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The Effect of Green Accounting Disclosure on the Firm Value of Listed Mining and Agriculture Companies in Southeast Asia Countries

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ABSTRACT

The purpose of the study is to seek how Green Accounting Disclosure (GAD) affects firm value using GDA Coverage Percentage quantified by NVIVO Software in Mining and Agriculture Companies in Southeast Asia. The 5-year observation period for this study taken from 2017 to 2021. This research uses control variables, such as profitability, sales growth, leverage and size of mining and agriculture company in Southeast Asia. The data used were secondary data obtained from Capital IQ SnP and annual reports and/or sustainability reports posted on the company websites. Data regression with a fixed effect model approach was used for data analysis. The findings indicate that Green Accounting Disclosure, as reflected by coverage percentage in compliance with GRI standard, has insignificant on firm value in Mining and Agriculture Companies. Leverage is the only variable that matters on GAD. Even though GAD performed by this study is more rigid than binary variable, the keywords need to be developed to quantify what it takes in determining GAD variable. Though green accounting disclosure is not associated with the firm value, the author's additional analysis found that there are only a few companies in Southeast Asia that disclose green accounting in their report. Since the disclosure of green accounting is voluntarily and companies are still hesitant to voluntarily disclose green accounting in their reports.

Keywords: Green Accounting Disclosure, Firm Value, Mining Reporting, Agriculture Reporting

JEL Classifications: M14, M41, Q56

1. INTRODUCTION

Previous research shows that market can cause changes to company stock prices to companies that care about the environment or have implemented green accounting (Lestari and Restuningdiah, 2021). The adoption of green accounting can affect the companies' stock price and can increase the value of the company (Wahyuni et al., 2019; Al-Dhaimesh, 2020) as well as its profitability (Budiono & Dura, 2021). However, this is contrary to the results of research conducted by Gola et al. (2022) and Rokhmawati et al. (2015) that there is no change in stock prices before and after the adoption of green accounting. The difference in the results of these studies is a research gap that the researchers want to examine. This study

seeks to prove the effect of implementing green accounting on improving financial performance in mining and agriculture companies in Southeast Asia.

Due to the increased concern among governments, investors and general public regarding how the company's environment and social capabilities have an impact on finances from a health aspect, while environmental reporting and accounting are now made more crucial for businesses (Michelon and Parbonetti, 2012).

1.1. Implications and Objective of the Study

There are several implications of this study. Firstly, very few studies regarding green accounting that cover a broad observation

of a region and only cover 1 country. Majority of previous research using the PROPER certification rating issued from government urgency to rate the disclosure of green accounting, while there is new idea from Gola et al. (2022) where green accounting can be represented by percentage disclosure based on keywords reflected in GRI standard. It was in the end of 2016 when the new standard was enforced in South East Asia to focused on the environmental topic specific when disclosing green accounting in reporting which was mentioned in GRI 300 Environmental Performance.

Secondly, this study is motivated by the need to understand the effectiveness of green accounting disclosure in improving firm values since studies in several other countries have shown that green accounting disclosures contributes towards firm value (Budiono and Dura, 2021; Lestari and Restuningdiah, 2021) and it can attract potential also current investor to purchase the firm stock or help stakeholders to make decision (Wahyuni, 2019). Nonetheless, there are also previous studies that suggest the disclosure of green accounting does not affect the firm value as the disclosure are still voluntarily (Rokhmawati et al., 2015) and Gola et al. (2022) mentioned that majorly stakeholder rely on the income and position statement of the annual report rather than sustainability reports when making decisions.

Thus, specifically, we investigate the effects of green accounting disclosure on firms' value. As there are still mixed results in the previous research especially relating to environmental disclosure (Cho and Patten, 2013), questions remain as to whether the disclosure of green accounting in annual report or sustainability report might affect the firm values. As disclosure of green accounting can improve the company image in the society as it shows that the company has paid attention to the triple bottom line, which are social, economic and environmental aspects to increase investor confidence (Laskar and Maji, 2018).

The remainder of the paper is organized as follows: Section 2 discusses the literature review and hypotheses development. Section 3 presents the research methodology. Section 4 covers empirical results. Finally, Section 5 is the conclusion.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

2.1. Theoretical Framework of the Study

According to the stakeholder theory, treating all parties fairly leads to some type of synergy. In other words, a company's treatment of its clients affects the attitudes and behavior of its employee, and its treatment of the communities which it operates affects the attitudes and habits of its suppliers and clients. Stakeholder theory therefore concentrate on the interest of corporate stakeholders (Harrison et al., 2010), whereas the company need to report all of their bustle of the stakeholders as expressed by Deegan et al. (2002) that stakeholders as a whole have the right to obtain data related to the mechanism of the implementation of the company's organizational activities and their impact on the environment.

Nonetheless, in following legitimacy theory places a strong emphasis on how organizations always work to seem to be operating as the norms and laws of society in that place are enforced (Deegan et al., 2002). Thus the existence of this legitimacy theory can be used as a tool to support organizations in implementing and developing environmental and social disclosures voluntarily in order to fill social control and provide the possibility of recognizing their goals and their uncertain survival (Burlea-Schiopoiu, 2013). In a socially created system of beliefs, norms, values, and definitions, the definition of legitimacy is the broad view or perception of an entity's actions that are appropriate and lawful. Therefore, it is important for an organization to maintain a high level of legitimacy so that society will continue to accept the organization's right to exist.

2.2. Hypotheses Development

Disclosure of green accounting provide information that will be a good sign to investors to know regarding the company business operations to the environment. This can attract investors in buying the shares increase and impacting on rising the company stock prices. Other than that, companies or organizations that apply green accounting will receive a certificate of the Company Performance Rating Program in Environmental Management or also known as PROPER, which it will informed to the investors so there is a market reaction marked by changes in stock prices. Theories and literature also used to underlie research on the effect of the green accounting to firm value. In this case, stakeholder theory concentrates on the interest of corporate stakeholders (Harrison et al., 2010), whereas the company need to implement meaningful integration between ethics management practices and CSR be established (Painter-Morland, 2006). Hence, stakeholders as a whole receive news that the process of the activities of a company's organization will have an impact on a better image in its environment (Deegan et al., 2002). And the legitimacy theory can be a mechanism that helps companies in putting into practice and developing voluntary social and environmental disclosures in order to fulfil their social contract, which allows for the recognition of their goals and the survival in an uncertain environment in the society.

In addition, the disclosure of green accounting can improve the company image in the society as it shows that the company has paid attention to the triple bottom line, which are social, economic, and environmental aspects to increase investor confidence (Laskar and Maji, 2018). In the previous research by Lestari and Restuningdiah (2021), shows that disclosure of green accounting which was proxied in the PROPER certificate category caused a positive change in stock price of the company. Hence, the change in stock price which makes the company's value increase can be concluded that the disclosure of green accounting can have a positive effect on firm value (Justita and Riyanto, 2022; Wahyuni et al., 2019; Al-Dhaimesh, 2020).

Implementing GRI disclosures on the sustainability report also gave the stakeholders get a new dimension to evaluate the environmental disclosures of the firm value (Gola et al., 2022). However, it has found that the disclosure of green accounting does not change the firm value, as mentioned by Gola et al. (2022),

potential and even existing investor mostly rely on the income and position statement of the annual reports rather than sustainability reports when making decisions. Hence, the disclosure of green accounting would show insignificant effect towards firm value (Gola et al., 2022; Rokhmawati et al., 2015).

Hence, based on the theory and findings that show a mixed result which have been previously explained, the hypothesis made is that a company's firm value is affected by the implementation of green accounting. To test this hypothesis, the researcher formulates research hypothesis using the hypothesis as follow:

H₁: The implementation of green accounting affects company's firm value.

3. RESEARCH DESIGN

In this section, we will discuss the population and the sample, the sampling technique adopted, variables measurement and finally, the model specifications of the study.

3.1. Data and Sample Selection

All the financial information is collected from Capital IQ SnP and annual report or sustainable report are collected from each of the listed company website. The initial population of the data collected is 1,025 firm-year observations. Then we exclude firms that do not have a complete financial data, sustainable report and available content analysis, hence the final observation of this research is 221 firm-year observations for the year 2017 to 2021 where the researcher used unbalanced panel data. Table 1 presents the sample of the study comprising of mining and agriculture companies in South East Asia.

3.2. Variables Measurements

The keywords used in this study are provided in Table 2 while the measurement for all the variables used in this study are provided in Table 3. We use keywords to determine the disclosure of green accounting which compliance with the GRI standards. A set of 25 keywords have been formulated following the GRI 300. The dependent variable in this research is the firm value which measured using the Tobins' Q Ratio whereas firm value is the value of the companies that reveals how company choices impact shareholders.

For control variables, we have PROFITABILITY which is measured by Return on Assets (ROA) is the degree of financial profit that has been generated from its business activities (Nishanthini and Nimalathasan, 2014). SALES GROWTH that measured by calculating the percentage of growth of the current year from previous year is a sign of market demand and the level of industry competition for businesses.

We also control for LEVERAGE which is debt over equity whereas it measured the amount of money used to fund company assets towards the debt burden associated with it, while Size which is measured using the company Natural Assets (Ln) Total Assets which is a scale that can categorize the size of the company (Fernando, et al., 2022).

Table 1: Sample of the study

Sample criteria	Number
Number of countries	6
Number of mining and agriculture companies	205
Completed financial data	(45)
Completed sustainability reports	(27)
Available content Analysis	(44)
Total Sample (number of companies)	89
Observation period (2017-2021)	5
Total observations (year of companies)	221

Table 2: Keywords

Sustainable	Plastic	Carbon footprint	Ecology
Community	Water conservation	Environment friendly	Species
Renewable	Ecosystem	Environmental impact	Pollutants
Pollution	Waste management	Air quality	Waterbodies
Protected Area	Recycled material	Bio diversity	Energy conservation
Environmental cost	Natural resources	Carbon emissions	Non-renewable
	Plantation		

Table 3: List and indicator of measurement of variables

Research variable	Indicator of measurement	Reference
	Dependent variable	
Firm value (TOBQ)	$\frac{(EMV + D)}{(EBV + D)}$	Lestari and Restuningdiah, 2021
	Independent variable	
Green accounting (GE)	Coverage percentage	Gola et al. (2022)
	Control variable	
Profitability (ROA)	$\frac{Earning\ After\ Tax}{Total\ Assets}$	Lestari and Restuningdiah, 2021
Sales growth (SG)	$\frac{S1 - St - 1}{St - 1} * 100\%$	Lestari and Restuningdiah, 2021
Leverage (LEV)	$\frac{Total\ Debt}{Total\ Assets}$	Lestari and Restuningdiah, 2021
Firm size (SIZE)	$Log (Total\ Assets)$	Lestari and Restuningdiah, 2021

To achieve the aims of this study, we analyze the effect of GREEN ACCOUNTING using the robust regression. Where before the regression, the data have been treated using the method named winsorizing to be normalize. The selection of the panel data regression models is through two approached. Those are fixed effect model and random effect model. To determine the appropriate model approach, the researchers use the Hausman tests.

In this research, a regression model is used as a quantitative tool for analysing the data. The statistical data will be collected and calculated with a credible system. This data will be used to support the analysis of firm value. Following Lestari and Restuningdiah

(2021), the regression model to test the hypothesis are shown below.

$$TOBQ = \alpha + \beta_1 GA + \beta_2 ROA + \beta_3 SG + \beta_4 LEV + \beta_5 SIZE + \varepsilon$$

4. EMPIRICAL RESULTS AND DISCUSSIONS

4.1. Descriptive Statistics and Diagnostics Checking

Table 4 shows the descriptive statistics of all the variables used in the study which have treated yet. The results of descriptive statistical analysis of our dependent variable, Firm Value, show a minimum value of 0.2545488, while the mean value is 0.9352006. This means the value of the mining and agriculture company is 93.5% which is relatively low, since a company's value is <1, it means that its market price is less than its book price, or in other words, investors do not give the issuer a premium (Weston and Copeland, 2010). While for our independent variable, the minimum value of green accounting is 0.0000010 and the mean value is 0.0000748, indicating that the adoption and disclosure of green accounting by mining and agriculture company is relatively low. This is because the average percentage of keyword disclosure is still low and not all of the company disclose sustainability report, also there are some of the reports that are unreadable as it is shown as scanned pdf.

The control variables, such as the profitability show a minimum value -1.573563, while the mean value is -0.0109737. This means the value of profitability is -1.1%, consequently, because it is still below the industry average of 9, profitability in the mining and agricultural industries is still poor (Brigham and Houston, 2001). This was due to the losses in 116 of the 205 companies and also the unbalanced observation period. The standard deviation value is 0.1698471, which indicate that the variation in the profitability between companies relatively low. Sales growth have the minimum value of -36.96729, while the mean value is 2.027239. This means the value of sales growth is 2%, hence the sales growth of mining and agriculture companies between the year of 2017-2021 is relatively good. Also, the standard deviation value indicates

23.55751, indicating that there is a relatively high variation in the value of sales growth among the companies.

Other control variables, such as leverage, have the minimum value of 0.0175233 with the mean value is 0.4727503 that equal to 47.3%, which means that the leverage of mining and agriculture company is above the industry average of 40% (Brigham and Houston, 2001). Also, the standard deviation value indicates 0.2631241 which indicate that there is a relatively low variation in the value of leverage among the companies. The size of the company has the minimum value of 0.6160499 and the mean value of 2.314447, which indicates that the size of the mining and agriculture companies is relatively small. The value of the size was measured using natural log total assets. This is in accordance with the chairman of the Capital Market Supervisory Agency's decision in Article 1 that companies in Indonesia can be categorized as large companies if their total assets exceed IDR 100,000,000,000 or if they have more than 11, and as medium or small companies if their total assets are less than IDR 100,000,000,000 or if they have fewer than 11 (Lestari and Restuningdiah, 2021). Also, the standard deviation value indicates 0.7766283, indicating that there is relatively low variation in the value of size among the companies.

Table 5 presents the pearson correlation of the variables for the sample, which indicates that the data in this study are free from multicollinearity assumption as the correlation value of variables is not worth higher or $< \pm 0.8$. Based on these results, it can be seen that the company's firm value (TobinQ), have a negative significant correlation with disclosure of green accounting. In addition, the dependent variable also has a negative correlation with sales growth, leverage (DAR) and size (LnAssets), unlike profitability (ROA) which show a positive correlation Then, this study performs tests which the Wald Test to evaluate heteroscedasticity and performs the Wooldridge Test to test autocorrelation.

As discussed earlier Section 2.3, there is one hypotheses in this study. The hypothesis is to analyze the relationship between GREEN ACCOUNTING (GE) and FIRM VALUE (ROA). The results of the robust regression analysis are discussed in Section 4.2, whereas during the classical assumption test, the data did not pass the heteroscedasticity test. While, based on the Hausman tests show a prob value of 0.00 below 0.05 error rate hence it can be concluded that panel regression testing can be carried out with the Fixed Effect Model approach.

4.2. The effect of Green Accounting Disclosures on Firm Values

Table 6 reports the results of robust regression. Controlling for both year and industry. The effect of green accounting on firm size

Table 4: Descriptive statistics

Variable	OBS	Mean	SD	Min	Max
Firm value	221	0.9352006	0.9161854	0.2545488	8.204717
Green A~g	221	0.0000748	0.0000685	0.0000010	0.0003169
Profitability	221	-0.0109737	0.1698471	-1.573563	0.4712973
Sales Gr~h	221	2.027239	23.55751	-36.96729	344.6593
Leverage	221	0.4727503	0.2631241	0.0175233	1.62514
Lnsizes	221	2.314447	0.7766283	0.6160499	4.385429

Table 5: Pearson correlation

Variables	Firm value	Green accounting	Profitability	Sales growth	Leverage	Size
Firm value	1.0000					
Green A~g	-0.1624**	1.0000				
Profitability	0.2662***	-0.0296	1.0000			
Sales Gr~h	-0.0280***	-0.0746	0.2131***	1.0000		
Leverage	-0.2009***	-0.1916***	-0.3124***	-0.0424	1.0000	
Size	-0.1071	0.0875	0.1783***	0.0229	0.1634***	1.0000

***Highlights significance level at <1%. **Highlights significance level at <5%. *Highlights significance level at <10%.

Table 6: Robust regression

Firm value	Coefficient	SE	t	P> t	(95% conf. interval)	
Green accounting	-276.2101	273.0859	-1.01	0.315	-818.911	266.4908
Profitability	-0.2385516	0.282840	-0.84	0.401	-0.80064	0.323533
Sales growth	0.0011932	0.015137	0.08	0.937	-0.02889	0.031275
Leverage	-4.373251	0.156478	-2.79	0.006***	-0.74829	-0.12636
Size	-0.0202396	0.218005	-0.09	0.925	-0.45348	0.413

***Highlights significance level at <1%. **Highlights significance level at <5%. *Highlights significance level at <10%

(TobinQ), indicating the disclosure of green accounting in mining and agriculture companies in Southeast Asia has an insignificant effect on firm value. The green accounting has coefficient of -276.2101 and $P = 0.315$. It is greater than significance level 0.10. Thus, H_1 is rejected. The disclosure of green accounting does not affect the companies firm value. The control variable, profitability also shows an insignificant effect on firm value, where it has coefficient of -0.2385516 and $P = 0.401$, it is greater than significance level 0.10. Sales growth shows an insignificant value, where it has coefficient of 0.0011932 and $P = 0.937$, it is greater than significance level 0.10. Leverage shows a significant negative effect, where it has correlation of -4.373251 and $P = 0.006$ with 1% significance level. While, size shows an insignificant effect on firm value, where it has coefficient of -0.0202396 and $P = 0.925$.

The results in this research obtained from the regression result of the model indicate that the disclosure of green accounting which is represented by word count of keywords reflected in GRI standards in the annual reports and sustainability reports on mining and agriculture companies report in Southeast Asia has an insignificant effect on firm value (particularly Indonesia, Malaysia, Thailand, Vietnam, Philippines and Singapore). This is indicated by the independent variables which is green accounting that have an insignificant value statistically for the firm size (TobinQ).

This finding is in line with several previous studies that were conducted by Rokhmawati et al. (2015), Gola et al. (2022), Fernando et al. (2022) where the firm value is not affected by ESG Disclosure which also has majority of environmental disclosure related to green accounting. However, this is contradictory or different from the findings done by Lestari and Restuningdiah (2021), Nor et al. (2016), Al-Dhaimesh (2020), also where there is a significant effect on firm value from companies that implement or disclose green accounting. The author finds that these results are against what are stated in stakeholder and legitimacy theory. Whereas the stakeholder theory contends that the use of green accounting will provide investors with useful information that will raise the value of the company. Investors are also believed to pay attention to companies that use green accounting (Lestari and Restuningdiah, 2021). While legitimacy theory believes that the adoption of green accounting is a reflection of the company's commitment to its social and environmental responsibilities (Wahyuni et al., 2019). However, this research shows contrary result between the implementation of green accounting and firm value. Many companies continue to omit information about their efforts to raise environmental awareness from their annual reports or through sustainability reports. It may occur because businesses believed that environmental disclosure was optional or not mandatory (Nor et al., 2016). As GRI Sustainability Reporting

Standards just launched in quarter 4 on 2016, companies might still adapt to the new standards. This could explain that most of the mining and agriculture companies still do not implement green accounting nor disclose a proper report following the GRI. Thus, the implementation or disclosure of green accounting are insignificant to the firm value.

The findings of the study's control variables suggest that the profitability variable represented by ROA does not affect the firm value. The increase or reduction in the business value does not correspond to the company's profitability levels, whether higher or lower (Lestari and Restuningdiah, 2021). Sales growth also shows an insignificant effect on firm value, hence it indicates that changes in sales growth does not affect firm value. This finding is consistent with the results from research conducted by Lestari and Restuningdiah (2021), which claims that sales growth has insignificant results on firm value.

The other control variable, leverage shows that it has a significant negative effect on firm value. The negative influence indicates that when the Debt to Asset Ratio is high, the firm value will go down, it may decrease investor confidence and discourage them from taking large risks that could be costly. This finding is supported by research conducted by Lestari and Restuningdiah (2021) which claims that carrying leverage influences value of the company. The last variable is the company size which was represented by LnAssets and shows a results that the company size does not affect firm value. This can happen because the number of assets owned by the company does not operate well in increasing profits. So, the size of a company does not affect the value of the company because the size of the firm size does not necessarily describe how good the acquisition of company value is.

5. CONCLUSION

The implementation of green accounting which is represented by the disclosure of keywords which according to GRI as guideline has an insignificant effect on firm value of mining and agriculture companies in Southeast Asia (particularly Indonesia, Malaysia, Thailand, Vietnam, Philippines and Singapore).

This means that the disclosure of green accounting in annual reports or sustainability report will have no effect on the changes of stock prices. Thus, it can also mean that investor would not consider investing in mining and agriculture companies based on the company disclosure of green accounting. Also, the control variables used in this research, namely profitability (ROA), sales growth and company size (Ln Assets) showed no effect on firm value (TobinQ). While, leverage showed a significant

negative effect on firm value. Hence, the value of a company is still dominated by the control variables in this study which is leverage. This means that investors will consider the leverage of the company rather than the green accounting disclosure when they want to take a decision to invest in the company. This research also contradictory with stakeholder theory and legitimacy theory, where disclosure of green accounting should be a good information for investor however mining and agriculture companies are still hesitant to voluntarily disclose green accounting in their reports. This research contributes as a guideline for companies to be more aware regarding disclosure of green accounting that in accordance with the GRI standards and to voluntarily disclose it on their annual reports or separate sustainability reports.

Due to time constraints and the difficulty in obtaining complete data from companies regarding sustainability reports, this study's limitation is the small amount of observational data with a total of 89 companies and unbalanced panel data is used for the research. This is because many mining and agricultural companies in Southeast Asia still do not disclose their sustainability reports. There are also several annual reports and sustainability reports that are unreadable on the content analysis software which caused by the form of the annual report and sustainable report. From the limitation above, suggestions that can be given by researcher are as follows: future research should extend the observation period and to include various business industries to get better test results that are more diverse.

REFERENCES

- Al-Dhaimesh, O.H. (2020), Green accounting practices and economic value added: An applied study on companies listed on the Qatar stock exchange. *International Journal of Energy Economics and Policy*, 10(6), 164-168.
- Budiono, S., Dura, J. (2021), The effect of green accounting implementation on profitability in companies compass index 100. *International Journal of Educational Research Social Sciences*, 2(6), 1526-1534.
- Burlea-schiopoiu, A. (2013), *Encyclopedia of Corporate Social Responsibility*, 2016. Berlin: Springer.
- Brigham, E.F., Houston, J.F. (2001), *Fundamentals of Financial Management*. 9th ed. United States of America: Horcourt College.
- Cho, C.H., Patten, D.M. (2013), Green accounting: Reflections from a CSR and environmental disclosure perspective. *Critical Perspectives on Accounting*, 24(6), 443-447.
- Deegan, C., Rankin, M., Tobin, J. (2002), An examination of the corporate social and environmental disclosures of BHP from 1983-1997: A test of legitimacy theory. *Accounting, Auditing and Accountability Journal*, 15(3), 312-343.
- Fernando, K., Nurcholifah, S., Pulungan, A.H. (2022), Disclosure of environmental, social, and governance on firm performance pre and post introduction of integrated reporting: Evidence from ASEAN countries. *International Journal of Energy Economics and Policy*, 12(6), 377-382.
- Gola, K.R., Mendiratta, P., Gupta, G., Dharwal, M. (2022), Green accounting and its application: A study on reporting practices of environmental accounting in India. *World Review of Entrepreneurship, Management and Sustainable Development*, 18(1-2), 23-39.
- Harrison, J.S., Freeman, R.E., de Abreu, M.C.S. (2015), Stakeholder theory as an ethical approach to effective management: Applying the theory to multiple contexts. *Revista Brasileira de Gestao de Negocios*, 17(55), 858-869.
- Justita D., Riyanto S. (2022), Application green accounting to sustainable development improve financial performance study in green industry. *Jurnal Akuntansi*, 26(2), 192-212.
- Laskar, N., Gopal Maji, S. (2018), Disclosure of corporate sustainability performance and firm performance in Asia. *Asian Review of Accounting*, 26(4), 414-443.
- Lestari, H.D., Restuningdiah, N. (2021), The Effect of Green Accounting Implementation on the Value of Mining and Agricultural Companies in Indonesia. *Proceedings of the 7th Regional Accounting Conference (KRA 2020)*, 173(Kra 2020), p216-223.
- Michelon, G., Parbonetti, A. (2012), The effect of corporate governance on sustainability disclosure. *Journal of Management and Governance*, 16(3), 477-509.
- Nishanthini, A., Nimalathan, B. (2014), Determinants of profitability: A case study of listed manufacturing companies in Sri Lanka. *Journal of Management*, 8(1), 42.
- Nor, N.M., Bahari, N.A.S., Adnan, N.A., Kamal, S.M.Q.A.S., Ali, I.M. (2016), The effects of environmental disclosure on financial performance in Malaysia. *Procedia Economics and Finance*, 35, 117-126.
- Painter-Morland, M. (2006), Triple bottom-line reporting as social grammar: Integrating corporate social responsibility and corporate codes of conduct. *Business Ethics: A European Review*, 15(4), 352-364.
- Rokhmawati, A., Sathye, M., Sathye, S. (2015), The effect of GHG emission, environmental performance, and social performance on financial performance of listed manufacturing firms in Indonesia. *Procedia-Social and Behavioral Sciences*, 211, 461-470.
- Wahyuni, W., Meutia, I., Syamsurijal, S. (2019), The effect of green accounting implementation on improving the environmental performance of mining and energy companies in Indonesia. *Binus Business Review*, 10(2), 131-137.