Stock Price Synchronicity And Institutional Ownership: 
The Role Of Sustainability Reporting, Political Connection, And Leverage

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ABSTRACT
This research study is aimed to evaluate how institutional ownership affects the degree of correlation among stock prices, as well as the influence of sustainability reporting, political connections, and leverage. The study takes sample data from companies that were on the LQ45 index at the end of the year, or December 31, for the years 2019–2022 using purposive sampling method. Hypothesis testing uses a multiple linear regression analysis model in the form of a moderated regression analysis (MRA) to test moderator variables. The findings indicated that leverage has negative effect on stock price synchronicity, while neither sustainability reporting nor political connections influenced stock price synchronicity. Institutional ownership as a moderating variable is able to strengthen the negative influence of leverage on stock price synchronicity. On the other hand, the presence of institutional ownership does not have an ability to impact the correlation between sustainability reporting and political relationships on stock price synchronicity.

INTRODUCTION
The reaction of stock investors to information related to the company causes stock price movements. If the information is reliable or credible, investors will rely on information from the company, otherwise if it is not credible, investors may look for information from outside the company as a source of information. Information from the company can be in the form of financial reports, sustainability reports, and other issue statements issued by the company, while from outside the company in the form of a country or global economic conditions, exchange rates, social, and political issues.

Several studies on stock price synchronicity have been developed in developed and developing countries' stock market conditions. One of the studies is from (Morck et al., 2000)
which examines the stock exchange in China where the stock exchange has a higher level of synchronicity or can be called having Emerging Market conditions. An emerging market is a term to describe the economic conditions of developing countries that began to enter the world market along with their development. The study's findings were validated by the fact that the stock exchange in China at that time had a low level of investor protection and difficult access to specific information on information owned by a company. In the same way, the Financial Services Authority (OJK), which oversees firms listing on the Indonesian market for securities, was established by law in 2011. Consequently, regulations pertaining to the disclosure of corporate information remain nascent, thereby enabling corporations to exploit legal loopholes.

The sustainability report is one of the many elements that might affect the degree of stock synchronization, including information from the firm and other sources. Information on the organization's performance in the areas of economics, society, and the environment is published in the sustainability report. According to study, the sustainability report significantly reduces stock price synchronicity (Pratiwi et al., 2021). The negative direction of the sustainability report shows that the higher the level of disclosure and reporting on sustainable activities reflected in the sustainability report, the lower the level of information asymmetry reflected in the stock price. The findings of the research also validate the results of the study (Grewal et al., 2021), which indicate that the correlation between sustainability reports and stock price synchronicity is in the opposite direction.

(Purwoto, 2011) explains that when companies have indications of political connections, the company has special ties with politicians or political officials. The ties that arise occur intentionally or not where the role of politicians or political officials can directly influence or not be directly involved with affiliated companies. The role of a politician is considered large for the sustainability of the company if they are directly involved in the company's activities. According to study findings (Tee, 2017), stock price synchronization is positively impacted by political ties.

In accordance with Tee (2017), leverage refers to the total debt of a company measured against its total assets in the current financial reporting year. Leverage indicates the company's capacity to repay its short or long-term loans based on its assets. A lower level of leverage indicates a stronger ability of the company to fulfill its obligations. A study conducted by Zhang and Zhou (2020) reveals that leverage has an adverse influence on stock synchronicity. In particular, greater levels of leverage correlate to a drop in the index of stock price synchronicity.

(Mardianto & Juniyanti, 2020) describe institutional investors as investors from a company that comes from an institution or even a country. Institutional investors tend to be highly sophisticated due to their ability to absorb, analyze, and understand news and information. After all, institutional investors have greater resource strength than individual investors. Institutional investors have privileges in shareholder meetings due to their majority share ownership portion.

These contributions to the disparities in prior research' conclusions on political connections and leverage on stock price synchronicity. This study will be named "Stock Price Synchronicity and Institutional Ownership: The Role of Sustainability Reporting, Political Connection, and Leverage" The objective of the research is to analyze the influence of these factors on companies listed on the LQ45 index on the IDX from 2019 to 2022.

LITERATURE REVIEW

Stakeholder Theory

Freeman and Reed (1983: 91) identify stakeholders as parties or groups that either directly or indirectly have an interest in the existence and activities of organizational stakeholders and thus they mutually influence and are influenced by the activities of the organization. Stock price synchronicity is related to stakeholder theory, stakeholders as parties with an interest in the company expect that their information needs for the company can be fulfilled, and with this, a reciprocal relationship arises between stakeholders and the company (Sidiq et al., 2021). The
intensity of information reflected in a company's stock price is correlated with stock price synchronicity, the greater the amount of information released by the company to satisfy the demands of its stakeholders, the greater the informativeness level of its stock price, all the while preserving the company's beneficial connection with its stakeholders.

**Signal Theory**

Signal theory states that investors or market participants are recipients of signals or signals from the sender or owner of information containing information related to the condition of the company (Spence, 1973). Stock Price Synchronicity is related to signal theory. This theory talks about the actions of companies that produce information in the form of financial reports or other information originating from internal companies to signal both positive and negative expectations related to stakeholder actions. When company management has good information related to the company, management tends not to withhold this information to be disseminated to the general public. In order to elicit a positive response from the market and investors who place trust in this information, the market price of the company's shares will subsequently appreciate.

**Stock Price Synchronicity**

Stock synchronicity refers to the propensity of investors to utilize information that has been made public prior to its impact on stock prices (Morck et al., 2000; Roll, 1988). The degree of synchronicity between information and stock prices is proportional to the R2 value derived from a regression between company returns and industry returns. A negative correlation exists between information and stock prices and the degree of synchronicity. According to a study (Roll, 1988), the majority of the variance in stock returns cannot be accounted for solely by fluctuations in market conditions or public disclosures of information in relation to stock prices. Private information that is still not accessible to the public also provides insight into the magnitude and scope of capitalization on stocks.

**Sustainability Report**

A Sustainability Report is an official record that provides detailed information on how a company performs in terms of its economic, environmental, and social implications. Sustainability reports serve as an instrument for organizations to communicate their organizational performance to their various stakeholders (Weda & Sudana, 2021). Investors want essential information that goes beyond financial performance in order to make a more accurate evaluation of the firm. One of the fundamental pieces of information that investors require is connected to the social responsibility aspect that is provided in the sustainability report (Pratiwi et al., 2021). When investors utilize sustainability reports as additional insight in their evaluation of shares, stocks will be centered around information derived from inside of the company, and the synchronization of stocks will reduce. Consistent with the findings of Pratiwi (2021) and Grewal (2020), it has been detected that an increase in the amount of information provided in sustainability reports leads to a drop in the degree of stock price synchronicity.

- **H1**: Sustainability Reporting negatively affects Stock Price Synchronicity

**Political Connection**

Politically linked firms are firms which establish political affiliations or actively pursue relationships with politicians or public officials. Companies with political connections minimize risks in order to maintain political connections, including the risk of falling stock prices. This means that companies tend to cover up information so that the level of information available in politically connected companies tends to be at a low level so that the level of synchronicity is high (Tee, 2017). Weak regulations as well as weak law enforcement when it comes to events
involving the government in countries with a low law enforcement index further reduce the level of informativeness.

- H2: The presence of political connections has a positive influence on stock price synchronicity

**Leverage**

Leverage is a financial ratio used to determine a company's capacity to meet its commitments using the assets it has. Leverage is a financial ratio where if the leverage ratio is high, it illustrates the company's greater financial risk. When the company has high leverage, investors need outside information to be considered for decision making which causes high stock price synchronicity (Mardianto & Juniyanti, 2020). Companies with a high leverage ratio will provide more comprehensive information to its stakeholders in order to enhance trust in the company's capacity to be influenced by and receive support from stakeholders.

- H3: Leverage has an adverse impact on the synchronization of stock prices.

**Institutional Ownership**

Institutional ownership is determined by calculating the proportion of shares held by institutional investors as compared to the company's total invested capital, as stated in the organization's annual financial report (Tee, 2017). Institutional investors are generally considered to have a wealth of knowledge.

Institutional investors utilize their ownership rights and expertise to assure the openness and transparency of firm information to the public, among them sustainability report data. The claim aligns with the outcomes of a study conducted by Grewal et al. (2021), which demonstrate that institutional ownership enhances the communication of sustainability report content and increases the level of stock price informativeness.

Tee's (2017) research demonstrates that institutional investors can enhance the dissemination of company-specific detail into the public markets and minority shareholders by engaging in consistent surveillance. This monitoring might cause a little harder for political views to affect how company-specific details get spread.

Good institutional investors will keep the company in a healthy condition, including if the financial ratio have high leverage, then institutional company shareholders will ask the board of directors and commissioners to disclose other good information related to the company to cover or provide an explanation for the high leverage ratio. This protects the company's reputation among shareholders and those involved.

- H4: Institutional ownership enhances sustainability reporting's stock price synchronization impact
- H5: Institutional ownership reduces political influence on stock price synchronicity.
- H6: Institutional ownership strengthens the effect of leverage on stock price synchronicity

**METHODS**

The dependent factor for this study is stock price synchrony, and the moderating factor is institutional ownership. The purpose of this study is to determine the basis of the correlation that explains the influence of sustainability reports, political connections, and leverage on this dependent variable. Testing hypotheses and surveying firms on the Indonesia Stock Exchange that are part of the LQ45 index represent the research approach of this study.

This research implemented pooled data, which is a merged a set of data consisting of time series and cross-sectional data. The material used in this research are derived from secondary sources, which is recorded documentation obtained from the financial statements of firms listed on the Indonesia Stock Exchange (IDX) and the respective websites of each company. Following a
deliberate selection process using established criteria. A total of 48 firms, spanning the period from 2019 to 2022, complete the specified criteria and provide a combined dataset of 119. The following information shows the outcomes of the firm’s selection procedure used in the research:

Table 1 Purposive Data Sampling

<table>
<thead>
<tr>
<th>No</th>
<th>Description</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LQ45 index companies and present financial reports or annual reports.</td>
<td>180</td>
</tr>
<tr>
<td>2</td>
<td>LQ45 index companies that do not present sustainability reports.</td>
<td>(36)</td>
</tr>
<tr>
<td>3</td>
<td>LQ45 index companies and have adjusted $R^2$ calculations from the stock and market return models that produce negative values.</td>
<td>(13)</td>
</tr>
<tr>
<td>4</td>
<td>The number of company samples used in the study</td>
<td>131</td>
</tr>
<tr>
<td>5</td>
<td>Number of outlier data (data that is very different/extreme compared to other data)</td>
<td>(12)</td>
</tr>
<tr>
<td>6</td>
<td>Number of Samples during the study period</td>
<td>119</td>
</tr>
</tbody>
</table>

Source: Data Processed, 2023

Stock Price Synchronicity

In order to determine stock price synchronization, one must first calculate the coefficient of determination ($R^2$) by regression analysis. This involves examining the relationship between the weekly stock return of the firm and the stock market or IHSG using the following formula:

$$RET_{i,w} = \alpha + \beta_1 MARKET_{w} + \epsilon_{i,w}$$

It then utilizes logistic transformation $R^2$ to create a spectrum for the converted variable between negative and positive infinity.

$$SYNCH = \log \left( \frac{R^2}{1-R^2} \right)$$

Sustainability Report

The measurement indicator symbolized by the letter “k” refers to the GRI G4 report on items related to environmental, social, and economic aspects which consists of 91 reporting items with 3 items in the environmental category reporting that have been discontinued. The reporting data is then managed with the following formula:

$$SRDI = \frac{n}{k}$$

Political Connection

The measurement indicator that will be used is a dummy variable where companies that have directors or commissioners who are currently holding positions as members of political parties or have served as public officials in the government will be given a value of “1”, while those without indications will be given a value of “0”. The criteria used in measuring companies that are indicated to have political connections are shown as follows:

1. Having shareholders affiliated with the government or certain political parties
2. Having a board of commissioners or directors as active or former members of a political party
Leverage

Leverage is the company's total debt according to total assets for the current fiscal year, the smaller the leverage value of a company, the better the company's financial health. The indicators that will be used are as follows:

\[ \text{Leverage} = \frac{(\text{Total Debt})}{(\text{Total Asset})} \]

Institutional Ownership

Institutional investors are investors from an institutional company such as business entities, insurance, mutual funds, or countries. The indicators that will be used are as follows:

\[ \text{Institutional Ownership} = \frac{\text{Total Institutional shareholding}}{\text{Total Shares Outstanding}} \]

Research Model

The research employs the approach of multiple linear regression moderation analysis, which is a statistical technique used to ascertain the causal relationship between the independent variable and the dependent variable, including consideration of the moderating variable. The companies that were included in the index of LQ45 that appeared on IDX between 2019 and 2022 were selected as study subjects. The research regression model is formulated as follows:

\[ \text{SYNCH} = \alpha + b1\text{SR} + b2\text{POLCON} + b3\text{LEV} + b4\text{SR} \times \text{OWN} + b5\text{POLCON} \times \text{OWN} + b6\text{LEV} \times \text{OWN} + e \]

Description:

SYNCH = Stock Price Synchronicity  
\( \alpha \) = Konstanta  
\( b \) = Regression Coefficient  
SR = Sustainability Reporting  
POLCON = Political Connections  
LEV = Leverage  
OWN = Institutional Ownership  
e = error (residua)

RESULTS

Descriptive Statistics Test

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stock Price Synchronicity</td>
<td>119</td>
<td>-2.699</td>
<td>0.735</td>
<td>-0.9619</td>
<td>0.7328</td>
</tr>
<tr>
<td>Sustainability Report</td>
<td>119</td>
<td>0.125</td>
<td>0.932</td>
<td>0.4422</td>
<td>0.16805</td>
</tr>
<tr>
<td>Political Connections</td>
<td>119</td>
<td>0.000</td>
<td>1.000</td>
<td>0.4454</td>
<td>0.49911</td>
</tr>
<tr>
<td>Leverage</td>
<td>119</td>
<td>0.103</td>
<td>0.944</td>
<td>0.5281</td>
<td>0.23396</td>
</tr>
<tr>
<td>Institutional Ownership</td>
<td>119</td>
<td>0.276</td>
<td>0.998</td>
<td>0.9135</td>
<td>0.12566</td>
</tr>
</tbody>
</table>

Source: Data Processed (SPSS 25.00)

The descriptive statistics reveal that in 2020, PT Bank Central Asia Tbk had the highest stock price synchronicity value of 0.735, while in 2022, PT Japfa Comfeed Indonesia Tbk had the lowest
value of -2.699. The Sustainability Report variable reaches its highest value of 0.932 in 2022, associated with PT Timah TBK, while its lowest value of 0.125 is recorded in 2021, associated to PT Summarecon Agung Tbk. The political link variable has a mean value of 0.4454 and a standard deviation of 0.49911. There are 53 observations of companies that show signs of having political links with code 1. In the meantime, there are 66 observations of corporations that do not have indicators of political links with a code of 0.

**Hypothesis Test**

**Tabel 3 Moderated Regression Analysis Result**

<table>
<thead>
<tr>
<th>Variabel</th>
<th>Coefficients</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>-0.909</td>
<td>0.000</td>
</tr>
<tr>
<td>SR (X₁)</td>
<td>2.647</td>
<td>0.070</td>
</tr>
<tr>
<td>POLCON (X₂)</td>
<td>1.013</td>
<td>0.277</td>
</tr>
<tr>
<td>LEV (X₃)</td>
<td>-3.390</td>
<td>0.009</td>
</tr>
<tr>
<td>SR<em>OWN (X₁</em>Z)</td>
<td>-4.045</td>
<td>0.022</td>
</tr>
<tr>
<td>POLCON<em>OWN (X₂</em>Z)</td>
<td>-0.613</td>
<td>0.369</td>
</tr>
<tr>
<td>LEV<em>OWN (X₃</em>Z)</td>
<td>4.124</td>
<td>0.004</td>
</tr>
</tbody>
</table>

Source: Data Processed (SPSS 25.00)

Based on table 3 The influence of sustainability reports, political affiliations, and, and leverage on stock price synchronicity influenced by the level of institutional ownership has a regression equation as follows:

\[
SYNCH = -0.909 + 2.647X₁ + 1.013X₂ - 3.390X₃ - 4.045X₁*Z - 0.613X₂*Z + 4.124X₃*Z
\]

**DISCUSSION**

**The Impact of Sustainability Reports on the Level of Correlation in Stock Price Synchronicity**

The sustainability report variable has a positive direction regression coefficient value of 2.647, which is considered significant with a significance score of 0.070. The positive regression coefficient contradicts the negative direction of the suggested hypothesis, resulting in the rejection of the hypothesis. The regression coefficient results indicate that the sustainability report does not have a significant impact on stock price synchronicity.

This study confirms (Andriani and Sudana, 2023) that the sustainability report has no impact on stock returns, a measuring variable in stock price synchronicity. Researchers found that Indonesia’s stock market sustainability report is not a significant piece of internal company information that might impact investors' decision-making and stock price synchrony. This research additionally disregards the signal conceptual that investors can't take advantage of a sustainability report's beneficial and useful information to make decisions.

**The Impact of Political Influences on Stock Price Synchronicity**

The testing of the political connection variable reveals a positive regression coefficient value of 1.013, indicating that a one-unit rise in political connection leads to a corresponding increase of 1,013 in stock price synchronicity. The calculated significance level is 0.277 indicating that it is bigger than the p-value (0.277 < 0.05). Therefore, we reject the hypothesis. The statistical analysis indicates that there is a negligible effect of political ties on stock price synchronicity, as shown by the significance value.
The findings of this study are consistent with the findings of a study completed by Mardianto and Juniyanti (2020), which demonstrate that there is no substantial correlation between political affiliation and stock price synchronicity. This demonstrates that corporations with political connections do not necessarily restrict the dissemination of particular information about the company to the wider public. The study's findings align with stakeholder theory, which states that company management should exercise their authority without external interference, including political decisions. The study does not provide evidence that political connections have a significant impact on top management's decision-making authority. However, it suggests that stakeholders expect management to have the autonomy to limit the disclosure of certain company information.

The Impact of Leverage on the Level of Stock Price Synchronicity

The test findings for the leverage variable reveal the coefficient of regression's value is -3,390. This implies that a one-unit increase in leverage will decrease the level of stock price synchronicity and increase the level of information reflected in the company's stock price by 3,390. The significance level yields a value of 0,009, indicating that it is less than the p-value (0,009 < 0,05). Therefore, the hypothesis is considered valid. The statistical analysis indicates that leverage has a statistically significant and unfavorable impact on stock price synchronicity.

The stakeholder theory employed in the research suggests that when a firm has strong leverage, management will disclose more relevant information or complementary information on what was discovered. This is done by management as a form of their responsibility to stakeholders as interested parties and maintaining the company's good name.

The findings of this search are consistent with the outcomes of the research carried out by Zhang (2020). The research findings reveal that an increase in the leverage ratio is associated with a drop in stock price synchronization and an increase in stock price informativeness.

The Impact of Institutional Ownership on the correlation between Sustainability Report and Stock Price Synchronicity

The t-test conducted on the moderated regression analysis model revealed that institutional ownership plays a significant role in moderating the sustainability report, with a significance value of 0,022. This value is smaller than the predetermined p-value of 0,05, indicating statistical significance. However, the regression coefficient β associated with institutional ownership has a negative value of -4,045, which contradicts the proposed hypothesis of strengthening the link among sustainability reporting and stock synchronicity. According to the results, the premise has been disproven and it concludes that institutional ownership does not have any effect on alleviating the connection between sustainability reports and stock price synchrony.

The findings indicated that the presence of institutional ownership did not ensure an increase in information disclosure regarding the sustainability report issued by the company. Institutional investors in a company sometimes consist of several parties and they have their own interests in their share ownership in the company, so that disclosure of sustainability reports has not become their common priority.

The current investigation matches research by Pratiwi (2021), which concludes that institutional ownership does not have a moderating influence on the correlation between sustainability reports and stock price synchrony. The findings of this study are further supported by the research written by Sidiq (2021), which indicates that companies with institutional ownership are more likely to prioritize profit-driven investments. Therefore, sustainability reports do not significantly influence the decision-making process of investors.
The influence of Institutional Ownership in moderating the correlation between Political Connection and Stock Price Synchronicity

The moderated regression analysis model’s t test showed that institutional ownership had a negative effect on political connections, as predicted by the hypothesis that it would weaken the link between political connections and stock price synchronicity. The value of β was -0.613. However, the t-test results show a significance value of 0.369, which is higher than the p-value (0.369 <0.05). This means that the hypothesis is not confirmed, and it can be assumed that institutional ownership doesn't alter the relationship between political connections and stock price synchronicity.

The findings revealed that there is no discernible impact of institutional ownership on information disclosure within corporations that exhibit signs of political affiliations. The right to information disclosure is universally applicable to all stakeholders of a company, excluding specific shareholders who hold institutional or political ties. The findings of this research provide support for stakeholder theory, which posits that organizations have an obligation to disclose pertinent information to all relevant stakeholders. Results of this investigation validate what was discovered of Juniyanti and Mardianto (2020), which demonstrates that stock price synchronicity and political connections fail to demonstrate a statistically significant correlation.

The moderating effect of institutional ownership on the association between leverage and stock price synchronicity

The t test done on the refined regression model proved the significance of institutional ownership in moderating leverage with a t-value of 0.004, indicating that it is smaller than the threshold of 0.05. Additionally, the t test results resulted in a positive regression coefficient β value of 4.124, which aligns with the hypothesized notion that there is a stronger correlation of leverage and stock price synchronicity. The results support the presumption that institutional ownership moderates the leverage and stock synchronicity.

It was found that institutional control has an effect on the relationship between leverage and stock price synchronicity. In this case, it strengthens the relationship between leverage and stock price synchronicity. When a company has a lot of debt, institutional shareholders (investors with more power than other investors, especially retail or individual investors) will ask the company to reveal information about what caused the company to have so much debt. The more information the company provides regarding leverage or other relevant information, the lower the level of stock price synchronicity and the greater the firm's informativeness.

The findings of this research align with stakeholder theory, which states that stakeholders anticipate the disclosure of relevant data about the company's present state. Results from the study of Zhang (2020) corroborate these conclusions, showing that an increase in the leverage ratio is associated with a decrease in stock price synchronization and an increase in stock price informativeness. (Trong and Thuy, 2021) also provide same study findings, demonstrating that significant institutional investors with informational superiority compared to other shareholder groups contribute to the mitigation of stock price synchronization. Furthermore, the presence of institutional investors would enhance the effectiveness of corporate governance, enhance the quality of information available about the firm, As a result, the accuracy of stock prices is improved, and the amount of stock price correlation in the market is decreased.

CONCLUSION

This study investigates causality used to elucidate the impact of independent variables, namely sustainability reports, political connections, and leverage on the dependent variable, namely stock price synchronicity with institutional ownership as a moderating variable. The results showed that sustainability reporting and political connection variables had no effect on stock price synchronicity, and institutional ownership had no influence in moderating the two variables. While the leverage variable is statistically proven to have a significant negative effect
and institutional ownership is proven to strengthen the influence of leverage on stock price synchronicity.

Theoretical research may help stakeholders understand how sustainability reports, political ties, and leverage affect stock price synchronicity, with institutional ownership playing a moderating role. The findings of this research challenge the premise put out by Spence (1973) in signal theory and provide evidence in favor of stakeholder theory as proposed by Freeman and Reed (1983). While it may have practical benefits for firms in terms of information sharing, the government as a regulator, and investors in evaluating organizations based on stock price synchronicity.

SUGGESTION

The study has several limitations. Firstly, the independent factors have only accounted for 15% of the impact on the dependent variable, as shown by the modified R2. Additionally, the research time range from 2019 to 2022 includes atypical occurrences in the stock market, namely the Covid-19 epidemic, which has influenced stock price synchrony. To optimize the influence on the synchronization of stock prices, future study should choose for macro-level research data and select a longer time frame to mitigate any potential data abnormalities.

REFERENCES


