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The Effect of Profitability on Firm Value with Intellectual Capital as an Intervening Variable in Manufacturing Companies Listed on the Indonesia Stock Exchange

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ABSTRACT

The objective of this study is to investigate the effect of profitability on firm value with intellectual capital as an intervening variable in manufacturing companies listed on the Indonesia Stock Exchange. The population are manufacturing companies that have published Corporate Governance Reports until 2018. However, some companies do not publish regularly during the observation period from 2012 to 2018. This study uses population requirements, companies do not issue Corporate Governance Reports for a maximum of 1 year. In order to obtain a population of 14 companies, all of which were used as research samples (saturated samples) with 98 observations. The analysis method used path analysis. The results demonstrated that profitability has a direct effect on firm value and profitability has an indirect effect on firm value. Intellectual capital acts as a mediating variable in this relationship. The increase in intellectual capital has an impact on increasing the value of the company. In addition, profitability can improve company performance and corporate image internally and externally, thereby increasing investor confidence, and companies have the opportunity to increase intellectual capital. The increase in intellectual capital has an impact on increasing the value of the company.

Keywords: Profitability, Intellectual Capital, Firm Value

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I. INTRODUCTION

Firm value is the investor's perception of the company's level of success which is often associated with stock prices. High firm value makes the company's share price also high, and increases market confidence not only in the company's current performance but also in the company's prospects in the future. For investors, the value of the company is very important, because the increase in the value of the company indicates an increase in the prosperity of shareholders (Brigham and Houston, 2011). Information related to the company's financial factors affect the estimated firm value (Tandelilin, 2010). Financial statements are the most common source of information for investment and credit decisions. Financial information is widely believed to be able to move markets and businesses (Lev and Gu, 2016). However, investors often react differently to the company's book value which is reflected in the financial statements. According to Investors, the value of the company is different from the book value of the company in the financial statements. Stock prices, total debt and total assets are aspects that can affect the rise and fall of firm value (Chung and Pruit, 1994).

Research on the relationship between profitability and firm value has been conducted in several countries and gave mixed results, including Vietnam, Kenya, the Philippines and Indonesia. The results show that profitability is positively related to firm value as measured by enterprise value/EV, tobins'q or share price (Hung et al., 2018). Similar results using Tobins'q as a measure of firm value were found in Kenya (Kodongo et al., 2014). Sucuahi and Cambarihan (2016) examined 86 companies in the Philippines using tobins'q as a measure of firm value, finding the same results. Likewise, Hermuningsih (2013) who examined 150 companies in Indonesia using Tobins'q as a measure of firm value, provided the same empirical evidence. This finding indicates that increased profitability increases firm value.

Based on the description above that intellectual capital is a determinant of firm value, company management will always seek intellectual capital to increase firm value. Profitability is important to increase the value of the company. The results of previous research studies on the relationship between research variables are inconsistent with the findings of the effect of profitability on firm value. The finding is possible that there is an indirect effect of profitability on firm value. Intellectual capital in this study is placed as a variable that mediates the effect of profitability and on firm value. This is based on the argumentation of the results of previous studies showing intellectual capital increases firm value and profitability increases intellectual capital. Based on the background that has been stated, this study wants to develop financial literature by examining a model that can provide a new understanding of "the influence of profitability on firm value mediated by intellectual capital".

II. LITERATURE REVIEW

A. Profitability

Profitability or the ability to earn a profit is a measure in percentage used to assess the extent to which the company is able to generate profits at an acceptable level. Profitability figures are expressed in terms of profit before or after tax, investment profit, earnings per share, and profit on sales. The value of profitability becomes the norm of measure for the health of the company. Munawir (2007) suggests that "profitability is the company's ability to generate profits". According to Sudana (2011) profitability is "the ability of a company to generate profits by using its resources such as assets, capital or company sales".

B. Intellectual Capital

Intellectual capital is knowledge that can be turned into profit. Intellectual capital does not only concern the knowledge and skills of employees, customer relations, information systems, technology, the ability to innovate, and be creative (Maditinos, 2011).

According to William (2001) in Ulum (2008), intellectual capital is defined as follows: "the enhanced value of a firm attributable to assets, generally of an intangible nature, resulting from the company's organizational function, processes and information technology networks, the competency and efficiency of its employees and its relationship with its customers. Intellectual capital assets are developed from (a) the creation of new knowledge and innovation; (b) application of present knowledge to present issues and concerns that enhance employees and customers; (c) packaging, processing and transmission of knowledge; and (d) the acquisition of present knowledge created through research and learning". One of the definitions of intellectual capital that is widely used is that offered by the Organization for Economic Cooperation and Development (OECD, 2009) which describes intellectual capital as the economic value of the category of intangible assets; (1) organizational (structural) capital; and (2) human capital.

Johanson et al. (2009) states: "intellectual capital can relate to other disciplines such as corporate strategy and the production of measurement tools. From a strategic perspective, intellectual capital can be used to create and use knowledge to expand other companies. On the other hand, the measurement side focuses on how a new reporting mechanism can be built that can measure non-financial, qualitative information and quantifiable intellectual capital items from financial data. Many intellectual capital models are used by researchers, but in general the researchers identified three main constructs of intellectual capital, namely: human capital, structural capital, and customer capital". In simple terms, human capital is the knowledge, skills, and experience that employees bring when they leave the company (Starovic and Marr, 2004) which includes individual knowledge of an organization that exists in its employees (Bontis et al, 2000) generated through competence, attitude and intelligence. intellectual. Human capital represents the individual knowledge stock of an organization represented by its employees (Bontis et al., 2001). Structural capital is described as what is left in the company when employees come home at night (Petrash, 2006). According to Starovic and Marr, 2004, structural capital is, "knowledge that will remain in the company consisting of organizational routines, procedures, systems, culture and databases. Some of the structural capitals are protected by law and become intellectual property rights, which are legally owned by the company". While the main theme of customer capital is the knowledge inherent in marketing channels and customer relationships which an organization develops through the course of business (Bontis et al., 2000). Customer capital is marketing intensity and marketing ability, which is then used to describe the company's relationship with stakeholders (Cheng et al., 2010). Referring to the research of Cerbioni and Parbonetti (2007), the disclosure of intellectual capital is a complex and multidimensional concept, the intention is to produce a higher quality disclosure of intellectual capital, not only looking at the presence or absence of information content related to intellectual capital but also looking at the meaning of the related information with that intellectual capital.

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C. Firm value

Firm value is defined as market value because the value of the company can provide maximum shareholder prosperity if the company's share price increases. Various policies are taken by management in an effort to increase the value of the company through increasing the prosperity of the owners and shareholders as reflected in the share price (Bringham and Houston, 2006).

The value of the company can also show the value of assets owned by the company such as securities. Stock is one of the valuable assets issued by the company (Martono and Agus, 2003). The value of a company that goes public, in addition to showing the value of all assets, is also reflected in the market value or share price, so that the higher the stock price reflects the high value of the company (Afzal and Abdul, 2012). According to Sujoko and Soebiantoro (2007) in Hermuningsih (2009) firm value is the investor's perception of the level of success of the company which is closely related to its share price. High stock prices make the value of the company also high, and increase market confidence not only in the company's current performance but also in the company's prospects in the future. The stock price used generally refers to the closing price, and is the price that occurs when the stock is traded on the market (Fakhruddin and Hadianto, 2001).

III. RESEARCH METHOD

Based on the background and research review, the conceptual framework developed and used as the basis for developing the research paradigm can be described briefly by Figure 1.

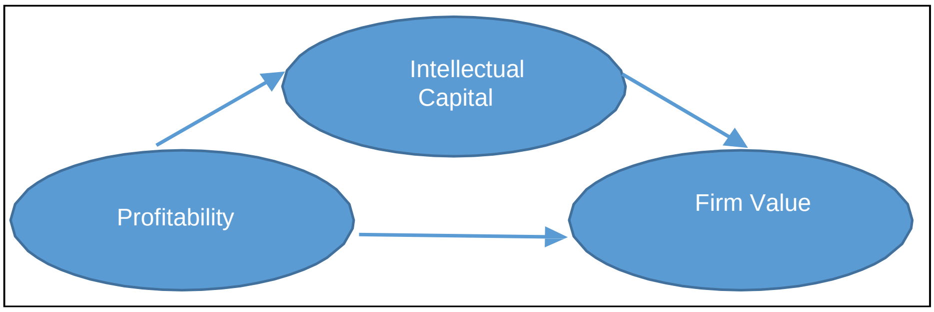

Fig. 1. Conceptual Framework

In general, the objective of this study is to describe and analyze the relationship between profitability, intellectual capital and firm value in manufacturing companies listed on the Indonesia Stock Exchange. The population of this study are manufacturing companies that have published Corporate Governance Reports until 2018. However, some companies do not publish regularly during the observation period from 2012 to 2018. This study uses population requirements, the company does not issue a Corporate Governance Report for a maximum of 1 year. So that a population of 14 companies was obtained, which were used entirely as research samples (saturated samples) with a total of 98 observations. The results obtained in this study are expected to provide an explanation of how firm value is influenced by several factors (intellectual capital and profitability).

In this study, Path analysis is used to investigate the association between variables. The purpose of path analysis is to determine the direct and indirect effects of a set of independent variables on the dependent variable. The effect of the path is shown by the path coefficient on each path diagram of the causal relationship between the independent variables and the dependent variable (Riduwan, 2006: 89). The effect of the mediating variable used path analysis method (path analysis). Path analysis is an extension of multiple regression analysis or path analysis is the use of regression analysis to estimate causality relationships between predetermined variables based on theory. Causality relationship between variables has been established with a model based on the theoretical basis, which is carried out by path analysis, namely to determine the pattern of relationships between three or more variables. The equation of path analysis in the research according to Sunyoto (2012:61) is as follows:

1. The first equation is as follows: Intellectual Capital = b1, Profitability + E1
2. The second equation is as follows: Firm Value = b1, Profitability + b2 Intellectual Capital + E2.

Where: b1, b2 = The magnitude of the coefficient of the independent variable. E1, E2 = standard error. Equation analysis on the sub-structure of the solution was carried out with the help of the IBM SPSS version 24 statistical program. Prior to the regression test, the instrument was tested on all instruments, after the validity and reliability tests were carried out, all were declared valid and reliable.

IV. RESULTS

The descriptive test aims to determine the general description of the research variables including profitability, intellectual capital, and firm value with the following results.

Table 1. Descriptive Test Results

	N	Minimum	Maximum	Mean	Std. Deviation
Profitability	98	-.1	.4	.112	.0912
Intellectual Capital	98	-.6	8.1	3.457	1.6527
Firm Value	98	.5	4.1	1.776	.9848
Valid N (listwise)	98				

Source: Processed Research Data (2022)

The results of the profitability description obtained an average of 0.112 with a standard deviation of 0.0912, intellectual capital obtained an average of 3.457 with a standard deviation of 1.6527, firm value obtained an average of 1.776 with a standard deviation of 0.9848.

Path analysis aims to examine the effect of profitability on firm value through intellectual capital with the following results.

Table 2. Results of the Effect of Profitability on Intellectual Capital

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.618E-16	.075		.000	1.000
	Profitability	.674	.075	.674	8.949	.000
a. Dependent Variable: Intellectual Capital						
R Square = 0.455						

Source: Processed Research Data (2022)

The effect of profitability on intellectual capital is obtained by the path coefficient of 0.674 with a significance value of 0.000. These results show a significance value of less than 0.05 (sig < 0.05) so it is stated that there is a significant positive effect, meaning that the higher the profitability value will have a significant effect on the higher intellectual capital. The magnitude of the influence shown from the coefficient of determination obtained an R Square value of 0.455, meaning that the large influence on intellectual capital can be explained by 45.5 percent by profitability.

Table 3. Results of the Effect of Profitability on Firm Value

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.067E-17	.097		.000	1.000
	Profitability	.311	.097	.311	3.201	.002
a. Dependent Variable: Firm Value						
R Square = 0.096						

Source: Processed Research Data (2022)

The effect of profitability on firm value is obtained by the path coefficient of 0.311 with a significance value of 0.002. These results indicate a significance value of less than 0.05 (sig < 0.05) so it is stated that there is a significant positive effect, meaning that the higher the profitability value, the higher the firm value will be. The magnitude of the influence shown from the coefficient of determination obtained R Square value of 0.096, meaning that the large influence on firm value can be explained by 9.6 percent by profitability.

Table 4. Results of the Effect of Intellectual Capital on Firm Value

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-4.365E-17	.098		.000	1.000
	Intellectual Capital	.250	.099	.250	2.528	.013
a. Dependent Variable: Firm Value						
R Square = 0.062						

Source: Processed Research Data (2022)

The effect of intellectual capital on firm value is obtained by a path coefficient of 0.250 with a significance value of 0.013. These results show a significance value of less than 0.05 (sig < 0.05) so it is stated that there is a significant positive effect, meaning that the higher the value of intellectual capital will have a significant effect on the higher the firm value. The magnitude of the influence shown from the coefficient of determination obtained an R Square value of 0.062, meaning that the large influence on firm value can be explained by 6.2 percent by intellectual capital.

Table 5. Results of the Effect of Profitability on Firm Value through Intellectual Capital

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)					
	Profitability	.169	.070	.169	2.417	.017
a. Intervening Variable: Intellectual Capital						
b. Dependent Variable: Firm Value						

Source: Processed Research Data (2022)

The effect of profitability on firm value through intellectual capital is obtained by a path coefficient of 0.169 with a significance value of 0.017. These results indicate a significance value of less than 0.05 (sig < 0.05) so that it is stated that there is a significant positive effect, meaning that the higher the profitability value will have a significant effect on the higher the value of the company through intellectual capital.

DISCUSSION

The results showed that profitability had a significant positive effect on intellectual capital. This is because the higher the company's ability to earn profits encourages companies to tend to be more detailed in disclosing information, including information on intellectual capital (physical capital, human capital and structure capital). Based on stakeholder theory, companies that are able to earn high profits must add value to their competitive advantage by applying and disclosing intellectual capital.

Profitability has a significant positive effect on firm value. If the company's profitability is high, the stakeholders consisting of creditors, suppliers and investors will see the extent to which the company can generate profits from the company's sales and investments. With good company performance will also increase the value of the company (Suharli, 2006). Profitable businesses usually trade at better prices (Allayannis and Weston, 2001). This is in line with the research of Santika and Ratnawati (2002), Soliha and Taswan (2002), Sudarma (2004), Sucuahi and Cambarihan (2016), Bartram et al. (2011), Naito and Laux (2011) and Hung et al. (2018) which states that profitability has a positive and significant effect on firm value.

This research is useful for both scientific development and practical purposes. The research findings are expected to provide new findings that will enrich the theory of financial management. From this research, it is hoped that the relevant parties will pay attention to the factors that can affect the value of the company. In addition, these findings are expected to be a source of information for researchers who want to develop research related to firm value in future research.

V. CONCLUSION

The first equation in this study shows that the Profitability variable has a significant direct effect on Intellectual Capital in Manufacturing Companies Listed on the Indonesia Stock Exchange. The second equation in this study shows that the profitability variable has a direct and significant effect on firm value in Manufacturing Companies Listed on the Indonesia Stock Exchange and Intellectual Capital has a direct and significant effect on firm value. Meanwhile, Profitability indirectly has a significant positive effect on Firm Value through Intellectual Capital.

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