

INTELLECTUAL CAPITAL THROUGH CORPORATE VALUES WITH PROFITABILITY AS MEDIATION VARIABLE

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Abstract

The purpose of this study is to analyze the influence of Intellectual Capital on company value with profitability as a mediating variable. The data used in this study is secondary data with a sampling method that is purposive sampling method. The populations in this study were companies that were registered in LQ 45 for the period of 2012-2016, which were then selected as 19 samples in this study. The analysis tool for testing hypotheses is path analysis. The results of this study are the effect of intellectual capital on company value on LQ 45 Index companies listed on the Indonesia Stock Exchange (IDX) in the period 2011-2016 through profitability as an mediating variable of 16,9%.

Keywords: *Intellectual Capital, Profitability, Company Value.*

INTRODUCTION

The company is a business entity that creates a product or service to meet consumer needs. The company will utilize its resources such as production factors so that the maximization of the company's value can be realized. Therefore, human resources as intellectual capital can be used to manage physical capital and financial capital so that companies can continue to exist increasingly fierce business competition. Intellectual capital is still not widely known in Indonesia, because companies in Indonesia are still calculating tangible assets without measuring intangible assets in building their business. Intellectual Capital is now referred to as an important factor in success and hence will become increasingly a concern for companies in the study of organizational strategies and development strategies. Element in building Intellectual Capital (IC) consist the capital of: human, structural, and customer. IC can be represented as the combination of what is produced by the three components of the organization mentioned earlier. IC provides more value for companies that can utilize knowledge and technology well. IC can be a major driving force in business development (Utami, 2018).

The statement of stakeholder theory is company is not a place which only runs for its own interests and the interests of its stakeholders (Ulum, 2008). Good IC management in that company will increase the value's. Relationship between stakeholder theory and intellectual capital is that all company activities will culminate in the value of the company. Utilization of intellectual capital allows companies to have a competitive advantage and increase value. This will make investors give more appreciation to companies that are able to create added value for the company (Fitriyani and Amalia,2015). The importance of IC in the company is that increasing the IC can also increase the value's. Thus, Companies that have IC tend to produce products or service that have high scientific content, which in turn can produce high competitiveness (Sirojudin and Nazaruddin, 2018). IC is now cited as an important factor in increasing company value, but the increase must be accompanied by proper profitability management.

Profitability ratios describe the ability of a company to make a profit from all assets invested in the company. Profitability ratios measure the extent to which companies can manage the level of return of assets into net

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income is Return On Assets (ROA). The higher the ROA, the higher the ability of the company to generate profits from invested assets. Companies that are able to generate high ROA will be attractive for investors to invest in company shares. Companies that are able to produce high ROA show that the company is able to manage the company well from every assets and intangible assets. Intangible assets can be measured from the IC components which are proxided by VACA, VAHU and STVA. Management of IC and optimal profitability are able to maximize the value of the company.

Company value cannot be seen from its market value, this is because there is an intangible value that affects it. Hidden value arises because there is a deviation between the book value of assets owned by the company and stock price. Award of more than company shares from investors are believed to be caused by IC property owned by the company (Sunarsih and Mendra, 2012). The limited of accounting standards on IC encourages experts to model IC measurement and reporting (Ulum et.Al., 2014). One model that is very popular in various country is Value Added Intellectual Coefficient (VAICTM) introduced by Pulic (1998). It is measured IC management;s impact (Ulum et.Al., 2008). Thus the expectation that there will be a positive impact if the company manages IC well.

The LQ 45 index is one of the indices contained in the Indonesia Stock Exchange where companies that fall into the index group have good financial performance. The IQ 45 index company is a company whose shares are sought after by investors as a vehicle for investment because it has good and liquid performance. The high financial performance of the LQ 45 index shows that management is able to manage the company well. This is certainly inseparable from the implementation of IC adopted by the corporation. In line with this, the Indonesian Most Admired Knowledge Enterprise (MAKE) study determines eight criteria in determining the most admired knowledge-based company in Indonesia. MAKE Trend Study in the world focuses on creative processes and creative employees. How companies can improve the capabilities and capabilities of their employees, especially when companies are required to be adaptive to various changes. Several LQ 45 companies from 2012 to 2015 showed their ability to enter as finalist of MAKE studies including ASSI, TLKM, and others as the most admired knowledge-based organization in Indonesia.

Some previous studies as conducted by Wulandari et.al (2016); Fauzan (2019) states that IC doesn't have influence on Company value. Yunita (2012); Simamarta et al (2016) shows that IC can raise corporate value, while different results are obtained by Yuniasih et al (2010), Solikhah (2010) and Sunarsih and Mendra (2012) who proved IC has a negative influence on the market value of the corp. In addition, research on the influence of IC on financial performance has also been carried out, including Fajarini and Firmansyah (2012), Subkhan and Ciptaningrum (2010) who found that IC has a positive influence on financial performance. From various studies, it raises an imdication of the importance of the use of IC and the importance of an empirical study of IC, but there are inconsistent which may be due to the influence of other variables that are not controlled by previous researchers or due to other variable that mediate the relationship of IC with company's value namely profitability. Companies that supervise their knowledge sources effectively and efficiently, will make financial performance increase. When financial performance increases, investors will be attracted to invest in the company, thereby causing an increase in share prices which also boost the company's value. Based on phenomena and background described, the writer needs to do further research on how intellectual capital influences company value by including profitability as mediating variable.

LITERATURE REVIEW

Intellectual Capital

Intellectual capital includes the overall information of employees, organizations, and their ability to make a value and improve the ability an organization to compete all of intangible assets (asset, abilities, and expertise) that drive organizational achievement and value creation (Ulum, 2008).

Intellectual capital is a company-owned resource that will provide future benefits in the form of added value. The monetary intellectual capital measurement method that is widely adopted by many researchers is VAIC. The VAIC method was developed by Pulic (1998). This measurement method is based on value added created from a combination of VACA, VAHU, and STVA. According to Sudibiya and Restuti, the 2014 VAICTM method the efficiency of the three types of inputs are:

1. VACA. The corporation's competence to supervise assets in the form of capital assets that if managed perfectly can develop the company's financial achievement and is part of the corporation's intellectual capital.

2. VAHU. Human capital show the corporation's collective understanding to make best solutions depend on the expertise of the human resource in the organization.
3. STVA. The corporation's competence to fulfill the company's production procedure and its system that supports its worker to build best intellectual and holistic business achievement.

Profitability

Profitability ratios are the main ratios in all financial statements, because the company's goals are the results of operations or profits (Pramudita, 2012). Profitability ratio will shows the success of the corporation in generating profits. Profitability ratios are used to measure company efficiency or is the enterprise's capacity to generate profits over a certain period to see the company's ability to operate efficiently (Halik, 2018).

The Value of the Company

According to Fama in Rakhimansyah and Barbara (2011) the value of the enterprise will be indicate in its stock price. The higher of Price to Book Value (PBV) indicates that the market believes more in the company's prospects. The higher of stock value, the more prosperous the enterprise creates profit for investor. Enterprise 's success in making value surely gives optimism to investor to have a greater profits (Sudibya and Restuti, 2014).

Theoretical Framework and Hypothesis

The Effect of Intellectual Capital (IC) Directly on Company Value

According to Edvinsson & Malone (1997) in Sunarsih & Mendra (2012) states that one of the advantages of IC is as a tool to determine the amount of the corporation. From the results of the study of Chen et al. (2005), it is known that investors tend to pay more for shares of companies that have more intellectual asset than corporation with low intellectual asset. Besides that, Solikhah et al. (2010) states that market value that represents company value occurs because of the inclusion of the IC concept which is the main elemen that can raise the value of a corporation. From the concept and empirical study, the following hypotheses are drawn:

H1: IC has a direct & significant effect on corporation value.

The Effect of IC Indirectly on Firm Value with Profitability as Mediating Variable

Research conducted by Entika (2012) verify that IC give a positive effect on the market value and corporate financial achievement. Contrary to this study, the research of Solikhah et al. (2010) and Sunarsih & Mendra (2012) did not succeed in proving the influence of IC on firm value, but their research succeeded in proving the influence between IC and financial performance. This allows company value to be influenced by aspects of corporate achievement as mediating variable on the correlation between IC and company value (Saudi, 2018).

This has been proven by Sunarsih & Mendra's (2012) research which proved that ROA as an intervening variable is capable to intervene the correlation between IC and company value in companies indexed on the Indonesia Stock Exchange in the period 2005-2010. Corporation that supervise their knowledge asset effectively and efficiently will make financial performance increase. When financial performance increases, the market will give a positive response which causes the value of the company to go up (Sunarsih & Mendra, 2012).

From the concept and empirical study, the following hypotheses are drawn:

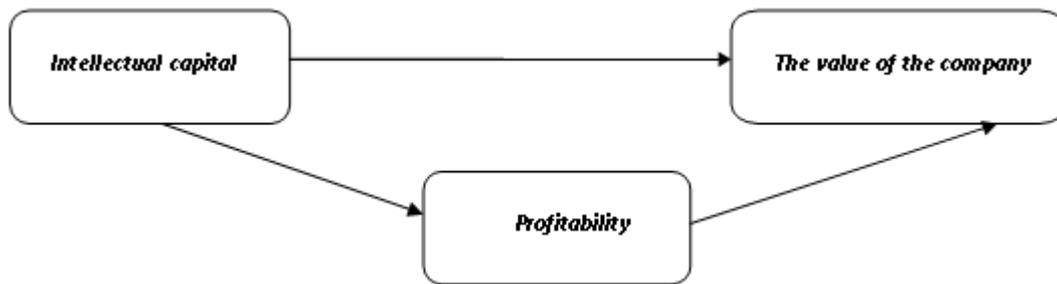


Figure 1. Chart of Research Paradigms

METHOD

The method used in this research is descriptive and verification. Based on these objectives, this study has independent variables namely intellectual capital, the dependent variable is firm value and the mediating variable is profitability. The unit of analysis of this research is the LQ 45 index companies listed on the Indonesia Stock Exchange (IDX) for the 2012-2016 period.

Technical Analysis of Data

To test the analysis used, a verification test is performed to calculate whether there is an effect of intellectual capital on company value with profitability as an mediating variable. The analysis method is path analysis. Path analysis alone cannot be used as a substitution to see the causality relationship between variables. Causality relationships between variables have been formed with a model based on a theoretical basis that can be done by path analysis by determining the pattern of relationships between three or more variables and cannot be used to confirm or reject imaginary causality hypotheses.

Path charts explicitly display causality relationships between variables based on theory. Arrows indicate relationships between variables. The model moves from left to right with the implication of the priority of the causal relationship of variables that are close to the left. Each p value represents the path and path coefficient. Based on the path model, proposed a relationship based on the theory that X has a direct relationship with Y, p_1 . However, X also has an indirect relationship to Y, from X to Z (p_2) and then to Y (p_3). The total effect of the relationship from X to Y is the same as the direct influence of X to Y plus its indirect influence or as follows:

- Direct influence X to Y = p_1
- The indirect effect of X to Z to Y = $p_2 \times p_3$
- Total influence X to Y = $p_1 + (p_2 \times p_3)$

Based on the picture above the regression equation can be written as follows:

$$Y = a + bX \quad Z = a + bX$$

$$Y = a + bX + bZ$$

RESULTS

Path Analysis, Direct and Indirect Effects

Based on data processing can be calculated how much the direct or indirect influence as follows:

1. The direct effect of Intellectual capital on Company Values is as follows:

$$DE X \rightarrow Y = (\rho_{yx})^2 \times 100 \%$$

$$DE X \rightarrow Y = (0,545)^2 \times 100 \%$$

$$DE X \rightarrow Y = 29,7 \%$$

Thus, the direct effect is 29.7%

2. The indirect effect of Intellectual capital on Company Values is as follows:

$$IE X \rightarrow Y \text{ (to Z)} = (\rho_{yx} \times r_{xy} \times \rho_{yz}) \times 100\%$$

$$IE X \rightarrow Y \text{ (to Z)} = (0,545 \times 0,851 \times 0,365) \times 100\%$$

$$IE X \rightarrow Y \text{ (to Z)} = 16,9\% \%$$

Thus, the indirect effect is 16.9%

Hypothesis Testing Analysis

After calculating the amount of contribution or effect of independent variables on the dependent variable, then the significance test is performed to get the conclusions from the results of the study. A correlation coefficient must have a significant (significant) value, to give meaning to existing correlations, it is necessary to test the hypothesis against r_s between the effect of intellectual capital on firm value and the influence of profitability on firm value. To carry out this hypothesis, the test of the statistical hypothesis can be seen in the table below:

Intellectual Capital to Company Value

Table 1 Summary of Testing the Path Coefficient

Variable	Path coefficient	T Value	t _{table}	Conclusion	Information
<i>Intellectual capital</i>	0.545	5.247	1.661	Reject H ₀	significant

The influence of IC variables on the firm value variable obtained by the value of t_{count} of 5.247 compared with t_{table} of 1.661. Due to the value of t_{count} > t_{table} then at a level of error of 5% there is a strong reason to reject (H₀) and accept the research hypothesis (H_a), so with a 95% confidence level it can be concluded that IC has a significant effect on firm value.

Intellectual Capital Towards Company Value with Profitability as Mediation Variable

Overall testing (simultaneous) is done to prove whether there is an influence of at least one independent variable on the dependent variable. This test is carried out using the F distribution by comparing the value of F_{count} with the value of F_{table}. If the value of F_{count} > F_{critical}, then H₀ which states that the variation in the change in the value of the independent variable (VAIC and ROA) cannot explain the change in the value of the dependent variable (HS) is rejected and vice versa. To find out the hypothesis test simultaneously by looking at the table as follows:

Table 2 Test F

Model	F	Sig
Regression	74,387	0,013

Based on the calculation, the F_{count} value is 74.387, by taking a significant level α of 5%, then from the F distribution table, the F_{table} value for n = 95; k = 2; df = n-k-1 = 95-2-1 = 92; a value of 3,092 was obtained.

Because $F_{\text{arithmic}} > F_{\text{table}}$ is $74,387 > 3,092$, H_0 is rejected, meaning that simultaneously there is a significant influence between Intellectual capital and profitability on firm value.

DISCUSSIONS

The Effect of IC Directly on Company Values

Based on the test result it is known that IC directly affects the value of the company. Syamsi's research (2015) states that in theory, intellectual property owned by a company and managed efficiently will increase market appreciation of profitability so that the company's value will raise.

The Effect of IC Indirectly on Firm Value with Profitability as Mediating Variable

Based on the test result it is known that IC indirectly affects the value of the company with financial performance as an intermediary variable. Sunarsih & Mendra (2012) states that the market will provide a higher valuation for companies that have high financial performance. Companies that are able to manage their knowledge resources effectively and efficiently, will make financial performance increase. When financial performance increases, the market will give a positive response that causes the value of the company will also go up. The results of this study are match with Sunarsih & Mendra (2012) which proves that financial performance as an intervening variable is able to intervene the relationship between IC and company value. The magnitude of the indirect effect of IC on firm value is 0,462. This value is greater than the direct correlation coefficient, which is -0.096, which means that financial performance is a variable that mediates the relationship between IC and company value.

CONCLUSIONS

1. There is a direct influence of intellectual capital on the value of the company in the LQ-45 index companies listed on Indonesia Stock Exchange (IDX) for the 2011-2016 period of 29,7%
2. Based on testing, it can be concluded that there is an influence of intellectual capital on company value in LQ 45 Index companies listing on the Indonesia Stock Exchange (BEI) 2011-2016 period through profitability as an intervening variable of 16.9%.

SUGGESTIONS

This study still has some limitations and is expected to be refined in subsequent studies. The theoretical and practical suggestions that can be given are as follows:

1. For Companies

Companies should be more prudent in making decisions about intellectual capital because the use of intellectual capital is able to increase the company's profitability and value. Increased profitability has an impact on increasing the confidence of investors so that they are interested in investing in the company, which in turn can increase the value of the company.

2. For further Researchers

It is better to extend the research period by selecting a broader sector or other larger sectors because with the selection of a larger sector which later is expected to get far more accurate results. Future studies that use firm value as the dependent variable should add a number of other variables such as Earning Per Share, Return on Equity, not only in domestic but also foreign.

REFERENCES

Chen, M.C., Cheng, S.J., Hwang, Y. 2005. Journal of Intellectual Capital. Vol. 6, No. 2, pp.159-176.

- Entika, N.L. 2012. *Pengaruh Elemen Pembentuk Intellectual Capital terhadap Nilai Pasar dan Kinerja Keuangan pada Perusahaan Perbankan yang Terdaftar di Bursa Efek Indonesia (BEI)*. Diponegoro Journal of Accounting, 1(2): 1-11.
- Fajarini, Indah S. W dan Riza Firmansyah. 2012. *Pengaruh Intellectual Capital Terhadap Kinerja Keuangan Perusahaan (Studi Empiris Perusahaan LQ45)*. Jurnal Dinamika Akuntansi.
- Fauzan, Ahmad.2019. *Analisis Pengaruh Modal Intelektual, Profitabilitas, Kebijakan Hutang, dan Kebijakan Dividen Terhadap Nilai Perusahaan pada Perusahaan Jasa Keuangan Sektor Perbankan yang Terdaftar di BEI Tahun 2015-2017*. Jurnal Akuntansi, Volume II Nomor 1.
- Fitriyani dan Amalia, Dwi Yana. 2015. *Pengaruh Modal Intelektual Terhadap Nilai Perusahaan dengan Kinerja Keuangan sebagai Variabel Intervening (Studi pada Perusahaan Sektor Keuangan yang terdaftar di BEI Tahun 2010-2013)*. Jurnal Riset Akuntansi, Vol. 5 (2).
- Halik, Abdul Chadjib. 2018. *Pengaruh ROA dan NPM Terhadap Nilai Perusahaan Pada PT Antam, Tbk*. Jurnal Ekonomi, Akuntansi, dan Manajemen Bisnis, Vol. 1 (2).
- Mehralian, G., Rasekh, H.R., Akhavan, P., & Sadeh, M.R. 2012. *The Impact of Intellectual Capital Efficiency on Market Value: An Empirical Study from Iranian Pharmaceutical Companies*. Iranian Journal of Pharmaceutical Research, 11(1): 195-207.
- Pramudita, Gema. 2012. *Pengaruh Modal Intelektual terhadap Nilai Pasar dan Kinerja Keuangan Perusahaan Perbankan yang terdaftar di Bursa Efek Indonesia (BEI) tahun 2008-2010*. Skripsi. Universitas Diponegoro Semarang.
- Pulic, A. 1998. *Measuring the Performance of Intellectual Potential in Knowledge Economy. In 2nd World Congress on Measuring and Managing Intellectual Capital*. McMaster University. Hamilton.
- Rakhimansyah, Amnah dan Barbara Gunawan. 2011. *Pengaruh Keputusan Investasi, Keputusan Pendanaan, Kebijakan Dividen, dan Tingkat Suku Bunga Terhadap Nilai Perusahaan*. Jurnal Investasi. Vol. 7(1): 31-45.
- Saudi, M.H.M., Sinaga, O. & Rospinoedji, D., The role of tax education in supply chain management: A case of Indonesian supply chain companies, Polish Journal of Management Studies 18(2):304-319, December 2018.
- Simamarta, Rhoma dan Subowo. 2016. *Pengaruh Intellectual Capital Terhadap Kinerja Keuangan dan Nilai Perusahaan Perbankan Indonesia*. Accounting Analisis Journal (5) (1).
- Sirojudin, Gatot Ahmad dan Nazarudin, Ietje. 2018. *Pengaruh Modal Intelektual dan Pengungkapannya Terhadap Nilai dan Kinerja Perusahaan*. Journal of Accounting and Investment. Vol.15 (2).
- Solikhah, B., Rohman, A., & Meiranto, W. 2010. *Implikasi Intellectual Capital terhadap Financial Performance, Growth, dan Market Value: Studi Empiris dengan Pendekatan Simplisitic Specification*. Simposium Nasional Akuntansi XIII (SNA XIII), Purwokerto: 13-15 Oktober 2010.
- Streiner, David L. 2005. *Finding our Way: An Introduction to Path Analysis Can J Psychiatry*. Vol 50, No.2.
- Subkhan, dan Ciptaningrum, D.P. 2010. *Pengaruh Intellectual Capital Terhadap Kinerja Keuangan Perusahaan Perbankan Periode 2005-2007*. Jurnal Dinamika Akuntansi, Vol. 2 (1).
- Sudibya, Diva CAN dan Restuti, Mitha. 2014. *Pengaruh Modal Intelektual Terhadap Nilai Perusahaan dengan Kinerja Keuangan Sebagai Variabel Intervening*. Jurnal Manajemen dan Bisnis, Vol. 18 (1).
- Sunarsih, N, M. dan Mendra, N, P, Y. 2012. *Pengaruh Modal Intelektual terhadap Nilai Perusahaan dengan Kinerja Keuangan sebagai Variabel Intervening pada Perusahaan yang terdaftar di Bursa Efek Indonesia*. Simposium Nasional Akuntansi XV. Banjarmasin.
- Ulum, I., Ghozali, I., & Chariri, A. 2008. *Intellectual Capital dan Kinerja Keuangan Perusahaan: Suatu Analisis dengan Pendekatan Partial Least Squares*. Simposium Nasional Akuntansi XI (SNA XI), Pontianak: 23-24 Juli 2008.
- Utami, Eristy Minda. 2018. *The Intellectual Capital Components on Firm Value: Evidence from LQ-45 Index Companies*. Jurnal Keuangan dan Perbankan, 22(2):291–300.
- Wulandari, Desi et.al.2016.*Pengaruh Modal Intelektual, Struktur Modal, Profitabilitas Terhadap Nilai Perusahaan dengan Kinerja Keuangan Sebagai Variabel Intervening (Pada Perusahaan Manufaktur yang Terdaftar di BEI Sub-Sektor Aneka Industri Tahun 2011-2015)*. Jurnal Ilmiah Mahasiswa, Volume 4 Nomor 4.
- Yuniasih, N.W., Wirama, D.G, & Badera, I.D.Y. 2010. *Eksplorasi Kinerja Pasar Perusahaan: Kajian Berdasarkan Modal Intelektual*. Simposium Nasional Akuntansi XIII. Purwokerto: 13-15 Oktober.
- Yunita, Novelina. 2012. *Pengaruh Modal Intelektual Terhadap Kinerja Keuangan Dan Nilai Pasar*. Accounting Analysis Journal 1 (1).

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