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# Do Intellectual Capital, Leverage, and Profitability Affect a Company's Value Post COVID-19 Pandemic?

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**Abstract.**
COVID-19 has been shown to have a major impact on companies' value. Drawing on research before the pandemic as well as during the pandemic, we think it is necessary to analyze the value of the company in the post Covid-19 pandemic. In this context, there is complexity, uncertainty of companies as an important capability, and set of practices appears to many companies as a reasonable approach to reducing the problems. This paper aims to examine how the value of the company is seen from the aspect of the direct effect of intellectual capital, leverage, and profitability. This paper tries to explore the theoretical model of the proposal on how these three variables can directly affect firm value. This study determines the impact post Covid-19 pandemic, especially to explain the phenomenon of components in intellectual capital in Indonesia. This research is expected to provide further research guidelines and facilities to the government for an approach to fostering improvement in the value of companies post Covid-19 pandemic.

**Keywords:** intellectual capital, leverage, post COVID-19 pandemic, profitability

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## 1. Introduction

Profit is the result expected by any company to increase prosperity for its owners or shareholders. With the increase in profit, the stock price will also increase. The value of the company will increase if the share price of a company increased. Therefore, the stock price act as a reference in decision making for investors. An investor will pay attention to the rise and fall of the company's stock price before they make an investment decision.

In the process of increasing the value of the company, there is often a difference in goals between the shareholders and the managers of the company. This conflict always exists within any company. Company managers will usually prioritize personal activities that may result in increasing costs arising from these goals, while shareholders always want to try to reduce costs so that the profits generated by the company increase. If the costs arising from the manager's goals continue to increase, then the profits generated will decrease further and this will also result in a decrease in the stock price and will directly reduce the value of the company.

COVID-19 has proven to have a major impact on the value of the company. Based on research before the pandemic as well as during the pandemic, we believe it is necessary to analyze the value of the company post Covid-19 pandemic. In this context, there is complexity, uncertainty of the company as an important capability and a set of practices that appear to many companies as a reasonable approach to reducing the problem.

The authors chose the basic and chemical industry sub-sectors because investment at basic and chemical industry companies, such as cement companies, have survived well in the pandemic era, and will continue to carry out exporting activities. Quoted from Rini [1], PT Indocement Tunggal Prakarsa Tbk. plans to increase export this year in line with the company's large production capacity. Quoted from Sugianto [2], as the market leader of the national cement industry, PT Semen Indonesia (Persero) Tbk. (SIG) is also still pretty good. Until the end of March 2020, SIG domestic sales reached 7.9 million tons, an increase of 4.7% compared to the first quarter of 2019. Based on data from the Indonesia Stock Exchange (IDX) quoted on Wednesday, January $2^{nd}$ 2019, shares of basic and chemical industry followed by the mining sector rose 11.45 percent. Meanwhile, the financial sector and other industries rose 3.05 percent and 0.96 percent, respectively.

## 2. Company Value

According to Azari and Facrizal [3], the value of a company is the price that investors are willing to pay to be able to own a company that has gone public. The value of the company is reflected in the bargaining power of shares, if the company is estimated to be a company that has good prospects in the future, the value of shares will be higher and vice versa. Putri et al. [4] stated that the value of the company can be viewed as a symbol of the level of prosperity of the shareholders.

The main goal of the company is to obtain the greatest possible profit. The stock price, which is always increasing, will also increase the profit generated by the company and will directly increase the dividends of shareholders. There are several approaches used to analyze the ratio in market value assessment according to Bringham and Hounston, namely the price earning ratio (PER), price to book value ratio (PBV), market book ratio (MBR), dividend yield ratio, and dividend payout ratio (DPR). The ratio used in this study is the price to book value ratio (PBV) where this ratio is an illustration of how many times an investor is willing to pay a share based on the book value per share. The book value per share here is obtained from the total assets minus the total debt then the result is divided by the number of shares.

According to Sartono [5], the higher the PBV, the higher the share price compared to the book value per share, the higher the share price, the more successfully the company creates value for shareholders, so the resulting profit will also increase.

## 2.1. Intellectual capital

Intellectual capital acts as a corporate wealth that is the force behind the creation of corporate value [6]. Bontis [7] stated that in general, researchers identify three main constructions of intellectual capital, namely:

### 2.1.1. Human Capital (HC)

Human resources are the resources of wealth owned by the company in the form of innovation, knowledge, skills, and competencies possessed by employees. Human capital will increase if the company is able to use and optimize employee knowledge.

### 2.1.2. Customer Capital (CC)

Customer capital is a harmonious relationship or association network owned by the company with business partners, both from the internal environment and the external environment of the company such as suppliers, satisfied customers, company relationships with the government, and the surrounding community that can increase the value of the company.

### 2.1.3. Structural Capital (SC)

Structural Capital is the company's ability to meet routine processes with company structures and always support employee efforts to produce intellectual performance to increase optimal business performance. Structural capital includes the company's operational system, manufacturing processes, organizational culture, management philosophy, and all forms of intellectual property owned by the company. The company cannot optimize the intellectual abilities of employees if the company does not have good organizational systems and procedures.

Each company has different proportions in terms of elements of intellectual capital. Knowledge, information, intellectual property, experience that the company has, are intangible elements. These elements are very unique because the proportions are different from one company to another. Therefore, the company's market value creation will be different. Intellectual capital is also often expressed as a resource of knowledge in the form of employees, customers, processes or technologies that companies can use in the process of creating value for the company [8].

Bontis [7] stated that, in general, researchers divide intellectual capital into 3 components, namely: Value Added Capital Employed (VACA), Value Added Human Capital (VAHU), and Structural Capital Value Added (STVA). Until now, the classification of intellectual capital has not been established universally. Riahi Belkaoui [9] stated that physical capital/capital employed (VACA) showed a balanced relationship between the company and its partners, such as from reliable and qualified suppliers, loyal customers who are satisfied with the company's services, as well as the company's relationship with the government and the surrounding community.

The intellectual capital measurement technique used in this study is the Pulic model measurement technique. According to Mohd-Saleh and Che Abdul Rahman [10], "VAIC$^{TM}$ is a great method to measure IC performance because it measures the efficiency of a company in the value creation activities". Intellectual capital in this Pulic model is measured based on the added value created by physical capital/capital employed (VACA), human capital (VAHU), and structural capital (STVA). The combination of the three value added is symbolized with VAIC$^{TM}$ developed by Pulic [11].

Good management of all kinds of potential owned will create added value for the company which can then encourage the company's value for its stakeholders.

### 2.2. Leverage

According to Sartono [5], leverage is the use of assets and sources of funds by companies that have fixed expenses with the intention of increasing the potential profits of shareholders.

According to Kasmir [12], leverage is described to measure the extent to which a company's assets are financed with debt. It illustrates how much the company bears burden of debt compared to its activities. If a company has high leverage, it is very risky to incur large losses. The opposite goes if it has low leverage, it has a smaller risk of loss, especially when the economy is in decline.

Debt to Equity Ratio (DER) is one of the ratios used in this study. DER is a ratio that compares total debt to total equity. This ratio is used to determine the amount of funds provided by borrowers (creditors) with the company owner. The higher the DER ratio, the better the condition of the company. On the other hand, if this ratio is low, then the level of funding for the creditor in the event of loss or depreciation to the value of the asset will be higher.

$$Debt\ to\ Equity\ Ratio = \frac{Total\ Liabilities\ (Debt)}{Total\ Equity}(1)$$

The result pf the research of Mareta and Anggraini [13] entitled The Influence Of Current Ratio, Return On Asset, Debt To Equity Ratio and Good Corporate Governance On Market Value Added (Emipical Study On Basic Industry And Chemical Companies Listed On Indonesia Stock Exchange) stated that current ratio and debt to equity ratio has a significant influence on Market Value Added, while Return on Assets and Good Corporate Governance doesn't.

### 2.3. Profitability

According to Azari and Facrizal [3], profitability is the ability of a company to make a profit in the future and is an indicator of the success of the company's operations. Profitability measures the performance of the company indicated from the profit generated. In other words, profitability can affect the value of the company.

Return on Assets (ROA) is another ratio of profitability used in this study. ROA shows the company's ability to use all assets owned to generate profit after tax. This ratio is important for management to evaluate the effectiveness and efficiency of company management in managing all company assets. The greater the ROA, the more efficient the management uses company assets. In other words, with the same amount of assets, a greater profit can be generated, and vice versa. The formula for calculating the return on assets [14]:

$$Return\ on\ Assets = \frac{Earning\ After\ Taxes}{Total\ Assets}(2)$$

## 3. Study Objectives and Contributions

This study attempts to explore the theoretical model of the proposal on how these three variables can directly affect the value of the company. This study is important to determine the impact after the Covid-19 pandemic, especially to explain the phenomenon of components in intellectual capital in Indonesia. This research is expected to provide further research guidelines and facilities to the government for a developing approach to increasing company value post Covid-19 pandemic. This model became the starting point for further discussion to develop a convincing model that could be further tested at the empirical research stage in Figure 1, followed by a discussion of the theoretical review.

## 4. Discussion

### 4.1. The influence of intellectual capital on the value of the company

The results of the research by Maditinos et al. [15] entitled *The Impact of Intellectual Capital on Firms Market Value and Financial Performance* stated that Intellectual Capital (IC) did not have a significant influence on market value and financial performance of companies. The results of the research of Pew Tan et al. [16] with the title *Intellectual Capital and Financial Returns of Companies* stated that Intellectual Capital (IC) and company performance are interrelated, and IC has a positive effect on the company's performance in the future.

Based on the research of Lestari and Munandar [17] entitled *The Influence of Intellectual Capital and Institutional Ownership on Company Value*, the results of intellectual capital have a negative and significant influence on the value of the company, institutional ownership has a positive and significant influence on the value of the company. From some of the results of the study, they showed that intellectual capital has been managed optimally that it can have an influence on the value of the company and provide a good signal for investors, because they see that increasing the value of the company will directly improve the welfare of the stakeholders.

### 4.2. The effect of leverage on the value of the company

According to the results of the research of Azari and Facrizal [3] and Chen and Chen [18], leverage has a significant effect on the value of the company. Based on the research

Ernawati and Widyawati [19], leverage negatively affects the value of the company. Whereas based on Mareta and Yanti [20], leverage has no effect on the value of the company. Research conducted by Novari and Lestari [21] stated that leverage also has no significant effect on the value of the company, Each company has different levels of leverage, if leverage does not affect the value of the company it means that the company in funding its assets, obtained it from their own capital.

### 4.3. The effect of profitability on the value of the company

Based on a study entitled *The Effect of Profitability, Leverage, and Company Size on Company Value in Consumer Goods Industry Sector Companies Listed on the IDX 2009-2011* [19], profitability has a positive effect on company value, leverage negatively affects company value, company size has a positive effect on company value.

Based on a study entitled *The Effect of Profitability, Liquidity, Growth and Investment Opportunity Set on Company Value in Consumer Goods Industry Sector Companies Listed on the IDX 2012-2014* by Sudiani and Darmayanti [22], profitability and investment opportunity set have a positive and significant effect on company value, liquidity, and company growth have a negative but insignificant effect on company value.

Based on a study entitled *The Effect of Company Size, Leverage, and Profitability on Company Value in IDX-Listed Property and Real Estate Sector Companies 2012-2014* by Novari and Lestari [21], company size has a positive and significant effect on company value, leverage has no significant effect on company value, and profitability has a positive and significant effect on company value. High profitability will then add value to the company.

## 5. Theoretical Concepts

This theoretical concept examines that this study analyzes the influence of intellectual capital, leverage, and profitability on company value shown in Figure 1 below:

## 6. Conclusion

The concept of this theoretical model will be empirically tested using econometric views (eviews) using the type of secondary data obtained from each audited financial report recorded on the Indonesia Stock Exchange during the observation year.

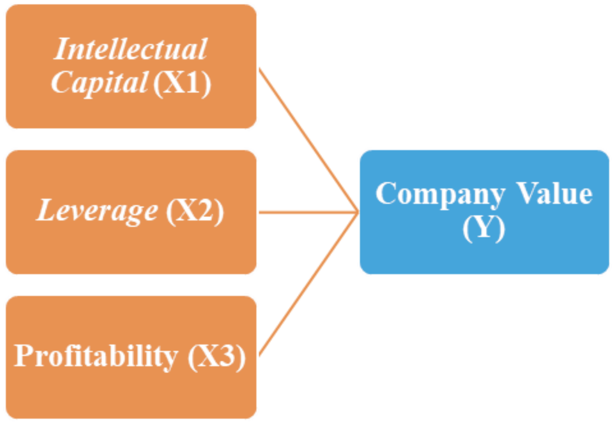


**Figure** 1: Thinking Framework.

This research can make it easier for the government to approach the development of basic and chemical industry sub-sector companies in driving the nation's economy. In addition, for investors, this can be used as a consideration and source of information in making decisions before investing in companies that have gone public. As for the company, it can be used as a consideration for management in managing the company's intellectual resources, enabling these resources to be used effectively, which consequently can create value for the company. Academically, this research can be further analyzed for companies that are developing and requiring attention in terms of increasing the value of the company. Therefore, the main objective of empirical studies and practical objectives is a national framework to encourage the increase in the value of enterprises of the basic and chemical industry sub-sectors, economic growth, and state development in Indonesia.

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