THE INFLUENCE OF INTELLECTUAL CAPITAL AND FINANCIAL PERFORMANCE ON COMPANY VALUE (AN EMPIRICAL STUDY OF LQ45 COMPANIES LISTED ON THE INDONESIA STOCK EXCHANGE)

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Abstract

Intellectual capital is believed to have a positive relationship with the company's market value and company performance. In addition to intellectual capital, there are additional aspects that determine business value, such as Company Performance. This study uses a quantitative method with a structural equation model (SEM) which is a novelty from previous research. This study uses 3 variables, the independent variable is: Intellectual Capital, the mediating variable is financial performance and the dependent variable is firm value. The findings indicate that intellectual capital has a favorable and considerable impact on a company's financial performance and market value. Financial success has a positive and significant impact on the company's market value. Overall intellectual capital and financial performance have a beneficial influence on the financial performance.

Key words : Intellectual Capital, Financial Performance, Company Value, Structural Equation

INTRODUCTION

Companies in Indonesia still tend to use conventional based concepts in building their business, this can cause the products produced to be poor with technology content. So what is expected is that companies can understand the importance of knowledge management-based intellectual capital. The emergence of a new economy, which is principally driven by the development of information technology and science, has also triggered the growth of interest in intellectual capital (Bontis, 2000: 2). The main feature of the definition of intellectual capital is that they recognize the relationship between intellectual capital , organizational structure and performance. This reflects the uniqueness of the individual in increasing the company's competitive advantage (Mangane. et al, 2010:12).

In Indonesia, the phenomenon of intellectual capital (IC) began to develop, especially after the emergence of PSAK No. 19 revision, (2000) regarding intangible assets. Although it is not explicitly stated as intellectual capital , however, at least intellectual capital (IC) has received attention. According to PSAK No. 19, intangible assets are non-monetary assets that can be identified and do not have a physical form and are held for use in producing or delivering goods and services, rented out to other parties, or for administrative purposes (IAI, 2002). Although it is not stated explicitly, it can be concluded that intellectual capital has received increasing attention. The increasing attention means that there is an increase in company awareness about intellectual capital . In practice, intellectual capital is not widely known in Indonesia. Therefore, if the company refers to a knowledge-based business, companies in Indonesia can compete by using the competitive advantage obtained through creative innovations produced by the company's IC (Intellectual Capital) (Dwipayani, 2014).

Based on the description above, the problems to be investigated in this study are: (1) Does the intellectual capital variable affect the value of LQ 45 companies listed on the Indonesia Stock Exchange? (2) Does the intellectual capital variable affect the financial performance of LQ 45 companies listed on the Indonesia Stock Exchange? (3) Does the financial performance variable affect the value of LQ 45 companies listed on the Indonesia Stock Exchange? This article aims to: (1) To determine the effect of the intellectual capital variable on the firm value of LQ 45. (2) To determine the effect of the intellectual capital variable on the financial performance of the LQ 45 company. (3) To determine the effect of financial performance on the firm value of LQ 45. While the academic benefits are as follows: (1) For Researchers The results of the research can be used to deepen knowledge about the influence of intellectual capital and financial performance on the value of LQ 45 companies listed on the IDX (Indonesian Stock Exchange). (2) For the development of science, it is useful for the development of research and science in the field of economics, especially in the field of financial management. The results of this study are also expected to be a reference and comparison for further studies related to the influence of Intellectual Capital and performance on the value of LQ 45 companies listed on the IDX (Indonesian Stock Exchange). Practically, this article is useful for companies as a reference for policy making by company management regarding the influence of intellectual capital and financial performance on the value of LQ 45 companies listed on the IDX (Indonesian Stock Exchange).

LITERATURE REVIEW

Najibullah (2005) revealed that as the world shifts towards the era of globalization, investors need non-financial disclosures in addition to financial disclosures to assist the decision-making process. This shows that in addition to the book value presented by the company through the calculation of asset value, it is still not able to present other values that are believed to contribute to increasing the value of a company. The paradigm shift from a workforce-based business to a knowledge-based business has included human resources in the income statement. Among the intangible assets, human resources, called intellectual capital, are the core of the company's assets (Sawarjuwono and Kadir, 2005).

Basically, the value of the company can be measured through several aspects, one of which is the market price of the company's shares, because the market price of the company's shares reflects the overall investor's assessment of each equity owned (Haruman, 2008). The value presented in the financial statements is considered insufficient to describe the value of a company. This statement is evidenced by the existence of a gap between the market value and the book value of the shares which are considered as the benchmark for the company's value. The difference between the two values is widening every year in most countries (Lev and Zarowin, 1999). This distance has finally attracted the attention of researchers to explore the value that is not seen in financial statements.

Many researchers have tried to dig deeper into intellectual capital and its effects but have had mixed results. Research conducted by Chen, Cheng, and Hwang (2005), regarding the relationship between intellectual capital, company market value, and company financial performance shows that intellectual capital has an influence on market value and company performance. Research conducted by Indah Fajarini, Riza Firmansyah (2012), IC (VAICTM) has an effect on the future financial performance of LQ 45 companies in Indonesia. This study uses a quantitative method with a structural equation model (SEM) which is a differentiator from previous research by conducting a review of previous research on 13 research results.

RESEARCH METHODS

This research is a quantitative research that aims to test the hypothesis. This quantitative research is intended to determine the effect of Intellectual Capital, financial performance on firm value. The subject of this research is LQ45 company, is a company that has the highest market capitalization, the highest transaction value, has financial condition, the prospect of fund growth is listed on the Indonesian stock exchange. The data analysis used by the author is the Structural Equation Model (SEM) using the Partial Least Modeling (PLS) approach based on components or variants. According to Ghozali (2014:30) PLS is an approach that shifts from the covariance-based SEM approach generally testing causality or theory, while PLS is more predictive model. This study analyzes the influence of each of the factors influencing the value of the company which include: IC has an effect on the company's financial performance LQ45 (H1); Financial performance has an effect on firm value in LQ45 companies listed on the Indonesia Stock Exchange (H2); IC has an effect on the financial performance of the company LQ45 (H3); IC influence is measured by the VAIC ^{TM} method (value added intellectual coefficient).
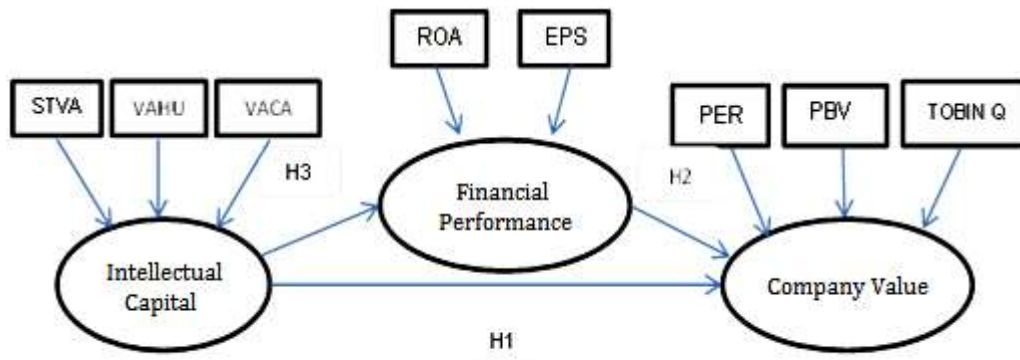
Figure 1. Variable Relationship

Hypothesis

The hypotheses formulated are :

H1: *Intellectual Capital has an effect on firm value* in LQ45 companies listed on the Indonesia Stock Exchange.

H2: Intellectual Capital affects the financial performance of LQ45 companies listed on the Indonesia Stock Exchange.

H3: Financial Performance has an effect on firm value in LQ45 companies listed on the Indonesia Stock Exchange.

RESULTS AND DISCUSSION

Results

In PLS, each relationship is tested by using a simulation using the *bootstrapping* method on the sample. This test aims to minimize the problem of abnormality in the study. Testing of the inner model or structural model is carried out to see the relationship between the construct, significance value and R-square of the research model. The structural model was evaluated using R-square for the dependent construct of the t-test as well as the significance of the coefficients of the structural path parameters. In assessing the model with PLS, we started by looking at the R-square for each dependent latent variable. The test results with the bootstrapping method from PLS are as follows :
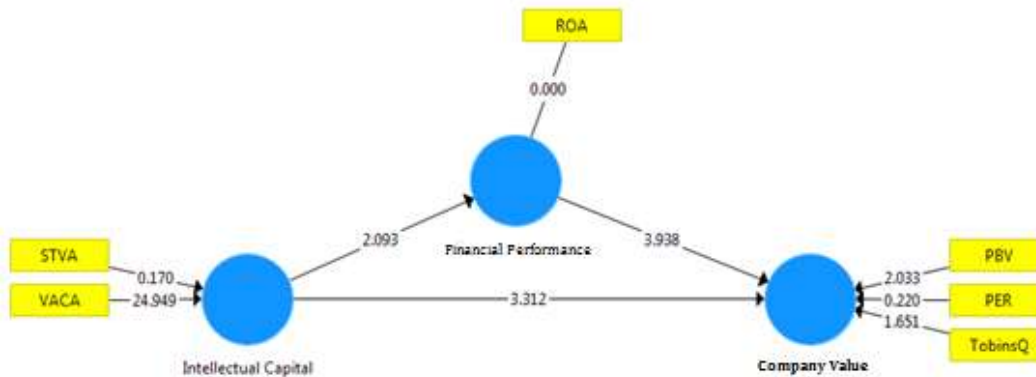
Figure 2. *Inner Model*

R – *Square* Test

According to Ghozali and Latan (2015), changes in the value of R-squares can be used to assess the effect of certain independent latent variables on the dependent latent variable whether it has a substantive effect. The results of R2 of 0.67, 0.33 and 0.19 for endogenous latent variables in the structural model indicate that the model is "strong", "moderate" and "weak" (Ghozali and Latan, 2015).

Table 1. *R-Square* Test Results

	R Square	R Square Adjusted
Financial Performance	0.081	0.073
Company Value	0.523	0.515

Source : SmartPLS 3.0 Data Processing

Based on table 1, the R-square value for the influence of the *Intellectual Capital* variable on the Company's Financial Performance is 0.081 which indicates it has a low influence. The R-square value for the influence of the *Intellectual Capital* and Financial Performance variables on the Company's Market Value is 0.523 which indicates it has a moderate influence.

Effect Size (F²)

The value of effect size (f2) is also used to evaluate whether when the exogenous variable is omitted it has a substantive impact on the endogenous variable. The f2 values of 0.02, 0.15, and 0.35 can be interpreted as whether the latent variable predictor has a small, medium, and large influence on the structural level according to Chin (1998) in Ghozali and Latan (2015). Table 4.15 shows the value of the effect size (f2) of each exogenous variable on the endogenous variable.

Table 2. *Effect Size* Test Results (F^2)

	Financial Performance	The Value of The Company
Intellectual Capital	0.088	0.363
Financial Performance		0.422

Source : SmartPLS 3.0 Data Processing

Based on Table 2, it can be concluded that Intellectual Capital has a value of 0.088, which means that it has a medium effect on financial performance. Meanwhile , Intellectual Capital and Financial Performance each have a value of 0.363 and 0.422, which means that it has a large influence on firm value.

Predictive Relevance Value (Q2)

Q-square measures how well the observed values are generated by the model and also the estimated parameters. Q2 has a range value of 0 < Q2 <1, where the closer to 1 means the better the model. The quantity of Q2 is equivalent to the coefficient of total determination in path analysis. The value of Q2 > 0 indicates that the model has predictive relevance, otherwise if the value of Q2 0 indicates the model lacks predictive relevance.

$$
\begin{aligned}
\text{Q-Square} &= 1 - [(1-R1^2) * (1-R2^2)] \\
&= 1 - [(1-0.081) * (1-0.523)] \\
&= 1 - (0.919 * 0.477) \\
&= 1 - 0.439 \\
&= 0.561
\end{aligned}
$$

Based on the results of the above calculations, it is known that the Q-Square value is 0.561. This shows that the amount of diversity of research data that can be explained from this study is 56.1% and the remaining 43.9% is explained by other factors outside this study.

Hypothesis Test

Hypothesis testing was carried out by comparing the T- *table* value with the T-statistics and p *value* with a significant level of 5 percent. If the T-statistic is higher than the T- *table* value , it means that the hypothesis is supported or accepted. The calculation results can directly be seen the *path coefficient* and *total effect.* This research uses the *Smart* PLS application.

Table 3. Hypothesis Testing Results

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	t Statistics (|O/STDEV|)	P Values
Intellectual Capital -> Financial Performance	0.284	0.300	0.136	2,093	0.018
Intellectual Capital -> Firm Value	0.434	0.446	0.131	3.312	0.000
Financial Performance -> Firm Value	0.468	0.487	0.119	3.938	0.000

Source : SmartPLS 3.0 Data Processing

Based on table 3, the p-value and t statistics for each variable are obtained which are explained as follows :

1. The p-value of the Intellectual Capital variable on Financial Performance is 0.018 which is compared to a significant value of 0.05. Because the p-value < significant (0.018 < 0.05) with a t statistics value of 1.96. Because the value of t- statistics <t value (2,093> 1.96) it can be concluded that the Intellectual Capital has a positive and significant impact on Company Financial Performance LQ45 , Therefore we can conclude H $_1$ received in this study.

2. The p-value of the Intellectual Capital variable to the Market Value is 0.000 which is compared to a significant value of 0.05. Because the p-value < significant (0.000 < 0.05) with a t statistics value of 1.96. Because the value of t- statistics <t value (3.312> 1.96), it can be concluded that the Intellectual Capital has a positive and significant impact on the Company Market Value LQ45 , Therefore we can conclude H $_2$ received in this study.

3. The p-value of the Financial Performance variable to the Market Value is 0.000 which is compared to a significant value of 0.05. Because the p-value < significant (0.000 < 0.05) with a t statistics value of 1.96. Because the value of t- statistics <t value (3938> 1.96), it can be concluded that financial performance has a positive and significant impact on the Company Market Value LQ45 , Therefore we can conclude H $_3$ received in this study.

Discussion

The Influence of Intellectual Capital on The Company's Financial Performance

Based on the test results show that *Intellectual Capital* has a positive and significant influence on the Company's Financial Performance. The *p-value* <0.05 is significant (0.018<0.05) with a t- *statistics* value of 1.96. Because the value of t- *statistics* < t- *value* (2.093> 1.96), it can be concluded that *Intellectual Capital* has a positive and significant influence on the Company's Financial Performance, meaning that changes in the value of *Intellectual Capital* have a unidirectional effect on changes in the Company's Financial Performance or in other words if *Intellectual Capital* increases, there will be an increase in the level of the Company's Financial Performance and statistically has a significant effect. Based on the results of data processing with Smart PLS

version 3.0, it is known that the path coefficient value of *Intellectual Capital* on the Company's Financial Performance is 0.284, which means that *Intellectual Capital* has a positive relationship to the Financial Performance of LQ45 companies listed on the Indonesia Stock Exchange in 2018-2020.

The Influence of Intellectual Capital on The Market Value of The Company

Based on the test results show that *Intellectual Capital* has a positive and significant influence on the market value of the company. The *p-value* <0.05 is significant (0.000<0.05) with a t- *statistics* value of 1.96. Because the value of t- *statistics* < t- *value* (3.312> 1.96), it can be concluded that *Intellectual Capital* has a positive and significant influence on the market value of the company, meaning that changes in the value of *Intellectual Capital* have a unidirectional effect on changes in the market value of the company or in other words if *Intellectual Capital* increases, there will be an increase in the level of company market value in LQ45 companies listed on the Indonesia Stock Exchange in 2018-2020. Based on the results of data processing with SmartPLS version 3.0, it is known that the path coefficient value of *Intellectual Capital* to the company's market value is 0.434, which means that *Intellectual Capital* has a positive relationship to the company's market value in LQ45 companies listed on the Indonesia Stock Exchange in 2018-2020.

Effect of Financial Performance on The Market Value of The Company

Based on the test results show that financial performance has a positive and significant influence on the market value of the company. The *p-value* <0.05 is significant (0.000<0.05) with a t- *statistics* value of 1.96. Because the value of t- *statistics* < t- *value* (3.938> 1.96), it can be concluded that financial performance has a positive and significant influence on the market value of the company, meaning that changes in the value of financial performance have a unidirectional effect on changes in the market value of the company or in other words, if financial performance increases, it will an increase in the level of company market value in LQ45 companies listed on the Indonesia Stock Exchange in 2018-2020. Based on the results of data processing with SmartPLS version 3.0, it is known that the path coefficient value of financial performance to the company's market value is 0.468, which means that financial performance has a positive relationship to the company's market value in LQ45 companies listed on the Indonesia Stock Exchange in 2018-2020.

CONCLUSION

Based on the results of the analysis conducted on the research sample, the following conclusions can be drawn :
1. Intellectual Capital has a positive and significant influence on the Company's Financial Performance, meaning that changes in the value of Intellectual Capital have a unidirectional effect on changes in the Company's Financial Performance or in other words, if Intellectual Capital increases, there will be an increase in the level of the Company's Financial Performance and statistically has a significant effect.
2. Intellectual Capital has a positive and significant influence on the market value of the company, meaning that changes in the value of Intellectual Capital have a direct effect on changes in the market value of the

company or in other words, if Intellectual Capital increases, there will be an increase in the level of company market value in LQ45 companies listed on the Stock Exchange. Indonesia Year 2018-2020.

3. Financial performance has a positive and significant influence on the market value of the company, meaning that changes in the value of financial performance have a direct influence on changes in the market value of the company or in other words, if financial performance increases, there will be an increase in the level of company market value in LQ45 companies listed on the Stock Exchange. Indonesia Year 2018-2020.

4. In this research, formative indicators are used and after testing the *Outer Model, it is* known that there are two formative indicators that are not significant, namely the VAHU indicator on Intellectual Capital, the P value is 0.260 above 0.05 and EPS on financial performance, the P value is 0.472 above 0.05, so these two variables are excluded. of the research model. *Multicollinearity* test was carried out to determine the relationship between indicators and it was found that all indicators did not have *Multicollinearity* problems.

5. Testing of the inner model or structural model is carried out to see the relationship between the construct, significance value and R-square of the research model. The R-square value for the influence of the Intellectual Capital variable on the Company's Financial Performance is 0.081 which indicates it has a low influence. The R-square value for the influence of the Intellectual Capital and Financial Performance variables on the Company's Market Value is 0.523 which indicates it has a moderate influence. The *Intellectual Capital Effect Size* test has a value of 0.088, which means it has a medium effect on financial performance. Meanwhile, Intellectual Capital and Financial Performance each have a value of 0.363 and 0.422, which means that they have a large influence on firm value.

SUGGESTIONS

Based on the results of the research and the conclusions above, the following suggestions can be given :

1. This research was only conducted on 45 LQ45 companies listed on the IDX, for further research similar research can be done by examining all LQ45 companies within a period of 5 years or further research can replace the object of research with other types of industries such as manufacturing, property, services, and others are not only on the LQ45 company because it allows different results and conclusions to be found if they are carried out on different objects.

2. In the study, other financial performance ratios can be added such as financial liquidity ratios, solvency and financial activities.

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