CAN TAX AVOIDANCE IMPROVE THE POSITIVE RELATIONSHIP BETWEEN INTELLECTUAL CAPITAL AND FIRM VALUE?

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Abstract
This study examines the effect of intellectual capital on firm value with tax avoidance as moderation in health sector companies listed on the Indonesia Stock Exchange during the COVID-19 pandemic. CTTOR is employed to find the level of tax avoidance, VAIC is used to find the value of intellectual capital, and Tobin’s Q is used to find the firm value. The data used is company financial statement data from 2020 to 2022 using multiple linear regression analysis methods. The type of data is cross-section data and ordinary least squares (OLS) estimation technique. The sample was determined using a purposive sampling technique with a total research sample of 43 data. This study concluded that intellectual capital does not affect firm value. However, after moderation with tax avoidance, the interaction between intellectual capital and tax avoidance has a negative effect on firm value. Therefore, tax avoidance can moderate the effect of intellectual capital on firm value by reducing the negative effect of intellectual capital on firm value during the COVID-19 pandemic. The results of this study can be additional information for the Indonesian Capital Market Supervisory Authority (OJK) and the Tax Authority (DGT) in making rules regarding tax avoidance. OJK can also make policies regarding reporting the company’s intellectual capital in one account to make it easier for novice investors to understand. DGT can utilize this research to evaluate corporate tax avoidance.

Keywords: Intellectual Capital, Firm Value, Healthcare Sector, Tax Avoidance

INTRODUCTION
The COVID-19 pandemic hit Indonesia starting on March 31, 2020, with Presidential Decree Number 11 of 2020 enacting the Determination of Corona Virus Disease 2019 Public Health Emergency in Indonesia (Keppres No 11 tahun 2020). After more than three years, it was only on June 21, 2023, that the COVID-19 pandemic was declared over by Presidential Decree of the Republic of Indonesia Number 17 of 2023 concerning the Determination of the End of the Corona Virus Disease 2019 (COVID-19) Pandemic Status in Indonesia (Keppres No 17 tahun 2023). The pandemic has caused a slowdown and economic, physical and financial restrictions. Both domestic and global capital market conditions have experienced a significant impact due to this pandemic (Jubaedah et al., 2021). At the beginning of 2020, the Indonesia
Composite Index (IDX Composite) was still at the level of 6,300, but in just three months, on March 20, 2020, the IDX had fallen to 3,900. The volume of transactions in 2019, which amounted to more than 36 million in 2020, also decreased by only 27.4 (Pratama, 2022).

Meanwhile, the company's share price reflects the firm value (Lesmana et al., 2020). When the share price landslides during the pandemic, the firm value of companies listed on the IDX also drops drastically. Investors detest this since the loss in firm value leads to the main goal of investors to invest, which is to gain the highest benefit, not to be realized or even hurt investors. The COVID-19 pandemic's unpredictability and the large fall in the IDX and the health sector during the pandemic are rare and unusual situations. As a result, further study is needed on the factors that influence company value in the health sector during the COVID-19 pandemic, as well as new factors that might mitigate the impact of current ones.

Firm value is the perception received by investors and is generally related to the share price in the market (Siburian et al., 2018). This value is a basis for investors to assess a company's success and cannot be separated from stock price movements (Lesmana et al., 2020). Therefore, if there is a significant increase in the share price in the market, it can be interpreted that the firm’s value and performance are increasing, and vice versa. The high firm value will certainly increase the wealth of the firm's shareholders and make investors invest in the company (Saragih & Handayani, 2022). The company must also be able to implement strategies and maintain a positive response so that the interests of investors are fulfilled (Firmansyah et al., 2021).

Several studies have been conducted to determine the factors that affect firm value during the COVID-19 pandemic, both in Indonesia and internationally. In Indonesia, firm value during the COVID-19 pandemic has been tested using factors such as profitability and Non-performing Loan (Simanjuntak & Hidayat, 2023), Return on Equity (ROE) and Earning per Share (EPS) (Anggita & Irwansyah, 2023), media disclosure (Hidayat et al., 2023), Intellectual capital and profitability (Sudrajat, 2022), institutional ownership and independent board of commissioners (Afdhal & Adiwibowo, 2023), firm size and good corporate governance (Mawardani et al., 2023), and tax avoidance (Doloksaribu et al., 2023). Internationally, firm value during the COVID-19 pandemic has been tested using factors such as corporate social responsibility (CSR) (Choi et al., 2023), earnings quality (Astuti & Setiyawati, 2023), firm's stakeholder-value orientation (Bose et al., 2022), firm size, profitability, leverage, and fixed assets (Xiong et al., 2020), and stock liquidity (Zhang et al., 2021).

Based on a survey conducted by BPS RI (2020), people's behavior changed from focusing on the hygiene and health sectors during the early days of the COVID-19 pandemic. This caused the demand for goods and services in the sector to experience a significant increase. With a growth rate of 10.46 percent, the health sector, which includes social activities in 2021, reached the top position of the 17 sectors that form Indonesia's national Gross Domestic Product (GDP) (Purwanti, 2022). The high growth rate in the health sector is interesting to study, given the many factors that influence firm value growth, such as intellectual capital and tax avoidance.

In the healthcare industry, intellectual capital is critical. Companies in the health sector need high intellectual capital to develop reliable health products and services, improve service quality, and meet the growing needs of the community in the health sector, especially during a pandemic, where the health sector plays a very strategic role, both in providing health services and being one of the central players in facing the economic challenges caused by the pandemic. With these various considerations, it is appropriate that companies in the health sector continue to optimize their resources, including intellectual capital, to deal with uncertainty and dynamic business and economic changes.

Previous studies into the impact of intellectual capital on firm value during the pandemic produced varied results. The study by Amirullah et al. (2021), Prastiwi (2023), and Siburian et
al. (2018) found a positive influence, the study by Devi & Aris (2023) and Suryanata & Sujana (2023) found no influence, and the study by Kusuma & Rahyuda (2022) found a negative influence. The results are still inconsistent, and no specific study has examined the influence in the health sector during the COVID-19 pandemic. Also, this research differs from the previous studies because it includes tax avoidance in the association between intellectual capital and firm value, which is rarely examined. One of the government's efforts to recover from the COVID-19 pandemic is to exempt certain types of taxes and provide tax incentives and facilities to affected companies and business lines. To maintain tax performance, the government is improving the tax system by building the Core Tax System, implementing the Population Identification Number (NIK) as the Taxpayer Identification Number (NPWP), and ratifying the Harmonization of Tax Regulations Law (UU HPP) (Kemenkeu, 2022). Based on the results of the studies by Rombe et al. (2017) and Febriana (2023), tax incentives increase tax avoidance practices in companies listed on the IDX. During the pandemic, tax avoidance practices have increased due to the misuse of tax incentives and relaxations (Kusufiyah & Anggraini, 2023). Tax avoidance aims to increase the company's profits by reducing the tax burden that the company has to pay (Doloksaribu et al., 2023).

The existence of tax avoidance as an issue during the pandemic and the many tax incentives that can increase tax avoidance, as well as management's decision to engage in tax avoidance to increase profits and firm value, have led to tax avoidance being chosen as a moderating variable in this study. Knowledge of the level and direction of moderation of tax avoidance on the influence of intellectual capital on firm value is very important so that management decisions can align with the goal of investors, namely to maximize firm value. Previous studies suggested that tax avoidance is positively associated with firm value, as Mustafid & Sutandijo (2023) and Guedrib & Marouani (2023).

The moderating effect of intellectual capital on the influence of tax avoidance on firm value has been tested in two previous studies. The first study, by Alaika et al. (2023), used data from banking sub-sector companies listed on the IDX from 2018 to 2021. The results showed that tax avoidance had a negative influence, and intellectual capital reduced the negative effect of tax avoidance. The second study, by Doloksaribu et al. (2023), found that tax avoidance had no influence on firm value, and intellectual capital did not moderate its effect.

Using the Effective Tax Rate (ETR) to measure tax avoidance in two previous studies was also unable to detect conforming tax avoidance (Badertscher et al. 2018; Hanlon & Heitzman 2010). This is because conforming tax avoidance reduces net income and tax payments simultaneously, while both are the numerator and denominator of the formula for finding ETR. Therefore, in this study, the Corporate Tax to Turnover Ratio (CTTOR) is used to measure corporate tax avoidance, as in the study by Rosid (2023). The use of CTTOR to measure tax avoidance is also a novelty of this study.

Based on these studies, tax avoidance has a very diverse influence on firm value. This is especially true with the government's tax incentives and relaxations that companies utilize, increasing the opportunity for companies to engage in tax avoidance. The role of intellectual capital as an independent variable has also not been widely analyzed, especially concerning tax avoidance. To date, no one has examined the influence of intellectual capital on companies in the healthcare sector. Throughout the COVID-19 epidemic, healthcare has been the fastest-growing business. Furthermore, only rare studies have investigated the effect of intellectual capital moderated by tax avoidance on firm value. Because intellectual capital is a source of competitive advantage for companies and tax avoidance can increase company profits, the growth of a company's intellectual capital will be in line with firm value. When accompanied by growth in the level of tax avoidance, its influence will be even stronger.

Based on the previous explanation, it is necessary to conduct this research, which
examines whether intellectual capital affects firm value in the health sector during the COVID-19 pandemic and finds out whether tax avoidance can moderate the effect of intellectual capital on firm value. The uniqueness of this study is the use of CTOR as a tool to measure tax avoidance, making tax avoidance a moderating variable of the effect of intellectual capital on firm value and conducting research in the health sector as the fastest-growing sector during the pandemic. The financial data used in this study are from healthcare companies listed on the IDX during COVID-19, namely from 2020 to 2022, with 30 companies listed in this sector (Nugroho, 2023).

This study is expected to provide additional information for the Financial Services Authorities (OJK) on supervising and regulating intellectual capital in companies. The Directorate General of Taxes (DGT) can use the results of this study to evaluate corporate tax avoidance actions. Company management is also expected to utilize it for decision-making related to capital expenditure and tax avoidance strategies.

LITERATURE REVIEW

Firm value shows the impression or trust of investors in the firm and is often tied to the share price in the market (Siburian et al., 2018). It is often used as a basis for investors to assess a company's success (Lesmana et al., 2020). Factors that affect firm value are capital structure, profitability, company growth and firm size (Sembiring & Trisnawati, 2019). During the COVID-19 pandemic, the influential factors are Debt to the debt-equity ratio (DER), financial distress, ROE, implementation of good corporate governance (GCG), company size, profitability, and Dividend Payout Ratio (DPR) (Febriana, 2023; Prasetyo & Sutrisno, 2023). At the international level, firm value during the COVID-19 pandemic has several influential factors, including corporate social responsibility (CSR) (Choi et al., 2023), earnings quality (Astuti & Setiyawati, 2023), firm's stakeholder-value orientation (Bose et al., 2022), firm size, profitability, leverage, and fixed assets (Xiong et al., 2020) and stock liquidity (Zhang et al., 2021).

According to the Resource-Based View (RBV) paradigm, the capacity to use resources plays a critical part in building a competitive edge for a firm (McGee, 2015; Barney, 2001; Wernerfelt, 1984). Unique resources may be defined as valuable assets possessed by a firm that is unusual, difficult to reproduce or copy by competitors, and cannot be replaced, providing the company a distinct edge in the market (Widyaningdyah & Aryani, 2013). According to the RBV, the uniqueness of a company's intellectual capital may be a driving factor in enhancing its value and performance, either by seizing opportunities or reducing potential hazards (Doloksaribu et al., 2023). RBV theory may be used for intellectual capital since it is a strategic and distinctive resource that, when well managed, can provide a competitive advantage and boost firm value (Dewi, 2023).

Patents, intellectual property rights, copyrights, and franchises are all examples of intangible assets that may provide value to a firm or society (Mavrdis, 2004). According to Bukh et al. (200), intellectual capital is employees' knowledge, experience, and skills, along with documented knowledge sources in an organization's databases, systems, work procedures, culture, and management philosophy. This intellectual capital is very important for the company because if intellectual capital can grow in line with physical and financial capital, then the company can survive amidst the tight global competition (Wirayawati et al., 2022). Intellectual capital is also an important production factor, so intellectual capital must be managed by the company (Stewart & Ruckdeschel, 1998).

The dimensions of intellectual capital are divided into three by Stewart & Ruckdeschel (1998): human capital, structural capital, and consumer capital. Human capital is a representation of individual knowledge capital in an organization, which is reflected through
the contributions of its workers. It results from employee training and skills investment and accumulates values (Bontis, 1998). Structural capital involves innovative capital that encompasses the organizational capabilities of a firm in meeting market demands. It includes organizational routines and structures that support employees and contribute to the business's overall performance. Consumer capital reflects the linkages or networks that contribute to firm satisfaction and loyalty, involving an understanding of market channels, consumer needs, and relationships with suppliers and customers, involvement in industry associations, and understanding of the impact of public policy. This brings a better understanding of consumer preferences for products or services. Amirullah et al. (2021), Prastiwi (2023), and Siburian et al. (2018) found that Intellectual capital contributes positively to firm value. Intellectual capital is a source of firm value and capital for enterprises to endure in the face of global competition. 

H1: Intellectual capital has a beneficial impact on firm value.

Stewardship theory was introduced by Davis et al. (1997) and is designed to describe situations where managers act as stewards and strive to act in the owners' best interests. This theory refers to managers who do not prioritize personal interests too much but rather focus more on efforts to achieve organizational goals, with the belief that when managers act as stewards and coordinate the interests of the company with stakeholders, this can lead to long-term value and sustainability (Davis et al., 1997). The main interest of owners or investors is the stock price, which reflects the firm value. So, if managers act as stewards, firm value is one of their main focuses. Tax avoidance is one factor that influences increasing investor confidence and the company's stock price, which reflects the firm value (Alaika et al., 2023).

Tax avoidance is an attempt to decrease or even eliminate the tax obligation that must be paid to limit corporate expenditures as part of tax management (Purbowati, 2021). Companies can avoid taxes through various methods, legally with tax planning or tax avoidance and illegally with tax evasion (Dharmapala, 2017). Tax planning is a legal approach that utilizes facilities provided by tax regulations to diminish tax expenses legally (Tanjaya & Nazir, 2021). Dharmapala (2017) defines tax avoidance as an effort to reduce the amount of tax paid without changing the economic substance and not violating tax laws. Aggressive and even illegal tax avoidance, or so-called tax evasion, reduces the tax burden even to the level of not paying taxes dishonestly and violating tax regulations (Nurhidayah, 2022).

The increase in firm value with tax avoidance is chosen because tax is a burden that, if reduced, will increase the company's profits (Dolokiaribu et al., 2023). Studies conducted in other countries, such as Tunisia by Guedrib & Marouani (2023), Taiwan by Nebie & Cheng (2023), and Tehran by Khajavi et al. (2023) found that tax avoidance has a positive influence on firm value. During the COVID-19 pandemic, it is very high when society and the government focus on this industry(BPS RI, 2020). At the same time, the high tax incentives given to the healthcare sector amid the COVID-19 pandemic can trigger increased tax avoidance. Rombe et al. (2017) and Firmansyah et al. (2021) stated that tax incentives increase tax avoidance in companies. Investors will respond to intellectual capital that can boost a company's competitive advantage positively if the company utilizes tax avoidance to increase company profits.

H2: Tax avoidance increases the beneficial impact of intellectual capital on firm value

METHODS

This study employs a quantitative approach. Quantitative research uses statistical algorithms or other quantification approaches to analyze the connections between study variables (Jaya, 2020). The data utilized was cross-sectional. Because the data is cross-sectional, comprises more than one independent variable, and is expected to have a normal distribution, the regression model using the ordinary least squares (OLS) estimation approach
is acceptable (Sihombing, 2022).

This study uses secondary data from healthcare firms listed on the IDX throughout the COVID-19 era, totaling 30 companies from 2020 to 2022 (Nugroho, 2023). The reason for picking the health sector is that it has grown the most during the COVID-19 epidemic (Purwanti, 2022). Purposive sampling was used to acquire the sample, and 43 data points were obtained, as detailed in the table below:

<table>
<thead>
<tr>
<th>Description</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthcare Sector Companies on the Indonesia Stock Exchange (BEI) as of January 1, 2023</td>
<td>30</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Companies registered after January 1st, 2020</td>
<td>(10)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Companies registered after January 1st, 2021</td>
<td></td>
<td>(6)</td>
<td></td>
</tr>
<tr>
<td>Companies registered after January 1st, 2022</td>
<td></td>
<td></td>
<td>(2)</td>
</tr>
<tr>
<td>Companies with unavailable financial reports</td>
<td></td>
<td>(3)</td>
<td>(4)</td>
</tr>
<tr>
<td>Companies reporting net losses</td>
<td></td>
<td>(5)</td>
<td>(6)</td>
</tr>
<tr>
<td>Companies reporting larger tax refunds</td>
<td>(5)</td>
<td>(6)</td>
<td>(6)</td>
</tr>
<tr>
<td>Total Sample</td>
<td>12</td>
<td>14</td>
<td>17</td>
</tr>
</tbody>
</table>

Source: processed

The dependent variable in this study is the firm's value. The independent variable is intellectual capital. In this study, tax avoidance is used as a moderating variable. The dependent variable in this study, the firm's value, uses Tobin’s Q ratio as a proxy in its measurement (Doloksaribu et al., 2023; Alaika et al., 2023; Chung & Pruitt, 1994). This ratio compares the market value of a firm's equity and the book value of a firm's liabilities to the total book value of a firm's assets. The measurement of firm value with Tobin’s Q proxy can be formulated as follows:

\[
\text{Tobin's Q} = \frac{(\text{Market value of Company stock} + \text{Book Value of Liabilities})}{\text{Book value of Assets}}
\]

This study uses the corporate tax-to-turnover ratio (CTTOR) proxy to find tax avoidance. CTTOR measures a company's tax payment level by dividing the income tax payable in the financial statements by the turnover. The study by Rosid (2023) proposed using CTTOR to measure corporate tax avoidance. This practical measure refers to the Circular Letter of the Director General of Taxes number SE-02/PJ/2016 concerning the Benchmark Behavioral Model (BBM). CTTOR can detect conforming tax avoidance because the denominator is sales. The CTTOR measurement can be presented as follows:

\[
\text{CTTOR} = \frac{\text{Current Year Tax Expense}}{\text{Annual Turnover}}
\]

The result of the CTTOR measurement can be used as a proxy to measure the level of tax avoidance. Therefore, in this study, the CTTOR value is adjusted by multiplying it by minus one (-1). This is to ensure that the interpretation of the CTTOR value is that the higher the adjusted CTTOR value, the higher the firm's tax avoidance level.

Intellectual capital is measured using the value-added intellectual coefficient (VAIC) proxy. This proxy has been widely used, including in the studies by Doloksaribu et al. (2023) and Alaika et al. (2023). This model was introduced by Pulic (1998) and later re-published by Wang (2013), so it is determined that VAIC is a proxy for determining the company's intellectual capital from the three capitals. Physical and financial capital, commonly known as Capital Employed (CE), refers to the quantity of capital owned by the organization and may be assessed using Value Added Capital Employed (VACA). Human Resource Capital (HR) or Human Capital (HC) is quantified using human expenses, also known as Value-Added Human
Capital (VAHU). Furthermore, structural capital or Structural Capital (SC) is the difference between the firm value added and the value added generated by HR, known as Structural Capital value added (STVA). VAIC itself is the sum of the three components above. When presented in a formula, to find VAIC is as follows:

\[
VAIC = VACA + VAHU + STVA
\]

\[
VACA = \frac{(Operating \ Income + Personnel \ Cost)}{(Total \ Assets - Intangible \ Assets)}
\]

\[
VAHU = \frac{Personnel \ Cost}{Operating \ Income + Personnel \ Cost}
\]

\[
STVA = \frac{Operating \ Income}{Operating \ Income + Personnel \ Cost}
\]

The Firm Size and DER values are used as control variables. This research determines control variables to ensure that variables that are not the research focus do not affect the relationship between the dependent and independent variables (Duli, 2019). DER is a comparison between total liabilities and total firm capital (Suartama et al., 2023). According to research by Putri et al. (2023), the DER value indicates the extent to which the capital owned by the owner can cover debt obligations to external parties. A high DER indicates that the firm relies more on debt as a source of financing, while a low DER indicates the firm's preference for using its capital rather than debt (Suartama et al., 2023). Based on research by Lestari (2023), Putri et al. (2023), and Suartama et al. (2023), the DER value has a positive effect on firm value. This ratio is also called solvency (Adhiguna, 2023). The formulation is as follows:

\[
DER = \frac{Total \ Liabilities}{Total \ Equity}
\]

Firm Size is a classification scale that can be used to distinguish the size of companies based on parameters such as total assets, log size, stock market value, and others (Machfoedz, 1995). Firm size is an important indicator for investors in making investment decisions (Mawardani et al., 2023). Based on research by Ferdila et al. (2023), Mawardani et al. (2023), and Yunan (2023), it has a positive effect on firm value. To calculate the firm size, take the natural logarithm of the total firm assets (Ferdila et al., 2023). The formulation is as follows:

\[
Firm \ Size = \ln (Total \ Asset)
\]

In this study, hypotheses are tested using multiple linear regression analysis. With the following model:

\[
TOBINQi = \beta_0 + \beta_1 TAXAVOIDi + \beta_2 VAICI + \beta_3 TAXAVOID*VAICI + \beta_4 SIZEi + \beta_5 DERi
\]

**Explanation:**

TOBINQ : firm value i
TAXAVOID : tax avoidance using the CTTOR of firm i
VAIC : firm intellectual capital i
SIZE : firm size i
DER : firm solvency i

Before conducting regression analysis, this study first tests the classical assumptions. This study uses a regression model with an ordinary least square (OLS) estimation technique to conduct the analysis. This model was chosen because the data used is cross-sectional data (Sihombing, 2022).

**RESULTS AND DISCUSSIONS**

Descriptive statistical tests were obtained from the data analysis, and the results are in the following table.

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>OBS</th>
<th>MEAN</th>
<th>STD. DEV.</th>
<th>MIN</th>
<th>MAX</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOBINQ</td>
<td>43</td>
<td>2.7259</td>
<td>1.7338</td>
<td>0.8913</td>
<td>7.2660</td>
</tr>
</tbody>
</table>
It can be seen that the solvency values vary widely and unevenly, as indicated by the standard deviation value of the DER variable, which is higher than its mean. For the dependent variable representing firm value and the independent variables representing intellectual capital, tax avoidance, and the interaction between intellectual capital and tax avoidance, the average values of each variable are greater than their standard deviations. This implies that the data is evenly spread. The control variable representing firm size is also evenly spread. These results indicate that the dependent and independent variables selected in this study have good data distribution.

The minimum and maximum values of the tax avoidance variable are negative, and this is because the CTTOR value is used to find tax avoidance. Therefore, the companies selected make tax payments and have a positive CTTOR value multiplied by minus one (-1). Therefore, the value of the tax avoidance variable (TAXAVOID) is always negative. This means that the higher the CTTOR value or the closer the value is to zero, the higher the level of tax avoidance. The value of the DER company is very diverse because the minimum value is less than 1, and the maximum reaches 3.8248, which means that the total company debt is 3.8248 times the company's equity. The minimum value of VAIC is 1.962 and not zero, and this is because companies that do not have intellectual capital have been removed from the research sample.

The next step is to conduct classical assumption tests on the research data. From the classical assumption tests conducted, it is concluded that this research model passes the normality, heteroscedasticity, and multicollinearity tests. In other words, the data variance used is homogeneous (the model is free from heteroscedasticity assumptions). The data is normally distributed (the model is free from normality assumptions), and there is no correlation between variables (the model is free from multicollinearity assumptions). The correlation between variables without interaction also does not exceed 80 percent. Auto-correlation testing is not performed on this research model because the data used is cross-sectional data. Based on Ghozali (2016) and Sihombing (2022), auto-correlation testing is unnecessary for cross-sectional research research.

This study's multiple linear regression model with cross-sectional data was conducted using the Ordinary Least Square (OLS) estimation technique. The results of the test are as follows:

### Table 3. Regression Results Table

| Variable       | Coefficient | P > |t| | t  |
|----------------|-------------|-----|---|-----|
| TAXAVOID       | 0.0924      | 0.4050 | 0.2400 |
| VAIC           | -0.4292     | 0.1670 | -0.9800 |
| TAXAVOID*VAIC  | -0.1920     | 0.0435** | -1.7600 |
| SIZE           | 0.3150      | 0.0205** | 2.1200 |
| DER            | 0.2037      | 0.2295 | 0.7500 |
| Constant       | -7.0580     | 0.0660* | -1.5400 |
| R-squared      | 0.6544      |       |     |
| Adj. R-squared | 0.6077      |       |     |
| F-stat         | 14.01       |       |     |
| Prob>F         | 0.0000**    |       |     |

*significance at α = 10% **significance at α = 5%

Source: Processed with STATA application
In the multiple linear regression analysis, the R-squared value obtained is 0.6544, which means that all independent and control variables can influence the dependent variable representing firm value by 65.44 percent. The other independent variables not included in this study were only influenced by 34.66 percent. The regression model obtained from the test results is as follows:

\[
\text{TOBINQi} = -7.0580 - 0.0924\text{TAXAVOIDi} - 0.4292\text{VAICI} - 0.1920\text{TAXAVOID} \times \text{VAICI} + 0.3150\text{SIZEi} + 0.2037\text{DERi}
\]

Table 6's Prob>F and P>|t| values have been modified by dividing the STATA application's values by two. This is done since the study examines the one-way effect. This technique is mirrored in the study hypothesis, which evaluates whether the independent factors impact the dependent variable and the direction of the connection, whether positive or negative. This concept is in line with the explanation by Kasim (2008), which states that a one-way statistical test is used when the alternative hypothesis reveals a difference and contains a statement about whether something is more or less than another. A one-way statistical test has a p-value twice that of a two-way test.

The Prob>F value in the study model is 0.0000, or less than 5%, indicating that all independent variables in any model can substantially impact the dependent variable simultaneously. The t-test findings for each independent variable before the interaction, tax avoidance and intellectual capital, show no significant effect on firm value. However, with moderation, the interplay between tax avoidance and intellectual capital can harm firm value.

**The influence of intellectual capital on firm value**

The results of the first hypothesis testing indicate that intellectual capital does not affect firm value. This is evident from the probability value (P > |t|) on the intellectual capital variable (VAIC), which is above alpha (0.1670 > α = 5%). Therefore, the initial assumption of H1 in this study is rejected. This finding is in line with Devi & Aris (2023) and (Suryanata & Sujana, 2023), but it is not in line with Amirullah et al. (2021), Kusuma & Rahyuda (2022), Prastiwi (2023), and Siburian et al. (2018) found a positive influence, the study by Devi & Aris (2023) and Suryanata & Sujana (2023). Intellectual capital is due to the nature of intangible intellectual capital, which is difficult to measure, evaluate, and quantify, making it challenging to adequately report the level of knowledge and technology mastery that constitutes a firm's intellectual capital (Yulinda, 2020). Investors also tend to be more interested in quantitative data in financial reports than qualitative intellectual capital data (Claudia et al., 2021). Companies' intellectual capital disclosure is also still low (Siagian et al., 2023). This leads to low information obtained about a firm's intellectual capital, becoming a constraint when making investment decisions (Dolokasaribu et al., 2023). Although intellectual capital can enhance a firm's competitive advantage, the difficulty in measuring and understanding intellectual capital by investors and the low disclosure of intellectual capital by companies make the potential of intellectual capital unable to attract investors to invest in companies with high intellectual capital.

The growth of the health sector during the COVID-19 pandemic is the highest of all other sectors. The demand for medicines, medical equipment, and vaccines for treating patients infected with the Coronavirus makes the rapid growth of the health sector possible (Kusnandar, 2022). Not to mention, the government policy that focuses on the State Budget (APBN) during the COVID-19 pandemic for handling the pandemic makes the performance of companies in the health sector positive and enables them to generate profits. Dolokasaribu et al. (2023) state that investors are attracted to companies that can generate profits during a pandemic. Investors will buy companies in the health sector by putting aside the company's intellectual capital factor. This is because companies in the health sector can generate profits during the COVID-19 pandemic. The existence of other factors in the form of a pandemic and the focus of...
government spending on handling the COVID-19 pandemic made the company's uniqueness in intellectual capital, which is the source of firm value according to RBV theory, irrelevant at that time. Companies in the health sector seem to obtain a windfall from changes in people's behavior and the government's focus on health. These things ultimately prevent intellectual capital factors in health sector companies in Indonesia from affecting firm value.

The moderation role of tax avoidance in the effect of intellectual capital on firm value

The result of the second hypothesis test shows that the interaction between tax avoidance and intellectual capital has a negative effect on firm value. This result is seen from the probability value (P > |t|) of the regression results of the interaction variable between tax avoidance and intellectual capital (TAXAVOID*VAIC) below alpha (0.0435 < α = 5%) and the negative coefficient value. Although intellectual capital and tax avoidance separately do not affect firm value, the coefficient on the tax avoidance variable is positive, and the coefficient on intellectual capital is negative, with the coefficient value being much larger than avoidance (0.0924 < -0.4292). This ultimately makes tax avoidance statistically able to moderate the influence of intellectual capital on firm value by weakening the negative influence of intellectual capital and changing what was originally not significant to become significant. Thus, the initial hypothesis H2 of this study is rejected. It turns out that the direction of the influence is negative, not positive, as in the hypothesis.

Efforts by management in the healthcare sector to invest in intellectual capital to increase competitiveness and firm value have a negative effect on firm value. This is because increasing intellectual capital will certainly reduce the company's profits in the short term. After all, the company must make expenditures to build its intellectual capital. However, during the COVID-19 pandemic, investors were more interested in companies that could generate profits (Dolokasaribu et al., 2023). The difficulty of measurement, the low level of disclosure, and the form of intellectual capital, which tends to be qualitative, worsen the situation. Companies whose profits decline because they build intellectual capital become unattractive to investors. Decreased profits can cause the company's stock price to decrease, which ultimately lowers the company's stock price, even though the stock price reflects the firm value. Although, according to RBV theory, intellectual capital is a source of uniqueness that increases the value of a company, spending on intellectual capital during the COVID-19 pandemic turned out to reduce the company's profits or even make the company lose money. Even though investors during the pandemic tend to choose companies that can maintain their profits.

The interaction between tax avoidance and intellectual capital, which has a significant effect with a negative direction on firm value, indicates that in the short term, companies that avoid taxes will increase their profits, given that taxes are a burden and reduce the company's income. However, the tax avoidance is not yet strong enough to change the influence of the interacted variables on firm value to be positive. Therefore, tax avoidance can be an option if referring to the stewardship theory and management acts as a responsible person. Because it turns out that tax avoidance can weaken the negative effect of intellectual capital on firm value. However, excessive tax avoidance behavior to the level of tax evasion can increase firm risk and be detrimental in the future. Therefore, tax avoidance behavior must be carried out reasonably without violating existing tax provisions. It is so that the firm's value can be maintained and does not decrease due to investor concerns about the high level of corporate tax avoidance. The tax incentives given to all industrial sectors, including the health sector, allow companies to avoid narrower taxes because the number of corporate tax payments during the COVID-19 pandemic has already decreased. Companies that build intellectual capital and tax avoidance simultaneously at the same level will experience a decrease in profits. This is because the large expenditures for building intellectual capital cannot be replaced by the savings obtained from tax avoidance.
CONCLUSIONS

This analysis shows that intellectual capital has no substantial effect on firm value during the COVID-19 pandemic. However, after including tax avoidance as a moderating variable, the effect of intellectual capital on firm value becomes negative. Tax avoidance can reduce the negative impact of intellectual capital on firm value. The behavior of investors during the COVID-19 pandemic, which is more focused on finding companies that can generate profits, makes companies building intellectual capital unattractive. This is because companies that build intellectual capital require expenditures that will reduce the company's profits in the short term. Tax avoidance can moderate the negative influence of intellectual capital because tax avoidance can increase the company's profits in the short term. This is because tax avoidance reduces taxes, a component that reduces income. This result implies that to increase firm value during the COVID-19 pandemic, company management should reduce expenditures that will reduce firm value in the short term and focus on maintaining the company's profits because investors are currently interested in companies that can generate profits amid the COVID-19 pandemic.

However, this research is limited to a one-way relationship between the variables that have been determined. There is often a two-way relationship between one variable and another. The data used in this study is also limited to the health sector, which is limited in number. This makes the conclusions of this study only relevant to the health sector. Future research can use company data in the health sector for a longer period or use data in other sectors, such as manufacturing and finance, to obtain more comprehensive results. The Financial Services Authority (OJK) can use this research to coordinate with the Tax Authority on the level of risk investors bear from tax avoidance behavior by company management. OJK can also improve policies about reporting intellectual capital owned by companies in a particular account. In addition, DGT, as the Indonesian Tax Authority, can also utilize this research to evaluate companies' tax avoidance.

REFERENCES


Doloksaribu, R. P., Hadiantoro, F., & Firmansyah, A. (2023). Does intellectual capital have a


http://repository.ub.ac.id/id/eprint/205241/

Sudrajat, A. A. (2022). Pengaruh intellectual capital terhadap nilai perusahaan dengan profitabilitas sebagai variabel intervening pada masa pandemi covid-19 (studi pada perusahaan sektor kesehatan yang terdaftar di BEI) [Universitas Pendidikan Indonesia]. https://repository.upi.edu/84282/


