Impact of Intellectual Capital on the Firm's Market Value:
The Mediation Role of Financial Performance
(Empirical Study From The Indonesian Banking Companies since 2007-2011)

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ABSTRACT

The purpose of this study is to demonstrate empirically and examined the influence of intellectual capital as measured by the three elements of VAIC[TM]: Value Added Capital Employed (VACA), Human Capital Value Added (VAHU), and Structural Capital Value Added (STVA) on company's market value is measured from Price to Book Value (PBV) and Price to Earning Ratio (PER) through the role of Return on Equity (ROE) mediation.

The population in this study are banking company listed on the Indonesian Stock Exchange (IDX). The method used was purposive sampling, and based on the criteria specified then the sample size is as much as 20 banking companies that listed consecutively on the Stock Exchange during the period 2007-2011. The data used in this research is secondary data obtained from the Indonesian Stock Exchange (www.idx.co.id). The analytical tool used in this research is path analysis with AMOS version 6 program for testing hypotheses and SPSS 18 used for classical assumptions testing (normality, heteroscedasticity, autocorrelation, multicolinieraty).

The results showed that the three variables of intellectual capital, VACA and STVA have significant positive effect on corporate performance (ROE), while VAHU has no significant effect on firm performance (ROE). In addition, financial performance (ROE) as a mediating variable of intellectual capital has an influence on the market value of the company only in terms of Price to Book Value (PBV), and not to the Price to Earning Ratio (PER).

Keywords: *Intellectual Capital, VAIC[TM], Corporate Performance, Firm's Market Value*.

INTRODUCTION

Currently, Indonesia is still included in the category of developing countries, so that the country needs investments both of domestic and abroad to build the country's economy. After going through an economic crisis in 1998 that led to deteriorating economic conditions, Indonesia is facing a new problem arises ironically from within the country itself. The issue of national security is being one of the barriers for foreign investors to invest in increasing the country's economy. Most terrors that happen today, this causes a feeling of insecure for both existing investors and prospective investors to invest. It will become a huge barrier effect on us, especially for the Indonesian economy and the business world. However, the government has run a variety of programs to advance the country's economy with very protecting corporate investors, both local and foreign.

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The current economy has grown rapidly marked by advances in information technology. The companies that can control the information and technology, they can win the competition in the business world. Competitive conditions continue to experience rapid change and strictly require companies to constantly develop innovative and differentiated products. Therefore, in order to survive in the business world, the company had to change the original business strategy based on industry-based labor towards a knowledge based industries (Setiawan, 2011). Along with the economic changes that characterized knowledge-based economy with the implementation of knowledge management, the prosperity of a company will depend on the transformation of creation and capitalization of knowledge itself (Sawarjuwono, 2003).

With the development of information technology and science that has sparked a growing interest in intellectual capital. One area of interest to both academics and practitioners is related to the use of IC as one instrument to determine the value of the company (Edvinsson and Malone, 1997; Sveiby, 2001). It has become a prolonged issue, which some authors state that the management and reporting systems that have been established during this sustainable lost its relevance because it cannot present information that is essential for executives to manage knowledge-based processes and intangible resources (Bornemann and Leitner, 2002).

Historically, the distinction between intangible assets and IC has been, at best, vague with intangibles, including IC, being referred to as "goodwill" (Accounting Principles Board, 1970; Accounting Standards Board, 1997; International Accounting Standards Committee, 1998). This can be traced back to the early 1980s when the general notion of intangible value, often labeled as goodwill, began to surface in accounting and business practices (International Federation of Accountants, 1998).

However, traditional accounting practice does not provide for the identification and measurement of these intangibles in organizations, especially knowledge-based organizations (Guthrie et al., 1999; International Federation of Accountants, 1998; Society of Management Accountants of Canada, 1998). New intangibles such as staff competencies, customer relationships, simulation models, computer and administrative systems receive no recognition in the traditional financial and management reporting models (Stewart, 1997, pp. 56-59). Interestingly, even traditional intangibles such as brand equity, patents, and goodwill are rarely reported in the financial statements (International Federation of Accountants, 1998; International Accounting Standards Committee, 1998). In fact, International Accounting Standard IAS 38, Intangible Assets, prohibits the recognition of internally generated brands, mastheads, publishing titles, and customer lists (International Accounting Standards Board, 2004).

One of the approaches used in the assessment and measurement of intangible assets are intellectual capital that has been the focus of attention in various fields, management, information technology, sociology, and accounting (Petty and Guthrie, 2000; Sullivan and Sullivan, 2000).

Intellectual capital is identified as the union of several types of intangible assets that can improve company performance and value creation in the company (Roos and Roos, 1997; Bontis, 1998; Marr and Roos, 2005; Subramaniam and Yound, 2005 in Huang and Wu, 2010). International Federation of Accountants (IFAC) defines intellectual capital as a synonym of intellectual property, intellectual assets and knowledge assets, capital can be interpreted as shares / capital of

knowledge-based companies. IFAC also estimates the current value of the company is more determined on intellectual capital management, no longer fixed assets.

In Indonesia, the IC phenomenon started to develop especially after the advance of PSAK No.19 (revised 2000) on intangible assets. According to PSAK No. 19, intangible assets are non-monetary assets that can be identified and has no physical form and held for use in the produce or deliver goods or services, leased to others, or for administrative purposes. Based on this, it can be concluded that at least the regulation IC has received attention (IAI, 2002).

One of the important issues is how to measure intangible assets or intellectual capital. This is in contrast with the increased awareness of recognition IC in promoting the value and competitive advantage of the company as described previously, the precise measurement of the IC companies cannot be determined. There's a lot of intellectual capital measurement concept developed by researchers today, and one of them was developed by the Pulic.

Pulic (1998, 2000) in Tan et al. (2007) developed a "Value Added Intellectual Coefficient" (VAIC^{TM}) to measure IC companies. VAIC^{TM} method is designed to provide information about the value creation efficiency of tangible and intangible assets owned by a company. This model is able to explain the company's ability to create value added (VA). Value added is the most objective indicator to assess the success of the business and demonstrated the company's ability to create value. The main components of VAIC™ can be seen from 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). Further pulic (1998) stated that intellectual abilities (which was then called VAIC™) shows how both of these resources (physical capital and intellectual potential) has been efficiently utilized by the company.

The research about VAIC^{TM} between financial performance and the company's market value has been demonstrated empirically by Chen et al (2005) used the model pulic (VAIC) to examine the relationship between intellectual capital and the market value of a company's financial performance using a sample of publicly traded companies in Taiwan. Financial performance used is market-to-book value, ratios of equity, return on equity, return on assets, and growth in revenue and employee productivity. The results showed that intellectual capital positively influence to financial performance and the company's market value. Thus it can be found that if the company has the intellectual capital with efficiency in all three components, namely VACA, VAHU and STVA, then the company will have a market value and financial performance increased continuously year by year. Even if implemented effectively and efficiently, this study can contribute to the progress of the company as well as an indicator to predict financial performance of companies in the future.

Tan et al. (2007) examined the relationship between the IC using VAIC^{TM} and company performance is proxied by ROE, EPS, and ASR. The results indicate that the positive effect IC to company performance, positive influence between the increased value of IC companies with future company performance, and the growth of IC firms is positively related to the future performance of the company.

Another study examined the relationship between intellectual capital and company performance conducted by Firer and Williams (2003). They test the relationship between the company

performance and the intellectual capital with VAIC method. The results indicate that the relationship between the efficiency of value added intellectual capital and the three basic measures of corporate performance (profitability, productivity and market valuation) in general is limited and mixed. Overall, the results of this study demonstrate that the physical resource is the most influential factor in the company in South Africa.

In addition to overseas, few studies to examine the relationship between intellectual capital and corporate performance in Indonesia has also been done. Ulum (2008) examined the relationship between intellectual capital and performance of banking companies listed on the Stock Exchange during the years 2004-2006, and obtained the influence of intellectual capital (VAIC) on performance. In his research, Ulum (2008) proposed three hypotheses, namely intellectual capital affect the company's financial performance, intellectual capital affect the future company's financial performance and growth of average intellectual capital (ROGIC) affect the company's future financial performance. Research results prove that intellectual capital (VAIC) effect on the financial performance of the present and future of the companies, while the third hypothesis is not proven because ROGIC has no influence the company's future financial performance.

The research attempted to measure the influence of intellectual capital (in this case proxied by VAIC™) on the market value of banking companies through its financial performance in Indonesia. Selection of the banking sector as a sample draws on research Firer and Williams (2003) and Chen (2005). The banking sector was chosen because according to Firer and Williams (2003) the banking industry is one of the most intensive sectors of its IC. In addition, from an intellectual aspect, the overall banking sector employees in more homogeneous compared to other economic sectors (Kubo and Saka, 2002). VAIC™ model selection as a proxy for the IC draws on research Firer and Williams (2003), Chen et al. (2005), and Tan et al. (2007). Financial performance used is Return on Equity (ROE), while the company's market value of a variable used is the Price to Book Value (PBV) and Price to Earning Ratio (PER). The selection of performance indicators were based on the study Chen et al. (2005) and Firer and William (2003).

Literature Review

Resources Based View Theory (RBV)

Resources Based View Theory is a theory that analyzes the competitive advantage that companies are characterized with superior knowledge or the economy that rely on intangible assets. RBV theory regards the company as a collection of resources and capabilities (Kor and Mahoney, 2004). The difference between resources and capabilities with a competitor company is providing a competitive advantage. RBV assumption of how companies can compete with other companies to gain competitive advantage by managing its resources in accordance with the company's ability (Wicaksana, 2011).

Corporate resources can be divided into three kinds, namely tangible, intangible and human resources (Grant, 2002; Wahdikorin, 2010). The ability to show what can be done with the company's resources (Amit and Schoemaker, 1993; Wahdikorin, 2010). RBV approach states that the company can achieve a sustainable competitive advantage and earn superior profits by owning or controlling strategic assets, both tangible and intangible.

Four criteria's for an enterprise resource achieve sustainable competitive advantage, namely: (a) the resource should be add positive value to the company, (b) resource should be unique or rare among would-be competitors and competitors that exist today, (c) the source power should be difficult to imitate, and (d) resources can not be replaced by other sources by competing firms (Barney, 1991). Barney (1991) states that in the RBV, firms can not expect to buy or take a sustainable competitive advantage that is owned by a different organization, because excellence is a scarce resource, difficult to imitate, and irreplaceable.

Knowledge Based View Theory (KBV)

Knowledge Based View Theory (KBV) is a new extension of the view-based Resources Based View Theory (RBV) of the firm and provides a strong theoretical support intellectual capital. Derived from the RBV and the KBV suggests that knowledge in its various forms is the importance of resources (Grant, 1996b).

The basic assumption about theory of knowledge based companies from the resource-based view of the firm. However, the resource-based view of the firm does not provide adequate recognition of the knowledge. Knowledge-based theory describes the characteristics of a typical company as follows (www.encyclopedia.com):
- Knowledge has the most strategic role in the company.
- Activities and the production process involve the application of knowledge in the company.
- Individuals in the organization are responsible for making, holding, and knowledge sharing.

KBV approach forms the basis for building human capital involvement in routine activities of the company. This is achieved through increased employee involvement in the formulation of operational and long-term goals of the company. In the knowledge-based view, the company developed an important new knowledge for competitive advantage from the unique combination of existing knowledge (Fleming, 2001, Nelson and Winter 1982). In this era of competition that exists today, companies often compete by developing new faster knowledge than their competitors.

Knowledge Based Theory identifies the knowledge, which is characterized by scarcity and the difficulty to transfer and replicate. This is an important resource for achieving competitive advantage. The capacity and effectiveness of the company in generating, sharing and imparting knowledge and information in determining the value of the company's income as a basis for sustainable competitive advantage in the long run the company.

Intangible Asset

During this time, there is a lack of clarity the difference between intangible assets and IC. Intangibles have been referred to as goodwill, (ASB, 1997; IASB, 2004), and the IC is part of goodwill. Today, a number of contemporary classification schemes have attempted to identify specific differences by separating the IC into the external category (customer related) capital, internal (structural) capital, and human capital (Brennan and Connell, 2000).

Paragraph 08 in PSAK 19 (revised 2000) defines the intangible assets as non-monetary assets that can be identified and does not have physical form and held for use in the produce or deliver goods or services, leased to others, or for administrative purposes. Those definitions are adopted from the definition presented by IAS 38 on intangible assets that are relatively similar to the definition proposed in FRS 10 on goodwill and intangible assets.

Both IAS 38 and FRS 10, states that intangible assets must (1) can be identified, (2) no financial assets (non-monetary assets), and (3) has no physical substance. While APB 17 on intangible assets does not provide a clear definition of intangible assets. The most knowing measurement of IC is Value Added Intellectual Coefficent (VAIC^{TM}).

Value Added Intellectual Coefficient (VAIC^{TM})

VAIC™ Methods, developed by Ante Pulic (1998), designed to provide information about the value creation efficiency of tangible assets and intangible assets of the company. Pulic (1998, 2000) in Tan et al. (2007) developed a "Value Added Intellectual Coefficient" (VAIC^{TM}) to measure IC companies.

Value added is defined in this problem can be mathematically calculated by subtracting the input (IN) on the output (OUT). In this case the output (OUT) shows revenue and includes all products and services sold into the market, while the input (IN) include all expenses that are used in a revenue gain (Tan et al, 2007). Furthermore, Tan et al (2007) states that employee expenses are not included in the input (IN) for conceiving its active role in the process of value creation, intellectual potential presented by the labor expense) is not counted as an expense (cost) and not included in the input component (IN) (Pulic, 2004). This happens because the suppression of labor as an entity of value creation (value creating entity).

Pulic (2004) suggests three main components of value added or VAIC^{TM} (which is a proxy of intellectual capital) that is, physical capital (VACA – Value Added Capital Employed), human capital (VAHU-Value Added Human Capital) and structural capital (STVA - Structural Capital Value Added).

Value Added Capital Employed (VACA)

The first relation is VA to use physical capital (CA), referred to as "value added capital coefficient" (VACA). This is an indicator that the VA was created by one unit of physical capital. Pulic in Murti (2010) assume that if the CA generate greater profits in the company from another factor, the first company is a company with better utilize the CA. Thus, a better utilization of CA is part of the IC companies.

According to Firer and William (2003) in Margaretha (2006) Capital Employed Efficiency or physical capital is an indicator of the value added created by the company attempted capital efficiently. For example VACA is part included into the land, buildings, equipment, and technology easily bought and sold in the market.

Value Added Human Capital (VAHU)

Human Capital (HC) is the expertise and competency of employees in the production of goods and services as well as its ability to be able to relate well with customers. Included in human capital: education, experience, skills, creativity and attitude.

Human capital is important because it is a source of innovation and strategic renewal, whether it is from brainstorming in a research lab, daydreaming at the office, throwing out old files, re-engineering new processes, improving personal skills or developing new leads in a sales rep's little black book. The essence of human capital is the sheer intelligence of the organizational member. The scope of human capital is limited to the knowledge node (i.e. internal to the mind of the employee). It can be measured (although it is difficult) as a function of volume (i.e. a third degree measure encompassing size, location and time). It is also the hardest of the three sub-domains of intellectual capital to codify (Bontis, 1998).

Based on Stewart (1997) the company must be able to distinguish between costs incurred to pay the employees and the company's investments are doing. So, it is clear that the costs to expand the company's employees do not constitute a form of investment but the cost of the company. These investments can be said to be efficient if the investment is aimed at developing the employee can bring a positive impact on increasing the value of the company.

Chen, et al., (2004) further states that the human capital associated with the knowledge and expertise that exists in the minds of employees, and if the company can not take advantage of the employee, the employee's knowledge and skills will be wasted and can not be translated into a value for the company.

Structural Capital Value Added (STVA)

Structural capital is what makes the company remains strong due to the progress that has been achieved for the company (Roos et al in Margaretha, 2006). Further structural capital is anything that is a resource company that is not related to humans and consists of databases, organizational structure, a series of processes, strategies, and anything that creates enterprise value is higher than the value material stated in the company's financial statements. Consequence of the structural strength of a company's capital will support each individual in the company is trying new things and learn more.

Intellectual capital can be described as any form of assets that have no physical form that can be created by the company using the assets of the company have with the optimal and efficient, and supported by employees who are empowered through intellectual learning program. In this case the costs incurred to create the intellectual ability can be said of investment by the company.

According to Bontis (1998) the concept of structural capital that allows intellectual capital to be measured and developed in an organization. In effect, without structural capital, intellectual capital would just be human capital. This construct therefore contains elements of efficiency, transaction times, procedural innovativeness and access to information for codification into

knowledge. It also supports elements of cost minimization and profit maximization per employee. Structural capital is the critical link that allows intellectual capital to be measured at an organizational level.

Thus the capital structure of a supporting infrastructure of human capital as supporting facilities and infrastructure to support employee performance. So even though employees have the high knowledge, but if not supported by good infrastructure, the ability of the employee is not going to generate intellectual capital.

Firm's Financial Performance

One of the several measurement of firm' financial performance named Return On Equity (ROE). Return on Equity (ROE) measures how much profit a company can generate for each dollar of shareholder capital. According Sari (2012) Return on Equity (ROE) is a profitability ratio that can be used to measure how effectively the equity provided by investors and managed by the management to operate a profit. The higher value of ROE shows the more efficiently companies uses their own capital to generate profits. With rising corporate profits, then the stock price will increase and thus return the acquired also getting bigger.

According Kusumajaya (2011) Return on Equity is the ratio that is essential for business owners (the common stockholder), as this ratio shows the level of returns generated from the capital provided by the management company. In other words, ROE shows the benefits to be enjoyed by the owner of the shares. The growth of ROE shows a company's prospects better, because it means the potential for increased corporate profits. This is captured by investors as a positive signal of the company thereby increasing investor confidence, and will facilitate the management of the company to attract capital in the form of shares. If there is increase in demand for a company's stock, it will indirectly raise the price of such shares on the capital market.

Thus, this ratio gives an indication of the strength of income from investments and the book value of shareholders are often used when comparing two or more firms in an industry continually (Van Horne, 1989, p.129 in Tan et al., 2007).

Company's Market Value

Price to Book Value (PBV)

The ratio of stock price to book value of the company (PBV), shows the company's ability to create value relative to the amount of capital invested. PBV high stock price reflects a higher than book value per share. The higher the stock price, the more successful company creating value for shareholders. The company's success is creating value certainly gives hope to shareholders in the form of higher profits anyway. Sartono (2001) simply states that the price-to-book value (PBV) is the ratio of the market is used to measure the performance of the stock market price to book value. In general, getting lower the PBV ratio, it will be better value. However, the value of this ratio varies across industries. A better limit is to compare with the industry average.

Price to Earning Ratio (PER)

Price Earning Ratio (PER) is one of the most basic measure of the fundamental stock analysis. By easy, PER is "comparison between the stock price with net income", in which an issuer's stock price compared to net income generated by the issuers of the year. Because the focus of the calculation is net income generated from the company, then by knowing PER an issuer, we can know whether the price of a stock is considered reasonable or not in real, rather than a forecast.

Therefore, the price earnings ratio (PER) is defined as easily as an indicator of how much investors pay a share compared with earnings per share that the company provides, it is equally important in stock trading in the market such as equity financing. This shows how expensive a stock investor. Getting higher the PER ratio, it will be higher the market pays for each dollar of annual revenue.

Several previous studies have used VAIC^{TM} both to measure performance IC and to determine its effect on financial performance and the market value of the company. Here is some of the research that has been done previously to examine the relationship IC both the financial performance and the market value of the company.

Chen, et al., (2005) examined the effect of intellectual capital on market value and financial performance of the company, showed that if the company has a high intellectual capital with all three components, namely Capital Employed Efficiency (VACA), Human Capital Efficiency (VAHU), and Structural Capital Efficiency (STVA), then the company will have a market value and financial performance increased year by year.

While Margaretha and Rakhman (2006), Gan (2008), Puntillo (2009) and Soedarsono, at al. (2012) examined the effect of intellectual capital on market value and financial performance of companies with VAIC method. The results of this study found that intellectual capital (VAIC) only has an influence on the financial performance of the company, while the market value does not have the significant effect.

Yusuf and Sawitri (2009) which aimed to explore the relationship between the intellectual capitals of the firm market performance either present or the future. With using VAIC methods for measuring Intellectual capital and Tobin's Q to measure the market performance showed that in the year 2004 until 2007 together intellectual capital has a significant effect on market performance of companies listed on the Indonesia Stock Exchange. While research Maditinos, et al. (2011), to get the result that only the human capital efficiency has a significant impact on financial performance (ROE).

In addition, Tan et al. (2007) proved that intellectual capital can affect the company's future financial performance will come. This contrasts with Ulum (2007), which examines the intellectual capital VAIC using the measured physical capital, human capital and structural capital. By analyzing the data by the method of Partial Least Square (PLS), showed that the IC has an influence on the financial performance of the company both in the same year but did not have the impact on future years. The same was done by Murti (2010) that intellectual capital has

a positive effect on corporate performance, performance in the future, and the future financial performance while not having a positive effect on the growth of IC (ROGIC).

According to research conducted by Wicaksana (2010) regarding the effect to the growth of intellectual capital and market value showed that intellectual capital has a significant and positive effect on growth (AG & EG) and the firm's market value (PBV and PER). While Bentoen research showed that intellectual capital has a positive effect on CR, GR, GA and the firm's market value (PBV and PER).

Research Framework

The large financial performance and market value, it is very important for the company to maintain the existence of the listed companies as the company variable for investment because the market value and financial performance of the company reflects how the company is whether it is feasible or not to invest (Margaretha, 2006).

To improve the financial performance and the market value of the company, then in this case the company needs to have value added. Value added can be developed by using the company's intellectual capital. Intellectual capital consists of three components that must be owned by a company that is Value Added Capital Coefficient (VACA), Human Capital Value Added (VAHU), and Structural Capital Value Added (STVA) were measured using the measuring method of Value Added Intellectual Coefficient (VAIC^{TM}).

Intellectual capital is thus believed to play an important role in improving the market value of the company through its financial performance, so the company can continue to grow and enhance shareholder value. Of these explanations, the framework of this research can be described as follows:
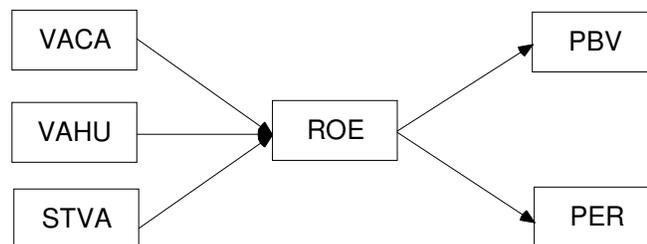

Figure 1
Research framework

Research Hypothesis

According to that research framework we could draw this research hypothesis as explained, capital employed is defined as total capital used in fixed and current assets of a company (Pulic, 1998; Firer and Williams, 2003; Wahdikorin, 2010). Capital Employed is measured by an

indicator that value added capital coefficient (VACA). VACA show Value Added which can be produced by a company with capital employed. Capital employed is obtained if capital is used less, it can result in increased sales or capital employed greater also followed by sales increasing again (Wahdikorin, 2010). So when capital employed is large it would be lead to total assets is also relatively large. It can also result in the company's investment profits. Investment profit can be measured by profitability ratios associated with the capital it is called Return on Equity (ROE). Based on the above, it can be proposed that the first research hypothesis as follows:

H$_1$: *Return on Equity (ROE)* is affected by the high and low Value Added Capital Coefficient (VACA)

Human Capital is the intangible assets of the company in the form of intellectual ability, creativity and innovation that is owned by its employees. Based on the concept of Knowledge-Based View (KBV), the knowledge held by employees is viewed as assets of the company. This is because human or employees with their own knowledge able to create a competitive advantage. Competitive advantage will be obtained organizations that have assets or capabilities of a typical (Kuncoro, 2006; Wahdikorin, 2010).

Human Capital is measured by an indicator that value added human capital (VAHU). VAHU shows how much value added that can be produced by a company with the funds expended for labor (Ulum, 2008). VAHU obtained if the salary and benefits that could result in lower sales or a salary increase and greater benefits also accompanied with sales increasing again. Salaries and allowances greater employee is expected to motivate employees to increase productivity in the production process. Increasing productivity of employees is expected to increase investment profits for the company. It can be seen from the ratio used to measure the profitability of the investment that has been invested by the owners or shareholders' equity is Return on Equity (ROE). Based on the above, it can be proposed that the second hypothesis as follows:

H$_2$: Return on Equity (ROE) is affected by the high and low Value Added Human Capital (VAHU)

Structural capital includes all the knowledge in the company beside the existing knowledge on human capital, which includes databases, organizational charts, process manuals, strategies, routines and anything whose value is higher than the material value (Bontis et al., 2000). Structural Capital is a means of supporting Human Capital in improving company performance. Structural Capital is measured by an indicator of the structural capital value added (STVA).

Structural Capital (STVA) measure the amount needed to produce 1 rupiah from Value Added (VA) and is an indication of how successful the structural capital in the creation of value (Tan et al, 2007). Structural Capital is an organization's ability to meet the company's routine processes and structures that support employee efforts to produce optimal intellectual performance and overall business performance (Sawarjuwono, 2003). This shows that the better structure of the company is expected to increase investment profits among shareholders. Advantages shareholders' investments can be measured by the ratio of Return on Equity (ROE). Based on the above, it can be proposed that the third hypothesis as follows:

H$_3$: Return on Equity (ROE) is affected by the high and low Structural Capital Value Added (STVA)

According Belkaoui (2003) in Wicaksana (2011) found that the company's investment in intellectual capital is presented in the financial statements, resulting from an increase in the difference between market value and book value. Thus, if such an efficient market, the investor will provide high value to the company that has a bigger IC. In addition, if the IC is a measurable resource to increase competitive advantages, the IC will contribute to the company's financial performance and enhance shareholder value (Chen et al., 2005).

In conjunction with the stakeholder theory, explained that all the company's activities led to the creation of value. Stakeholders can appreciate a company that can create value for the creation of a good value, and then the company will be better able to meet the interests of all stakeholders. In the context of IC, value creation is done by maximizing the utilization of IC elements, namely human capital, physical capital, and structural capital. Stakeholders can appreciate a company that has IC superior than other companies because of its superior IC will help the company to meet the interests of all stakeholders. As one of the company stakeholders, the investors in the capital market will show appreciation for the company's IC excellence by investing in the company. Added investment will have an impact on increasing the company's market value (Wicaksana, 2011).

Return on Equity (ROE), which has been influenced by the intellectual capital variable, is expected to increase the Price to Book Value (PBV) companies. Based on the above, it can be proposed that the fourth hypothesis as follows:
H$_4$: Price to Book Value (PBV) is affected by the level of Return on Equity (ROE)

Return on Equity here is the result of the regression variables Intellectual capital. As explained before, the stakeholders will be more appreciate a company that has IC superior than other companies because of its superior IC will help the company to meet the interests of all stakeholders. The investors in the capital market will show appreciation for the company's IC excellence by investing in the company. Added investment will have an impact on increasing the company's market value (Wicaksana, 2011).

PER is an indicator of market confidence in the outlook for the company's growth that many market players were concerned about the approach PER, PER besides providing a good standard in comparing the stock price to earnings per share are different and the ease in making estimates used in the input PER. A company that has a higher PER, the company has a high growth rate, this shows that the market expects earnings growth in the future, whereas firms with low PER would have a low growth rate, the lower the PER of a stock, the better or cheaper prices to invest. PER becomes low value because the stock price tends to decline or due to increased net income. Thus, the lower the value, the more inexpensive PER shares to be purchased and the better the performance of the earning per share in generating net income of the company, the better performance per stock, it will affect many investors to buy the stock.
With the growth in the Return on Equity of an issuer, it will improve its stock. It can also be concluded that the value of Price to Earning Ratio (PER) increases if the ROE increased.
Return on Equity (ROE), which has been influenced by the intellectual capital variable is expected to increase the Price to Earning Ratio (PER) of the company. Based on the above, it can be proposed that the fifth research hypothesis as follows:
H$_5$: Price to Earning Ratio (PER) is affected by the level of Return on Equity (ROE)

Research Method

Research Variables and Operational Definition of Variables

The independent variable in this study is that Intellectual Capital is proxied by VACA, VAHU, and STVA and financial performance is proxied by ROE. According to Williams (2001) intellectual capital is information and knowledge applied to work to create value. This definition emphasizes the ability of intellectual capital in creating value. Currently, providing an assessment of intellectual capital is essential.

Pulic (1998) in Wahdikorin (2010) proposed a value added intellectual coefficient (VAIC^{TM}) to provide information about the value creation efficiency of tangible and intangible assets of the company. VAIC^{TM} is an analytical procedure that is designed to allow the management, shareholders and other relevant stakeholders to effectively monitor and evaluate the efficiency of the total value added to the company's resources and the individual components of the primary resource.

IC performance measured in this study based on the value added created by the physical capital (VACA), human capital (VAHU) and structural capital (STVA).
Formulation and computation phases VAIC™ is as follows:

Tabel 1. Research Variables and Operational Definition of Variables

Variable Name	Operational Definition	Description
VACA	VA/CE Where: VA = Value Added CE = *Capital Employed;* book value of net assets	Independent, Exogenous
VAHU	VA/HC Where: VA = Value Added HC = *Human Capital*; employee cost	Independent, Exogenous
STVA	SC/VA Where: SC = *Structural Capital*: VA – HC VA = Value Added	Independent, Exogenous
ROE	EAT/TE EAT = Earning After Tax TE = Total Equity	Independent, Endogenous/Mediator
PBV	Stock market price divide by Book value per share	Dependent, Endogenous
PER	Stock price divide by Earning per share	Dependent, Endogenous

Population and Sampling
The population in this study is a banking company listed on the Indonesia Stock Exchange (IDX). The banking sectors in general, offer the ideal intellectual capital research ideal. In addition, the banking sector is a business sector that is "intellectually intensive" (Kamath, 2007)

and also includes the service sector, where customer service is very dependent on the intellect / mind / intelligence human capital.

This study uses financial statement data for the last five years i.e. 2007, 2008, 2009, 2010 and 2011 which is the latest data that can give a company an updating on the company's financial performance. The sampling technique uses purposive sampling. It is not random sampling information obtained by certain considerations or criteria. Sample selection criteria are:

a) Banking company listed on the Indonesia Stock Exchange from the year 2007-2011
b) The Company has issued financial statements for five consecutive years from 2007, 2008, 2009, 2010 and 2011 have been published.

Based on these criteria, the number of samples obtained for the years 2007 - 2011 which will be further used in the study were as many as 20 samples consisting of 12 domestic commercial banks and 8 foreign commercial banks listed on the Indonesian Stock Exchange, unit analysis in this study is the annual reports, particularly its financial statement. The financial statements were obtained through the official website of BI (www.bi.go.id), or the official website of each bank, and or BEI, either through the internet (www.idx.co.id).

The annual report was chosen because the annual report is a very useful source of data for the company's management hinted at the things that are important through the reporting mechanism. Important issues are highlighted, reported, and discussed, while the less important things left out or transferred to other parts of the report (Guthrie, 1997 in Purnomisdhi, 2006).

Analysis Methods
This study uses a quantitative approach. In general, quantitative approach is more focused on the goal of generalization, with statistical testing and sterile from the influence of opinion research (Sekaran, 1992). The analytical tool for hypothesis testing used in this research is the path analysis in the division of Structural Equation Modeling (SEM) with AMOS version 6 program for testing hypotheses and SPSS 18 for testing classical assumptions. In this study will be analyzed regarding the effect of intellectual capital (as measured by VAIC), the three main components (VACA, VAHU, STVA) on the market value of the company through the company's financial performance.

Result and Disscussion
Descriptive Analysis

Data process in this research using the program Microsoft Excel, SPSS, and AMOS. The data are obtained from VACA (Value Added Capital Employed), VAHU (Value Added Human Capital), STVA (Structural Capital Value Added), Return on Equity (ROE), Price to Book Value (PBV), and Price to Earning Ratio (PER) for 5 years, starting in 2007 until 2011.

The first analysis was done to analyze the data by using descriptive statistics which describes all the variables of the research. The variables of this research are variable VACA (Value Added Capital Employed), VAHU (Value Added Human Capital), STVA (Structural Capital Value

Added), Return on Equity (ROE), Price to Book Value (PBV), and Price to Earning Ratio (PER). General description of these variables appears on the Table 4.1 below:

Table *2*. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
VACA	100	,64	20,64	3,7075	3,34924
VAHU	100	1,63	6,62	2,9956	,89571
STVA	100	,39	,85	,6415	,08981
ROE	100	-1,61	43,83	15,4957	9,16413
PBV	100	,32	6,07	2,0477	1,13462
PER	100	-402,96	116,25	17,5005	47,85247
Valid N (listwise)	100				

Sources: SPSS Secondary Data Processed (2012)

The average VACA for 5 years at 20 companies shows a positive value. VACA has an average value of 3,7075 with standard deviation 3,34924. This means describing the value added company by the capital employed is able to reach 3,7075 times. The maximum value during the period of observation is at 20,64 indicates the highest capital employed achieved by the sampled companies and the minimum value during the period observation is at 0,64 indicates the lowest capital employed achieved by the sampled companies.

The average VAHU for 5 years at 20 companies shows a positive value. VAHU has an average value of 2,9956 with standard deviation 0,89571. This means describing the value added company by the human capital is able to reach 2,9956 times. The maximum value during the period of observation is at 6,62 indicates the highest human capital achieved by the sampled companies and the minimum value during the period observation is at 1,63 indicates the lowest human capital achieved by the sampled companies.

The average STVA for 5 years at 20 companies shows a positive value. STVA has an average value of 0,6415 with standard deviation 0,08981. This means that the structural capital issued by the company is still relatively small sample is approximately 64,15 %. The maximum value during the period of observation is at 0,85 indicates the highest structural capital achieved by the sampled companies and the minimum value during the period observation is at 0,39 indicates the lowest structural capital achieved by the sampled companies.

The average of Return on Equity (ROE) for 5 years at 20 companies is 15,4957 with a standard deviation of 9,16413. The maximum value during the period of observation is at 43,83, and the minimum value during the period observation is at -1,61. The maximum value of 43,83 indicates the highest ROE achieved by the sampled companies and the minimum value of -1,61 indicates the lowest ROE achieved by the sampled companies.

The average of Price to Book Value (PBV) for 5 years at 20 companies is 2,0447 with a standard deviation of 1,13462. The maximum value during the period of observation is at 6,07, and the minimum value during the period observation is at 0,32. The maximum value of 6,07 indicate the highest PBV achieved by the sampled companies and the minimum value of 0,32 indicates the lowest PBV achieved by the sampled companies.

The average of Price to Earning Ratio (PER) for 5 years at 20 companies is 17,5005 with a standard deviation of 47,85247. The maximum value during the period of observation is at 116,25, and the minimum value during the period observation is at -402,96. The maximum value of 116,25 indicates the highest PER achieved by the sampled companies and the minimum value of -402,96 indicates the lowest PER achieved by the sampled companies.

The summary of statistic classical assumption testing for those variables could be seen below:

Tabel 3. Classical Assumption

	N	Normality	Autocorrelation	Multicolinearity	Heteroscedasticity
VACA	100	Normal	Not Exist	Not Exist	Not Exist
VAHU	100	Normal	Not Exist	Not Exist	Not Exist
STVA	100	Normal	Not Exist	Not Exist	Not Exist
ROE	100	Normal	Not Exist	Not Exist	Not Exist
PBV	100	Normal	Not Exist	Not Exist	Not Exist
PER	100	Normal	Not Exist	Not Exist	Not Exist

Sources: SPSS Secondary Data Processed (2012)

All of variables in this research is passed from those statistical testing, so it can be use in the analysis.

By using AMOS Ver. 6.0 software, the goodness of fit results reflected in Table 4.5 below:

Table 4. Goodness of Fit for Model

Good of fit index	Cut-off value	Model result	Explanation
X^2- Chi-Square		9,410	Expected small value
Significance Probability for the Model (P)	$\geq 0,05$	0,225	Good
RMSEA	$\leq 0,08$	0,059	Good
GFI	$\geq 0,90$	0,971	Good
AGFI	$\geq 0,90$	0,913	Good
CMIN/DF	$\leq 3,00$	1,344	Good
CFI	$\geq 0,95$	0,990	Good

Source: AMOS Secondary Data Processed (2012)

The table 4 shows that the chi-square is at 9,410. It happens because of the number of samples are small. Significance probability is more than 0,05, it shows that the research model is accepted. The RMSEA is at 0,059 and CMIN/DF is at 1,344 is less than cut off value, it means suitability of research model is good. The GFI is at 0,971; AGFI is at 0,913 and CFI is at 0,990 is more than cut off value, it means suitability of research model is good. So, it can be said that the model is fit for the data analyzed.

Hyphothesis Testing

Testing of hypothesis performed with Path Analysis using the software AMOS version 6.0. Limit of significance (p) which is used in decision making admissibility hypothesis that is equal to 0,05 or 5%. In another words, hypothesis will be accepted if the significance value (p) obtained less than or equal to 0,05 or 5% (p ≤ 5%) (Hair *et al*., 1998; Sekaran, 2000; Nur'Ainy, 2010).

The first hypothesis examination describes the effect of value added capital employed (VACA) on Return on Equity (ROE).

H$_1$: *Return on Equity (ROE)* is affected by the high and low Value Added Capital Coefficient (VACA)

Based on the result of path analysis using AMOS software, it is known that hypothesis 1 can be accepted because the value of significance (p-value) generated is smaller than the limit, that is equal to 0,05 or 5%. Estimate value is standardized regression weight and the p-value is a significant value, as seen in table below:

Table 5. Path Analysis of Hypothesis 1

	Estimate	Direction	P
VACA → ROE	1,173	Positive	***

Source: AMOS Secondary Data Processed (2012)

The result of path analysis shows that VACA variable has a value of standardized regression weight at 1,173 in predicting Return On Equity. The significance of this can be seen in the p-value which is smaller than 0,001 (in AMOS marked ***) and smaller than the limit that has been required, which is 0,05 or 5%, so that H$_1$ is accepted. Thus, it can be said that ROE is affected by VACA. Where the capital employed like land, building and tangible asset can be affect to profitability firms. It can be concluded that the higher capital employed will increase the company's profitability, particularly return on shareholder capital. It can also result in the company's return on equity.

The second hypothesis testing illustrates the effect of value added human capital (VAHU) on Return on Equity (ROE).

H$_2$: *Return on Equity (ROE)* is affected by the high and low Value Added Human Capital (VAHU)

Based on the result of path analysis using AMOS software, it is known that hypothesis 2 can be rejected because the value of significance (p-value) generated is higher than the limit, that is equal to 0,05 or 5%. Estimate value is standardized regression weight and the p-value is a significant value, as seen in table below:

Table 6. Path Analysis of Hypothesis 2

	Estimate	Direction	P
VAHU → ROE	-4,155	Negative	,054

Source: AMOS Secondary Data Processed (2012)

The result of path analysis shows that VAHU variable has a value of standardized regression weight for -4,155 and not significant in predicting corporate performance (Return on Equity). Significance can be seen from the p-value for 0,054 that exceeds 0,05 or 5%, so that H$_2$ is rejected. Thus, it can be said that VAHU is not affect to ROE. Where the human capital like knowledge, skill and attitude human is not affect to profitability firms.

The third hypothesis examination illustrates the effect of structural capital value added (STVA) on Return on Equity (ROE).

H_3 : *Return on Equity (ROE)* is affected by the high and low Structural Capital Value Added (STVA)

Based on the result of path analysis using AMOS software, it is known that hypothesis 3 can be accepted because the value of significance (p-value) generated is smaller than the limit, that is equal to 0,05 or 5%. Estimate value is standardized regression weight and the p-value is a significant value, as seen in table below:

Table 7. Path Analysis of Hypothesis 3

	Estimate	Direction	P
STVA → ROE	66,570	Positive	,002

Source: AMOS Secondary Data Processed (2012)

The result of path analysis shows that STVA variable has a value of standardized regression weight at 66,570 in predicting Return on Equity. These results are significant which can be seen from the p-value, amounting to 0,002. Thus, H_3 is accepted and it can be said that the variable STVA is a good predictor of Return on Equity. It can be concluded that the better corporate structure can increase shareholders equity.

The fourth hypothesis examination illustrates the effect of Return on Equity (ROE) on price to book value (PBV).

H_4 : Price to Book Value (PBV) is affected by the high and low Return on Equity (ROE)

Based on the result of path analysis using AMOS software, it is known that hypothesis 4 can be accepted because the value of significance (p-value) generated is smaller than the limit, that is equal to 0,05 or 5%. Estimate value is standardized regression weight and the p-value is a significant value, as seen in table below:

Table 7. Path Analysis of Hypothesis 4

	Estimate	Direction	P
ROE → PBV	,037	Positive	,002

Source: AMOS Secondary Data Processed (2012)

The result of path analysis shows that ROE variable has a value of standardized regression weight at 0,037 in predicting Price to Book Value (PBV). These results are significant which can be seen from the p-value, amounting to 0,002. Thus, H_4 is accepted and it can be said that the variable ROE is a good predictor of Price to Book Value (PBV). It can be concluded that the better corporate performance can increase firm's market value.

The fifth hypothesis examination illustrates the effect of Return on Equity (ROE) on price to earning ratio (PER).

H_5 : Price to Earning Ratio (PER) is affected by the high and low Return on Equity (ROE)

Based on the result of path analysis using AMOS software, it is known that hypothesis 5 can be rejected because the value of significance (p-value) generated is higher than the limit, that is

equal to 0,05 or 5%. Estimate value is standardized regression weight and the p-value is a significant value, as seen in table below:

Table 8. Path Analysis of Hypothesis 5

	Estimate	Direction	P
ROE → PER	-,404	Negative	,440

Source: AMOS Secondary Data Processed (2012)

The result of path analysis shows that ROE variable has a value of standardized regression weight for -0,404 and not significant in predicting price to earning ratio (PER). Significance can be seen from the p-value for 0,404 that exceeds 0,05 or 5%, so that H_5 is rejected. Thus, it can be said that ROE is not affect to PER and it can also result in the company's stock price.

Based on the results of testing hypothesis 1 to hypothesis 5, the following Table 9 summarizes the results of hypothesis tests.

Table 9. Summary of Hypothesis Examination Results

Hypothesis	Variable	Estimate	p	`Results
1	VACA → ROE	1,173	***	H_1 accepted
2	VAHU → ROE	-4,155	,054	H_2 rejected
3	STVA → ROE	66,570	,002	H_3 accepted
4	ROE → PBV	,037	,002	H_4 accepted
5	ROE → PER	-,404	,440	H_5 rejected

Source: AMOS Secondary Data Processed (2012)

The table 9 shows that the hypothesis 1, hypothesis 2 and hypothesis 3 are accepted. Whereas the hypothesis 2 and hypothesis 5 are rejected. Acceptance or rejection of this hypothesis based on a significance value generated by each path. The hypothesis is accepted if the significance exceeds the limit of 0,05 or 5%, otherwise hypothesis is rejected if the significance is less than the limit of 0,05 or 5%.
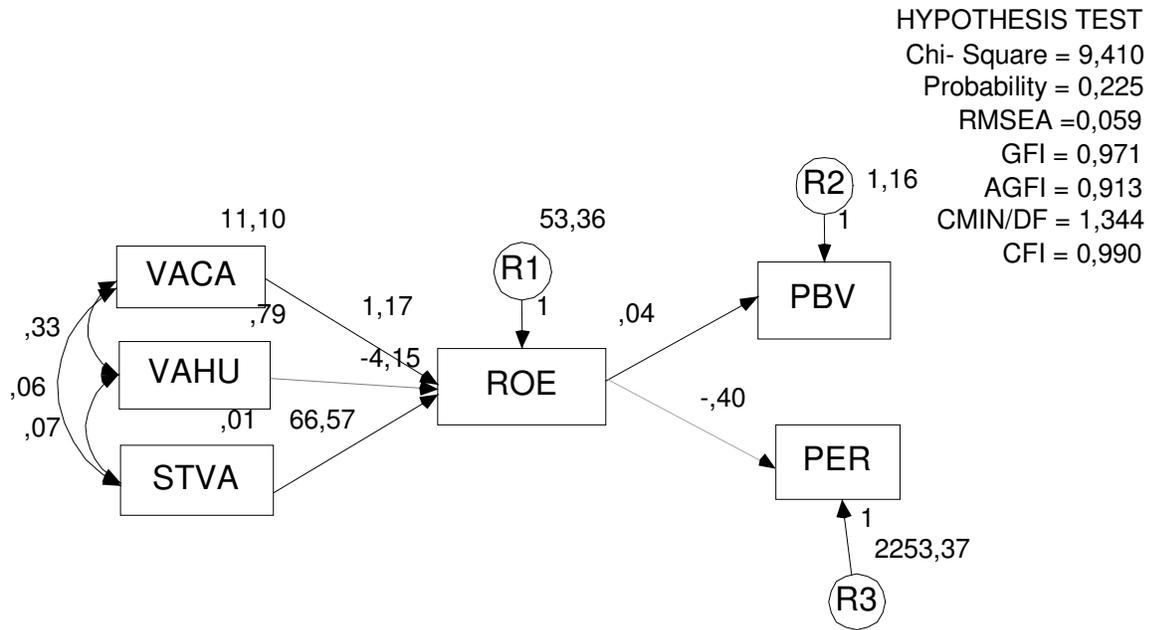
Figure 2.
Path Analysis of Research Model
Impact of Intellectual Capital on the Firm's Market Value: The Mediation Role of Financial Performance

Figure 2 shows a path analysis diagram which illustrates the results of hypothesis examination in this study. The figure listed in the diagram shows the regression coefficients (standardized regression weight) which show the influence within the variable in the research. The thick arrows show the path of alternative hypothesis which is accepted and the thin arrows indicate the path of alternative hypothesis which is rejected.

Hypothesis is accepted with high value structural capital value added (STVA) is affect to Return on Equity (ROE) with standardized regression weight value is 66,57, if compared with value added capital efficiency (VACA) affect to Return on Equity (ROE) with standardized regression weight value is 1,17. Meanwhile, Return on Equity is affect to price to book value with standardized regression weight value is 0,4 less than compared with standardized regression weight value capital employed affect to Return on Equity in the amount of 1,17.

Based on the results of the hypothesis testing, to furthermore research conducted an analysis of variables VACA, VAHU and PBV received following the path (which striped thick arrows).

Determinant (R^2) Test

R^2 Test aims to see how much the ability of independent variables in explaining the variance of the dependent variable (Ghozali, 2006 in Wahdikorin, 2010). By using AMOS, it can be proven through square multiple correlations facilities which is available in the Table 10 below:

Table 10. Squared Multiple Correlations

	Estimate
ROE	,358
PER	,006
PBV	,090

Source: AMOS Secondary Data Processed (2012)

Table 10 shows the squared multiple correlations value of variable ROE, PER and PBV. Squared Multiple Correlations value of variable ROE is at 0,358. It means that 35,8% of the variance ROE can be explained by the VACA,VAHU and STVA. The remaining 64,2% is explained by other factors outside the regression model.

Squared Multiple Correlations value of variable PER is at 0,006. It means that 0,6% of the variance of PER can be explained by VACA, VAHU, STVA through Return on Equity (ROE). The remaining 99,4% is explained by other factors outside the regression model.

Squared Multiple Correlations value of variable PBV is at 0,090. It means that 9% of the variance of PBV can be explained by VACA, VAHU, STVA through Return on Equity (ROE). The remaining 91% is explained by other factors outside the regression model.

CONCLUSION AND IMPLICATION

Conclusion

Intellectual capital is intangible corporate assets into a very valuable asset. As the intellectual capital as a valuable corporate asset, providing a challenge for accountants to be able to identify, measure and disclose it into the company's financial statements. This is due to the traditional accounting systems that have failed to disclose this asset. Intellectual capital as intangible assets owned by the company will be profitable in the future that can be seen from the performance of the company.

In general, intellectual capital can be measured using VAIC method developed by Pulic, by sharing intellectual capital into three main elements, namely human capital (VAHU) which covers the knowledge and skills of employees, capital structure (STVA) which includes technology and information infrastructure that supports it, and customer capital (VACA) that build relationships with consumers. These three elements will interact dynamically, as well as continuous and broad that it will generate value for the company.

Based on the results of hypothesis testing using path analysis showed that the VACA and STVA has a significant positive effect on firm ROE, while VAHU not have a significant effect on ROE. This may imply that the capital and structural capital employed of good will have the effect on the rate of return on its capital, while human capital not otherwise have any effect on the level of return capital.

The rate of return to capital that has been influenced by the intellectual capital can affect the market value of the company, especially the stock price to book value (PBV). With the ever increasing rate of return on capital of the company, it can increase the price of the shares that will be able to influence the decision to invest in the company. Different things happen between

the rates of return of the stock price to be paid by investors in the profits generated by the company, which showed that there was no significant effect between the two variables.

Thus it can be concluded, that the intellectual capital in Indonesia banking industry that have an influence on the Return on Equity (ROE) and Price to Book Value (PBV), only the value added capital coefficient (VACA) and structural capital value added (STVA), while the value added human capital (VAHU) has no effect on Return on Equity (ROE). In addition, the market value of the company that could be affected by the ROE only price to book value (PBV), while the price of the stock price to earnings ratio (PER) is not affected by the ROE.

Implications
Based on the results of this research is that intellectual capital when viewed in terms of knowledge of employees on financial performance as measured by the return on equity, does not have a significant effect. So it can be explained that how much knowledge possessed by the employee does not have an influence on who will get the company's profitability.

In addition, the implication derived from the research is the company will pay more attention to the components of the company, both tangible and intangible. Since the basis of the results obtained in this study, that the structure of the company can improve the return on capital that is owned companies and this can also lead to the price of the shares owned by the company. Thus, a company with a corporate management level is necessary and well structured.

REFERENCES

Bank of Indonesia. www.bi.go.id

Bara, Enika Diana Batu. (2011).”Pengaruh Profitabilitas Terhadap Harga Saham dengan *Price Earning Ratio* Sebagai Variabel Moderating pada Perusahaan Industri Barang Konsumsi yang Terdaftar Di Bursa Efek Indonesia”.Master Thesis, Universitas Sumatera Utara, Medan.

Barney, Jay. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management* Vol.17 No.1.

Bontis, Nick. (1998). “Intellectual Capital: an Exploratory Study that Develops Measures and Models.” *Management Decision*. Vol. 36, No. 2, pp.63-76.

Bontis, Nick. (2000).”Assessing Knowledge Assets: A Review of the Models Used to Measure Intellectual Capital”.

Bontis, Nick., Dragonetti, N. C., Jacobsen, K., & Roos, G. (1999). “The Knowledge Toolbox: A review of the tools available to measure and manage intangible resources”, *European Management Journal,* 17, 4, 391- 401.

Bontis, Nick., Keow, Wiliam Chua Chong, & Richardson, Stanley. (2000). “Intellectual Capital and Business Performance in Malaysian Industries.” *Journal of Intellectual Capital*. Vol 1, No. 1, pp.85-100.

Booker, Lorne D., Bontis, Nick., & Serenko, Alexander. (2008). “The Relevance of Knowledge Management and Intellectual Capital Research”. *Knowledge and Process Management,* Volume 15 Number 4 pp 235–246.

Brennan, N., and B. Connell. (2000). “Intellectual capital: current issues and policy implications”. *Journal of Intellectual Capital* Vol. 1 No. 3. pp. 206-240.

Cabrita, M., & Vaz, J. (2005). “Intellectual Capital and Value Creation: Evidence from the Portuguese Banking Industry”. *The Electronic Journal of Knowledge Management* Volume 4 Issue 1, pp 11-20.

Chen, et al., (2005). “An Empirical Investigation of The Relationship Between Intellectual Capital and Firm□s Market Value and Financial Performance”. *Journal of Intellectual Capital*. Vol. 6, No. 2, pp.159-176.

Dewi, Citra puspita. (2011). “Pengaruh *Intellectual Capital* Terhadap Kinerja Keuangan pada Perusahaan Manufaktur yang Terdaftar di BEI Tahun 2007-2009”. Undergraduate Thesis, Diponegoro University, Semarang.

Entika, Nova Lili. (2012).”Pengaruh Elemen Pembentuk *Intellectual Capital* Terhadap Nilai Pasar dan Kinerja Keuangan pada Perusahaan Perbankan yang Terdaftar di Bursa Efek Indonesia (BEI)”. Undergraduate Thesis, Diponegoro University, Semarang.

Ferdinand, Dr. Agusty. (2002). “Stuctural Equation Modeling dalam Penelitian Manajemen”. Semarang: BP UNDIP.

Gan, Kin & Saleh, Zakiah. (2008). “Intellectual Capital and Corporate Performance of Technology-Intensive Companies: Malaysia Evidence”. *Asian Journal of Business and Accounting*, 1(1), 113-130.

Grant, Robert M. (1996). “Toward a knowledge-based theory of the firm”. *Strategic Management Journal*, Vol. 17(Winter Special Issue), 109-122 (1996)

Indonesian Stock Exchange. www.idx.co.id

International Accounting Standards Board. (2004). *Intangible Assets*. IAS 38. International Accounting Standards Board, London.

Kor, Yasemin Y. & Mahoney, Joseph T. (2004). "Edith Penrose's (1959) Contributions to the Resource-based View of Strategic Management". *Journal of Management Studies* 41:1.

Kusumajaya, Dewa Kadek Oka. (2011). "Pengaruh Struktur Modal dan Pertumbuhan Perusahaan Terhadap Profitabilitas dan Nilai Perusahaan pada Perusahaan Manufaktur di Bursa Efek Indonesia". Master Thesis, Udayana University, Denpasar, Bali.

Maditinos, et al. (2011). "The impact of intellectual capital on firms' market value and financial performance". *MIBES Transactions*, Vol 5, Issue 1, Spring.

Margaretha, Farah & Rakhman, Arief. (2006). "Analisis Pengaruh Intellectual Capital Terhadap Market Value dan Financial Performance Perusahaan dengan Metode Value Added Intellectual Coefficient". *Jurnal bisnis dan akuntansi*, Vol. 8, No. 2, 199-217.

Murti, Anugraheni Cahyaning. (2010). "Analisis Pengaruh Modal Intelektual Terhadap Kinerja Perusahaan (Studi pada Perusahaan yang Terdaftar di Bursa Efek Indonesia)". Undergraduate Thesis, Diponegoro University, Semarang.

Nur"Ainy, Renny. (2010). "Pengaruh Implementasi Good Corporate Governance Terhadap Return Saham melalui Profitabilitas, Leverage dan Likuiditas". Dissertation (Unpublished). University of Gunadarma

Puntillo, Pina. (2009). "Intellectual Capital and business performance. Evidence from Italian banking industry".

Purnomosidhi, Bambang. (2006). "Analisis Empiris Terhadap Diterminan Praktik Pengungkapan Modal Intelektual Pada Perusahaan Publik Di BEJ".

Putri, Anggun Amelia Bahar. (2012). "Analisis Pengaruh ROA, EPS, NPM, DER dan PBV Terhadap Return Saham (Studi kasus pada industri Real Estate and Property yang terdaftar di Bursa Efek Indonesia periode 2007-2009)". Undergraduate Thesis, Diponegoro University, Semarang.

Sari, Nur Fita. (2012). "Analisis pengaruh DER, CR, ROE, dan TAT terhadap return saham". Undergraduate Thesis, Diponegoro University, Semarang.

Sartono, R.A. (2001). "Manajemen Keuangan Teori dan Aplikasi". Edisi 4. Yogyakarta: BPFE.

Saryanti, Endang. (2011). "Pengaruh Intellectual Capital Terhadap Kinerja Keuangan Perusahaan Perbankan yang Terdaftar di Bursa Efek Indonesia Tahun 2007-2009". STIE AUB Surakarta.

Sawarjuwono, Tjiptohadi & Kadir, Agustine Prihatin. (2003). "Intellectual Capital: Perlakuan, Pengukuran dan Pelaporan (Sebuah Library Research)." *Jurnal Akuntansi dan Keuangan.* Vol 5, No. 1.

Soedaryono, Bambang, Murtanto & Prihatini, Ari. (2012). "Effect Intellectual Capital (Value Added Intellectual Capital) to Market Value and Financial Performance of Banking Sector Companies Listed in Indonesia Stock Exchange". *The 2012 International Conference on Business and Management*, Phuket – Thailand.

Stewart, T A. (1997). "Intellectual Capital: The New Wealth of Organizations". New York: Doubleday.

Sveiby, Karl Erick. (1997). "The New Organizational Wealth". Berrett-Koehler.

Sveiby, Karl Erick. (2001). "Methods for Measuring Intangible Assets".

Tan, et al., (2007). "Intellectual Capital and Financial Returns of Companies." *Journal of Intellectual Capital.* Vol 8, No. 1, pp.76-95.

Trischler, William E. (1996). "Understanding and Applying Value-Added Assessment: Eliminating Business Process Waste".

Uadiale, Olayinka Marte & Uwuigbe, Uwalomwa. (2011). "Intellectual Capital and Business Performance: Evidence from Nigeria". *Interdisciplinary Journal of Research in Business* Vol. 1, Issue. 10, (pp.49- 56).

Ulum, Ihayul. (2007). "Pengaruh Intellectual Capital Terhadap Kinerja Keuangan Perusahaan Perbankan di Indonesia". Master Thesis, Diponegoro University, Semarang.

Ulum, Ihyaul. (2008). Intellectual Capital Performance Sektor Perbankan di Indonesia. *Jurnal Akuntansi dan Keuangan*, Vol. 10, No. 2, November, halaman 77-84.

Venugopal, Deepa & Subha, M. V. (2012). "Intellectual Capital and Value Creation Efficiency- An Empirical Investigation into the Intellectual Capital and Financial Performance of Indian Software Industry". *European Journal of Social Sciences* ISSN 1450-2267 Vol.33 No.1 (2012), pp. 119-132.

Wahdikorin, Ayu. (2010)." Pengaruh Modal Intelektual Terhadap Kinerja Keuangan Perusahaan Perbankan Yang Terdaftar Di Bursa Efek Indonesia (BEI) Tahun 2007-2009". Undergraduate Thesis, Diponegoro University, Semarang.

Wicaksana, Adityas. (2011). "Pengaruh Intellectual Capital Terhadap Pertumbuhan dan Nilai Pasar Perusahaan Pada Perusahaan Perbankan Yang Tercatat di Bursa Efek Indonesia". Undergraduate Thesis, Diponegoro University, Semarang.

Wicaksana, Adityas. (2011). Pengaruh Intellectual Capital Terhadap Pertumbuhan Dan Nilai Pasar Perusahaan Pada Perusahaan Perbankan Yang Tercatat Di Bursa Efek Indonesia. Undergraduate Thesis, Diponegoro University, Semarang.

William, S. Mitchell. "Corporate Governance Diversity and Its Impact on Intellectual Capital Performance in an Emerging Economy". University Drive Calgary, Alberta, Canada.

Yusuf dan Sawitri, Peni. (2009). "Modal Intelektual Dan Market Performance Perusahaan Perusahaan Yang Terdaftar Di Bursa Efek Indonesia". *Proceeding PESAT (Psikologi, Ekonomi, Sastra, Arsitektur & Sipil)* Vol .3 Oktober 2009 University of Gunadarma, Depok.