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Causality analysis in corporate social responsibility and financial performance: Evidence from Indonesia

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Abstract

The causality and bi-causality between corporate social responsibility and firm financial success are examined in this study. Companies listed on the Indonesia Stock Exchange for the years 2018 through 2021 make up the study's population. The sampling method utilized is the purposive sampling method, which involves selecting samples based on criteria. 62 companies made up the sample. The Granger's causality test is the causality test that is employed. The findings revealed that: 1) Corporate social responsibility has a positive impact on financial performance as measured by price to book value and earnings per share. 2) Price to book value and earnings per share, which are financial performance indicators, have a positive impact on corporate social responsibility. 3) There is a correlation between corporate social responsibility and financial performance, as measured by price to book value and earnings per share, which is bi-causal (two-way causality) and positive in direction.

Introduction

The company's primary goal is to increase its value or its shareholders' happiness. One way to increase its value is by maintaining and improving its performance. Financial performance (FP) is an analysis to measure the company's financial position over a given period of time to determine how efficiently the company uses its resources to generate income (Adamkaite et al., 2023). However, the information contained in financial performance can only provide some of the information that stakeholders need, especially those concerning non-financial information. Stakeholders' non-financial information interests can be satisfied by the development of corporate social responsibility (CSR). Corporate social responsibility, as defined by the Commission of The European Communities (2001:6), is a notion where businesses incorporate social and environmental issues into their business processes.

Corporate social responsibility is viewed as a wise investment. CSR which is no longer viewed as a cost center but as a profit center, is an investment for businesses in their long-term sustainability and growth (Firman et al., 2020). In order to fulfill the company's obligation to report on its social duty to the community, it is crucial to disclose corporate social responsibility. According to Financial Services Authority Circular Letter Number 16/SEOJK.04/2021, CSR is stated in a sustainability report. Financial Services Authority Regulation Number 51/POJK.03/2017 requires public businesses to prepare sustainability reports.

A sustainability report examines how a company's operations affect the economy, the environment, and society. The Triple Bottom Line, also known as profit, people, and the environment, is the subject of sustainability reports according to the preparation guidelines that are based on the Global Reporting Initiative (Sukoharsono, 2019). CSR and FP are anticipated to benefit from this reporting format. According to this notion, businesses serve stakeholders' interests in addition to their own. The existence of a corporation is significantly influenced by the support supplied by stakeholders. CSR is used as a strategy to satisfy the wishes of stakeholders. Better CSR disclosure will satisfy stakeholders and will provide support to the company in the form of investment (Coelho et al., 2023). Conversely, sound FP may impact increasing CSR activities.

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Diverse conclusions have been drawn from numerous studies on the connection between CSR and FP. Ekienabor et al. (2022) and Malik and Nadeem (2014), in their research on the effect of CSR on FP, shows a positive and significant relationship. Meanwhile, similar research by Garai (2017) and Kesto (2017) shows no influence between CSR and FP. Hapsoro and Sulistyarini (2019) and Tran (2022), examining the effect of FP on CSR, shows that FP positively affects CSR. Meanwhile, Hudzafidah et al. (2023) and Siswanto and Daniswara (2022) shows no influence between FP and CSR. Kang et al. (2016) and Fernandez (2016), examining the causal relationship between CSR and FP, shows a bi-causality relationship between CSR and FP. In contrast, Hirigoyen and Poulain-Rehm (2014) and Lin et al. (2019) show no bi-causality relationship between CSR and FP.

The difference between this research and previous research. Research conducted by Ekienabor et al. (2022) on CSR and FP uses FP proxies in the form of net profit after tax (NPAT) and revenue. Hapsoro and Sulistyarini (2019) used FP proxies in the form of ROE and current ratio to analyze the impact of profitability and liquidity on CSR disclosure and the resulting effects on financial implications. Fernandez (2016) examines relationship between CSR and FP: the role of good corporate governance using financial performance proxies in the form of ROA, ROE, and Tobins Q. Meanwhile, this study uses FP proxies in the form of price to book value (PBV), earnings per share (EPS), and price earning ratio (PER). The three FP proxies are market ratios. This ratio was chosen because it can describe the company's past performance and future prospects. This helps investors in finding companies that have the potential for future profits. Also, this study uses a fairly broad sample of eleven sectors on the Indonesia stock exchange.

Based on the previous description, the authors are interested in examining the causality and bi-causality relationship between CSR and FP in all business industries (11 sectors) listed on the Indonesia Stock Exchange in 2018-2021. The entire industry was chosen as the research subject because it allows the authors to examine a more complete relationship between CSR and FP in businesses that will be listed on the Indonesia Stock Exchange between 2018 and 2021. The four-year research period from 2018 to 2021, aims to provide data regarding the latest CSR and FP of the organizations under study.

Literature Review and Hypotheses Development

Stakeholder Theory

Stakeholder theory describes how corporate management satisfies or controls stakeholder expectations. Stakeholder theory is based on the notion that values are a crucial and explicit aspect of running business. In order to achieve their goals, it compels managers to be clear about the kinds of relationships they need to develop with their stakeholders (Goyal, 2022). The stakeholder concept was initially proposed by Freeman (1994) to explain business behavior and social performance (Leung & Philomena, 2013). Stakeholders are people, teams, and organizations that have the power to change a company's vision and mission, are impacted by the results of strategic initiatives, and have legal recourse for poor corporate performance (Hitt et al., 2016). According to Hitt et al. (2016), there are three types of stakeholders: those in the capital market (shareholders and major funders), those in the production market (important clients, suppliers, labor unions, and local communities), and those in the organizational setting (employees, executives and non-managers).

Companies need to keep relationships with stakeholders by being aware of their needs and wants, especially those who have the power to influence or exert control over how the firm uses its capital. Power can take the shape of the ability to control how scarce economic resources (labor and capital) are used, access to powerful media, control over the company, or influence over how consumers use the products that the company produces (Hörisch et al., 2020).

CSR disclosed in the sustainability report is used as an effort made by the company to maintain relationships with stakeholders (Hörisch et al., 2020). Information about the company's position and economic, environmental, and social activities can be found in sustainability reports. Thus, by releasing a sustainability report, the firm's performance may be directly evaluated by stakeholders, leading to decisions by stakeholders to invest in the company. Conversely, when the company's financial performance increases, it will increase corporate social responsibility activities

(Hapsoro & Sulistyarini, 2019). Thus, maintaining relationships with stakeholders is expected to produce harmonious relationships to ensure the company's sustainability and sustainability.

Corporate Social Responsibility

According to the World Business Council for Sustainable Development (1999), CSR is an organization's ongoing dedication to act morally, promote economic growth, and enhance the lives of its employees, their families, and society at large. According to the Commission of The European Communities (2001), CSR is an idea that sees companies voluntarily incorporate environmental and social topics into their company businesses and connections with stakeholders. The term corporate social responsibility refers to a corporate conduct that willingly incorporates social and environmental issues into business operations and key strategies to engage with stakeholders, according to (Öberseder et al., 2013).

Based on the definition that has been presented, it can be concluded that corporate social responsibility is a business activity that is not only committed to increasing the company's financial benefits, but also committed to socio-economic development. Corporate social responsibility is disclosed in a sustainability report based on Financial Services Authority Circular Letter Number 16/SEOJK.04/2021. The Global Reporting Initiative (GRI) defines a sustainability report as a document published by a company or organization that outlines the economic, environmental and social impacts of its daily operations.

The scope of social responsibility is determined by identifying relevant issues and setting priorities, an organization must understand the essential elements of corporate social responsibility. The International Standard Organization (ISO) 26000 describes seven crucial corporate social responsibility practices that companies can carry out, that are: 1) Corporate governance, 2) Human rights, 3) Employment, 4) Environment, 5) Fair operating practices, 6) Consumer, and 7) Community involvement and development. International Standard Organization (ISO) 26000 outlines the various benefits of CSR for companies.

a. Promote more thoughtful decision-making based on a better comprehension of societal norms, the benefits of acting responsibly (including improved risk management on the legal front) and the risks of not doing so.
b. Enhance organizational procedures for risk management.
c. Improve public trust and the reputation of the company.
d. Increase the organization's ability to compete, particularly its ability to secure funding and partners.
e. Strengthen the connection between the company and its stakeholders.
f. Boost morale, participation, and participation among employees.
g. Has a favorable effect on the organization's capacity to hire, inspire, and keep people.

Global Reporting Initiative

The Global Reporting Initiative (GRI) was founded in Boston, USA in 1997 in response to public uproar over the environmental damage caused by the Exxon Valdez oil disaster eight years earlier. Its foundations were laid by the UN Environment Program in conjunction with the nonprofit organizations, CERES and Tellus Institute. To ensure businesses followed the fundamentals of responsible environmental behavior, the first accountability system was to be developed. Later, the scope of this accountability system was expanded to cover governance, economic, and societal problems.

The initial edition of the GRI Guidelines (G1), which established the initial universal standard for sustainability reporting, was launched in 2000. The GRI was created as a stand-alone non-profit organization the following year. The first revision of the GRI Guidelines (G2) was released in 2002, the same year that the GRI Secretariat relocated to Amsterdam (Netherlands). The guidelines were broadened and improved, resulting in G3 in 2006 and G4 in 2013, as the need for GRI reporting increased and corporations became more accepting. The GRI Standards, the first international standards for sustainability reporting, were established in 2016 as a shift from GRI's previous role as a guideline provider. New standards on Tax in 2019 and Waste in 2020, significant revisions to the Universal Standard in 2021, and the introduction of sustainable Sector

Standards in 2021 and beyond are just a few of the ongoing modifications and additions to these standards.

Organizations first study the GRI 101 Fundamentals. GRI 101 outlines reporting standards to establish the scope and caliber of reports. It outlines the GRI standards' requirements for creating sustainability reports and clarifies how to use and cite them. For firms compiling sustainability reports in accordance with the standards and for those employing certain GRI standards to report particular information, GRI 101 additionally includes specific mandatory claims.

Background information on a business and its reporting practices for sustainability is provided by GRI 102 general disclosures. The identity, plans, rules of conduct, government, techniques for involving stakeholders, and accountability procedures of the organization are all covered. Information regarding an organization's management of material topics is reported in GRI 103: Strategic Management. It is intended for any significant topic in a sustainability report, including significant themes not specifically addressed by the GRI Standards in the 200, 300, and 400 series.

Topic standards include disclosures that allow firms to report data on their effects related to a given topic. A variety of topics are covered by topic standards. The list of material subjects that organizations have identified using GRI 103 is used as the basis for their topic standards.

Financial Performance

According to Malik and Nadeem (2014), measuring a company's FP over a specific time period reveals how well it uses its resources to generate revenue. According to Fatihudin and Mochklas (2018), FP refers to the company's achievement of its financial goals during a specific time period, encompassing the gathering and distribution of cash determined by adequate capital, liquidity, solvency, effectiveness, leverage, and profitability. FP is a quantifiable measure of how well a company uses its resources to generate revenue, as stated by Diez-Busto et al. 2022.

Based on the definition that has been described, it can be concluded FP is a description of a company's financial condition that is carried out using certain rules and measures to measure a company's success in managing existing resources. Financial performance can be seen from the company's financial statements or by using further analysis using financial ratios.

A corporation's financial situation and FP are presented in an organized manner via financial statements. The majority of report users find the information in financial statements to be valuable when making financial decisions (Indonesian Accounting Association, 2018). Statements of affairs include details on the corporation's cash flow, financial condition, and FP. Financial ratios are comparisons of two elements from financial data that show how the elements relate to one another. According to DePamphilis (2009), financial ratio analysis is the process of calculating performance ratios from data on a company's finances to determine the company's financial strengths and weaknesses.

Corporate Social Responsibility and Financial Performance

The impact of CSR on FP was studied by Ekienabor et al. (2022) and Ghardallou and Alessa (2022). The findings demonstrated the positive correlation between CSR and FP. Similar research conducted by Malik and Nadeem (2014) and Gunarsih and Ismawati (2018) shows that CSR positively affects FP. CSR activities show that the company acts for its own interests and benefits stakeholders through social and environmental responsibility activities (Ekienabor et al., 2022). Thus, investors will invest in the company, and the capital owned by the company to carry out operating activities will increase. Based on the description above, the proposed hypothesis is as follows.
H1a: Corporate social responsibility has a positive effect on price-to-book value
H1b: Corporate social responsibility has a positive effect on earnings per share
H1c: Corporate social responsibility has a positive effect on the price-earning ratio

Lin et al. (2019) and Wang et al. (2016) examined the effect of FP and CSR. The results showed that FP positively affects CSR. Other research by Hapsoro and Sulistyarini (2019) shows similar results: FP positively affects CSR. The better the company's FP, the more resources it can use to carry out and disclose corporate social (Tran, 2022). So it can be implied that companies

with rising FP more significantly disclose CSR information that has been carried out. Based on the description above, the proposed hypothesis is as follows.
H2a: Price-to-book value has a positive effect on corporate social responsibility
H2b: Earnings per share has a positive effect on corporate social responsibility
H2c: Price-earning ratio has a positive effect on corporate social responsibility

Several previous researchers have carried out the causal relationship between CSR and FP. Research conducted by Nakamura (2015) found a positive relationship between CSR variables and FP and found a bi-causality relationship. Similar research by Fernandez (2016) and Kang et al. (2016) shows a bi-causality relationship between CSR and FP. Based on the description above, the proposed hypothesis is as follows.
H3a: There is a bi-causality relationship between corporate social responsibility and price-to-book value
H3b: There is a bi-causality relationship between corporate social responsibility and earnings per share
H3c: There is a bi-causality relationship between corporate social responsibility and price-earning ratio

Research Methods

Utilizing quantitative research techniques, this investigation tries to examine all businesses that were listed on the Indonesia Stock Exchange between 2018 and 2021 to make up the study's population. The following criteria were employed as part of the purposive sample technique used in this investigation.

Table 1. Sampling Procedure

Description	Number of Companies
Companies listed on the Indonesia Stock Exchange during 2018-2021	609
The company publishes audited financial statements for the period ending December 31, 2018 to December 31, 2021	609
Companies that do not meet the sample criteria	
Companies do not disclose sustainability reports for the period ending December 31, 2018 to December 31, 2021	(547)
Total sample	62
Sample during the observation period (4 years)	248

The information utilized is secondary data in the form of yearly sustainability reports and financial reports from www.idx.co.id and the company's website. Employing documentation strategies to obtain data. Granger's causality data analysis utilizing EViews software was used in this study. The next section provides a description of the study's variables.

Corporate Social Responsibility

CSR is assessed using an index based on the 2016 Global Reporting Initiative (GRI) standard of 148 indicators divided into five dimensions. The index uses 1-5 intervals used to measure each disclosure, namely scale 1 (not disclosed), scale 2 (25% disclosed), scale 3 (50% disclosed), scale 4 (75% disclosed), and scale 5 (100% disclosed). Corporate social responsibility disclosure is calculated with the following formulation.

$$CSR = \frac{\text{Total disclosed items}}{\text{Maximum number of indicators}} \quad (1)$$

Financial Performance

Price-to-book value (PBV), earnings per share (EPS), and price-earning ratio (PER) are used in this study as proxies for the financial performance of the organization.

Price-to-book value ratio (PBV) compares the market price per share and the book value per share to present the findings. This ratio is used to determine whether stock prices are overpriced or undervalued at a given level (Akbar, 2021). This ratio is calculated with the following formulation.

$$PBV = \frac{P}{BVPS} \tag{2}$$

Where:
PBV = Price-to-book value
P = Price
BVPS = Book value per share

Earnings per share (EPS) is a measure that compares the number of outstanding common shares to net income after taxes to show how much profit was produced by shareholders or investors per share (Badruzaman, 2020). The increase or decrease in earnings per share from year to year is essential to determine whether the company's operations are good. This ratio is calculated with the following formulation.

$$EPS = \frac{NI}{SO} \tag{3}$$

Where:
EPS = Earnings per share
NI = Net income
SO = Shares outstanding

Price-earning ratio (PER) is the ratio used to assess the price of shares based on the company's ability to generate net income. The net profit in this case is the net profit per share. A high price-earning ratio indicates investors expect high net profit growth from the company. A high price-earning ratio for stocks can be interpreted as expensive stocks if in the future the company is unable to achieve higher net income. Investors and potential investors evaluate a company's price-earnings ratio based on expected future profits (Sihaloho & Rochyadi, 2021). This ratio is calculated with the following formulation.

$$PER = \frac{P}{EPS} \tag{4}$$

Where:
PER = Price-earning ratio
P = Price
EPS = Earnings per share

Results and Discussion

Descriptive Statistics

Table 2 shows the descriptive statistics of each aspect of the corporate social responsibility variable consisting of GRI 102 (general disclosure), GRI 103 (management approach), GRI 200 (economic aspects), GRI 300 (environmental aspects), GRI 400 (social aspects), and corporate social responsibility.

Table 2. Descriptive Statistics of CSR Variables

Descriptions	GRI 102	GRI 103	Economy (GRI 200)	Environment (GRI 300)	Social (GRI 400)	Corporate Social Resposibility
Mean	3.653802	5.000000	2.230787	2.257686	2.275706	2.843314
Median	3.428571	5.000000	2.176471	2.250000	2.200000	2.702703
Maximum	5.000000	5.000000	4.764706	4.875000	4.300000	4.729730
Minimum	2.285714	5.000000	1.000000	1.000000	1.100000	2.108108
Observations	248	248	248	248	248	248

The GRI 102 aspect of general disclosure has a mean value of 3.653802. This table shows that the average company's GRI 102 disclosure is valued to be good or the company discloses 75% of GRI 102. The aspect of GRI 103 material topics has a mean (average) value, the largest value, and the smallest value of 5. This table shows that the disclosure of GRI 103 is considered to be very good or the company discloses 100% of GRI 103 material topics.

The economic aspect (GRI 200) has a mean value of 2.230787. This table shows that the average disclosure of the economic aspects of the company is considered to be not good or the company discloses 25% of the economic aspects. The environmental aspect (GRI 300) has a mean value of 2.257686. This table shows that the average disclosure of the company's environmental aspects is valued to be not good or the company discloses 25% of environmental aspects.

The social aspect (GRI 400) has a mean value of 2.275706. This table shows that the average disclosure of the company's social aspects is valued to be not good or the company discloses 25% of social aspects. The corporate social responsibility variable has a mean value of 2.843314. This table shows that the mean disclosure of the company's CSR is valued to be good or the company discloses 75% of all indicators.

Table 3 shows the descriptive statistics of the proxies of financial performance variables: PBV, EPS, and PER.

Table 3. Descriptive Statistics of Financial Performance Variables

Description	PBV	EPS	PER
Mean	2.562305	253.4558	33.28735
Median	1.282615	53.49113	11.66636
Maximum	60.67179	5,016.072	2,479.64
Minimum	-8.022014	-661.0535	-857.3520
Std. Dev.	6.768043	681.4674	178.1960
Observations	248	248	248

The PBV variable has a mean value of 2.562305. A negative price to book value does not only mean that the share price is very low. However, this negative value can occur if the issuer continues to get losses so that it loses a lot of assets. In addition, when the company's debt increases, it can worsen the condition of the price to book value which takes into account the company's assets minus its liabilities. Changes in recording methods in financial statements can also be a reason for the PBV value to be negative.

The EPS variable has a mean value of 253.4558. A negative earning per share value indicates that the company is in a bad condition or the company is experiencing losses. The PER variable has a mean value of 33.287350. A negative price-earning ratio value is not only a sign that the stock price valuation is very low. However, a negative PER value can occur because the issuer's condition is not good so revenue decreases. Expenditure conditions that tend to remain or increase, the issuer will book a net loss which causes the earning per share of the shares to decrease and causes a negative price-earning ratio.

Unit Root Test

In this present research, the Augmented Dikkey-Fuller (ADF) approach is used for the unit root test. The stationarity of time series data is assessed using this technique. If the ADF statistical value is less than the crucial value (<) in this method, the data is considered to be stationary. If the ADF statistical value is more significant (>) than the critical value, the data is regarded as non-stationary. According to Table 4, every variable employed has an ADF value that is less than (<) the crucial value. The variables are stationary, according to these results.

Table 4. Augmented Dikkey-Fuller (ADF) Test Results

Variables	ADF Value	Prob.	Critical Value		
			1%	5%	10%
CSR	-12.12239	0.0000	-3.456730	-2.873045	-2.572976
PBV	-7.660218	0.0000	-3.456950	-2.873142	-2.573028
EPS	-16.38337	0.0000	-3.456730	-2.873045	-2.572976
PER	-15.69490	0.0000	-3.456730	-2.873045	-2.572976

Cointegration Test

The cointegration test in this study applies the Johansen Test method. This test is used to determine the long-term equilibrium relationship between variables. It can be seen from the Trace and Max-Eigen statistical values to see whether the variables are cointegrated. If the Trace and Max-Eigen statistical values are greater (>) than the critical value at the 5% level, it is implied that there is cointegration between variables. Table 5 shows that each combination of research variables has a Trace test and Max-eigenvalue statistical value greater than the critical value at the 5% level. These results indicate that the variety of each variable has a long-term relationship (cointegrated).

Table 5. Johansen Test Results

Variables	Test	Statistical Value	Critical Value (5%)	Prob.
Corporate social responsibility and price-to-book value	Trace test	24.69542	15.49471	0.0016
	Max-eigenvalen	21.52238	14.26460	0.0030
Corporate social responsibility and earnings per share	Trace test	29.54133	15.49471	0.0002
	Max-eigenvalen	26.24187	14.26460	0.0004
Corporate social responsibility and price-earning ratio	Trace test	21.50012	15.49471	0.0055
	Max-eigenvalen	17.85403	14.26460	0.0130

Causality Test

The Granger Causality approach is used in this study's causality test. The outcomes of the Granger Causality test are displayed in Table 6.

Table 6. Granger's Causality Test Results

No.	Variables (Null hypothesis)	F-Statistic Value	Prob.
1	Corporate social responsibility is not Granger Cause for price-to-book value	1.64305	0.0653
	Price to book value is not Granger Cause for corporate social responsibility	4.67777	0.0000
2	Corporate social responsibility is not Granger Cause for earnings per share	2.04327	0.0141
	Earnings per share is not Granger Cause for corporate social responsibility	2.98177	0.0003
3	Corporate social responsibility is not Granger Cause for price-earning ratio	0.41089	0.9749
	Price-earning ratio is not Granger Cause for corporate social responsibility	1.07793	0.3788

Relationship between Corporate Social Responsibility and Financial Performance

The first Granger Causality test shows that the null hypothesis that corporate social responsibility does not Granger cause the price-to-book value has a significant positive F-Statistic value at α = 10%. This shows that CSR positively affects the company's FP. These findings support the stakeholder theory. Management needs to meet the expectations of stakeholders affected by the company's actions and decisions. Disclosure of CSR is a form of corporate activity in fulfilling or managing stakeholders. The disclosure of CSR is expected by the company to add value to the company itself and cause positive things both in terms of finance and the public's perception of the business (Ghardallou & Alessa, 2022).

The second Granger Causality test shows that the null hypothesis of corporate social responsibility does not Granger cause earnings per share to have a significant positive F-Statistic value at α = 5%. This shows that CSR positively affects the company's FP. The sustainability report includes disclosures about CSR. Transparent information about the company's status and operations in relation to economic, environmental, and social factors is included in sustainability reports. As a result, the release of a sustainability report allows stakeholders to evaluate the firm's performance directly, which in turn will affect their decisions to invest in the company (Ekienabor et al., 2022).

The third Granger Causality test shows that the null hypothesis of CSR does not Granger cause price-earning ratio has an F-Statistic value more significant than the value of α = 10%. This indicates that CSR disclosure has no effect on the company's FP. These outcomes indicate that FP proxied by a good price-earning ratio has not been able to encourage higher activity disclosure. These findings are consistent with studies by Garai (2017) and Kesto (2017) which show that CSR has no effect on FP.

Relationship between Financial Performance and Corporate Social Responsibility

The first Granger Causality test shows that the null hypothesis price-to-book value does not Granger cause corporate social responsibility has a significant positive F-Statistic value at $\alpha = 1\%$. This indicates that the company's FP positively affects CSR. This is in line with stakeholder theory. Investors as one of the stakeholders will see the corporation's FP. When the company shows good performance, it can be a consideration for investors to invest. Thus, the company's capital will increase and the company can carry out CSR activities as a form of its social responsibility to stakeholders.

The second Granger Causality test shows that the null hypothesis earnings per share does not Granger cause corporate social responsibility has a significant positive F-Statistic value at $\alpha = 1\%$. This indicates that the company's FP positively affects CSR. The better the company's FP, the more resources it can use to implement and disclose CSR (Adamkaite et al., 2023).

The third Granger Causality test shows that the null hypothesis price-earning ratio does not Granger cause corporate social responsibility has an F-Statistic value more significant than the value of $\alpha = 10\%$. This shows that FP does not affect CSR. These results indicate that FP proxied by a reasonable price-earning ratio has not been able to encourage higher activity disclosure. These results indicate that FP proxied by a good price-earning ratio has not been able to encourage higher activity disclosure. These findings are consistent with studies by Hudzafidah et al. (2023) and Siswanto and Daniswara (2022) which show that FP has no effect on CSR.

Bi-causality relationship between Corporate Social Responsibility and Financial Performance

The first and second Granger Causality test results show that corporate social responsibility and FP proxied by price-to-book value and earnings per share influence each other. These results support previous research by Fernandez (2016) and Nakamura (2015), which show that CSR and company FP affect each other. The results of the third Granger Causality test show no bi-causality or causality relationship between CSR and FP proxied by price-earning ratio. These results align with research by Hirigoyen and Poulain-Rehm (2014) and Lin et al. (2019), which show that CSR and company FP do not affect each other.

Implication and Conclusion

The inferences that can be drawn from the outcomes of the data analysis that has been done are as follows. CSR positively affects FP with price-to-book value and earnings per share proxies. This shows that CSR disclosure changes will affect the company's FP. Meanwhile, there is no relationship between CSR and FP with price-earning ratio proxy. FP with price book value and earnings per share proxies positively affect corporate social responsibility. This shows that changes in the company's FP will result in CSR disclosure changes. Meanwhile, there is no relationship between FP, price-earning ratio proxy, and CSR.

CSR and FP using price-to-book value and earnings per share proxies have a bi-causality relationship (two-way relationship direction) with a positive direction. Price-to-book value, a ratio whose data comes from stock prices and balance sheets, can show a bi-causality relationship between CSR and FP. Meanwhile, earnings per share, a ratio whose data comes from the income statement and balance sheet can show a bi-causality relationship between CSR and FP. This result indicates that CSR and FP influence each other. Thus, changes in the company's FP will affect the amount of CSR disclosure and vice versa.

There is no bi-causality or causality relationship between CSR and FP with price-earning ratio proxy. The price-earning ratio, which is a ratio whose calculation data comes from stock prices, income statements, and balance sheets, cannot reflect the causality relationship between CSR and FP.

According to these findings, business management should pay closer attention to their corporate social responsibility programs because they have a positive impact on their financial performance. For further research, it is expected that it will increase the research period in order to obtain more accurate results and use other financial performance proxies. As well as, it can also compare the relationship between corporate social responsibility and financial performance before, during, and post-pandemic of COVID-19.

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