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Intellectual Capital, the Capital Market, and Their Effect on the Value of Indonesian Manufacturing Firms Listed on the Indonesian Stock Exchange (IDX) from 2017 to 2020

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ABSTRACT
Numerous factors contribute to a company's worth, one of which is Tobin's QThe greater the Tobin's Q value, the more promising the growth prospects of the company. This is because the greater the market valuation of a company's properties is in relation to its market value, the further likely it is that investors will make further sacrifices to acquire the firm. This research would investigate the relationship between human capital, capital markets, and firm valuation. Intellectual capital was quantified using the Public model—Q Tobin's quantifies a significant discount. Meanwhile, three control variables exist, which are scale, leverage, and development. The population of this sample is manufacturing firms that are publicly traded on the Indonesian Stock Exchange (BEI) between 2017 and 2020. Purposive sampling was used to assemble the survey, which included 252 individuals (firm-years). Multiple regression analyses and descriptive statistics are used in this report. Eviews 8.0 is used to analyze the data. According to this report, the VAIC (value-added intellectual coefficient) and stock market value have little impact on firm value. Meanwhile, the three control variables used have little impact on the intensity of the values.

Keywords: *Intellectual capital, leverage, firm value, capital market*

1. INTRODUCTION

Directly opposed to growing awareness of the importance of IC in enhancing shareholder value and competitive advantage, the company's IC has not been quantified precisely. For instance, the IC of a business is not explicitly calculated but rather serves as a proxy for the efficiency of added value generated by the business's intellectual capacity. The main factors influencing of VAIC are seen in the firm's finances that include productive resources (Abdurakhmanova & Rustamov, 2020).

In a knowledge-based economy, the primary goal is to generate demand. Meanwhile, the ability to generate additional value involves an accurate assessment of physical resources, and intellectual capacity. Academic talent (later renamed VAIC) demonstrates how the organization has successfully used both physical capital and intellectual capacity (Bratianu, 2018).

Intellectual Capital

In particular, researchers define IC in terms of three key constructs: HC, SC, and CC. (Kadim & Husain, 2020). In layman's words, HC refers to an organization's collective information stock as represented by its workers. HC is the product of a blend of genetics, schooling, practice, and a positive attitude toward life and industry (Carpenter & Petersen, 2002). SC refers to all organizational intelligence repositories that are not manned by humans (Knipp & Zimmerman, 2021). This include databases, organizational tables, procedure guides, strategies, and rituals, as well as everything else that adds value to the business beyond its material value (Kianto & Aramburu, 2017). Meanwhile, CC's core focus is the intrinsic expertise of marketing networks and client interactions, which a company establishes through business activities (McDowell & Harris, 2018).

Intellectual Coefficient of Addition to Value

The VAIC approach is intended to convey knowledge about a company's tangible and intangible assets' value development performance. The capability of this model to generate value-added (VA) is the starting point (Riet, 2021). VA has been the most objective metric for evaluating a business's performance because it demonstrates the capacity to create value; VA is measured as the difference among inputs and outputs (Obeidat & Aqqad, 2017).

Capital market

The stock market is critical to a country's economy because it serves two functions: commercial and financial (Saleh, 2020). In an economic situation, the stock market facilitates the alignment of two parties' interests: the lender and the borrower (Salv & Rubino, 2020). The stock market enables parties with surplus funds to lend with the expectation of earning a profit, while issuers may use these funds for acquisition reasons without waiting for the company's operational resources to become eligible (Xu & Liu, 2020). In the finance department, the stock market offers fund owners with the ability and potential to earn returns based on the investment characteristics they want (Rusmita & Cahyono, 2020).

The presence of a stock market in Indonesia is critical to the country's economic development. Numerous sectors and businesses have developed a track record of using this agency as a conduit for finance and the media to bolster their financial status. Even though a modern economy cannot survive without a powerful, internationally competitive, and well-organized stock market, the capital market has developed into a financial nerve core in today's modern economic environment (Vitolla & Rubino, 2020). Additionally, the stock market serves as a barometer of a country's economic growth (Sardo & Alves, 2018).

Stock markets are critical for economic development since they mobilize financial services and capital inflows. Businesses and policymakers alike will prosper from the stock market's presence. Both can use a variety of capital market instruments to finance a variety of long-term ventures. For instance, the government may issue bonds to fund road construction, hospital construction, public transportation construction, dam construction, airport construction, and other community infrastructure projects. This will certainly promote state wealth formation and, of course, have an impact on domestic economic development.

2. METHOD

This research is observational in nature and employs an analytic-descriptive approach. As a result, panel data modeling exhibits characteristics of both data series and bridge data. So modeling with panel data consists of several objects and includes several periods. In the panel data using the GLS (Generalized Least Squares) method, it has taken into account the heterogeneity contained in the independent variables explicitly so that the technique with the GLS (Generalized Least Squares) can produce an estimator that meets the BLUE criteria (best linear unbiased estimator).

Sample Characteristics

This research examines a selection of manufacturing companies that were publicly traded on the Indonesian Stock Exchange (IDX) between 2017 and 2020. Purposive sampling was used to pick examples. A selection of 252 businesses was selected based on preset parameters.

3. RESULT AND DISCUSSION

Descriptive statistics

According to the informative statistical test findings in Table 3, the alternative hypothesis in this analysis is the company's valuation as determined by Tobin's Q, which shows an average value (mean) of 0,625, which indicates that in the 2017-2020 period the average manufacturing company in Indonesia took action. To have a good growth prospect in the company by increasing Tobin's Q value.

The lowest value of 0,01 indicates an effort to increase Tobin's Q value. While the highest value of 1.991 indicates an increase in Tobin's Q value, it can show that the company has prospects. In this analysis, the independent variable is Added Value Intellectual Capital (VAIC), which has an estimated value of 1.201 as the three aspects of value-added organization's needs, Human capital and institutional capital with added value are mixed. The amount including its three components of capital valuation: valuation of physical capital, valuation of human capital, and valuation of financial capital, and value-added institutional capital is 2,784.

Table 1 Sample Characteristics

Information	Amount
A company that is publicly traded on the Indonesian Stock Market	162
Companies that present financial statements, not in rupiah form	(29)
The company that does the listing	(30)
Companies that are delisting	(5)
Companies that stop operations	(8)
Companies that carry out a business combination	(27)
Companies that change the industrial sector	0
The selected companies are sampled annually	63
Total sample 2017-2020	**252**

Source: Data Proceed

Table 2 Descriptive Statistics Results

Variable	Mean	Maximum	Minimum	Std. Dev.
NP	0.531844	2.883242	0.21	0.372416
VAIC	2.4163	3.416252	0.231363	0.310203
SIZE	41.42663	21.66234	12.23356	3.22534
LEV	1.236284	1.234172	0.1115667	0.42143
GROWTH	0.153762	4.423247	0.002321	0.525327
Sample (N)	**261**			

Source: Data Proceed

The first control variable is the company's size, which is measured based on logarithms (total assets). The greater the agency costs that arise. Meanwhile, the average value is 23,209 with a standard deviation of 4,557. Leverage is the second control variable, calculated as gross debt divided by total reserves (Yusoff & Samad, 2019). The lowest value, 0,007, indicates that the company's gross debt is 0,007 of its total assets, while the highest value, 0,007, indicates that the corporation's debt burden is 0,007 of its total assets is 1,872, which indicates that the company's total debt is 1,872 of the total assets owned and the average value is 0.482. Third control variable is the growth ratio measured based on research year income previous year income-1 divided by research year income (Yong, 2019).

4. CONCLUSION

Based on the regression results, intellectual capital does not affect firm value. This can be demonstrated by the fact that investors do not take intellectual capital into account when evaluating or comparing a company's results. Probably shareholders place a higher premium on other measures used to determine a corporation's worth, including the share price. In the meantime, the firm's valuation is unaffected by the three dependent variables of scale, leverage, and expansion. It can be explained that investors may see other factors that affect substantial value.

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