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“The Review and Outlook of The Economy after Covid 19 Pandemic”*

**IMPROVING FIRM VALUE BY USING INTELLECTUAL
CAPITAL AND CAPITAL STRUCTURE: EVIDENCE FROM
LQ45 INDEX**

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ABSTRACT

This research aims to find out how the influence of intellectual capital and capital structure on the value of LQ45 Index companies. The independent variables used in the study are intellectual capital (X1) and capital structure (X2). While the dependent variable used is the value of the company (Y). The study examined intellectual capital relationships measured by the PULIC model, the capital structure measured by the Debt to Equity Ratio, and the company's value measured by Tobins'q. The population in this study was an 45 company LQ45 Index listed on the IDX. To answer our research question we use 72 observation and the sample was 12 companies selected using purposive sampling techniques. The results showed that Intellectual Capital and Capital Structure simultaneously had a significant effect on the Company's Value in Companies listed in the LQ45 Index in 2015 - 2020. Intellectual Capital has a significant effect on the Value of the Company in companies listed in the LQ45 Index in 2015 - 2020. While the Capital Structure has no significant effect on the Value of the Company in companies listed in the LQ45 Index in 2015 - 2020.

Keywords: Intellectual Capital, Capital Structure, Company Value Index LQ45

1. INTRODUCTION

Our study aims to investigate how intellectual capital and capital structure affect a company's value. In research conducted by Bentoen (2012) showed the relationship between intellectual capital and capital structure is significant and negative, where if the intellectual capital of the company is high it tends to have a low debt to equity ratio (DER). Research conducted by Bolek and Lyroudi (2015) showed that the relationship between intellectual capital (intangible assets) and capital structure in non-financial companies listed on the Warsaw Stock Exchange is negative but insignificant. In contrast to Basuki research results (2019) showed that intellectual capital has no effect, profitability has no effect, and liquidity negatively affects the value of the company. We try to fill this gap and gives evidence from LQ45 Index.

The value of the company can be measured using several aspects, namely with the company's stock market price because the company's stock market price shows the investor's overall valuation of each equity held (Gultom & Wijaya, 2013). According to Bringham and Gapensi, 2006 in (Mandalika, 2016), the higher the stock price of a company, the higher the value of the company (Nurkhin, 2017). The capital structure relates to the balance of management in managing the company's debt and equity (Alza, 2018).

The relationship of capital structure with intellectual capital will occur when the company's human capital management can lobby the company's capital expenditure and decide to use its own capital or foreign capital. The attention of business behavior on

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intellectual capital management in recent years is getting bigger. This is due to the company's awareness of the importance of intellectual capital for the company. New economic developments have now been supported by information and knowledge, so new economic developments make an increase and attention to intellectual capital according to Stewart, 1997; Hong, 2007 in (Santiani, 2018). In this study, we know how intellectual capital affects companies.

According to the news, 2020 will be a year in which it is impossible to talk about moderate economic conditions, both in general and in the capital markets in particular. In the current capital market, the Composite Stock Price Index (JCI), which is the benchmark for the Indonesian capital market in general, is still experiencing a drastic correction and has fallen 20.56% from the beginning. Indonesia's capital market, mainly due to the index containing stocks with high liquidity and good trading prospects.

This research is expected to contribute in many things. First, this research contributes to the discussion of intellectual capital by clarifying the role of intellectual capital and the structure of capital in influencing the value of the company. Second, provide empirical evidence of the evolution of literature on intellectual capital, capital structure, and corporate value. Third, contribute to the development of performance-related literature by using the results of the LQ45 Index Survey to show how intellectual capital and capital structure affect business value. Finally, we hope that this research will have an impact on investors when considering future investments in the company.

This research is divided into four parts. The first, is introduction that explains the importance of this study and shows some results from previous studies. Then, look for variables using relevant literature. Third, we will explain survey samples and analytical methods for those variables. Fourth, I will present the results of my research and discussions. Finally, we present conclusions and opportunities for further research.

2. LITERATURE REVIEW

Intellectual Capital

Intellectual capital is information and knowledge applied in work to create value. Intellectual capital can be viewed as knowledge, in formation, of intellectual property and experience that can be used to create intellectual property covering all of the knowledge of employees, organizations and their ability to create added value and lead to a sustainable competitive advantage. Intellectual capital has been identified as an intangible set (resource, capability and competence) that drives organizational performance and value creation (Bontis, 1998).

Research conducted by (Sudibya and Restuti 2014), which identified that the more efficiently the company manages the intellectual resources owned by the company, the results indicated by an increase in the company's financial performance. Not in line with research conducted by Basuki, Srtiyanto, dan Selma (2019), the results show that intellectual capital has no effect on firm value. Then the hypothesis is determined as follows:

H1 : Intellectual Capital has a significant effect on the value of the company.

Capital Structure

The source of funding for many companies comes not only from its own capital. Limited funds are a common factor that causes the onset of debt. Because the nature of debt is not permanent and cheaper to hold, it is often an important part of a company's capital structure (Seftianne, 2011). The capital structure is the proportion of the long-term permanent funding or capital of the company represented by debt, preferred stock, and common stock

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equity (Horne and John, 2010:232 in (Dewi, Handayani, dan Nuzula 2014)). In this study used the Debt to Equity Ratio to calculate the structure of capital. Debt to Equity Ratio (DER) is a ratio used to indicate how much debt is used for corporate funding compared to funding using its own capital (Dewi, 2014).

The results of research conducted by Mudjijah, et al (2019), stated that capital structure has a significant effect on firm value. But not in line with research conducted by Puspitasari (2020) the results of the study show that DER has no significant effect on firm value. Then the hypothesis is determined as follows :

H2 : Capital structure has a significant effect on the value of the company.

Company Value

According to Putra (2015), the value of the company is the price that is willing to be paid by prospective buyers if the company is sold. If the company goes public, the value of the company is reflected in its share price. According to Sujoko and Hermuningsih (2013) argues the same thing, the value of the company is the investor's perception of the success rate of the company that is closely related to its stock price.

The value of the company can be seen from its stock price in the market. Stock prices can reflect how a company's performance is judgment in the eyes of investors. Companies that have a high stock price mean that they have good value compared to their competitors seen from the point of view of investors. Therefore, increasing the value of the company is often the goal of the company. In this study to calculate the value of the research company using Tobin's q. Tobin's q as an indicator of a company's value measurement has been widely used by investors and researchers. Investors can see the condition of the investment opportunity owned by the company or the growth potential of the company through the value of Tobin's q

The research conducted by Santiani (2018), The relationship between Intellectual Capital and Capital Structure is not significant to firm value. The results of this study are in accordance with the journal written by Uzliawati (2015) which states that intellectual capital and capital structure affect firm value, where if the company's intellectual capital is high, it tends to have a low debt to equity ratio (DER). Then the hypothesis is determined as follows:

H3 : Intellectual Capital and Capital Structure together have a significant effect on the Value of the Company

3. DATA AND RESEARCH TECHNIQUE ANALISYS

Sample

The sample used in this study is non probability sampling with purposive sampling method. According to Sugiyono (2017) stated that the notion of purposive sampling is a technique of determining samples with certain considerations. The criteria used in the selection of samples in this study are companies in the LQ45 index in 2015-2020 that do submitting financial reports presented in rupiah and companies listed on the LQ45 index in 2015-2020. The population in this study was an 45 company listed on LQ45 Index. The sample was 12 companies selected using purposive sampling techniques. So our total observations are 72.

Research Model

To answer our hypotheses, we formulated research model :

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \mu$$

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Information:

- Y = Company Value
- X₁ = Intellectual Capital
- X₂ = Capital Structure

This formula is to find out the relationship between variables.

Variable Measurement

According to Sugiyono (2017) stated that the research variable is basically everything in the form of anything that is set by the researcher to be studied so that information about it is obtained, then its conclusions are drawn. There are two types of variables:

a. Independent Variable (X)

Independent variables often called free variables are those that can affect dependent variables. In other words, a change in value (variance) on an independent variable can cause a change in dependent value. The free variables in the study are the Intellectual Model (X1), and the Capital Structure (X2).

Calculation of intellectual capital using pulic model with formula:

$$VAIC = VACA-VAHU-STVA$$

Calculation of capital structure using Debt to Equity Ratio (DER) with the formula:

$$DER = \frac{Total\ Utang}{Ekuitas\ Pemegang\ Saham}$$

b. Dependent Variable (Y)

Dependent variables often called bound variables are variables that are influenced by independent variables. In other words, shared dependent variable values are affected by changes in independent variable values. The bound variable in the study is Company Value (Y).

Calculation of company values using the Tobins'q method with formula :

$$Tobins'q = (MVE + PS + DEBT)/TA$$

c. Control Variables

Control variables are variables that function to control so that relationships that occur in purely dependent variables are influenced by independent variables and not influenced by other factors. The study used two control variables: firm size and firm age.

4. RESULT AND DISCUSSION

We perform descriptive analysis of mean, maximum, minimum, standard deviation, and correlation between each variable. The purpose of this analysis is to complete the main test and see how those variables different from the mean, maximum, and minimum values of each variable.

Table 1 : Results Regression Using The Fixed Effect Cross-Section Model Approach

Variable	Coefficient	Prob.
C	-5.627800	0.4287
Intelectual Capital	-0.166763	0.0013
Capital Structure	0.761805	0.1051
Firm Size	0.944252	0.6770
Firm Age	0.074932	0.1926
F-Statistic		0.000027
Adjusted R-squared		0.753900

Source: Self proceed

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Through table 1 obtained the values R-squared, F-statistic, and t-statistic which are further interpreted as follows:

Based on table 1 obtained constant values and regression coefficients, so that the regression equation can be formed as follows:

$$Y = -5.627800 - 0.166763 X_1 + 0.761805 X_2 + e$$

The above equation can be interpreted as follows:

$\beta_0 = -5.627800$ means that if the variable Intellectual Capital (X_1), Capital Structure (X_2), is worth zero (0), then the Company Value variable (Y) will decrease by -5.627800 units.

$\beta_1 = -0.166763$ means that if the Intellectual Capital variable (X_1) increases by one unit and the other variable is constant, then the Company Value variable (Y) will decrease by -0.166763 units.

$\beta_2 = 0.761805$ means that if the Capital Structure variable (X_2) increases by one unit and the other variable is constant, then the Company Value variable (Y) will increase by 0.761805.

The coefficient of determination (Adjusted R-squared) of 0.753900 or 75.39% indicates that intellectual capital (X_1), capital structure (X_2), firm size and firm age have an influence of 75.39% on Firm Value (Y). While the remaining 24,61% is influenced by other variables not observed in this study.

The Statistical F Test based on table 1 it is seen that the value of Prob (F-statistic) is 0.000027 with $\alpha = 5\%$, then H_0 rejected ($0.000027 < 0.05$), and the first hypothesis (H_1) is accepted. That is, the variables of intellectual capital and the structure of capital together affect the value of the company.

The Statistical t Test this test is used to determine whether or not independent variables have a real effect on dependent variables. The independent variables tested are intellectual capital and capital structure to the value of the company.

Based on table 1 it is seen that the results of the t statistic test to test the hypothesis are as follows:

a. Test t over Independent Variables

In testing the hypothesis that for the intellectual capital variable (PULIC) resulting in a regression coefficient of -0.166763, also obtained a t-statistic of -3.772534 with a prob of 0.0013 smaller than the expected level of significance ($0.0013 < 0.05$), then the H_1 which reads "intellectual capital significantly affects the value of the company" received. The results of the analysis showed a significant influence between intellectual capital on the value of the company.

In testing the hypothesis that for the variable capital structure (DER) resulting in a regression coefficient of 0.761805, also obtained a t-statistic of 1.701874 with a prob of 0.1051 greater than the expected level of significance ($0.1051 > 0.05$), then the H_1 which reads "capital structure has a significant effect on the value of the company" is rejected. The results of the analysis showed no significant influence between the capital structure on the value of the company.

b. Test t over Variable Control

In testing the hypothesis that for firm size control variables resulting in a regression coefficient of 0.944252, also obtained a t-statistic of 0.423085 with a prob of 0.6770 greater than the expected level of significance ($0.6770 > 0.05$), then the H_1 which reads "firm size has a significant effect on the company". The results of the analysis showed no significant influence between firm sizes on the value of the company.

In testing the hypothesis that for firm age control variables resulting in a regression

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coefficient of 0.074932, also obtained a t-statistic of 1.350889 with a prob of 0.1926 greater than the expected level of significance ($0.1926 > 0.05$), then the H_1 which reads "firm age has a significant effect on the company". The results of the analysis showed no significant influence between firm age on the value of the company.

Based on the table, the results is :

a. The Effect of Intellectual Capital and Capital Structure on The Value of The Company

The influence of intellectual capital and capital structure on the value of the company together can be affected by the results of the test F. With prob value. (F-statistics) of 0.000027, smaller than the expected level of significance ($0.000027 < .05$), show that intellectual capital and capital structure together have a significant effect on the value of the company.

b. The Effect of Intellectual Capital on Corporate Values

The intellectual capital variable in this study has a value that receives H_1 so that Intellectual Capital has a significant effect on the Value of the Company. According to stakeholder theory, the company will be more appreciated by stakeholders if it is able to create value added. This is because good value creation is considered to be better able to meet the interests of all stakeholders by the company. The creation of value generated by intellectual capital comes from good management of the intellectual components of capital, namely Human Capital, Structural Capital, and Customer Capital.

c. Effect of Capital Structure on Company Value

The capital structure variable in this study has a value that receives H_0 so that the Capital Structure has no significant effect on the Value of the Company. This is in line with research conducted by Antari (2013) that the capital structure has a negative and insignificant effect on the value of the company because the business climate is less favorable to make the value of the company decrease if the debt used in the company is increasing. The internal funds owned by the company are relatively small because of the company's low ability to generate profits.

5. CONCLUSION

This research aims to find out how the influence of Intellectual Capital and Capital Structure is on companies listed in the LQ45 Index 2015 - 2020. Data analysis is done using multiple linear regression analysis. Based on the results of data analysis and discussions that have been done in the previous chapter, the researcher concluded as follows:

- a. Capital Structure has no significant effect on the Value of the Company in companies listed in the LQ45 Index 2015 – 2020, then H_1 rejected.
- b. Intellectual Capital and Capital Structure simultaneously have a significant effect on the Value of the Company in companies listed in the LQ45 Index 2015 – 2020, then H_3 can be accepted.
- c. Intellectual Capital has a significant effect on the Value of the Company in companies listed in the LQ45 Index 2015 – 2020, then H_2 can be accepted.

The limitations of this study are that it only examines LQ45 companies in 2015-2020, and uses two variables to assess the effect on firm value. For further researchers, it is better to increase the research period and the population used to produce more accurate information. In conducting research, it is possible to add more and more appropriate research variables.

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REFERENCES

- Alza, R. (2018). Pengaruh kebijakan pendanaan, kebijakan investasi, dan kebijakan dividen terhadap nilai perusahaan dengan risiko bisnis sebagai variabel pemoderasi . *Jurnal Riset Akuntansi Dan Bisnis Airlangga*, 3(1), 396–415.
- Basuki, Sriyanto dan Selma N. (2019). Pengaruh modal intelektual, profitabilitas dan Likuiditas terhadap nilai perusahaan. *Competitive Jurnal Akuntansi dan Keuangan*, Vol. 1 (No. 1).
- Bentoen, S. (2012). Pengaruh *Intellectual Capital* Terhadap Financial Performance, *Growth, dan Market Value*. Skripsi Program Studi Akuntansi, Universitas Pelita Harapan Surabaya.
- Bolek, M., dan K. Lyroudi. (2015) . *Is There Any Relation Between Intellectual capital and The Capital Structure Of A Company? The Case Of Polish Listed Companies*. *E-Finance - University of Information Technology and Management in Rzeszów*, 11(4): 24-33.
- Bontis, N. (1998). *Intellectual Capital: An exploratory study that develops measures and models*, *Management Decision*, Vol. 36, No. 2, hlm. 63-76.
- Dewi, Inggil Rovita, Siti Ragil Handayani, dan Nila Firdausi Nuzula. 2014. “Pengaruh Struktur Modal Terhadap Nilai.” *Jurnal Administrasi Bisnis* 17(1): 1–11.
- Dewi, Putu Yunita Saputri, et al., (2014). Pengaruh Struktur Modal, Pertumbuhan Perusahaan Dan Profitabilitas Terhadap Nilai Perusahaan Pada Perusahaan Lq 45 Di Bei Periode 2008-2012. *e-Journal SI Ak Universitas Pendidikan Ganesha*, Vol 2 No 1.
- Gultom, R., & Wijaya, S. W. (2013). Analisis Faktor-faktor yang Mempengaruhi Nilai Perusahaan Pada Perusahaan Farmasi di Bursa Efek Indonesia. *Jurnal Wira Ekonomi Mikroskil*, 3(1)(April).
- Hermuningsih, Sri dan Wardani, Dewi Kusuma (2009), Faktor-Faktor yang Mempengaruhi Nilai Perusahaan pada Perusahaan yang Terdaftar di Bursa Efek Malaysia dan Bursa Efek Jakarta, *Jurnal Siasat Bisnis*, Volume 13, Universitas Sarjanawiyata Tamansiswa.
- Mandalika, A. (2016). Pengaruh Struktur Aktiva, Struktur Modal, dan Pertumbuhan Perusahaan pada Perusahaan Publik yang Terdaftar di Bursa Efek Indonesia. *E-Jurnal Manajemen Universitas Sam Ratulangi*, 16(01), 207–218.
- Mudjijah, S., Khalid, Z., & Astuti, D. A. S. (2019). Pengaruh Kinerja Keuangan Dan Struktur Modal Terhadap Nilai Perusahaan Yang Dimoderasi Variabel Ukuran Perusahaan. *Journal of Chemical Information and Modeling*, 53(9), 1689–1699.
- Nurkhin, A. (2017). Relevansi Struktur Kepemilikan Terhadap Profitabilitas Profitabilitas dan Nilai Perusahaan. *Jurnal Akuntansi Multiparadigma*, 8(1).
- Puspitasari, Della Putri. (2020). Modal intelektual, ukuran perusahaan dan struktur modal Terhadap nilai perusahaan dengan profitabilitas sebagai Variabel intervening. *Jurnal Ilmu dan Riset Akuntansi* : Volume 9, Nomor 2.
- Santiani, N. P. (2018). Pengaruh Intellectual Capital Dan Struktur Modal Terhadap Nilai Perusahaan. *Jurnal Akuntansi*, 13(2), 69–78.
- Seftianne dan Handayani. (2013). Faktor-faktor yang Mempengaruhi Struktur Modal Pada Perusahaan Publik Sektor Manufaktur. *Jurnal Bisnis dan Akuntansi*. Vol.13, No. 1, April 2011, Hlm. 39-56.
- Sudibya, Diva Cicilya Nunki Arun, dan MI Mitha Dwi Restuti. 2014. “Pengaruh Modal Intelektual Terhadap Nilai Perusahaan dengan Kinerja Keuangan sebagai Variabel Intervening.” *Jurnal Manajemen dan Bisnis* 18(1): 14–29.

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- Sugiyono. (2017). *Metode Penelitian Pendidikan Pendekatan Kuantitatif, Kualitatif Dan R&D*. Bandung: Alfabeta.
- Sujoko dan U. Soebiantoro. (2007). Pengaruh struktur kepemilikan saham, leverage, faktor intern dan faktor ekstern terhadap nilai perusahaan. *Jurnal Manajemen dan Kewirausahaan*. IX(1). 41-48.
- Uzliawati, Lia. (2015). Struktur Modal, Modal Intelektual, dan Nilai Perusahaan pada Perbankan Indonesia. *WAHANA* Volume 18, No. 2, Agustus 2015.