THE EFFECT OF INTELLECTUAL CAPITAL ON CORPORATE VALUE

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ABSTRACT

Economic development has many methods in development of financial institutions banking. Liquidity management can affect the institution. The crisis in financial sector is caused by low capability of financial institutions to deal fund sources. It affects the development of securities market and real sector. This study aims to analyze the effect of Intellectual Capital on Banking Value in Indonesia. The effect of Intellectual Capital is derived revenue (financial performance) on Banking Value, indirect effect of Intellectual Capital to Company's value of financial performance. This research is a descriptive explanatory research to test the hypotheses. The population is all Indonesia Banking. This research uses 30 banks with 5 years period (series) from year 2011 until 2015. The samples are 5 years x 30 = 150 item data and analyzed by path analysis. The research results indicate that companies should aware to important role of intellectual capital management. Company must manage intellectual capital within company, because it can affect on firm value. Intellectual capital has a significantly and positive effect on financial performance. In addition, there is an indirect effect of Intellectual Capital on firm value through financial performance. Optimal intellectual capital will create value added to company to provide a separate characteristic. The company will be able to compete with its competitors, because it has a unique competitive advantage.

KEYWORDS: intellectual capital, financial performance, corporate value**.**

INTRODUCTION

The rapid development of economic conditions along with development and competition requires very tight innovation in business world. This makes the company change the way to do business from labor-based business to a knowledge-based business. The company characteristics became a science-based enterprise. One of them is Finance Companies especially banking. The free trade phenomenon creates the global economic structure. It causes the flow of goods, services, capital and labor traffic can move from one country to another without any limitations and obstacles. This led to a paradigm shift from physical capital paradigm to a new paradigm focusing on intellectual capital. The change has not been adequately addressed by accountant (Suhendah, 2012). Opinion about the

importance of intellectual capital is supported by Petty (2000) that company more focused on importance of knowledge assets. One approaches used in assessment and measurement of knowledge assets is intellectual capital as the focus of attention in various fields, management, information technology, and sociology. This poses a challenge for parties to identify measure and disclose it in financial statements. Intellectual Capital plays an important role to improve corporate value and financial performance. Companies that are able to utilize their intellectual capital efficiently can increase the market value (Sunarsih and Ni Putu, 2012). Appuhami (2007) states that greater the value of intellectual capital makes the more efficient company capital usage, thus creating value added for company.

LITERATURE REVIEW AND HYPOTESHIS

The company's financial statements play an important role in capital market, both for individual investors and market as a whole. It is supported by Petty and Guthrie (2000) that company is currently more emphasize on the importance of knowledge assets. One approach used to asses and measure the knowledge assets are the intellectual capital that has become the focus attention in various fields, management, information technology, sociology and accounting. This poses challenges for accountants to identify measure and disclose it in financial statements (Sunarsi and Ni Putu, 2012). Intellectual Capital is believed to play an important role to increase the firm value.

This study measures the effect of intellectual capital on firm value by taking into account the company's financial performance factor. The company's financial position is affected by controlled resources, liquidity, leverage, profitability, and adaptability to environmental changes. Company performance information, particularly profitability, is needed to assess potential changes in economic resources that may be controlled in future to predict the company's capacity to utilize additional resources. The expenditure and procurement of a company's fund is closely related to company's financial condition. It is reflects the liquidity, solvency, activity and profitability of company. Financial performance is a reflection of many transactions.

Hypothesis
H1: More Intellectual Capital can increases Company's Value
H2: Better financial performance can increases the firm value
H3: Intellectual Capital has indirect effect on Company's Values with financial performance as intermediation
H4: Intellectual Capital has indirect effect on Values of Enterprises with intermediation of financial performance

METHOD

Research Design
This is a descriptive explanatory research to test causality through hypothesis testing to analyze the effect of Intellectual Capital on Firm value. The variables represent each dimension. Intellectual Capital consists of knowledge management variable and skill and employees capabilities. Financial performance is measured through the dimensions of Revenue Growth. Firm Value variable is measured by the Economic Value Added dimension. This integrated parent model is the main target that will be generated in research.

The research location is Indonesia Banking. The reason to choose the location is the development of Indonesia Banking is significant based on comparison of capital and profitability among demands of considerable efficiency

Population and Sample
Population is the whole object of research from both real objects, abstract, events or symptoms that as the data source and have a certain character and same (Sukandarrumidi, 2006: 47). The study population is all Indonesia Banking.

Data collection uses two methods independently. The secondary data were analyzed using each method. Further analysis is done with meta-analysis to group, differentiate and sought the relationship of one data to others. It can show the data are mutually reinforcing, weakening or contradictory.

The data is collected in a time series. Data is arranged chronologically in according to time on a particular variable and cross section, ie data collected at a point in time, called a data poll with a combined model. This research use 30 bank for 5 years (series) that is year 2011 until 2015. Total samples are 5 years x 30 = 150 item data. The data is collected from published financial report. This is secondary data available and collected by other party, namely from Bank Indonesia monthly report for 2011 to 2015 period.

Data Analysis
Sugiono (2010: 335) explains that data analysis techniques is the process to find and organizing systematically data from interviews, field notes and documentation by organizing the data into categories, describe into units, synthesize, organize into patterns , choose what important and what will be learned and making conclusions to facilitate understanding researchers and others. The analysis stages are as below. Descriptive analysis explains the data descriptions such calculation of mean and variance of variables. It is described tables to facilitate easier reading and understanding.

Path analysis was developed by Sewal Wright in 1934. This is the extension of multiple regressions used to estimate causality relationships between predefined variables, as well as to examine the contributions of each exogenous variable on endogenous variables (Ghozali 2006, Riduan and Kuncoro 2011). The causal relationship testing is based on theory that variables studied have a causal relationship. Path analysis is not intended to derive a causal theory, but the usage should be based on a theory that relationship between variables is causal. The theories are used to develop path diagram, analysis results and the implementation (Widiyatmoko, 2013).

RESULTS AND DISCUSSION

Classic assumption test
Classic assumption tests as the condition to do path analysis. The data must meet linearity and residual normality assumptions.

Linearity Test
Linearity test aims to test the linearity of relationship between independent variables and dependent variables. A good path model has linear relationship between the two variables. The method used to test the linearity is curve estimation test. The relationship between the two variables is linear when the significance value of test is smaller than the alpha. Test results are presented in table 1 below.

Table 1. Linearity Test Result with Curve Fit

Variables	Significance	Description

IC → GR	0.002	Linear
IC → EVA	0.004	Linear
GR → EVA	0.003	Linear

Table 1 show that the significance value for IC → GR is 0.002, IC → EVA is 0.004, GR → EVA is 0.003. The value is less than α 5%. It indicates a linear relationship between variables.

Path Analysis
Path analysis is used to test the hypothesis. This analysis is used to determine the level of effect on a relationship.

Theoretical Model Development
The step to develop theoretical model is done by exploring scientifically variables and relationship between variables through literature review in order to get justification for developed theoretical model. The relationship between variables for the model is shown in figure 1 below.
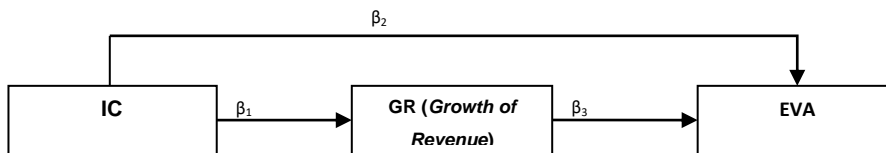

Figure 1. Path Diagram of Model

Figure 1 above may also be expressed by equation below:

$$GR = \beta_1 IC + \varepsilon_i \qquad \text{(Substructure 1)}$$
$$EVA = \beta_2 IC + \beta_3 GR + \varepsilon_i \qquad \text{(Substructure 2)}$$

Path Coefficient Calculation
The path coefficient calculation uses standardize regression analysis by looking at simultaneously and partially effect of each equation. It uses ordinary least square (OLS) method and calculated by software SPSS version 21.0:

Hypothesis testing
The effect of IC on GR
Standardize regression test results are shown in Table 2 below.

Table 2. Regression Analysis Result of IC to GR

Variables	Beta	t	Sig t	Description
IC	-0.089	-1.991	0.002	Significant
$t_{(0.05,148)}$		= 1.976		
R Square		= 0.008		

The explanations of Table 2 are below.
  a. R Square value is 0.008 or 0.8%. This means that IC (Intellectual Capital) variable affects on GR (Growth of Revenue) variables at 0.8%, while the rest of 99.2% is affected other variables outside the studied variables.

  b. Regression equation standardize
$$EVA = -0.145 \, IC + 0.075 \, GR + \varepsilon_i$$
  c. The tcount value indicates that:

- The IC variable (Intellectual Capital) has a tcount of -1.091 with significance of 0.002. Tcount is larger than ttable (1.991> 1.976) or sig t is smaller than α (0.002 <0.050). It means IC variable (Intellectual Capital) has significant effect on GR (Growth of Revenue) variable.
- The GR (*Growth of Revenue*) has tcount of 1.922 with significane of 0.003. Tcount is larger than ttable (1.982 > 1.976) ort sig t larger than α (0.003> 0.050). It means GR (*Growth of Revenue*) variable has significant effect on EVA (*Value Firm*).

The effect of IC and GR on EVA

Standardize regression test results are shown in table 3 below.

Table 3. Regression Analysis Result of IC and GR to EVA

Variables	Beta	t	Sig t	Description
IC	-0.145	-1.996	0.007	significant
GR	0.075	1.982	0.003	significant
$t_{(0.05,120)}$		= 1.976		
R Square		= 0.476		

a. R Square has value of 0.476 or 47.6%. This means that IC (Intellectual Capital), and GR (Growth of Revenue) variables affect on EVA (Value Firm) at 47.6%, while the rest 52.4% is affected by other variables outside the studied variables.

b. Regression equation standardize
$$EVA = -0.145 \ IC + 0.075 \ GR + \varepsilon_i$$

c. The tcount value can be explained below.
- The IC variable (Intellectual Capital) has a t-test value of -1.996 with a significance of 0.007. Tcount is larger than ttable (1.996> 1.976) or sig t is smaller than α (0.007 <0.050). It means IC variable (Intellectual Capital) significantly affects on EVA variable (Value Firm).
- The GR (Growth of Revenue) variable has a t-test value of value of 1,922 with a significance of 0.003. Tcount is larger than ttable (1.982> 1.976) or sig t greater than α (0.003> 0.050). It means GR (Growth of Revenue) variable significantly effects on EVA (Value Firm) variable.

Path Interpretation

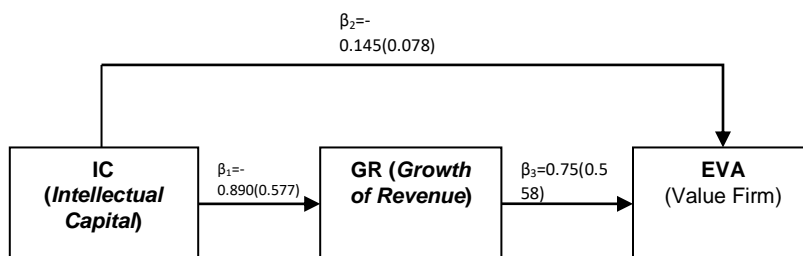Above two equations can be used to develop path analysis in figure 2 below.

Figure 2. Path diagram of Theoretical Research Model

Goodness of Fit model is tested by the coefficient of total determination. The total data variance that can be explained by model is measured by formula:

$$R^2_{m} = 1 - P^2_{e1} P^2_{e2} \dots P^2_{ep}$$

Where:

$$P^2_{e1} = 1 - R^2_1$$
$$P^2_{e2} = 1 - R^2_2$$

Where R^2_1 is R square for equation 1 equal to 0.890, R^2_2 is R square for equation 2 equal to 0.029:

$$P^2_{e1} = 1 – 0.008 = 0.992$$
$$P^2_{e2} = 1 – 0.476 = 0.524$$

The coefficient of total determination is follows:

$$R^2_m = 1 – (0.992 \times 0.524) = 0.48 \text{ or } 48\%$$

R^2_m calculation results indicate the variance of data that can be explained by model is 0.48 or in other words, the information in data can be explained 48% by model. The remaining 52% of variance is explained by other variables outside the model.

The models in this study are divided into 3 direct effects and 1 indirect effect. The tables 4 and 5 below presents the test results for direct and indirect effects.

Table 4. Hypothesis Testing of Direct Effect

Independent Variables	Dependent Variables	*Path*	p-value	Description
IC	GR	-0.890	0.002	significant
IC	EVA	-0.145	0.007	significant
GR	EVA	0.075	0.003	significant

Table 5. Hypothesis Testing of Indirect Effect

Independent Variable	Intervening Variable	Dependent Variable	*Path*		Description
IC	GR	EVA	1	0.007	Significant

Indirect Effect Hypothesis

The indirect effect of IC (Intellectual Capital) variable to EVA variable (Value Firm) through GR (Growth of Revenue) variable is obtained from direct effect of IC variable to GR variable and direct effect between GR variable to EVA variable. The indirect effect is 0.089 × 0.075 = 0.007. Because the direct effect of IC variable on GR variable and direct effect of GR variable on EVA variable are all significant, the effect of IC (Intellectual Capital) on EVA (Value Firm) variable through GR (Growth of Revenue) variable is also significant. Therefore, it can be concluded that GR variable can become the mediating variable for the effect of IC to EVA.

The test result shows that Intellectual Capital has a significant and positive effect on Growth of Revenue. High Intellectual Capital will increase Growth of Revenue of company. Terrziovski (2004) explains that Intellectual Capital has been done maximally to support the financial performance of company. It also shows that higher the Intellectual Capital will increase the company's growth. Companies capability to manage every resource maximally will get value added. It makes the company can grow and survive in business activities. Tan. Et.al (2007) shows that higher the value of Intellectual Capital will increase company growth. Solikah et al (2010) also gave similar results for Indonesia companies. This means that company that became the research object has success to maximize the competence, knowledge, motivation, commitment and loyalty of the employees to create value for company. The added value is used to develop the asset company development and the company continues to improve.

CONCLUSION

This study aims to determine the effect of intellectual capital on financial performance as measured by growth revenue to firm value. This research was conducted on 30 Indonesia Banking companies listed in IDX from 2011-2015. This study show following results. First, Intellectual capital must be managed by company, it can affect the firm value. The effect of Intellectual Capital and financial performance on firm value can improve financial

performance; Intellectual Capital indirectly affects the firm value through financial performance.

The suggestion for next researcher is the research on intellectual capital disclosure should use various other variables such as earnings per share, annual stock return and other variables. It is suggested that further research uses survey methods to confirm the present findings and can increase the proxy amount of financial performance measurement such as banking financial performance ratio (CAMEL).

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