The Role of Return on Assets on Sustainability Disclosure to Value of the Firm

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Abstract

In previous studies, it was proved that the disclosure of sustainability affected the value of the firm insignificantly. Therefore, this study aims to investigate whether Return on Assets can mediate the effect of sustainability disclosure on firm value. The sample of this study is companies that consistently presents Sustainability Reports from 2013 to 2015. The research hypothesis is tested using panel data regression. The results prove that the future Return on Assets can mediate the effect of sustainability disclosure on the future value of the firm.

Introduction

Demands to improve the welfare of shareholders (Ross et al, 2002) encourage companies to be able to solve problems or anticipation of issues that are not only related to financial performance, but also related to community involvement, human resources, physical resources and environmental contributions, and product and service contributions (Vessel, 1986). Moreover, there are occupational safety issues and equal employment opportunities to the climate change issues caused by environmental damage as a by-product of business activities that do not consider environmental factors. For this reason, companies need to consider activities that tend to provide benefits to the surrounding community, such as social activities that provide benefits now and in the future for employees, environmental activities or reduction of environmental damage, and respond to customer responses that ensure security of products/services consumed/ used.

One example of such cases was the findings of the Wahana Lingkungan Hidup Indonesia (Walhi) in 2014. Walhi discovered the activities of rubber and oil palm plantations causing an increase in organic compounds in water, the presence of pesticides in several watersheds (Dikit Seblat Watershed, Seluma Atas Watershed, Bengkulu-Lemau Watershed, Bengkulu river, Betung river, Simpang Tiga river), increased ammonia levels, and increased levels of oil and fat in water which can reduce the pH of water (acid). Companies often forget the potential impact of environmental damage due to business activities (Sutami et al, 2011).

When these environmental and social problems arise, the company starts to worry about the sustainability of its business. The company began to change the concept of a business that was only profit-oriented to the concept of the Tripple Bottom Line that focuses on 3P namely Profit, People, and Planet (Elkington, 1998). This concept holds that the company does not only focus on profit, but the company is also committed to issues in the welfare of the surrounding community (people) and contributes actively to the preservation of the environment (planet) (Weber, Koellner, Habegger, H, & Ohnemus, 2008). Furthermore, the company began to show transparency in responding to stakeholder information needs on environmental and social performance.

Although these transparency efforts are voluntary, there is a non-profit organization (Global Reporting Initiative/GRI) that consistently develops a general standard that can be used by all types of organizations in making sustainability reports. May 2013, GRI officially released the "framework for sustainability reporting" and the G4 Guidelines.

Through the Sustainability Report, companies can communicate with their stakeholders regarding economic, environmental and social performance. So, stakeholders have adequate information about the company. This condition is important because the company is strongly influenced by stakeholder support for the ongoing operations of the company (Ghozali & Chariri, 2007). However, information about economic, environmental and social performance often cannot be responded by shareholders. Not surprisingly, disclosure of sustainability reports does not encourage an increase in stock market prices. This situation has been proven by Gunawan et al. (2015) and Sejati and Prastiwi (2015) which reveal that sustainability reports have no significant effect on firm value.

For this reason, a bridge is needed so that the disclosure of the Sustainability Report can influence the value of the firm in the future period. Most shareholders or potential investors or markets still hold on to the company's ability to generate profits. Profit is considered to be a reference to a company's assessment in making decisions for investment. Investors are even willing to pay above the book price of the company as long as they see that the company can consistently grow by generating profits in the future. Thus, this study investigates the role of future profit mediation (which will be proxied by future Return on Assets) on the effect of sustainability disclosure on the future value of the firm since GRI released the "framework for sustainability reporting" and G4 Guidelines in the year 2013.

Literature Review and Hypothesis Development

Legitimacy theory maintains the survival of the company by encouraging companies to create social contract ideas. The social contract is used to represent the expectations of various communities about how companies must operate (Cuganesan and Ward, 2007; Deegan, 2002; Cormier and Gordon, 2001) and underlie the company's efforts to operate according to the frame and norms in the environment/community around the company. Legitimacy from the community is one of the company's strategies to get recognition from stakeholders regarding the company's operations that have considered the triple bottom line (profits, people, planet) aspects of the Sustainability Report (Burhan and Rahmanti, 2012).

The implementation of the Sustainability Report in Indonesia begins with Law No. 40/2007 concerning Limited Liability Companies and PSAK No.1 paragraph 9 concerning the presentation of additional reports such as environmental reports and value added statements, especially for industries where environmental factors life plays an important role and for industries that consider employees as groups of report users who play an important role. Then it was strengthened by the Otoritas Jasa Keuangan Regulation No.51/POJK.03/2017 concerning the implementation of sustainable finance for financial service institutions, issuers, and public companies.

Sustainability reports are one of the ways the company can foster relationships with stakeholders. Companies that are profit oriented, but still care about environmental and social issues. The company's participation in environmental and social problems in carrying out its operations has an impact on the increasing interest of consumers, suppliers, and even investors towards the company. Environmental and social activities can trigger better and smoother operating activities, which leads to an improvement in the company's financial performance (Nugroho and Arjowo, 2014; Soelistyaningrum and Prastiwi, 2011; and Dahlia and Siregar, 2008).

In line with the success of the company's financial performance, ideally the market (investors and potential investors) will react positively to stock prices which leads to increased firm value (Yu and Zhao, 2014; Agustine, 2014; Sejati, 2014; and William, 2012). Through optimizing the value of the firm can describe the welfare of its owners (Handriyani, 2013 and Gunawan and Utami, 2006). However, in previous studies showing the disclosure of sustainability activities provides evidence that Sustainability Report disclosures have no significant effect on firm value. This may be because the market does not have sufficient information whether the environmental and social activities carried out by the company can have a positive impact on the achievement of the company's goals to obtain profits in a sustainable manner. Therefore, disclosure of environmental and social activities, aside from economic activities, is expected to help investor and potential investor interest through future profits and help demonstrate how to increase firm value related to social and environmental issues.

Profit-generating ability is considered to be one of the important considerations when investors make investment decisions, because as much as possible the resulting profit will encourage the probability that the greater the dividends to be received. The implication is that the cost of capital will be increasingly saved by investors. Thus, the ability of companies to generate profits can increase firm value (Nurhayati, 2013; Prasetyoningsih, 2013; Juliandri, 2013; and Prapaska, 2012).

Based on this phenomenon, disclosure in the Sustainability Report which contains economic, environmental and social performance does not directly increase the value of the firm because such disclosures cannot necessarily be assessed whether it can encourage companies to have more ability to generate profits. In fact, the company's ability to generate profits is proven to increase the value of the firm. If the company has considered its environment and social in achieving financial performance, then the company will gain trust, not only from the shareholders, even from all stakeholders. Investors have more convincing investment trust in the funds invested because the company is considered able to generate profits in the future by maintaining its environmental and social balance. This trust encourages investors or potential investors to react positively to the company. What's more if the company generate better profits.

Some previous studies failed to prove the company's ability to generate profits (which is usually used is the proxy of Return on Assets) on the effect of sustainability disclosure on firm value (Nugraha, 2014; Susanto and Tarigan, 2013; and Bulan and Astika, 2012). Although there are also studies that prove Return on Assets affect the interaction of the disclosure of social responsibility by the company to the firm's value positively. This result is presumed because the previous study used the same year in the data of sustainability disclosure and data on Return on Assets when testing the hypothesis.

In fact, to see the impact of the disclosure of economic, environmental and social performance in the Sustainability Report, the results can be seen whether it can encourage companies to be able to perform financially better or not in the future. Companies that have revealed their environmental and social performance in accordance with sustainability reporting standards, the stakeholders will react positively because the company is considered to have environmental and social concerns other than economic factors. It is trust from stakeholders that will trigger the success of the company which leads to an increase in profits in the future. Based on the analysis of the period of occurrence, this study tries to develop the notion that companies that have carried out financial reporting will be able to influence the value of the firm in the future through the achievement of profits in the period after the sustainability report is published.

H1: Future Return on Assets can mediate the effect of Sustainability Disclosure on future firm value.

Research Method

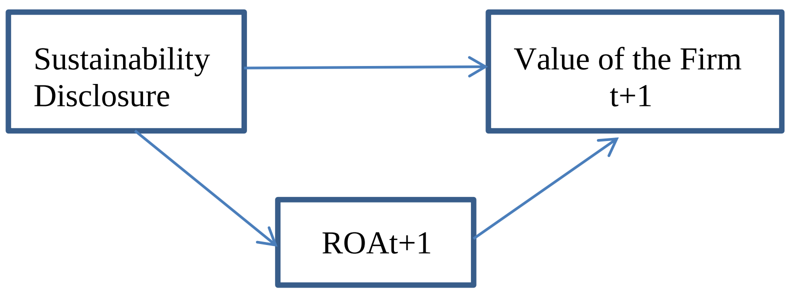
The research method used in this study is panel data regression. In accordance with the research framework to test the hypothesis that has been built, panel data is used by considering the diversity that occurs in the cross section unit. Data from several individuals are observed in a certain period of time, so that panel data can provide a solution in dynamic change inference (Ekananda, 2016).

In panel data regression, it is necessary to investigate which model is most appropriate based on a good model of model determination for hypothesis testing, whether it is a common effects model or a fixed effects model or random effect model, through a series of tests, including chow test, thirst test, or LM test (Ekananda, 2016 and Gujarati, 2012).

This research population is companies that has presented Sustainability Report and uploaded it on the company's web. The sample withdrawal uses purposive sampling, companies listed on the

Indonesia Stock Exchange that consistently make Sustainability Reports from 2013 to 2015 and upload them on the website. The data used in this study are secondary data, the Sustainability Report data for the 2013-2015 and annual report of companies listed on the IDX for the period 2013-2015 obtained from the websites of each company and from the website Indonesia Stock Exchange (www.idx.co.id). As a result, there were 21 companies that consistently presented Sustainability Reports for three consecutive years during the 2013-2015.

To test the hypotheses built in this study, the following research framework is used:



With this research framework, this study then tested the hypothesis that was built using the following models:

$$\boxed{PBV\ t{+}1 = \alpha_0 + \alpha_1 SR + \alpha_2 SR{*}ROA_{t+1} + \varepsilon}$$

PBV t + 1 is a proxy of the value of the firm in the period after sustainability reporting, which is the ratio that compares the market capitalization to the book value of the company based on financial statements. The measurement is to compare the price per share with earnings per share. This proxy can also measure stock price levels, whether overvalued or undervalued. Then, SR is the Sustainability disclosure measured by the SRDI (Sustainability Report Disclosure Index) which assesses social responsibility in accordance with the GRI G4 criteria. Sustainability Report Disclosures in accordance with the GRI (Global Reporting Index) have the principles listed in the GRI-G4 Guidelines: balance, comparability, accuracy, time series, clarity, and accountability. In GRI G4, there are 91 items revealed in the sustainability report which are divided into six performance indicators: economics; environment; decent work and employment; human rights; community; and responsibility for the product. While Return on Assets (ROA t + 1) is a variable (proxy of the profitability in the period after sustainability reporting) that mediates the effect of sustainability disclosure on firm value. ROA is measured by a ratio that shows how much the contribution of assets in creating net income. The higher returns on assets means the higher the amount of net income generated from each Rupiah fund embedded in total assets.

Findings

From the data collected, there are 21 companies that consistently present the Sustainability Report from 2013 to 2015. The average index for the three-year Sustainability Report disclosure is 39.44% with a median value of 35%, indicating that the company tends to have high index. There are even companies that almost disclose all the things contained in the GRI-G4 disclosure standard (97%). However, the high of the disclosure index does not identify that a company is not compliant with the disclosure standard sustainability report. This is due to differences in industry that do not necessarily have the same treatment of environmental aspects and social aspects.

STATISTIC DESCRIPTIVE

	SR	ROANXY	PBVNXY
Mean	0.394444	5.279841	2.069206
Median	0.350000	3.890000	1.870000
Maximum	0.970000	18.26000	4.790000
Minimum	0.140000	-4.750000	0.140000
Std. Dev.	0.180722	5.687516	1.204902
Skewness	1.068379	0.449487	0.375540
Kurtosis	4.306131	2.288180	2.308674
Observations	63	63	63
Cross sections	21	21	21

Average future Return on Assets is around 5.2% and with a middle value of 3.8%, indicating that many companies have relatively high Return on Assets (maximum value of 18.26%) in the period after sustainability reporting. This is the same case with firm value, which is proxied by PBV period after sustainability reporting. The average value of the firm after the sustainability reporting period is about 2 times from the book value and there are companies that have a PBV of 4.79 times from the book value in the period after sustainability reporting. Both financial performance and firm value variables measured in the period after sustainability reporting, show relatively high numbers.

By using panel data regression, this research begins by regressing using the common effect model, then the fixed effect model, and then the random effect model. After that, a search for which model is best as a model for hypothesis testing. Chow test shows that the probability of chi-square value is significant (below 5%), which means a better model is a fixed effect.

CHOW TEST

Redundant Fixed Effects Tests
Pool: RANDOM
Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	3.850022	(20,40)	0.0001
Cross-section Chi-square	67.617790	20	0.0000

Cross-section fixed effects test equation:
Dependent Variable: PBVNXY?
Method: Panel Least Squares
Sample: 2013 2015
Included observations: 3
Cross-sections included: 21
Total pool (balanced) observations: 63

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.010223	0.310400	6.476227	0.0000
SR?	-1.284749	0.824216	-1.558752	0.1243
ROANXY?*SR?	0.246364	0.046189	5.333806	0.0000

R-squared	0.337935	Mean dependent var	2.069206
Adjusted R-squared	0.315866	S.D. dependent var	1.204902
S.E. of regression	0.996603	Akaike info criterion	2.877519
Sum squared resid	59.59303	Schwarz criterion	2.979573
Log likelihood	-87.64185	Hannan-Quinn criter.	2.917657
F-statistic	15.31278	Durbin-Watson stat	0.733413
Prob(F-statistic)	0.000004		

Continuing to the Hausman test, shows the value of the random probability cross-section that is not significant (above 5%), which means the best model is a random effect model.

HAUSMAN TEST

Correlated Random Effects - Hausman Test
Pool: RANDOM
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.

Cross-section random	0.438974	2	0.8029

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
SR?	-0.613905	-0.906440	0.203805	0.5170
ROANXY?*SR?	0.212269	0.231093	0.002086	0.6803

Cross-section random effects test equation:
Dependent Variable: PBVNXY?
Method: Panel Least Squares
Sample: 2013 2015
Included observations: 3
Cross-sections included: 21
Total pool (balanced) observations: 63

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.823908	0.294062	6.202463	0.0000
SR?	-0.613905	0.891368	-0.688722	0.4950
ROANXY?*SR?	0.212269	0.068739	3.088023	0.0037

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.773654	Mean dependent var	2.069206
Adjusted R-squared	0.649164	S.D. dependent var	1.204902
S.E. of regression	0.713681	Akaike info criterion	2.439141
Sum squared resid	20.37361	Schwarz criterion	3.221556
Log likelihood	-53.83296	Hannan-Quinn criter.	2.746869
F-statistic	6.214568	Durbin-Watson stat	2.108812
Prob(F-statistic)	0.000000		

In the Random Effect Model method which indeed uses the Generalized Least Square (GLS) method can ignore the problem of violations of classical assumptions (multicollinearity, heteroscedasticity, and autocorrelation). Therefore, to test the hypothesis directly using panel data regression output with a random effect model.

RANDOM EFFECT MODEL

Correlated Random Effects - Hausman Test
Pool: RANDOM
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	0.438974	2	0.8029

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
SR?	-0.613905	-0.906440	0.203805	0.5170
ROANXY?*SR?	0.212269	0.231093	0.002086	0.6803

Cross-section random effects test equation:
Dependent Variable: PBVNXY?
Method: Panel Least Squares
Date: 08/21/18 Time: 16:16
Sample: 2013 2015
Included observations: 3
Cross-sections included: 21
Total pool (balanced) observations: 63

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.823908	0.294062	6.202463	0.0000
SR?	-0.613905	0.891368	-0.688722	0.4950
ROANXY?*SR?	0.212269	0.068739	3.088023	0.0037

Effects Specification

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Sum squared resid	20.37361	Schwarz criterion	3.221556
Log likelihood	-53.83296	Hannan-Quinn criter.	2.746869
F-statistic	6.214568	Durbin-Watson stat	2.108812
Prob(F-statistic)	0.000000		

The test results using the random effects model-panel data regression shows the probability (F-statistic) below 5%, which means the model is feasible to use for estimation. Meanwhile, the R-squared of the model is 77.37%, which means the disclosure of sustainability and its interaction with the future Return on Assets describes future firm value of 77.37%, the rest is explained by other variables which are not tested in this model.

Empirically, the output regression prove that the future Return on Assets can mediate the effect of sustainability disclosure on future firm value, where the probability value of the interaction between the future Return on Assets and the sustainability disclosure shows significant value. Panel data regression output also shows that the effect of sustainability disclosure on company value is not significant. These results prove empirically that the future Return on Assets succeeded in becoming a mediation on the effect of sustainability disclosure on the future firm value.

The use of time-lag in the next period of sustainability reporting for measuring financial performance and market performance is considered successful in capturing the phenomenon that companies and market price are growing after the company presents Sustainability Report. This is based on Legitimacy Theory which maintains the survival of the company by encouraging companies to create social contract ideas. To run the social contract is used to represent the expectations of various communities about how the company must better operate (Cuganesan and Ward, 2007; Deegan, 2002; Cormier and Gordon, 2001) in the future.

While companies that succeed in generating profits are suspected to trigger the market to appreciate stock prices. Investors, as well as potential investors, will see that sustainability activities are considered capable of encouraging companies to generate future profits. Thus, the company's ability to generate profits will trigger the firm value.

Conclusion

This study succeeded in proving that the future Return on Assets can mediate the effect of sustainability disclosure on future firm value. The use of different periods in measuring financial performance is considered to capture the benefits of sustainability reporting. Thus, the results of this study provide implications for further investigating the use of the Return on Assets and Price to Book Ratio periods at the closest period to the date the sustainability report is published.

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