| $\beta_1$ | : Regression coefficients of the variables $X_1$ |
| $\beta_2$ | : Regression coefficients of the variables $X_2$ |
| $\beta_3$ | : Regression coefficients of the variables $X_3$ |
| $X_1$     | : Value Added Capital Employed                   |
| $X_2$     | : Value Added Human Capital                      |
| $X_3$     | : Structural Capital Value Added                 |
| e         | : error                                          |

## FINDINGS AND DISCUSSION

### The Result of Descriptive Statistics Analysis

The data used to support this research are the Value Added Capital Employed, Value Added Human Capital, Structural Capital Value Added and Market to Book Value on pharmaceutical company listed on the Indonesia Stock Exchange in 2007 to 2012. In descriptive statistics will be presented the data from each of the dependent and independent variables used to support this research. From the research data, the results of descriptive statistics can be presented in table 4.1.

**Table 4.1**  
**The Result of Descriptive Statistics Analysis**

| Descriptive Statistics         |    |         |         |        |                |
|--------------------------------|----|---------|---------|--------|----------------|
|                                | N  | Minimum | Maximum | Mean   | Std. Deviation |
| Value Added Capital Employed   | 42 | .10     | .53     | .2950  | .10244         |
| Value Added Human Capital      | 42 | 1.49    | 42.99   | 7.4657 | 9.88727        |
| Structural Capital Value Added | 42 | .33     | .98     | .7174  | .19667         |
| Market to Book Value           | 42 | .29     | 6.14    | 2.3107 | 1.88948        |
| Valid N (listwise)             | 42 |         |         |        |                |

**Source:** Data Processed, 2013

Based on table 4.1 it can be seen that the average value score Value Added Capital Employed (VACA) is equal to 0.2950. Thereby shows that if a unit of capital employed (CE) produces a larger return on one company other than the other company, then the company that has a greater value of capital employed has the ability to use its capital employed better so it will lead to the company has the intellectual ability to utilize physical capital better. Average Human Capital Value Added (VAHU) that is equal to 7.4657 which shows the ability of human capital (HC) creates value in a company. As for the ratio of Structural Capital Value Added (STVA) obtained an average value of 0.7174 which is the quality of human resources companies produce value added every dollar spent on human

capital. The average of financial performance is equal to 2.3107 which states the ability of the company that shows how much profit a company can produce each dollar from shareholder capital.

Based on table 4.1 also can be seen that the lowest value for the Value Added Capital Employed (VACA) is equal to 0.10, while for the highest value that is equal to 0.53. For variable Human Capital Value Added (VAHU) can be seen that the highest value that is equal to 42.99 while the lowest value that is equal to 1.49. For variable Structural Capital Value Added (STVA) has the lowest value that is equal to 0.33, while for the highest value that is equal to 0.98. As for the financial performance shows that the highest value is equal to 6.14 and the lowest value is 0.29.

### The Result of Multiple Linear Regression Analysis

Based on the problem formulation and the hypothesis of this research, the data were analyzed using the multiple regression analysis. The multiple regression analysis is used to count the value of the effect among independent variables, which consist of Value Added Capital Employed ( $X_1$ ), Value Added Human Capital ( $X_2$ ), and Structural Capital Value Added ( $X_3$ ) on Market to Book Value ( $Y$ ). Based on the results of research conducted and then processed through SPSS (Statistical Product and Service Solutions Service) released 13.00, it can be seen the results of multiple linear regression analysis (multiple regression) partially and simultaneously in the following table 4.2:

**Table 4.2**  
**The Result of Multiple Linear Regression Analysis**

| Coefficients <sup>a</sup> |                                |                             |            |                           |        |      |                         |       |
|---------------------------|--------------------------------|-----------------------------|------------|---------------------------|--------|------|-------------------------|-------|
| Model                     |                                | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. | Collinearity Statistics |       |
|                           |                                | B                           | Std. Error | Beta                      |        |      | Tolerance               | VIF   |
| 1                         | (Constant)                     | -.063                       | .029       |                           | -2.190 | .035 |                         |       |
|                           | Value Added Capital Employed   | .328                        | .110       | .356                      | 2.993  | .005 | .937                    | 1.073 |
|                           | Value Added Human Capital      | .434                        | .097       | .421                      | 4.479  | .000 | .959                    | 1.071 |
|                           | Structural Capital Value Added | .150                        | .061       | .257                      | 2.450  | .019 | .947                    | 1.014 |

a. Dependent Variable: Market to Book Value

**Source:** Data Processed, 2013

Based on the table 4.2 regression model can be drawn as follow:

$$Y = -0,063 + 0,328X_1 + 0,434X_2 + 0,150X_3 + 1,533$$

The interpretation of above equation are:

$\alpha = -0,063$  is a constant value, that is estimation from Market to Book Value at the pharmaceutical company listed on the Indonesia Stock Exchange in 2007 to 2012, if the independent variables consisting from variable Value Added Capital Employed, Value Added Human Capital and Structural Capital Value Added has a value equal to zero.

$\beta_1 = 0,328$  is a slope or coefficient variable directions Value Added Capital Employed ( $X_1$ ) that influence Market to Book Value at the pharmaceutical company listed on the Indonesia Stock Exchange in 2007 to 2012, the regression coefficient ( $b_1$ ) is equal to 0,328 with a positive sign. With these results mean that the Market to Book Value at the pharmaceutical company

listed on the Indonesia Stock Exchange in 2007 to 2012 will increase by 0,328, the nature of the relationship is in line with the assumption that the other variable has a value equal to zero.

$\beta_2 = 0,434$  is a slope or coefficient variable directions Value Added Human Capital ( $X_2$ ) that influence Market to Book Value at the pharmaceutical company listed on the Indonesia Stock Exchange in 2007 to 2012, the regression coefficient ( $b_2$ ) is equal to 0,434 with a positive sign. With these results mean that the Market to Book Value at the pharmaceutical company listed on the Indonesia Stock Exchange in 2007 to 2012 will increase by 0,434, the nature of the relationship is in line with the assumption that the other variable has a value equal to zero.

$\beta_3 = 0,150$  is a slope or coefficient variable directions Structural Capital Value Added ( $X_3$ ) that influence Market to Book Value at the pharmaceutical company listed on the Indonesia Stock Exchange in 2007 to 2012, the regression coefficient ( $b_3$ ) is equal to 0,150 with a positive sign. With these results mean that the Market to Book Value at the pharmaceutical company listed on the Indonesia Stock Exchange in 2007 to 2012 will increase by 0,150, the nature of the relationship is in line with the assumption that the other variable has a value equal to zero.

$e = 1,533$  is a residual value or possible errors of the regression equation models, caused due to the possibility of other variables that can affect the Market to Book Value at the pharmaceutical company listed on the Indonesia Stock Exchange in 2007 to 2012 but not included in the model equations.

#### **The Result of Coefficient Determinant ( $R^2$ )**

**Table 4.3**  
**The Result of Coefficient Determinant**

##### **Model Summary<sup>a</sup>**

| Model | R                 | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|-------|-------------------|----------|-------------------|----------------------------|---------------|
| 1     | .896 <sup>a</sup> | .804     | .788              | .1027785                   | 1.533         |

a. Predictors: (Constant), Structural Capital Value Added, Value Added Human Capital, Value Added Capital Employed

b. Dependent Variable: Market to Book Value

**Source:** Data Processed, 2013

From the calculation of the multiple linear regression analysis that has been performed shows the influence of independent variables on the dependent variable is large, it can be seen in the coefficient of determination value ( $R^2$ ) is equal to 0.804. Thus, it means that the influence of Value Added Capital Employed, Value Added Human Capital and Structural Capital Value Added to the Market to Book Value variable in the pharmaceutical company listed on the Indonesia Stock Exchange in 2007 to 2012 can be explained by 80.4% while the remaining 19.6% explained by other variables that are not included in this study.

## The Result of Multiple Correlation

**Table 4.4**  
**The Result of Multiple Correlation**

**Model Summary<sup>a</sup>**

| Model | R                 | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|-------|-------------------|----------|-------------------|----------------------------|---------------|
| 1     | .896 <sup>a</sup> | .804     | .788              | .1027785                   | 1.533         |

a. Predictors: (Constant), Structural Capital Value Added , Value Added Human Capital, Value Added Capital Employed

b. Dependent Variable: Market to Book Value

**Source:** Data Processed, 2013

Multiple correlation coefficient R illustrates the strong relationship between the independent variables that include variables Value Added Capital Employed, Value Added Human Capital and Structural Capital Value Added along with dependent variable that is Market to Book Value in the pharmaceutical company listed on the Indonesia Stock Exchange in 2007 to 2012 is equal to 0.896. This means that the overall relationship between the variables is very close because the value of R is close to 1.

## Hypothesis Testing

### a. Simultaneous Testing (F Test)

To determine the f- Test result in this study then it will be conducted a comparison between the sig. F value with the level of significance ( $\alpha$ ), which can be seen in table 4.5.

**Table 4.5**  
**The Result of F test**

**ANOVA<sup>a</sup>**

| Model |            | Sum of Squares | df | Mean Square | F      | Sig.              |
|-------|------------|----------------|----|-------------|--------|-------------------|
| 1     | Regression | 1.642          | 3  | .547        | 51.800 | .000 <sup>a</sup> |
|       | Residual   | .401           | 38 | .011        |        |                   |
|       | Total      | 2.043          | 41 |             |        |                   |

a. Predictors: (Constant), Structural Capital Value Added , Value Added Human Capital, Value Added Capital Employed

b. Dependent Variable: Market to Book Value

**Source:** Data Processed, 2013

Based on the analysis of the F test in table 4.5 using  $df_1 = 3$  and  $df_2 = 38$ , with significance 0,000, so that it can be seen that the significance level is smaller than  $\alpha$ . Thus it can be concluded that the variable Value Added Capital Employed, Value Added Human Capital and Structural Capital Value Added simultaneously had significant effect on financial performance using proxy Market to Book Value at the pharmaceutical company listed on the Indonesia Stock Exchange in 2007 to 2012.

**b. Second Hypothesis Testing (t Test/partial)**

The complete result of t test presented in table 4.6.

**Table 4.6**  
**The Result of t test (partial)**

| Coefficients <sup>a</sup> |                                |                             |            |                           |        |      |                         |       |
|---------------------------|--------------------------------|-----------------------------|------------|---------------------------|--------|------|-------------------------|-------|
|                           |                                | Unstandardized Coefficients |            | Standardized Coefficients |        |      | Collinearity Statistics |       |
|                           |                                | B                           | Std. Error | Beta                      |        |      | t                       | Sig.  |
| 1                         | (Constant)                     | -.063                       | .029       |                           | -2.190 | .035 |                         |       |
|                           | Value Added Capital Employed   | .328                        | .110       | .356                      | 2.993  | .005 | .937                    | 1.073 |
|                           | Value Added Human Capital      | .434                        | .097       | .421                      | 4.479  | .000 | .959                    | 1.071 |
|                           | Structural Capital Value Added | .150                        | .061       | .257                      | 2.450  | .019 | .947                    | 1.014 |

a. Dependent Variable: Market to Book Value

**Source:** Data Processed, 2013

Based on t test in table 4.6 statistically regression analysis partially could be explained as follows:

1. Value Added Capital Employed ( $X_1$ )

From the results of the analysis it showed that the level of significance of the variable Value Added Capital Employed ( $X_1$ ) is equal to  $0.005 < \alpha$ , (5%) results indicate that there is significant influence variables Value Added Capital Employed ( $X_1$ ) to the financial performance using proxy Market to Book Value in the pharmaceutical company listed on the Indonesia Stock Exchange in 2007 to 2012, assuming the other variables is constant.

2. Value Added Human Capital ( $X_2$ )

From the results of the analysis it showed that the level of significance of the variable Value Added Human Capital ( $X_2$ ) is equal to  $0.000 < \alpha$ , (5%) the results indicate that there is significant influence variables Value Added Human Capital ( $X_2$ ) to the financial performance using proxy Market to Book Value in the pharmaceutical company listed on the Indonesia Stock Exchange in 2007 to 2012, assuming the other variables is constant.

3. Structural Capital Value Added ( $X_3$ )

From the results of the analysis it showed that the level of significance of the variable Structural Capital Value Added ( $X_3$ ) is equal to  $0.019 < \alpha$ , (5%) the results indicate that there is significant influence variables Structural Capital Value Added ( $X_3$ ) to the financial performance using proxy Market to Book Value in the pharmaceutical company listed on the Indonesia Stock Exchange in 2007 to 2012, assuming the other variables is constant.

**c. Third Hypothesis (Dominant Test)**

To determine the influence of each independent variable, that is the variable Value Added Capital Employed, Value Added Human Capital and Structural Capital Value Added to the financial performance using proxy Market to Book Value on pharmaceutical company listed on the Indonesia Stock Exchange in 2007 to 2012 can be seen from of each regression

coefficient. Regression coefficient of each independent variable presented in the following table 4.7:

**Table 4.7**  
**Standardized Coefficients of each Variable**

| Coefficients <sup>a</sup> |                                |                             |            |                           |        |      |                         |       |
|---------------------------|--------------------------------|-----------------------------|------------|---------------------------|--------|------|-------------------------|-------|
|                           |                                | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. | Collinearity Statistics |       |
|                           |                                | B                           | Std. Error | Beta                      |        |      | Tolerance               | VIF   |
| 1                         | (Constant)                     | -.063                       | .029       |                           | -2.190 | .035 |                         |       |
|                           | Value Added Capital Employed   | .328                        | .110       | .356                      | 2.993  | .005 | .937                    | 1.073 |
|                           | Value Added Human Capital      | .434                        | .097       | .421                      | 4.479  | .000 | .959                    | 1.071 |
|                           | Structural Capital Value Added | .150                        | .061       | .257                      | 2.450  | .019 | .947                    | 1.014 |

a. Dependent Variable: Market to Book Value

**Source:** Data Proessed, 2013

Based on the beta coefficients standardized of each variable it can be seen that the variable Value Added Human Capital has a dominant effect when compared with the other independent variables to the financial performance using proxy Market to Book Value in the pharmaceutical company listed on the Indonesia Stock Exchange in 2007 to 2012. These results indicated by standardized coefficients on Value Added Human Capital variable that is equal to 0.421 compared to most other variables.

## CONCLUSION

- a. There is a simultaneous influence of intellectual capital that includes Value Added Capital Employed, Value Added Human Capital, Structural Capital Value Added to the financial performance on pharmaceutical company listed at Indonesia Stock Exchange in 2007 to 2012.
- b. There is a partial influence between intellectual capital that includes Value Added Capital Employed, Value Added Human Capital, Structural Capital Value Added to the financial performance on pharmaceutical company listed at Indonesia Stock Exchange in 2007 to 2012.
- c. Value Added Human Capital variable have a dominant influence to the financial performance on pharmaceutical company listed at Indonesia Stock Exchange in 2007 to 2012.

## RECOMMENDATION

1. For investor  
It is expected in determining or choosing to make an investment stock investors were cautious and always follow the development financial performance of the company especially in companies which is engaged in pharmaceutical. Through these measures are expected the prospective investors does not make any mistake in determining the type of stock used in investing. Also, through the analysis of intellectual capital then the investors could get a clear picture of the activity associated with the management of the company's operations in order for improve efficiency so it can support the process of achieving the maximum profit.

2. For emiten  
The emiten must be more sensitive to changes in the company financial performance that occurs so that the changes could be used as a basis in determining the investment policy to be conducted.
3. For further research  
It is expected for the next researcher to perform an analysis on the level achievement of the company's financial performance reviewed from other financial performance company that is related with the analysis of working capital, the analysis of company's liquidity and etc. and using a longer study period so that the research that conducted is more developed.

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