

## PalArch's Journal of Archaeology of Egypt / Egyptology

### INTELLECTUAL CAPITAL, COMPANY SIZE, AND ASSETS STRUCTURE TO COMPANY VALUE

*Eristy Minda Utami<sup>1</sup>, Trina Desyderia Juwita<sup>2</sup>*

<sup>1,2</sup>Faculty of Economics and Business, Widyatama University, Bandung, Indonesia

<sup>1</sup>[eristy.minda@widyatama.ac.id](mailto:eristy.minda@widyatama.ac.id), <sup>2</sup>[trina.desyderia@widyatama.ac.id](mailto:trina.desyderia@widyatama.ac.id)

**Eristy Minda Utami, Trina Desyderia Juwita. Intellectual Capital, Company Size, And Assets Structure To Company Value-- PalArch's Journal Of Archaeology Of Egypt/Egyptology 17(10), 3131-3140 ISSN 1567-214x**

**Keywords: Intellectual Capital; Company Size; Asset Structure; Value Of Company.**

#### ABSTRACT

This research aims to analyze and explain the influence of Intellectual Capital, firm size and asset structure on firm value. The data used in this study is secondary data with the sampling method, namely purposive sampling method. The population of this study is the Crude Oil and Natural Gas Sub-Sector which is listed on the Indonesia Stock Exchange for the 2013-2018 period with a total sample of 7 companies. This research uses panel data regression analysis method. The results of data analysis prove that Intellectual Capital has no effect on firm value, firm size has no effect on firm value, and asset structure has no effect on firm value.

#### INTRODUCTION

Company value can best describe the performance of a firm. The increase in company value is considered an absolute thing that companies must display, so that investors have the interest and confidence in investing their capital. In assessing and measuring the condition of the firm, it can be identified by the value of the company is owned. This way of assessing and measuring in this era of globalization forces business people to increase the capacity of the business they live in. Tight competition has made business people begin to realize that success in doing business and increasing company value can not only rely on tangible assets, but intangible assets play an important role in a company.

In assessing intangible assets, a special approach is needed called Intellectual Capital (IC) which helps in various fields such as management, information technology, and accounting. Lin and Ding Jyun et al. (2018) found that the business performance of the construction industry registered in the Taiwan market is strongly dependent on IC. So that, the accumulation of intellectual

assets is a priority for managers to increase their business performance. Apart from that, the empirical results also show that the construction industry which is capital intensive and labor intensive is highly Intellectual Capitalized.

IC is still not widely known in Indonesia, because companies in Indonesia tend to calculate tangible assets without measuring the intangible assets in building their business (Utami & Susanti, 2020). Elements in the development of IC consist of human, structural, and customer capital. IC provides added value for companies that can make good use of knowledge and technology. IC can be the main driving force in business development (Utami, 2018). The importance of IC in a company is that the increase in IC of a company can also increase the company value. Because firms that have high IC tend to produce products and services that have high knowledge content, which will be able to produce high competitiveness (Sirojudin & Nazaruddin, 2018). Sudibya and Restuti (2014), Fitriyani and Amalia (2015) have conducted research that analyzes the effect of IC on firm value which states that IC has a positive effect. In contrast to research conducted by Wahyudi and Martha (2018) which states that IC has a negative effect, according to Wulandari et al. (2016) and Fauzan (2019) state that IC has no influence on corporate value.

The size of the company is the benchmark for the company in determining the value of the company because investors tend to be attracted to companies with large sizes because they are considered to have large company values. The size affects the performance and value of the firm where the bigger the size of the company will experience development so that investors have a positive view. Companies with large company sizes are considered more stable. A large amount of assets will increase the firm's value because the company is considered to be able to use its assets to develop business in the company (Brigham & Houston, 2010). Research that analyzes the effect of company size on company value has been conducted by Triyono et al. (2015) and Pratiwi et al. (2016) which states that Company Size has a positive effect. In contrast to research conducted by Indriyani (2017), Utomo and Christy (2017) which states that Company Size has a negative effect. Meanwhile, according to Manoppo and Arie (2016), company size has no effect on firm value.

Asset structure describes the amount of assets that can be guaranteed by the company when the company makes an agreement with creditors. Asset structure is the proportion of fixed assets owned by the company (Mawikere and Rate (2015) in Personal (2018)). The composition of fixed assets determines the value of a particular company. Most companies with financial stability have a high investment value in terms of fixed assets. When these assets are optimally utilized by competent staff, this will increase the company's return and ultimately affect the growth of firm value. Research that analyzes the effect of Asset Structure on Company Value has been carried out by Personal (2018) which states that Asset Structure has a positive. In contrast to research conducted by Purba (2018) which states that Asset Structure has a negative effect. Meanwhile, according to Mandalika (2016) states that Asset Structure has no effect on Company Value.

## LITERATURE REVIEW HYPOTHESIS DEVELOPMENT

### *The Influence of Intellectual Capital on Firm Value*

IC is knowledge, information, intellectual property and experience that can be utilized to create wealth and provide a competitive advantage in the market. Value Added Intellectual Coefficient (VAICTM) is an instrument in measuring a company's IC. Value Added Intellectual Coefficient (VAICTM) is the sum of three components, namely Value Added Capital Employed (VACA), Value Added Human Capital (VAHU), and Structural Capital Value Added (STVA) (Ulum, 2009). Companies with high intellectual resources will attract investors because investors will give higher value to the company. The company value can be seen from the market price and share price. In addition, market value can also be seen from the market price and intrinsic value. The intrinsic value actually comes from shares, and the stock price in the capital market is formed because of an agreement between the demand and supply of investors, so that the stock price is a fair price that reflects the value of the company itself.

Firm value is the market value of debt securities and company equity in circulation. Firm value can be calculated using Price to Book Value (PBV) because it can illustrate the amount of premium given by the market for IC owned by the company.

Based on the results of research conducted by Damai (2014), Oktari et al. (2016), Fitriyani and Amalia (2015) stated that IC has a positive effect on company value. This indicates that the presence of high IC reflects good company value, that is because by managing management using IC, the company has better information in terms of tangible assets and intangible assets owned by the company (Oktari et.al., 2016). Meanwhile, according to research Wahyudi and Martha (2018) states that IC has a negative effect. This means that managing IC properly will cause the value of the company to decrease, because the IC owned by the firm does not always guarantee an increase in company value (Wahyudi & Martha, 2018).

H1: Intellectual Capital has an effect on company value

### *The Effect of Firm Size on Firm Value*

Company size is a measurement that can be classified as a company size in various ways, including: total assets, log size, stock market value, and so on. Basically, the size of the company is divided into three categories, namely small firms, medium firms and large firms. Determination of company size is based on the company's total assets (Tanuwijaya, 2019).

Large-scale companies will find it easier to obtain loans compared to small companies. Larger companies have greater growth than smaller companies. Based on the results of research conducted by Triyono et al. (2015) and Pratiwi et al. (2016) stated that Company Size has a positive effect on Firm Value. This shows that by having a large company size, the company value can be said to be good because it has good prospects in the future (Pratiwi, 2016). Meanwhile,

according to research by Indriyani (2017), Utomo and Christy (2017), company size has a negative effect. This is because the high company size will increase the risk in investing so that the company value tends to decrease because it is considered unable to provide certainty to investors in the benefits of investing in companies with large company sizes (Indriyani, 2017).

H2: Firm size affects company value

### *The Effect of Asset Structure on Firm Value*

Asset structure is the determination of how much the allocation for each asset component in outline in its composition, namely current assets and fixed assets. When companies have a larger proportion of tangible assets, their asset valuation becomes easier so that the problem of information asymmetry is lower (Brigham & Houston, 2010).

Thus, the company will reduce the ability to use its debt capital when the proportion of tangible assets increases. This is consistent with the Pecking Order Theory which prioritizes internal funding sources first. This indicates that the asset structure has an effect on company value (Pribadi, 2018). In accordance with the results of research conducted by Pribadi (2018) which states that Asset Structure has a positive effect on Company Value. According to Sartono (2013), companies that have large amounts of fixed assets can use large amounts of debt. This is because from the scale of large companies it will be easier to get access to sources of funds. Then, the amount of fixed assets can be used as collateral or corporate debt collateral. With the amount of guarantee obtained, it will increase the company's performance. Thus, the company will find it easier to decide the source of funds that the company will use (Utami et al, 2020). Meanwhile, research conducted by Purba (2018) states that Asset Structure has a negative effect. Because companies that use internal company funds to manage companies tend to have a high risk of bankruptcy, so this can have an effect if the value of the company's asset structure is high, it will cause the company value to decrease (Purba, 2018).

H3: Asset structure affects company value

## **METHOD**

The method of analysis of this research is using panel data regression. Partial hypothesis testing (t test) is carried out to show the effect of individual independent variables on the dependent variable constantly. By using a significance level of ( $\alpha$ ) 5% (0.05). The criteria for acceptance or rejection will be based on a significance probability value. If the probability is smaller than the significance level (Sig < 0.05), the independent variable has an effect on the dependent variable and if the probability is greater than the significance level (Sig > 0.05), the independent variable has no effect on the dependent variable (Ghozali, 2013).

The population in this study is the Crude Oil and Natural Gas sub-sector listed on the Indonesia Stock Exchange for the 2013-2018 period, total 11 companies with a total research year of 6 years so that the total population is 7 companies that meet the characteristics set by the author. In this research, the descriptive method and verification method that will be described and explained are IC

which is proxied by the Value Added Intellectual Coefficient (VAICTM), Company Size which is proxied by Size, Asset Structure proxied by Tangibility Assets, and Firm Value which is proxied by Price to Book Value (PBV).

## RESULTS

### F Test

This test is carried out to see whether all the included independent variables have a joint relationship to the dependent variable (Ghozali, 2012). The results of the F test in this study are as follows:

**Table 1. Model Test (Test F)**

R-squared	0.256634	Mean dependent var	1.897619
Adjusted R-squared	0.171112	S.D. dependent var	4.381427
S.E. of regression	3.777609	Sum squared	513.7318
F-statistic	3.830902	Durbin-Watson stat	1.911882
<b>Prob(F-statistic)</b>	<b>0.009647</b>		

The results of the F test in this study indicate that the probability value is 0.009647 < 0.05, which means that H1 is accepted, that is, together the independent variable (X), namely IC, Company Size, and Asset Structure have a significant effect on the dependent variable (Y), namely Firm Value.

### Multiple Linear Regression Test

Regression analysis is used to determine the existing relationship between variables so that from the relationship obtained, one variable can be estimated if the price of the other variable is known. The regression model equation used in this study is the multiple regression model equation. Following are the results of the multiple regression model equation table:

**Table 2. Multiple Linear Regression**

<b>Variable</b>	<b>Coefficient</b>	<b>Prob.</b>
C	-9.990150	0.5791
VAIC <sup>TM</sup>	0.123763	0.0487
SIZE	3.849140	0.5785
TANGIBILITY	-8.764522	0.2633

Based on the table above, the equation of the panel data regression model in this study is:

$$Y = - 9.990150 + 0.123763X_1 + 3.849140X_2 - 8.764522X_3$$

Information:

- Y = Firm Value
- a = Constant
- X<sub>1</sub> = Intellectual Capital
- X<sub>2</sub> = Firm Size
- X<sub>3</sub> = Asset Structure

Based on the panel data regression model in this study, each variable can be interpreted its effect on Firm Value as follows:

1. The constant value which is negative is -9.990150 which means that if the IC (X1), Company Size (X2), and Asset Structure (X3) are equal to zero, then the Firm Value (Y) is -9.990150.
2. The coefficient value for the independent variable (independent) IC (X1) is positive, this indicates a direct relationship between IC (X1) and Firm Value (Y). The IC regression coefficient (X1) of 0.123763 means that each one-unit increase in IC (X1) will increase the Firm Value (Y) by 0.123763.
3. The coefficient value for the independent variable (independent) Firm Size (X2) is positive, this indicates a unidirectional relationship between Firm Size (X2) and Firm Value (Y). The regression coefficient of Company Size (X2) of 3,849,140 means that each increase in Company Size (X2) of one unit will increase the Firm Value (Y) of 3,849,140.
4. The coefficient value for the independent variable (independent) Asset Structure (X3) is negative, this indicates that there is a unidirectional relationship between Asset Structure (X3) and Firm Value (Y). The regression coefficient of Asset Structure (X3) is - 8.764522, which means that every one-unit increase in the Asset Structure (X3) will decrease the Firm Value (Y) of 8.764522.

### *Determination Coefficient Test*

The coefficient of determination is used to measure the ability of the model to explain variations in the independent variable. The results of the coefficient of determination can be seen in the following table:

**Table 3. Determination Coefficient Test**

R-squared	0.256634	Mean dependent var	1.897619
<b>Adjusted R-squared</b>	<b>0.171112</b>	S.D. dependent var	4.381427
S.E. of regression	3.777609	Sum squared resid	513.7318
F-statistic	3.830902	Durbin-Watson stat	1.911882
Prob(F-statistic)	0.009647		

The test results of the coefficient of determination (R<sup>2</sup>) show an Adjusted R-Squared value of 0.171112, which means that there is a limited ability of the model formed to explain changes in the independent variable. In this study, the ability of the independent variable (X), namely IC, Company Size, and Asset Structure in explaining variations in the dependent variable (Y), namely Firm Value is 17.11%, where the remaining 82.89% is influenced by other variables outside of this research.

### **T Test**

This test basically aims to show how far the influence of one independent variable individually in explaining the dependent variable. This can be seen from the t significance value of the calculation results. If the sig.t value < significance level (0.05), then the independent variable individually affects the dependent variable. Conversely, if the sig.t value > the level of significance (0.05), then the independent variables individually have no effect on the

dependent variable. Based on the results of multiple linear testing, it is obtained as follows:

**Table 4. Hypothesis Test (t test)**

<b>Variable Independent</b>	<b>Probabilities</b>
IC	0.0487
Company Size	0.5785
Asset Structure	0.2633

From the table above it can be explained as follows:

#### ***Intellectual Capital on Company Value***

The test results show that IC (X1) which is proxied by the Value Added Intellectual Coefficient (VAICTM) has an effect on Firm Value because the probability value is  $0.0487 < 0.05$ .

#### ***Company Size on Company Value***

The test results show that the size of the company (X2) which is proxied by Size has no effect on firm value because the probability value is  $0.5785 > 0.05$ .

#### ***Asset Structure on Company Value***

The test results show that the Asset Structure (X3) which is proxied by Tangibility Assets has no effect on Firm Value because the probability value is  $0.2633 > 0.05$ .

## **DISCUSSION**

### ***The Influence of Intellectual Capital on Company Value***

The first hypothesis in this study is that IC has an effect on firm value. The results of this study show that IC has an effect on Firm Value in the Crude Oil and Natural Gas Sub-Sector for the 2013 - 2018 Period, so that the first hypothesis is accepted. These results indicate that the higher or lower the value of IC owned by the company will have an effect on firm value. Good IC management will reflect good company value as well, because investors will think that companies with high IC have information that creates added value and tend to have promising prospects in the future.

The results of this study are in line with research conducted by Sudibya and Restuti (2014), Fitriyani and Amalia (2015) which state that IC has a positive effect on firm value. Furthermore, the results of this study contradict the results of research conducted by Wulandari et al. (2016) and Fauzan (2019) state that IC has no effect on corporate value, then the results of this study are also

contrary to the results of research according to Wahyudi and Martha (2018) which state that IC has a negative effect on firm value.

### *The Effect of Firm Size on Company Value*

In the second hypothesis in this study, Firm Size has an effect on Firm Value. The results of this study show that Company Size has no effect on Firm Value in the Crude Oil and Gas (Oil and Gas) Sub-Sector for the 2013 - 2018 Period, so the second hypothesis is rejected. These results indicate that if the higher or lower the Firm Size has no effect on Firm Value. Company size is not a determining factor in the increase or decrease in company value in the Crude Oil and Gas (Oil and Gas) Sub-Sector for the 2013 - 2018 period, the increase or decrease in company value in this study is influenced by other factors besides Company Size.

The results of this study are in line with research conducted by Manoppo et al. (2016) which states that company size has no effect on firm value. Then this research contradicts the research conducted by Triyono et al. (2015) and Pratiwi et al. (2016) which states that Company Size has a positive effect on Firm Value. Then, the results of this study also contradict research according to Indriyani (2017), Utomo and Christy (2017) which state that Company Size has a negative effect on Firm Value.

### *Effect of Asset Structure on Company Value*

In the fifth hypothesis in this study, the Asset Structure has an effect on Firm Value. The results of this study show that Asset Structure has no effect on Firm Value in the Crude Oil and Gas (Oil and Gas) Sub-Sector for the 2013 - 2018 Period, so the fifth hypothesis is rejected. These results indicate that the higher or lower the company's asset structure has no effect on firm value. Management of the asset structure is not a determining factor in the increase or decrease in company value in the Crude Oil and Gas (Oil and Gas) Sub-Sector for the 2013 - 2018 Period. Investors tend to pay attention to other factors besides asset structure as a benchmark for investing.

The results of this study are in line with research conducted by Mandalika (2016) which states that Asset Structure has no effect on Firm Value. Furthermore, the results of this study contradict the results of research conducted by Personal (2018) which states that Asset Structure has a positive effect on Company Value, then the results of this study are also contrary to the results of research according to Purba (2018) which states that Asset Structure has a negative effect on The value of the company.

## **CONCLUSION**

Based on the results of the research that has been done as well as on the discussion, the researcher can draw conclusions and provide the following suggestions:

1. Intellectual Capital has a positive effect on company value. Good IC management will reflect good company value as well, because investors will



think that companies with high IC have information that creates added value and tend to have promising prospects in the future.

2. Company size has no effect on company value.
3. Asset structure has no effect on company value.

## REFERENCES

- Brigham, E., & Houston, J. 2010. *Fundamentals of Financial Management Dasar-Dasar Manajemen Keuangan*. Jakarta: Salemba Empat.
- 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*. Master thesis, Universitas Widya Dharma.
- Fitriyani and 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*, 5(2).
- Ghozali, Imam. 2013. *Aplikasi Analisis Multivariate dengan Program SPSS*. Badan Penerbit Universitas Diponegoro, Semarang.
- Indriyani, Eka. 2017. *Pengaruh Ukuran Perusahaan dan Profitabilitas Terhadap Nilai Perusahaan*. *Akuntabilitas: Jurnal Ilmu Akuntansi*, 10(2), 333-348.
- Lin, Ding Jyun, et al. 2018. *Correlation Between IC and Business Performance of Construction Industry -An Empirical Study in Taiwan*. *International Journal of Construction Management*, 18(3).
- Mandalika, Andri. 2016. *Pengaruh Struktur Aktiva, Struktur Modal, dan Pertumbuhan Penjualan Terhadap Nilai Perusahaan Pada Perusahaan Publik yang Terdaftar di BEI*. *Efisiensi*, 16(1).
- Manoppo, Heven and Arie, Fitty V. 2016. *Pengaruh Struktur Modal, Ukuran Perusahaan, dan Profitabilitas Terhadap Nilai Perusahaan Otomotif yang Terdaftar di Bursa Efek Indonesia Periode 2011-2014*. *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis dan Akuntansi*, 4(2).
- Oktari, Gusti Ayu et.al. 2016. *Determinan Modal Intelektual (IC) pada Perusahaan Publik di Indonesia dan Implikasinya Terhadap Nilai Perusahaan*. *Simposium Nasional Akuntansi XIX*, pp. 1-29.
- Pratiwi, Ni PYP et.al. 2016. *Pengaruh Struktur Modal dan Ukuran Perusahaan Terhadap Nilai Perusahaan*. *Jurnal Manajemen Indonesia*, 4(1).
- Pribadi, M. T. (2018). *Pengaruh Struktur Aset, Ukuran Perusahaan, Likuiditas Dan Profitabilitas Terhadap Nilai Perusahaan Dagang Besar Yang Terdaftar di Perusahaan Bursa Efek Indonesia*. *Proceedings Progress Conference*, pp. 372-385.
- Purba, Dimita et.al. 2018. *Pengaruh Profitabilitas, Asset Tangibility, Tingkat Pertumbuhan, dan Non-Debt Tax Shield Terhadap Nilai Perusahaan (Pada Perusahaan Manufaktur Asia Tenggara)*. *Jurnal Riset Inspirasi Manajemen dan Kewirausahaan*, 2(2), 115-119.
- Sartono, Agus 2012. *Manajemen Keuangan Teori dan Aplikasi*. Yogyakarta: BPF.
- Sudibya, D. C. N. A., & Restuti, M. M. D. (2014). *Pengaruh modal intelektual terhadap nilai perusahaan dengan kinerja keuangan sebagai variabel intervening*. *Benefit: Jurnal Manajemen dan Bisnis*, 18(1), 14-29.
- Tanuwijaya, Delvi Tianne. 2019. *Pengaruh CEO Power, Kepemilikan Institusional, dan Ukuran Perusahaan Terhadap Peringkat Sukuk (Pada*

- Perusahaan yang Menerbitkan Sukuk dan Terdaftar di Bursa Efek Indonesia Periode 2013-2017).
- Triyono, K. R., & Arifati, R. (2015). Pengaruh Kebijakan Dividen, Struktur Kepemilikan, Kebijakan Hutang, Profitabilitas dan Ukuran Perusahaan terhadap Nilai Perusahaan pada Perusahaan Manufaktur di Bursa Efek Indonesia. *Journal of Accounting*, 1(1).
- Ulum, I. (2008). Intellectual capital performance sektor perbankan di Indonesia. *Jurnal Akuntansi dan Keuangan*, 10(2), 77-84.
- Utami, E. M. (2018). The intellectual capital components on firm value: Evidence from LQ-45 Index Companies. *Jurnal Keuangan Dan Perbankan*, 22(2), 291-300.
- Utami, E. M., & Susanti, N. (2020). Intellectual Capital Through Corporate Values with Profitability as Mediation Variable. *Solid State Technology*, 63(3), 3411-3418.
- Utami, E. M., Vananda, T. T., Tanjiah, A., Goretthi, A. M., & Setiady, J. S. (2020). Assets Structure, Capital Structure, and Ownership Structure on Company Profitability. *Solid State Technology*, 63(3), 4342-4351.
- Utomo, Nanang A and Christy, Nisa NA. 2017. Pengaruh Struktur Modal, Profitabilitas, Ukuran Perusahaan Terhadap Nilai Perusahaan pada Perusahaan LQ-45 di BEI. *Jurnal Ilmu Akuntansi*, 3(4).
- Wahyudi, Riski and Martha, Lidya. 2018. Analisis Modal Intelektual dan Kinerja Keuangan serta Pengaruhnya Terhadap Nilai Perusahaan. 1(6), 1-12.
- Wulandari, D., Paramita, P. D., & Suprijanto, A. (2018). Pengaruh Modal Intelektual, Struktur Modal, Profitabilitas, Terhadap Nilai Perusahaan Dengan Kinerja Keuanngan Sebagai Variabel Intervening (Pada Perusahaan Manufaktur Yang Terdaftar Di Bei Sub Sektor Aneka Industri Tahun 2011-2015). *Journal of Accounting*, 4(4).