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The impact of intellectual capital on stock price with financial performance as intervening variable of manufacturing listed in Indonesia Stock Exchange period 2008 – 2012

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A B S T R A C T

Intellectual capital (IC) is a platform for companies to be more competitive. The principal purpose of this research is to investigate relationship between Intellectual Capital (VAIC™) and stock price through financial performance at manufacturing companies that listed in Indonesia Stock Exchange during 2008-2012. This research is conducted by testing effect of VAIC™ as independent variable to stock price as dependent variable, and financial performance (ROE and EPS) as intervening variable. Samples of this research are annual report and financial statements for manufacturing companies that listed in Indonesia Stock Exchange during 2008-2012. Samples were selected by using purposive sampling method and 372 manufacturing companies were able to fulfill the criteria used as sample. The research data is analyzed using path analysis method. The results of regression analysis show that VAIC™ have no effect on ROE and EPS. ROE has no effect on stock price and EPS has an effect on stock price. This research also finds that VAIC™ has no effect to stock price. The last result is ROE and EPS not a mediator variable because not able to mediate the relationship between VAIC™ and stock price.

A B S T R A K

Modal intelektual adalah sebuah platform bagi perusahaan untuk menjadi lebih kompetitif. Tujuan utama dari penelitian ini adalah untuk menyelidiki hubungan antara modal intelektual (VAIC™) dan harga saham melalui kinerja keuangan pada perusahaan manufaktur yang terdaftar di Bursa Efek Indonesia selama 2008-2012. Penelitian ini dilakukan dengan menguji pengaruh VAIC™ sebagai variabel independen terhadap harga saham sebagai variabel dependen, dan kinerja keuangan (ROE dan EPS) sebagai variabel intervening. Sampel dari penelitian ini adalah laporan tahunan dan laporan keuangan untuk perusahaan manufaktur yang terdaftar di Bursa Efek Indonesia selama 2008-2012. Sampel dipilih dengan menggunakan metode purposive sampling dan 372 perusahaan manufaktur yang mampu memenuhi kriteria yang digunakan sebagai sampel. Data penelitian dianalisis dengan menggunakan metode analisis jalur. Hasil analisis regresi menunjukkan bahwa VAIC™ tidak berpengaruh pada ROE dan EPS. ROE tidak berpengaruh pada harga saham dan EPS memiliki pengaruh pada harga saham. Penelitian ini juga menemukan bahwa VAIC™ tidak berpengaruh terhadap harga saham. Hasil terakhir adalah ROE dan EPS bukan merupakan variabel mediator karena tidak mampu memediasi hubungan antara VAIC™ dan harga saham.

1. INTRODUCTION

The economic development of any country can be measured by the stock market because the stock market can strengthen the capital structure in the world business. The fastest information technology growth also affects the economic growth of a country. Along with the economic development of a country, the level of competition will increase the

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business. This condition led to the emergence of a new concept in the business world called knowledge-based economy (knowledge-based business). Of this phenomenon on the basis of the growth of the company changed labor-based business to knowledge-based business.

A rapid technological development in the developed countries has contributed to the wider provision of information, quality, and real time (Ascaryana Rafinda et al. 2011). The presence of capital market today is very important for the company. Therefore, the company as those who need funds to be able to provide more extensive information, quality, and real time investors to invest in his company. Related to the importance of information in an efficient market, the disclosure of information on intellectual capital plays a very important.

In the transition from industrial society to information and knowledge society, base growth company gradually change tangible assets to intangible assets, and is no longer influenced by investment in the physical form of buildings, machinery, and various other facilities, but by knowledge (knowledge) which has become the key resources of the world economy and the one critical factor of production, as well as the preeminent economic resource as it forms the basis of competitive advantage (Demediuk 2002).

In such kind of business, a shift in the use of individual assets into an asset is the main part of intangible assets, namely intellectual capital. In economic "knowledge-based", the source of the economic value of the company is no longer dependent on the production of goods and material but on the creation and manipulation of intellectual capital (IC) (Guthrie et al. 2004). The benefit of intangible assets can also determine the success of the current business. In the sense of business plan, business people realize that the ability of innovation, information systems, organizational management, and its human resource becomes a crucial factor in the development of the business report.

Its relevance has declined over time (Francis and Schipper 1999 in Bruggen et al. 2009). The dissatisfaction of financial reporting resulted in the growth of information asymmetry between companies and users of financial statements. Financial statements did not disclose the IC will be judged misleading because it can influence corporate policy. Therefore, the financial statements must be able to show the existence of intangible assets and the value is recognized.

So far, the relationship between VAIC™ and financial performance has been demonstrated empirically by studies of Chen et al. (2005) using a model (VAIC™) to examine the relationship between the IC and the market value and financial performance using a sample of public companies in Taiwan. The results show that IC (VAIC™) positively affects the market value and financial performance of the company. In fact, Chen et al. (2005) also proved that the IC (VAIC™) can be one indicator to predict the future performance of the company.

2. THEORETICAL FRAMEWORK AND HYPOTHESIS

Intellectual Capital

Intellectual capital (IC) has become a very valuable asset in the present business world. The company's attention to the management of intellectual capital so far has increased. This is due to the awareness of the companies that intellectual capital is the foundation for the company to grow and bona fide competitive advantage compared to other companies.

As stated by Guthrie in Ihyaul et al (2008), that IC as the economic value of two categories of intangible assets: (1) organizational (structural) capital; and (2) human capital. Organizational (structural) capital refers to things such as system software, network distribution, and supply chain. Human capital includes human resources within the organization of labor resources or employees and external resources relating to the organization, such as customers and suppliers (Ihyaul et al. 2008).

Thus, the definition of IC by Tjiptohadi (2003) that IC is the sum of what is produced by the three major elements of the organization (human capital, structural capital, customer capital) related to knowledge and technology that can provide more value for the company in the form of an organization's competitive advantage. Theoretically, IC is described through the methods of thinking that suggests the ability to innovate, create, and implement other technical values, including the approach that makes the experience of past experiences as a learning process.

Financial Performance

The company performance can be measured by financial ratios during a certain period. The measurement is based on financial ratios is highly dependent on the method and the accounting treatment used in preparing the company's financial

statements. Therefore, the company performance often looks good and increasing, when in fact performance does not increase or even decreases. The performance and management achievement as measured by financial ratios cannot be justified because of the resulting financial ratios depending on the accounting method and controlled by management.

If the company's financial performance shows good prospects, it will be attractive to investors and its stock price will rise. In line with the objective of this study, the two ratios to measure the financial performance chosen as a proxy for the company's financial performance. The following ratios include Return on Equity and Earnings per-share.

Return On Equity (ROE) is part of the profitability ratios are used to measure the company's ability to generate profits. ROE is often called the stock capital. The ratio of Profitability measures the magnitude of the return on company capital. The consideration on ROE as profitability of the company to provide information to parties outside of the company's operational effectiveness. Investors who buy shares will be attracted to the size of this profitability. The greater the percentage of ROE generated means greater profits could be allocated to shareholders (Mamduh 2009: 179).

Earning Per Share (EPS) is one of the statistical values are most often used when discussing the performance of a company or stock value. EPS is a measure in which both management and shareholders are concerned besar.EPS is also one of the financial statement disclosure requirements for companies listed on the Stock Exchange Indonesia.EPS provides a measure of profitability that combines the decisions from operating, investing and financing (Stikney and Weil 1997 in Tan et al. 2007).

Concept of Shares

Share is one of the most popular financial market instruments. To issue a stock is one of the options when the company decided to finance the company. On the other hand, a share is investment instrument that has been chosen because stock investors are able to provide an attractive rate of profit. Shares can be defined as a sign of ownership of a person or party (entity) within a company. This can include the capital, then that party has a claim on corporate earnings, a claim on the company's assets, and is entitled to attend the Annual General Meeting.

There are two benefits for investors to buy or hold shares, the dividend and capital gains gain. Dividend is a given division and the company generated profits derived from the company's dividends. The division is periodically on the results of General meeting of stockholders (RUPS). Capital gain represents the difference between the purchase and sale price. Capital price gain is characterized by trading activity in the secondary market (www.idx.co.id).

The Effect of IC (VAIC™) on Return On Equity

In a resource-based approach theory, it tells that the company will excel in the competition and get a good financial performance in a manner own, control, and exploit strategic assets that are important include tangible and intangible assets (Wernerfelt 1984 in Revelation Widarjo 2011). The companies that have superior resources assessed will be able to manage assets owned by both. Management of assets is expected to reduce the cost incurred by the company in order to lower and can increase the profit generated by the company.

One of the resources owned by the company in the form of an intangible asset is intellectual capital. Based on the above argument, it shows that the more capable the company is good or intellectual capital management has an effect on improving the company's financial performance. This is supported by research conducted by Ni Made Sunarsih, Ni Yuria Mendra putu (2012) that the higher the intellectual capital, the higher the company's financial performance.

H1: Intellectual capital (VAIC™) affects the company's ROE.

The Effect of IC (VAIC™) on Earning Per Share

Resource-Based Theory states that the company will successfully improve the performance of the company if it is able to manage the company's strategic assets such as intellectual capital. IC is one part of the intangible assets that can be used by companies to improve financial performance. Human resources are one of the components of intellectual capital that are the most important. The company has a wealth of human resources, skills, and abilities that will either be able to solve the problems that exist in the company.

Based on the above statement, it implies that the company is able to utilize assets owned (including intellectual capital) will have a good financial performance. With the intellectual capital within the company will increase innovation and business support employees in improving business per-

formance in order to maximize the company's physical assets. This is supported by research conducted by Tan et al. (2007) which states that there is a positive relationship between intellectual capitals with financial performance.
H2: Intellectual capital (VAIC™) affects the company's EPS.

The Effect of Equity Return on Stock Price
ROE measures the efficiency of a company in the manage investment funds to generate earnings growth. The higher the ROE is, the more efficient and effective management of the company. Based on the above arguments, it indicates that the delivery of information on the ROE could affect investor interest in investing and gives effect to the high price of the stock. Based on signaling theory predicted that the ROE has positive effect on stock prices because it can provide information that can be utilized by the wearer. This is in support of research conducted Zultoni M. Yasin (2012) that partially the result that the Return on Equity (ROE) has a positive value which has significant influence on stock prices.
H3: ROE affects Stock Price.

The Effect of Earning Per Share on Stock Price
It shows that in accordance with the signaling theory, EPS can provide a positive signal to investors to buy stocks and give effect to the high price of the stock. This is supported by A research by Bismark and Rowland Pasaribu (2008) has proved that the EPS effect on stock prices. May mean that potential investors pay more attention to EPS in the purchase of shares, the manufacturing company leaders need to pay attention and boost EPS can provide a positive influence in accordance with the signaling theory.
H4: EPS affects Stock Price.

The Effect of ICl (VAIC™) on Stock Price
Belkoui (2003), Firer and Williams (2003) explain that investors will assess the company be higher if the company that owns intellectual capital investment or expenditures greater. Some of the above is a part of the IC. In other words, VAIC™ affect the company's market value as investors' assessment will increase along with the increase in the market value of the company. This is supported by a research conducted by Chen et al (2005) that affect the value of intellectual capital markets.
H5: Intellectual capital (VAIC™) affects the stock price.

The Effect of IC (VAIC™) on Stock Price Return through Equity
Resource-based theory is an idea that is developed in the theory of strategic management and competitive advantage that the company believes that the company will achieve excellence if they have superior resources. Based on these arguments demonstrate high that the more intellectual capital of the company then this may provide an indication that the company's ability to generate profits will rise and the effect on the financial performance and stock price. This is supported by a research done by Ni Made Sunarsih, Ni Yuria Mendra Putu (2012) that financial performance as an intervening variable is able to mediate the relationship between intellectual capital and the value of the company.
H6: Intellectual capital (VAICTM) affects the stock price through the ROE.

The Effect of IC (VAIC™) on the stock price through Earning Per Share
IC is a resource that is scalable to increase competitive advantages; the intellectual capital will contribute to the EPS. In addition, as stated in Ihyaul (2008), the practice of accounting conservatism emphasizes the company's investment in the intellectual capital that is presented in the financial statements, resulting from an increase in the difference between the market value and the value of the market book value.

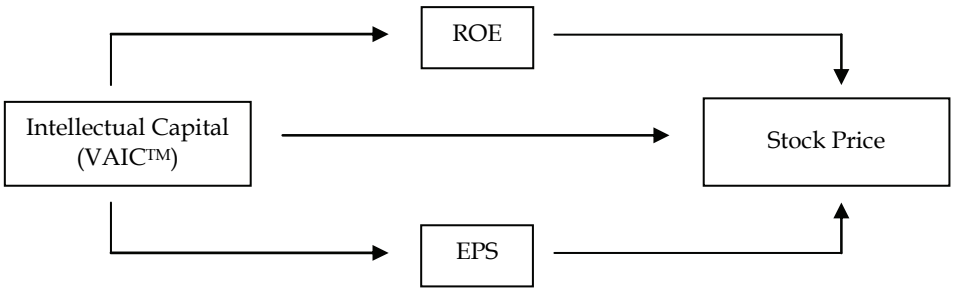
The increase is believed to be due to the effective utilization of intellectual capital and efficiently so as to improve the financial performance of the company and to create an efficient market as well. So this is in accordance with the definition of signaling theory, if for example efficiency, the market investors will deliver a high value (positive signal) against companies that have greater intellectual capital (Belkaoui 2003; Firer and Williams 2003).
H7: ICl (VAIC™) affects the stock price through EPS.

The underlying framework of this study can be described in Figure 1.

3. RESEARCH METHOD

Classification of Samples
The population is manufacturing companies listed on the Indonesia Stock Exchange in 2008 to 2012. The sample method is purposive sampling based on specific criteria in accordance with the objectives of the study. Some reasons using purposive sampling method are based on the consideration that the data samples are selected to meet the criteria to be tested (Nur and Bambang 2002: 131).

Figure 1
Theoretical Framework



The criteria used to select the study sample were: (1) The Company entered into a manufacturing company that still has the status of publicly listed in Indonesia Stock Exchange during the study period of 2008 up to the year 2012 (2) The Company publishes a complete Audited Financial Statements December 31, and load the data related to the variables used in this study and during the study period of 2008 up to the year 2012 (3) the Company does not perform stock splits, acquisitions during the study period, because such information may affect the stock price. (4) For five years, namely in 2008, 2009, 2010, 2011, and 2012 publish its financial statements. (5) Not have a total value of negative equity. (6) The company uses the dollars in the financial statements.

Research Data

The data are secondary data in the form of financial statement data of manufacturing industry sectors that are available online in the published financial statements www.idx.co.id.Berupa IDX Annual Report (2008-2012). The financial statements are the data published financial statements for external interests in manufacturing which uses three main components, namely corporate human resources or human capital, physical capital, and structural capital.

Research Variables

There are three types of variables, including the independent variable (the independent variable) is the intellectual capital, the dependent variable (the dependent variable) is the stock price, and between variables (intervening variable), namely ROA and EPS.

Operational Definition of Variables

Independent variable is the intellectual capital (IC) measured by the Public model (1998) ie Value Added Intellectual Coefficient (VAIC™) as measured by the value added created by the components of intellectual capital is composed of value added of capital Coefficient (VACA), the value added of human capital (VAHU) and structural capital value added (STVA). The formulation and stages VAIC™ calculation is as follows (Ihyaul 2007):

The first step in calculating VAIC™ by calculating the value added (VA). VA is calculated as the difference between output and input. Output (OUT) represents the revenue and covers all products and services sold in the market, while the input (IN) covers the entire load used in obtaining revenue. It is important in this model is that the burden of employees (labor expenses) are not included in IN. Therefore, aspects of the key public model of labor are treated as an entity of value creation (value creating entity) (Pulic 1998).

$$VA = OUTPUT - INPU. \quad (1)$$

Details:

Output: total sales and other revenues

Input: load (interest expense and operating expenses) and other expenses (other than employee costs)

Value Added: the difference between output and input

The second stage is to calculate the ratio VACA the value added (VA) to the capital coefficient (CA). VACA is an indicator for the VA created by one unit of physical capital. This ratio indicates the contribution made by each unit of value added to the organization's CA.

$$VACA = VA / CA. \quad (2)$$

Details:

VACA: Value Added Capital Coefficient

VA: Value added

CA: Capital coefficient: available funds (equity)

The third stage is to calculate the Human Capital Value Added (VAHU). VAHU is a comparison between the value added (VA) and human capital (HC). VAHU shows how much the contribution made by each dollar invested in labor to produce more value for the company (Ihyaul 2007).

$$VAHU = VA / HC. \quad (3)$$

Details:
VAHU: Value Added Human Capital
VA: Value Added
HC: Human Capital (personnel expenses consist of salaries and benefits)

The fourth stage is to calculate a ratio STVA SC to SC VA. The ratio measures the amount required to produce 1 dollars from VA and is an indication of how successful the SC in the creation of value (Ihyaul 2007).

$$STVA = SC / VA. \quad (4)$$

Details:
STVA: Structural Capital Value Added
SC: Structural Capital (VA - HC)
VA: Value Added

The fifth stage is to calculate the Value Added Intellectual Coefficient (VAIC™) .VAIC™ indicate the ability of organizational intellectual capital that can also be considered as BPI (Business Performance Indicator). VAIC™ is the sum of the previous three components: VACA, VAHU, and STVA (Ihyaul 2007).

$$VAIC^{TM} = VACA + STVA + VAHU. \quad (5)$$

Details:
VAIC™: Value Added Intellectual Capital
VACA: Value Added Capital Coefficient
VAHU: Value Added Human Capital
STVA: Structural Capital Value Added

The dependent variable is the stock price. According Jogiyanto (2003: 88), the stock price stock prices stock market at a given time is determined by the market participants. The market value is determined by supply and demand in the relevant stock market stock prices according Widiatmodjo. The concept of stock exchange (2000: 45) is the price or value of the money spent to obtain stock intended. In a research on a stock price that is used as the dependent variable is average stock price per share represents the year. The price of year-end closing price of manufacturing companies that enters into the study sample.

The Intervening variable is the company's financial performance as measured by return on equity (ROE) and Earnings per share (EPS). 1 Return on Equity (ROE) is a ratio that measures the return on equity amounts or results expressed as a parameter and earned on investments in the company's common stock for a certain period of time. This ratio can be calculated as follows: 2 Earnings per Share (EPS) is used to determine the profits to be distributed to the shareholders. Earnings per Share are measured using the following formula:

$$EPS = \frac{Netprofit}{\text{NumberofOutstandingStocks}}. \quad (6)$$

Instruments of Analysis
The data analysis technique is descriptive analysis of the data and a simple regression analysis with path analysis, to examine the effect of the relationship between the dependent and independent variables. Regression method is the method of multiple regression for an intervening variable that path analysis or path analysis method. Here is the regression equation:
Equation 1a:

$$ROE = a + e1 + p2VAIC^{TM}. \quad (7)$$

Equation 1b:

$$EPS = a + p4VAIC^{TM} + e2. \quad (8)$$

Equation 2:

$$Stock\ Price = a + p3\ ROE + p1\ VAIC^{TM} + e3 + p5\ EPS. \quad (9)$$

Details:
VAIC™: Value Added Intellectual Capital
ROE: Return on Equity
EPS: Earning Per Share
a: constant
e: variance
p: path / track

4. DATA ANALYSIS AND DISCUSSION

Descriptive statistics was used to provide an overview or comprehensive description of the main characteristics of the variables. The dependent variable used is stock price measured from the closing price as of 31 December, while the independent variables indicated an effect on stock prices is intellectual capital. This study also uses an intervening variable projected by return on equity (expressed as the ratio of net income to total equity), earnings per share (expressed as the ratio of net income by the number of shares outstanding). Table 1 is the test output variables descriptive of intellectual capital, ROE, EPS and stock price.

From the descriptive test output, it can be seen that the average stock price between the years 2008-2012 with a standard deviation of 5513.5215 21006.05676. The standard deviation is used to indicate the range or distance between the data and the other one. In addition, it can also be interpreted that the range or distance between the stock price data with each other is by 21006, 05676 that is above average shows a relatively high variation.

From the descriptive test results, return on equity sample firms have an average 17.65555 13.2859 with a standard deviation which could mean that

Table 1
Result of Descriptive Analysis

Variables	N	Minimum	Maximum	Mean	Std. Deviation
VAIC	372	2.80	799.55	44.1154	59.15568
ROE	372	-77.72	89.12	13.2859	17.65555
EPS	372	-487.00	12997.00	530.5004	1593.40105
STOCK PRICE	372	31.00	255000.00	5513.5215	21006.05676

Source: Processed result by SPSS.

Table 2
Result of Regression Analysis 1a

Coefficients

Model		Unstandardized Coefficients		Std. Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	13.882	1.143		12.147	.000
	VAIC	-.014	.016	-.045	-.871	.384

a. Dependent Variable: ROE

Source: Processed result by SPSS.

Table 3
Test Result of Determinant Coefficients 1a

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.045[a]	.002	-.001	17.66128

a. Predictors: (Constant), VAIC

b. Dependent Variable: ROE

Source: Processed result by SPSS.

the data range or the distance between each other is equal to 17.65555. Standard deviation is greater than the average indicates that the variation of ROE is high.

From the descriptive test results, it can be seen that the overall average EPS sample firms is 530.5004 with a standard deviation 1593.40105 which could mean that the data range or the distance between each other is equal to 1593.40105. Standard deviation higher than the average indicates that the variation of EPS is high with a minimum value and a maximum value of 487.00 minus 12997.00. In the overall sample, it shows negative year EPS. In 2008-2012, there is a mean value that the company suffered a loss.

Based on the descriptive test, it can be seen that the overall average VAICTM overall during the 2008-2012 year with a standard deviation of 59.15568 44.1154. The standard deviation is used to indicate the range or distance between the data and the other one. In the present study could be interpreted that the data range or the distance between one another is equal 59, 15568 that is above average which indicates that VAICTM 2008-2012 has a high range. Regression analysis used in this study is multiple regression method for intervening variables that path analysis or path analysis methods. The regression is divided into three stages as in this study using three regression models. The first formula can be seen in Table 2.

Results Analysis and Discussion

Table 3 has a value of adjusted R Square is 0.001 which means the figures show Return On Equity that is the variable can be explained by variable VAIC™ by 0.1%. On the other hand, the remaining 99.9% is explained by other variables not examined in this study.

Value of R = 0.002 which indicates that the correlation coefficient of 0.2%. These results can be concluded that the relationship between intellectual capitals and Return on Equity has relationship is very weak.

Based on Table 2, the unknown independent variable is VAIC™ at a significance level of 0.05 (5%). Therefore, the hypothesis can be described as follows: VAIC™ variable (X), based on the results obtained by t test significance of 0.324 is above 0.05 then Ho is accepted and Ha rejected. It can be con-

Table 4
Result of Regression Analysis 1b

Coefficients′

Model		Unstandardized Coefficients		Std. Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	622.932	102.933		6.052	.000
	VAIC	-2.095	1.396	-.078	-1.501	.134

a. Dependent Variable: EPS

Source: Processed result by SPSS.

Table 5
Result of Determinant Coefficient Test 1b

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.078[a]	.006	.003	1590.71846

a. Predictors: (Constant), VAIC

b. Dependent Variable: EPS

Source: Processed result by SPSS.

Table 6
Result of Regression Analysis 2

Coefficients[a]

Model		Unstandardized Coefficients		Std. Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	62.682	1039.703		.060	.952
	VAIC	6.492	11.933	.018	.544	.587
	ROE	-18.251	43.103	-.015	-.423	.672
	EPS	10.192	.479	.773	21.298	.000

a. Dependent Variable: STOCK EXCHANGE

Source: Processed result by SPSS.

cluded that VAIC™ (X) does not affect the return on equity.

Table 5 has adjusted R Square value of 0.003 indicates significant figures Earning Per Share that is the variable can be explained by variable VAIC™ by 0.3%. Yet, the remaining 99.7% is explained by other variables not examined in this study. Value of R = 0.003 which indicates that the correlation coefficient of 0.3%. These results can be concluded that the relationship between intellectual capitals to Earning per Share has a very weak relationship.

Based on the Table 4, unknown independent variable is VAIC™ at a significance level of 0.05 (5%). Thus, the hypothesis can be described as follows:

VAIC™ variable (X), based on the results obtained by t test significance of 0.134 is below 0.05 then Ho is accepted and Ha rejected. It can be concluded that VAIC™ (X) has no effect on Earnings Per Share.

As in Table 7, it shows that the significance value 0.000 which is smaller than the 0.05 so it can be concluded that the research model fit the data. Table 8 has adjusted R Square value indicates the number 0.584 which means 58.4% variation in stock prices can be explained by the variation of the three variables VAICTM, ROE, EPS. Yet, the remaining 41.6% is explained by other causes outside the model.

Value of R = 0.766 which indicates that the correlation coefficient of 76.6%. These results can be concluded that the relationship between intellectual capital, ROE, EPS and the stock exchange have strong relationship.

Based on Table 6 independent, it can be seen that VAIC, an intervening variables ROE, and EPS at a significance level of 0.05 percent (0.05). So based on the hypothesis made can be described as follows:

1) Variable VAIC (X), based on the results obtained by t test significance is 0.587 that is above 0.05. So,

Table 7
Result of F Test

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	96107583812.331	3	32035861270.777	174.402	.000[b]
	Residual	67597806240.497	368	183689690.871		
	Total	163705390052.828	371			

a. Dependent Variable: STOCK EXCHANGE

b. Predictors: (Constant), EPS, VAIC, ROE

Source: Processed result by SPSS.

Table 8
Result of Determinant Coefficient 2

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.766[a]	.587	.584	13553.21699

a. Predictors: (Constant), EPS, VAIC, ROE

b. Dependent Variable: STOCK EXCHANGE

Source: Processed Result by SPSS.

Ho is accepted while Ha is rejected. It can be concluded that the VAIC (X) has no effect on stock prices (Y).

2) Variable ROE (Z1), based on the results obtained by t test significance of 0.672 is above 0.05 then Ho is accepted and Ha rejected. It can be concluded that the ROE (Z1) effect on stock prices (Y).

3) Variable EPS (Z2), based on the results obtained by t test of significance of 0.000 is below 0.05, then Ho is rejected and Ha accepted. It can be concluded that the EPS (Z2) effect on stock prices (Y).

The Effect of IC on ROE

As the result of t test analysis, it shows that IC has no effect on ROE. This study proves that RBV theory approach proposed by the Rev. Widarjo Wernerfelt (2011) is not entirely correct. Intellectual capital does not have a very close relationship with the company's financial performance as measured by ROE. This is because there are an indication that intellectual capital is less dominated to contribute to the performance of the company's manufacturing sector as the manufacturing sector is still using a lot of fixed assets in the operation. Besides that, the intellectual capital of the enterprise information that is abstract or hard to be explained by the calculation mathematically so that the measurement for the amount of IC is still not accurate.

The Effect of IC on EPS

IC also has no effect on Earnings Per Share (EPS). The results of this test is different from the research Tan et.al (2007) which states that the intellectual capital significantly affect EPS in manufacturing companies. This is because intellectual capital is not a major component of the company, making it difficult to measure the performance of companies, especially manufacturing companies. Intellectual capital is the intangible assets owned by the company and not recorded in detail so that the effect on firm performance is not clearly drawn.

The Effect of ROE on Stock Price

In this study resulted in the finding that the ROE has no effect on stock prices. ROE is not one of the factors that affect stock prices and a barometer of investor in making an investment decision on the company that will be addressed and provide an indication that tinkgat investment returns will be accepted low investors so that investors are not interested in buying the stock. This is because the delivery of information about the ROE is the information for a profit in the long run in the form of dividends. The Indonesian economy is volatile, so investors tend to be more interested in the short-term profit of capital gains. Thus, the purchase of shares does not have to consider the value of ROE, but follow the trend in the market.

The Effect of EPS on Stock Price

It shows that the EPS affects the direction of stock prices with positive correlation which means that the higher the EPS, the stock price will be higher, and vice versa. This is because EPS can provide a positive signal to investors to buy stocks and give

Table 9
Result of Path Test Analysis

No.	Hypothesis	Path P1	Path P2, P4	Path P3, P5	Total Effects	Conclusions
H1	VAIC™ affects ROE		-0,045 (Not significant		-0,045 (not sig)	VAIC™ does not affect ROE
H2	VAIC™ affects EPS		-0,78 (Not Sig)		-0,78 (Not Sig)	VAIC™ does not affect EPS
H3	ROE affects Stock price			-0,015 (Not Sig)	-0,015 (Not Sig)	ROE does not affect stock price
H4	EPS affects Stock price			0,773 (Significant	0,773 (Significant)	EPS affects stock price
H5	VAIC™ affects stock price	0,018 (Not Sig)			0,018 (Not Sig)	VAIC™ does not affect stock price
H6	VAIC™ affects stock price through ROE	0,018 (Not Sig)	0,045 (Not Sig)	-0,015 (Not Sig)	0,0017325 (Not Sig)	VAIC™ does not affect stock price through ROE
H7	VAIC™ affects stock price through EPS	0,018 (Not Sig)	-0,78 (Not Sig)	0,773 (Significant)	-0,58494 (Not Sig)	VAIC™ does not affect stock price through EPS

effect to the high stock prices as investors judge a company by looking from the standpoint of profits to be derived from the per share.

This is supported by research done by Pasaribu and Rowland Bismark (2008) which has proved that the EPS effect on stock prices. This may mean that potential investors pay more attention to EPS in the purchase of shares; the manufacturing company leaders need to pay attention and boost EPS can provide a positive influence in accordance with the signaling theory.

The Effect of IC (VAIC™) on Stock Price

The results of the t test showed that no significant effect of intellectual capital research on stock price. This is still consistent with research conducted by Widarjo (2011) which states that the intellectual capital does not affect the value of the enterprise is because of information contained in an intellectual capital information abstract and do not have a mathematical relationship. The absence of standard in the measurement of capital markets which has not been able to make a proper assessment on IC owned by the companies. The increasing stock price depends on the investors to buy stocks indicates that investors still tend to use other factors to take decisions in investing.

The Effect of IC on Stock Price through ROE

It shows that intellectual capital (IC) has no effect on ROE. IC does not have a very close relationship with the company's financial performance as measured by ROE. This is because there are indications that intellectual capital is less dominated to contribute to the performance of the company's manufacturing sector as the manufacturing sector are still using a lot of fixed assets in the process of operation. In the path analysis model equations when the intervening variable is not significant or not met then research with this method cannot continue and is considered an intervening variable (ROE) is not able to mediate the relationship of independent variables (VAIC™) on the dependent variable (stock price).

The Effect of Property Capital (VAIC™) on the Stock Market through EPS

It proves that IC has no effect on EPS as an intervening variable so that the path analysis method cannot continue. The result indicates that the EPS as an intervening variable is not able to mediate the relationship between intellectual capitals (IC) to the stock price. The market does not give higher ratings to companies with high intellectual capital due to the Indonesian economy which tend to fluctuate more investors rely on trends that occurred in market.

5. CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATIONS

In general, it can be concluded that the regression analysis (t-test) was done in three models and these show that intellectual capital (IC) has no effect on firm performance proxied by ROE and EPS. This also shows that there is no effect of intellectual capital on stock prices as well.

The test result using regression analysis shows that the EPS affects stock prices, while ROE has no effect on stock prices. Thus, the intellectual capital has no effect on ROE and EPS then to test the expansion of the model through path analysis cannot be done and it is assumed that the Return On Eq-

uity (ROE) and Earnings Per Share (EPS) cannot mediate the effect of intellectual capital on stock prices.

However, this study has several limitations. The limitations in this study are: (1) the stock price as the dependent variable is the data that is varied and has a range of values that far, making it hard to test the normality of the data. (2) Testing of data outliers to reduce the data sample exceeds 50% so that this study ignores the normality test. Thus, the researchers suggests that further research must use the stock price ranges specified in the sample selection criteria to the data for the stock price is not too varied and facilitate data processing during a test for normality. The researchers could also develop further this research by using other measurement methods, such as economic value added, or balance score card. In addition, future studies are expected to examine the different cases, eg in the disclosure or the disclosure of intellectual capital itself.

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