The Effect of Corporate Social Responsibility Disclosure on Economic Consequences: Case Study in Indonesia

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Abstract: The objective of this study is to investigate the effect of corporate social responsibility (CSR) disclosure on economic consequences. The CSR disclosure consists of six dimensions, which based on GRI guidelines dimension (economic, environment, social, human right, society, and product liability). The economic consequences consist of three dimensions, which are the bid-ask spreads, the trading volume, and the share price volatility. The hypotheses are tested using multiple regression analysis with 167 samples of listed firms in Indonesian Stock Exchange in 2012. The result of research are as follows: (1) the effect of overall CSR disclosure on bid-ask spread is negative and significant, (2) the effect of environment dimension of CSR disclosure on bid-ask spreads is negative and significant, (3) the effect of human right dimension of CSR disclosure on bid-ask spreads is negative and significant, (4) the effect of overall CSR disclosure on trading volume is positive and significant, (5) the effect of environment dimension of CSR disclosure on trading volume is positive and significant, and (6) the effect of human right dimension of CSR disclosure on trading volume is positive and significant.

Key words: corporate social responsibility; economic consequences; bid-ask spreads; trading volume; share price volatility

JEL code: M4

1. Introduction

In addition to providing a wide range of benefits to the community such as providing production output, job employment and tax revenue for the government, the company also contributes to social and environmental issues. According to Kiernan (2009), 75% of social and environmental problems are caused by the company. Hernan (2010) also agreed that many of the worst environmental disasters caused by the company. Since the issue of global warming appears more often, the public is increasingly keen attention to every activity of the company and the impact that occurs from such activities so that no negative impact on the environment and society in the future. In line with this issue, the issue of corporate social responsibility (CSR) as an alternative to solving the problems is increasingly being discussed and used as a research topic. Trends such as urged companies, especially those dealing directly with the public have to start paying attention to the social and environmental aspects.

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Companies are required not just enough to practice CSR, but the results of these activities need to be expressed in the form of published reports to the parties concerned. CSR is part of the implementation strategy of legitimacy as well as the embodiment of accountability and transparency of financial statements in accordance with the principles of CSR. Survey results of The Millennium Poll on CSR (1999) conducted by Environics International (Toronto), the Conference Board (New York) and the Prince of Wales Business Leaders Forum (London) among 25,000 respondents in 23 countries shows that 60% of respondents said that business ethics, the practice of employees and disclosure of CSR most instrumental in establishing the company opinion in the eyes of investors. As quoted by Sayekti and Wondabio (2007), that individual investors interested in social information reported in the annual report. CSR can be used as a source of positive information that may be a consideration for investors in making investment decisions. This is in line with the signaling theory which emphasizes the importance of the information released by the company on investment decisions and external parties. Through CSR also expected that asymmetry of information between shareholders and bond can be reduced, as proposed by Jensen and Meckling (1976) in the agency theory which predicts that firms with high leverage ratios tend to reveal more information because the cost of agency companies with capital structure as it is generally higher. This shows that the financial condition of the company is in a good position.

CSR activities are basically costs that generally reduce corporate profits. Friedman (1976) stated the company is not a social institution that must conduct social activities; the company’s goal is to maximize the economic benefits for shareholders (stockholders wealth maximization). In fact, companies that are only concerned with the interests of shareholders (stockholders) are generally difficult to obtain legitimacy of stakeholders. At the end, the business practices that do not prioritize stakeholders will have a negative impact for the company and will affect the company’s image. Therefore, companies need to conduct business practices that prioritize stakeholders and CSR disclosure.

William (2012) in his research shows the level of CSR in Indonesia that was assessed on each dimension of disclosure is low. Companies tend to only do the economic dimension disclosure. Low levels of CSR in Indonesia due to the practice of CSR is still considered only to the extent of compliance with the rules, not yet become a necessity and based on an awareness of the importance of CSR practices in the management of the company. Suta (2006) stated that investors in developing countries such as Indonesia tend to only pay attention to the movement of stock prices through historical data without considering the factors forming the company’s reputation. Investors in Indonesia are still not ethical. Meanwhile in developed countries the disclosure of CSR is based on commitment and awareness of the company and investors to take into account the company’s CSR practices.

Researchers suspect that the disclosure of CSR in developing countries will generate greater economic consequences than those in developed countries as in developed countries disclosure of CSR is considered normal for investors. Researchers are motivated to prove whether investors in Indonesia are already aware of the information the disclosure of CSR in considering the decision in the capital markets so that resulting economic consequences, namely in the form of a decrease in the bid-ask spreads, increased trading volume and decrease in share price volatility?

The discussion in this study focuses on the effect of CSR disclosure made by companies listed on the Indonesia Stock Exchange on the economic consequences that are reflected in a decrease of bid-ask spread, increase trading volume, and the decrease of stock price volatility. The formulation of the problem in this study is as follows:

(1) Does the whole dimension of CSR disclosures affecting the economic consequences?
2. Literature Review

2.1 Corporate Social Responsibility (CSR)

According to The World Business Council for Sustainable Development (WBCSD), CSR is defined as a company commitment to contribute for sustainable economic development by working with employees and local communities and the general public to improve the quality of life in ways that benefit both to the company itself and development. Basically CSR program is closely related to the concept of sustainability development. CSR activities are based on the triple bottom line, namely economic, social, and environmental. Synergy of these three elements is the key concept of sustainable development. Implementation of sustainable CSR program is expected to have a positive impact and greater benefits to both the company itself as well as the stakeholders and will create a society that is more prosperous and independent.

2.2 Disclosure of Corporate Social Responsibility (CSR)

To meet the basic principles of CSR, namely accountability and transparency, then the company needs to make the disclosure. Disclosure interpreted as a means of delivering a wide range of relevant information to those who need the information as a basis for decision making. Zuhroh and Sukmawati (2003) stated that a disclosure is said mandatory if the disclosure contain information as determined by regulation or specific standards, while voluntary disclosure is a disclosure that contain information beyond the minimum requirements and conducted voluntarily by the company.

Accounting generally does not contain information about the social and environmental activities. For the purpose of broader disclosure, that disclosure of CSR, companies can use a series of techniques of data collection and disclosure. According to Mathews (1995), the disclosure of CSR is the process of communicating the social and environmental impacts of economic activities of the organization to specific groups of stakeholders and society as a whole. The disclosures extend corporate responsibility beyond the role that was initially to provide financial reports only to shareholders, especially shareholders.

There are several theories that can be used to describe the tendency of CSR disclosure. This study uses the legitimacy theory, the stakeholder’s theory, and the signaling theory as a basis for explaining the social and environmental disclosure practices and its effect on the economic consequences.

2.3 Disclosure Standards Global Reporting Initiative (GRI)

GRI is a non-profit organization that promotes sustainable development. According to the GRI guidelines, sustainable development is in order to meet the needs of the present generations without compromising the ability of future generations to meet their needs. The sustainable development will be reported into the sustainability report which is the practice of measurement, disclosure and accountability efforts of the organization’s performance in achieving sustainable development objectives to both internal and external stakeholders. According to the GRI standard, there are six dimensions of disclosure that are the economic, environmental dimension, the social dimension, the human rights dimension, the society dimension, and the product liability dimensions.

CSR assessment carried out by content analysis, i.e., by changing the qualitative data into quantitative data that can be processed in a statistical calculation with dichotomous scoring system that assesses 1 for item of information disclosed and 0 for item information is not disclosed. After dichotomy scores assessment were then
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computed the average revealing.

2.4 Economic Consequences

Zeff (1978) in an article entitled The Rise of Economic Consequences defines economic consequences as a result of accounting reports on the behavior of business decision makers, governments, investors and creditors. In research Leuz and Wysocki (2008), the economic consequences translated as the impact of the disclosure policy changes (disclosure regulation) to the financial statements. Meanwhile, Gozali, How and Verhoeyen (2002) in their research shows that the economic consequences incurred by the presence of non-financial information, namely environmental disclosure contained in the annual report. The essence of this definition is that the accounting reports can affect the apparent decision by managers and others in spite of reports and changes in the accounting statements do not affect cash flow.

2.5 Information Asymmetry

Information asymmetry occurs when one party to a transaction has more or better information than others. Proxy to measure the asymmetry of information is very diverse. Researchers use a proxy bid-ask spreads, trading volume and share price volatility refers to Leuz and Verrechia (1991), Cohen (2003), Hapsoro (2006), Cormier, Ledoux and Magnan (2009) to measure the asymmetry of information. The following are some of the proxies used in this study.

2.6 Bid Ask Spreads

Bid-ask spreads (bid-ask spread) is the difference between the selling price and the purchase price. Bid-ask spreads are high arising due to information asymmetry costs. These costs occur because the two parties’ trader does not have the same information, namely the informed traders and uninformed traders. The imbalance of information led to the emergence of moral hazard behavior. So if both parties’ transaction, then the uninformed traders faces the risk of loss because it does not have enough information to determine the price. To reduce the possibility of such damages, the uninformed traders will tend to raise spreads to minimize losses. Therefore, the alleged disclosure of CSR negatively affects the bid-ask spread. Bid-ask spreads formula is:

\[
\text{Spread}_{i,t} = \frac{\text{Spread}_{i,t}}{\text{Spread}_{i,t} + \text{ask}_{t}} \times 100
\]

Description:
\[
\text{Spread}_{i,t} = \text{Average difference between the highest purchase price to the lowest selling price based on the daily price of firm } i \text{ for one year}
\]
\[
\text{Ask} = \text{Lowest selling price or price request}
\]
\[
\text{Bid} = \text{Highest purchase price or offer price}
\]
\[
n = \text{The number of trading days during the year.}
\]

2.7 Trading Volume

Trading volume (trading volume) reflects the strength of supply and demand which is a reflection of the behavior of investors. The increasing volume of supply and demand for a stock, then the trading volume is increasing as well. High trading volume show that the company’s shares attractive to investors. By doing CSR disclosure practices expected stock companies are increasingly in demand by investors. Therefore, the alleged disclosure of CSR has positive effect on the trading volume. Trading volume calculation formula is as follows:
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\[ VPS_i = \frac{\sum_{t=1}^{n} VPS_{i,t}}{n} \]

Description:
\( VPS_i \) = Average daily trading volume for firm i for one year
\( VPS_{i,t} \) = Volume of daily stock trading firm i from the beginning until the end of the year
\( n \) = The number of trading days during the year

2.8 Share Price Volatility

Zhang (2005) stated that the share price volatility (share price volatility) is a statistical measurement of fluctuations in stock prices over a specified period. This measurement does not measure the level of prices, but the degree of variance in a short period. Share price volatility is often equated with risk. The higher the share price volatility, the stock price will increase and decrease high so that it will apply “high risk high return” and vice versa. In general, companies that have a high share price volatility is a company that is unstable, whereas companies with low share price volatility is a stable company. Companies that disclose CSR assumed as a company that is more stable due to stable company better able to practice CSR. Therefore, in this study CSR disclosure allegedly negatively affect the share price volatility. Share price volatility formula is as follows:

\[ \sigma_i^2 = \frac{\sum_{t=1}^{n} (X_{i,t} - \bar{X}_i)^2}{n-1} \]

Description:
\( \sigma_i^2 \) = Variance

\( \sigma_i \) = Standard deviation

\( X_{i,t} \) = Each daily stock price of firm i for one year

\( \bar{X}_i \) = Average daily stock price of firm i

\( n \) = The number of trading days during the year

3. Methodology

3.1 Research Model

This research was conducted through three stages of regression test and overall there are 21 stages of testing hypotheses. The research model is shown in Figure 1.

3.2 Hypothesis Formulation

GRI sustainability reporting standard is divided into six dimensions, namely economic, environmental, social, human rights, society and product liability. Each dimension associated with information asymmetry proxies, i.e., the bid-ask spreads, trading volume and share price volatility as an indication of the economic consequences. Regression testing will be divided into three test groups based on the number of dependent variables. In this study several hypotheses formulated as follows:

(1) The Effect of CSR Disclosure on Bid-Ask Spreads

H1: All dimensions of CSR disclosure negatively affect the bid-ask spreads

H2: The economic dimension of CSR disclosure negatively affect the bid-ask spreads
H3: The environmental dimension of CSR disclosure negatively affect the bid-ask spreads

H4: The social dimension (labor practices) of CSR disclosure negatively affect the bid-ask spreads
H5: The human rights dimension of CSR disclosure negatively affect the bid-ask spreads
H6: The society dimension of CSR disclosure negatively affect the bid-ask spreads
H7: The product liability dimension of CSR disclosure negatively affect the bid-ask spreads

(2) The Effect of CSR Disclosure on Trading Volume
H8: All dimensions of CSR disclosure positively affect the trading volume
H9: The economic dimension of CSR disclosure positively affects the trading volume
H10: The environmental dimension of CSR disclosure positively affects trading volume
H11: The social dimension (labor practices) of CSR Disclosure positively affects the trading volume
H12: The human rights dimension of CSR disclosure positively affects the trading volume
H13: The society dimension of CSR disclosure positively affects the trading volume
H14: The product liability dimension of CSR disclosure positively affects the trading volume

(3) The Effect of CSR Disclosure on Share Price Volatility
H15: All dimensions of CSR disclosure negatively affect the share price volatility
H16: The economic dimension of CSR disclosure negatively affects the share price volatility
H17: The environmental dimension of CSR disclosure negatively affects the share price volatility
H18: The social dimension (labor practices) of CSR disclosure negatively affects the share price volatility
H19: The human rights dimension of CSR disclosure negatively affects the share price volatility
H20: The society dimension to CSR disclosure negatively affects the share price volatility
H21: The product liability dimension of CSR disclosure negatively affects the share price volatility
3.3 Population and Sample

Table 1  Samples Selection Procedures

<table>
<thead>
<tr>
<th>Description</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Companies listed on the Indonesia Stock Exchange (IDX) in the reporting period 2012.</td>
<td>482</td>
</tr>
<tr>
<td>The company is a high-profile industry.</td>
<td>219</td>
</tr>
<tr>
<td>The company conducted an IPO in 2011-2012.</td>
<td>32</td>
</tr>
<tr>
<td>The company does not have a stock price data and the value of individual stock prices is complete.</td>
<td>18</td>
</tr>
<tr>
<td>The company does not publish an annual report or not to disclose information of social responsibility in the annual report.</td>
<td>37</td>
</tr>
<tr>
<td>The company has a value of bid-ask spreads, trading volume and share price volatility is equal to zero.</td>
<td>9</td>
</tr>
<tr>
<td>Total sample firms</td>
<td>167</td>
</tr>
</tbody>
</table>

Source: Data Processing

The data used in this research is secondary data. To obtain answers to the questions of the study, researchers used annual reports data, sustainability reporting and daily stock price data as a data source. The data obtained through the website of the Indonesian Stock Exchange, the website of each company and yahoo finance. The period of the study is the year 2012. The year 2012 was chosen as the period of the study because the study conducted after the publication of the GRI G3.1 Disclosure Guidelines in 2011, so expected that the results reflect the current state.

4. Findings

The following shows the findings from the study:

(1) The Effect of All CSR Disclosure Dimension on Bid-Ask Spreads

Regression results show that all dimensions of CSR disclosure variables have negative significant effect on the bid-ask spreads variable. Therefore, it can be concluded that all dimensions of CSR disclosure have negative effect on the bid-ask spreads is proven or H1 is accepted.

(2) The Effect of Economic Dimension CSR Disclosure on Bid-Ask Spreads

Regression results show that economic dimension of CSR disclosure variables have no significant effect on the bid-ask spreads variable. Therefore, it can be concluded that economic dimension of CSR disclosure have negative effect on the bid-ask spreads is not proven or H2 is rejected.

(3) The Effect of Environmental Dimension CSR Disclosure on Bid-Ask Spreads

Regression results show that environmental dimension of CSR disclosure variables have negative significant effect on the bid-ask spreads variable. Therefore, it can be concluded that environmental dimension of CSR disclosure have negative effect on the bid-ask spreads is proven or H3 is accepted.

(4) The Effect of Social Dimensions (Labor Practice) CSR Disclosure on Bid-Ask Spreads

Regression results show that social dimension of CSR disclosure variables have no significant effect on the bid-ask spreads variable. Therefore, it can be concluded that social dimension of CSR disclosure have negative effect on the bid-ask spreads is not proven or H4 is rejected.

(5) The Effect of Human Rights Dimension CSR Disclosure on Bid-Ask Spreads

Regression results show that human rights dimension of CSR disclosure variables have negative significant
effect on the bid-ask spreads variable. Therefore, it can be concluded that social dimension of CSR disclosure have negative effect on the bid-ask spreads is proven or H6 is accepted.

(6) The Effect of Society Dimension CSR Disclosure on Bid-Ask Spreads.
Regression results show that society dimension of CSR disclosure variables has no significant effect on the bid-ask spreads variable. Therefore, it can be concluded that society dimension of CSR disclosure have negative effect on the bid-ask spreads is not proven or H6 is rejected.

(7) The Effect of Product Liability Dimension CSR Disclosure on Bid-Ask Spreads.
Regression results show that product liability dimension of CSR disclosure variables has no significant effect on the bid-ask spreads variable. Therefore, it can be concluded that product liability dimension of CSR disclosure have negative effect on the bid-ask spreads is not proven or H7 is rejected.

(8) The Effect of All Dimensions CSR Disclosure on Trading Volume
Regression results show that all dimensions of CSR disclosure variables have positive significant effect on the trading volume variable. Therefore, it can be concluded that all dimension of CSR disclosure have positive effect on the trading volume is proven or H8 is accepted.

(9) The Effect of Economic Dimension CSR Disclosure on Trading Volume
Regression results show that economic dimension of CSR disclosure variables have no significant effect on the trading volume variable. Therefore, it can be concluded that economic dimension of CSR disclosure have positive effect on the trading volume is not proven or H9 is rejected.

(10) The Effect of Environmental Dimension CSR Disclosure on Trading Volume
Regression results show that environmental dimension of CSR disclosure variables have positive significant effect on the trading volume variable. Therefore, it can be concluded that environmental dimension of CSR disclosure have positive effect on the trading volume is proven or H10 is accepted.

(11) The Effect of Social Dimensions (Labor Practices) CSR Disclosure on Trading Volume
Regression results show that social dimension of CSR disclosure variables have no significant effect on the trading volume variable. Therefore, it can be concluded that social dimension of CSR disclosure have positive effect on the trading volume is not proven or H11 is rejected.

(12) The Effect of Society Dimension CSR Disclosure on Trading Volume
Regression results show that society dimension of CSR disclosure variables has positive significant effect on the trading volume variable. Therefore, it can be concluded that society dimension of CSR disclosure have positive effect on the trading volume is proven or H12 is accepted.

(13) The Effect of Human Rights Dimension CSR Disclosure on Trading Volume
Regression results show that human rights dimension of CSR disclosure variables have no significant effect on the trading volume variable. Therefore, it can be concluded that human rights dimension of CSR disclosure have positive effect on the trading volume is not proven or H13 is rejected.

(14) The Effect of Product Liability Dimension CSR Disclosure on Trading Volume
Regression results show that product liability dimension of CSR disclosure variables has no significant effect on the trading volume variable. Therefore, it can be concluded that product liability dimension of CSR disclosure have positive effect on the trading volume is not proven or H14 is rejected.

(15) The Effect of All Dimension CSR Disclosure on Share Price Volatility
Regression results show that all dimensions of CSR disclosure variables have no significant effect on the share price volatility variable. Therefore, it can be concluded that all dimensions of CSR disclosure have negative
effect on the share price volatility is not proven or $H_{15}$ is rejected.

(16) The Effect of Economic Dimension CSR Disclosure on Share Price Volatility
Regression results show that economic dimension of CSR disclosure variables have no significant effect on the share price volatility variable. Therefore, it can be concluded that economic dimension of CSR disclosure have negative effect on the share price volatility is not proven or $H_{16}$ is rejected.

(17) The Effect of Environmental Dimension CSR Disclosure on Share Price Volatility
Regression results show that environmental dimension of CSR disclosure variables have no significant effect on the share price volatility variable. Therefore, it can be concluded that environmental dimension of CSR disclosures have negative effect on the share price volatility is not proven or $H_{17}$ is rejected.

(18) The Effect of Social Dimension (Labor Practice) CSR Disclosure on Share Price Volatility
Regression results show that social dimension of CSR disclosure variables have no significant effect on the share price volatility variable. Therefore, it can be concluded that social dimension of CSR disclosures have negative effect on the share price volatility is not proven or $H_{18}$ is rejected.

(19) The Effect of Social Dimension CSR Disclosure on Share Price Volatility
Regression results show that social dimension of CSR disclosure variables has no significant effect on the share price volatility variable. Therefore, it can be concluded that societies dimension of CSR disclosures have negative effect on the share price volatility is not proven or $H_{19}$ is rejected.

(20) The Effect of Human Rights Dimension CSR Disclosure on Share Price Volatility
Regression results show that human rights dimension of CSR disclosure variables have no significant effect on the share price volatility variable. Therefore, it can be concluded that human rights dimension of CSR disclosures have negative effect on the share price volatility is not proven or $H_{20}$ is rejected.

(21) The Effect of Product Liability Dimension CSR Disclosure on Share Price Volatility
Regression results show that product liability dimension of CSR disclosure variables has no significant effect on the share price volatility variable. Therefore, it can be concluded that product liability dimension of CSR disclosures have negative effect on the share price volatility is not proven or $H_{21}$ is rejected.

5. Conclusions

This study aimed to examine the effect of CSR on the economic consequences. The independent variables consist of economic dimension, the environmental dimension, the social dimension (labor practices), the human rights dimension, the society dimension, and the product liability dimensions. While the economic consequences of the dependent variable consist of bid-ask spreads (bid-ask spread), trading volume (trading volume) and share price volatility (share price volatility). Through the relationship between these variables, has been successfully developed 21 hypotheses.

The first group of hypothesis testing results supports the hypothesis that the entire dimension of CSR disclosure negatively affects the bid-ask spreads. In partial test of the hypothesis show that there are four hypotheses are rejected and three hypotheses are accepted. The research hypothesis that successfully supported are: (1) All dimensions of CSR Disclosure negatively affect the bid-ask spreads, (2) The environmental dimension of CSR Disclosure negatively affects the bid-ask spreads and (3) The human rights dimension of CSR Disclosure negatively affects the bid-ask spreads. The hypothesis test results that successfully supported demonstrate that all dimensions of CSR disclosure, environmental dimension and the dimension of human rights is able to reduce the
spreads between bid and ask prices.

The second group of hypothesis testing results supports the hypothesis that the entire dimension of CSR disclosure positively affects the trading volume. In partial test of the hypothesis show that there are four hypotheses are rejected and three hypotheses are accepted. The research hypothesis that successfully supported are: (1) All dimensions of CSR disclosure positively affect the trading volume, (2) The environmental dimension of CSR disclosure positively affects the trading volume and (3) The human rights dimension of CSR disclosure positively affects the trading volume. The hypothesis test results that successfully supported demonstrate that all dimensions of CSR disclosure, environmental dimension and the dimension of human rights is able to increase the trading volume of stock.

The third group of hypothesis testing results fails to support the hypothesis that the entire dimension of CSR disclosure negatively affect the share price volatility and also failed to support the hypothesis that test each dimension of CSR disclosure on the share price volatility. Hapsoro (2006) stated that voluntary disclosure does not affect the decrease in the share price volatility. Meanwhile, the results of studies Bushee and Noe (1999) states that the effect of disclosure on the share price volatility is very complex and depends on the type of investors who are attracted to the company. Therefore, the construct of share price volatility is considered a measure which is less precise and less reliable in assessing the economic consequences than other proxies.

References

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### Appendix  Hypothesis Testing Results

#### Results of Hypothesis Testing Group 1

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Independent Variables</th>
<th>Dependent Variables</th>
<th>Coefficient</th>
<th>Effect</th>
<th>Significance</th>
<th>Result</th>
<th>Decision Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>CSRD</td>
<td>bid-ask spread</td>
<td>-3.285</td>
<td>Negative</td>
<td>0.004 &lt; 0.05</td>
<td>Significant</td>
<td>Accepted</td>
</tr>
<tr>
<td>H2</td>
<td>CSREC</td>
<td>bid-ask spread</td>
<td>1.214</td>
<td>Positive</td>
<td>0.188 &gt; 0.05</td>
<td>Not Significant</td>
<td>Rejected</td>
</tr>
<tr>
<td>H3</td>
<td>CSREN</td>
<td>bid-ask spread</td>
<td>-1.732</td>
<td>Negative</td>
<td>0.037 &lt; 0.05</td>
<td>Significant</td>
<td>Accepted</td>
</tr>
<tr>
<td>H4</td>
<td>CSRLA</td>
<td>bid-ask spread</td>
<td>0.492</td>
<td>Positive</td>
<td>0.494 &gt; 0.05</td>
<td>Not Significant</td>
<td>Rejected</td>
</tr>
<tr>
<td>H5</td>
<td>CSRHR</td>
<td>bid-ask spread</td>
<td>-2.477</td>
<td>Negative</td>
<td>0.019 &lt; 0.05</td>
<td>Significant</td>
<td>Accepted</td>
</tr>
<tr>
<td>H6</td>
<td>CSRSO</td>
<td>bid-ask spread</td>
<td>1.251</td>
<td>Positive</td>
<td>0.127 &gt; 0.05</td>
<td>Not Significant</td>
<td>Rejected</td>
</tr>
<tr>
<td>H7</td>
<td>CSRPR</td>
<td>bid-ask spread</td>
<td>-0.037</td>
<td>Negative</td>
<td>0.959 &gt; 0.05</td>
<td>Not Significant</td>
<td>Rejected</td>
</tr>
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</table>

#### Results of Hypothesis Testing Group 2

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Independent Variables</th>
<th>Dependent Variables</th>
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<th>Effect</th>
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<th>Result</th>
<th>Decision Hypothesis</th>
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<tbody>
<tr>
<td>H8</td>
<td>CSRD</td>
<td>trading volume</td>
<td>2.690</td>
<td>Positive</td>
<td>0.039 &lt; 0.05</td>
<td>Significant</td>
<td>Accepted</td>
</tr>
<tr>
<td>H9</td>
<td>CSREC</td>
<td>trading volume</td>
<td>-1.842</td>
<td>Negative</td>
<td>0.370 &gt; 0.05</td>
<td>Not Significant</td>
<td>Rejected</td>
</tr>
<tr>
<td>H10</td>
<td>CSREN</td>
<td>trading volume</td>
<td>6.168</td>
<td>Positive</td>
<td>0.003 &lt; 0.05</td>
<td>Significant</td>
<td>Accepted</td>
</tr>
<tr>
<td>H11</td>
<td>CSRLA</td>
<td>trading volume</td>
<td>0.452</td>
<td>Positive</td>
<td>0.671 &gt; 0.05</td>
<td>Not Significant</td>
<td>Rejected</td>
</tr>
<tr>
<td>H12</td>
<td>CSRHR</td>
<td>trading volume</td>
<td>4.644</td>
<td>Positive</td>
<td>0.007 &lt; 0.05</td>
<td>Significant</td>
<td>Accepted</td>
</tr>
<tr>
<td>H13</td>
<td>CSRSO</td>
<td>trading volume</td>
<td>-2.274</td>
<td>Negative</td>
<td>0.105 &gt; 0.05</td>
<td>Not Significant</td>
<td>Rejected</td>
</tr>
<tr>
<td>H14</td>
<td>CSRPR</td>
<td>trading volume</td>
<td>2.140</td>
<td>Positive</td>
<td>0.370 &gt; 0.05</td>
<td>Not Significant</td>
<td>Rejected</td>
</tr>
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</table>

#### Results of Hypothesis Testing Group 3

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Independent Variables</th>
<th>Dependent Variables</th>
<th>Coefficient</th>
<th>Effect</th>
<th>Significance</th>
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<th>Decision Hypothesis</th>
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Source: Data Processing