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Green Accounting and Green Building in GCG Mechanisms, And Financial Performance

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ABSTRACT: The purpose of this study is to analyze the effect of green accountng and green building in corporate governance mecanism on financial performance. The study was conducted on manufacturing companies in Indonesia. Financial performance is measured by ROA, Green Accounting and green building is measured by Proper ranking (industry assessment based on environmental conservation efforts in business practices) Corporate Governance is measured by GCG index. Based on the result of data analysis, it shows that green accounting and green building and GCG affect the company's financial performance. This means that the average company in Indonesia has shown efforts to preserve the environment while still generating profits

KEYWORDS: Green Accounting, Green Building, GCG, Financial Performance

I. INTRODUCTION

Manufacturing companies in Indonesia are the pillars of the nation's economy. Industrial progress should ideally remain in balance with environmental sustainability. Cases of forest fires, industrial pollution, water pollution, forest exploitation, are of particular note in Indonesia's economic development (Atmawinata, Komtek, & Maju, 2018). Industrialization that has not accommodated the interests of nature and prevention of global warming must be addressed immediately. Energy saving, carbon emission reduction and water saving are important issues that need to be considered in assessing the company's success (Luukkanen et al., 2019). Human activities in meeting economic needs are very diverse. These activities definitely have an impact on the environment. Exploitation of natural resources, and production processes are the cause of environmental imbalances. Industry has a reciprocal relationship with humans and the environment, so awareness arises to overcome the negative impact of industry on the environment. One of these efforts is the application of green accounting (Mäler, 2013). The main purpose of the company is not only to provide prosperity to the owner. The welfare of management, employees, consumers, and environmental balance have equal importance. The bigger a company is, the more likely it is to exploit natural resources, dispose of waste, pollute air, and consume water (Pintea et al., 2014). Green accounting practices applied to companies are expected to be a solution to environmental problems related to company operations. Green Accounting Concept developed in Europe since 1970, research related to green accounting issues began to emerge in the 1980s (Mäler, 2013). The study and application of green accounting in developed countries such as the United States, Japan and countries in Europe are growing rapidly. Environmental accounting can be a tool for managing the environment for the benefit of the company and communicating it to the community. Environmental accounting classifies financing based on business objectives and environmental conservation objectives (Broadstock et al., 2018). The application of green accounting in the company should start from planning to reporting. In the planning process, good governance can be carried out by forecasting an environmental impact analysis. In business practice, efficient use of resources and prevention of pollution are the main indicators (Thornton, 2013). The goal of green accounting is to recognize and identify ways to reduce the negative effects of activities and systems on the environment. The application of green accounting in good corporate governance is expected to affect the company's financial performance. One way that green accounting can be implemented is if buildings in manufacturing companies meet the criteria for green building, namely energy conservation, utilizing natural conditions to save energy, and appropriate land use planning (Vale & Vale, 1991)

II. LITERATURE REVIEW AND HYPOTHESIS FORMULATION

1. Financial Performance

Financial performance is a measure of relative financial achievement that changes from period to period as reflected in the return. The company's financial performance reflects the results of decisions made by management in an accounting period (Ma, Zhang, & Yin, 2021). Financial performance must be comparable to assess the increase or decrease that occurs from one period to the next. The success of the company will be seen when there is an increase in financial performance (Paquette, 2005). Profitability is a measure commonly used to determine the company's financial performance. Profitability shows the company's ability to generate profits. Measurement of profitability ratios can use ROA (Return On Assets) ROA compares the profit generated from the assets used by the company in one period (Wu, 2009).

2. Green Accounting and Green Building

Green accounting is “a style of accounting that includes the indirects costs and benefits of economic activity-such as environmental effects and health consequences of business decisions and plans”(El Serafy, 1997). Adequate industrial buildings have their own challenges. Sustainable buildings that can meet adequate sustainability criteria must be built with sustainable concepts and designs. The construction process is carried out by workers with good education and knowledge about the benefits of environmentally friendly buildings/ green buidings (Ayarkwa et al., 2022). This will of course increase spending on building factories, but on the other hand it will ensure long-term energy savings. Green accounting is the prevention, reduction, and/or avoidance of impacts on the environment, moving from several opportunities, starting from remediation of events that cause disasters for these activities (Figueroa B., Orihuela R., & Calfucura T., 2010). Green accounting activities begin with identifying, measuring, appraising, and disclosing costs in the company's activities related to the environment. Green accounting purposes the calculation and recognition of revenues and expenses from environmental events in financial statements. The goal of green accounting is to provide information about the company's operational performance based on environmental conservation. Green accounting is the incorporation of information on environmental benefits and costs in accounting practices and business decision making. The motivation for reporting green accounting is more dominated by voluntary factors (Brooks & Schopohl, 2021). Environmental accounting provides reports for internal and external parties regarding the company's responsibility to the environment. Green accounting shows the company's awareness to preserve the environment for the company's sustainability in the future.

The production process and administrative activities in a company are carried out in a building. So building design also determines whether an industrial process supports sustainability and supports environmental preservation. Building raw materials, design and structure, and layout will determine work efficiency and effectiveness and energy savings. The company's commitment to sustainable building design focuses on zero carbon, reducing operational costs, reducing water and waste, and selecting sustainable materials. In order to maintain human resources, companies also need to consider other aspects of sustainability, for example the impact of building materials on workers' health (Grierson & Moultrie, 2011).

3. Corporate Governance

Good corporate governance (GCG) is a system that regulates and controls a company that creates value added for all stakeholders. Main concepts of GCG are first, the interests of shareholders' rights to obtain correct and timely information. Second, the company's obligation to disclose accurately, timely, transparently on all information on firm performance, ownership, and stakeholders (Li & Qi, 2008). GCG practice requires fairness, transparency, accountability, and responsibility. These four components are important because the application of the principles of good corporate governance has been consistently proven to improve the quality of financial reports and can also become an obstacle to performance engineering activities which result in financial statements not reflecting the company's fundamental values (Gunarsih et al., 2018).

4. The Effect of Green Accounting and Green Building on Financial Performance

Green Accounting is the practice of accounting and reporting information on the sacrifice of a company's economic assets for the cost of social and environmental responsibility (Cho & Patten, 2013). Green building is a building concept that takes into account environmental sustainability, energy and cost savings, better indoor air quality, as well as considering the purpose of the building in accordance with regulations (Vale & Vale, 1991). The sacrifice of a number of company's economic assets for social and environmental interests aims to provide added value to the community and the environment. The accounting treatment of social and environmental responsibility costs as a periodic expense recorded in the general and administrative expense group in the income statement . The accounting treatment of these costs has a negative effect on the amount of net income, so that the amount of periodic profit generated decreases. Accounting practices in relation to the environment have been responded positively since 1970, environmental management can bridge the environment and accounting. The company's vision must be able to assess that the environment is a company asset not a company expense (Cairns & Lasserre, 2006). When the company considers that the environment is a company asset that is used as a company strategy, environmental management becomes a major concern and the company will not try to avoid the costs that will be incurred. Because in the end the amount of environmental costs incurred will provide added value and also increase the value of the company.Therefore the following hypothesis can be formulated:

H1: The effect of Green Accounting and Green Building on Financial Performance is statistically significant and positive.

5. **The Effect of Corporate Governance on Financial Performance**

Good Corporate Governance is a system that regulates and controls the company to create added value. The consistent application of good corporate governance principles can improve the quality of financial reports and hinder performance engineering activities which result in financial statements not reflecting the company's fundamental values. The research conducted by (Leung & Cheng, 2013) states that the implementation of GCG by the sample companies has a positive and significant effect on financial performance as proxied by ROA and PVB. The results show that if the implementation of GCG increases, the ROA and PVB of the sample companies will increase. Therefore the following hypothesis can be formulated:

H2: The effect of Corporate Governance on Financial Performance is statistically significant and positive.

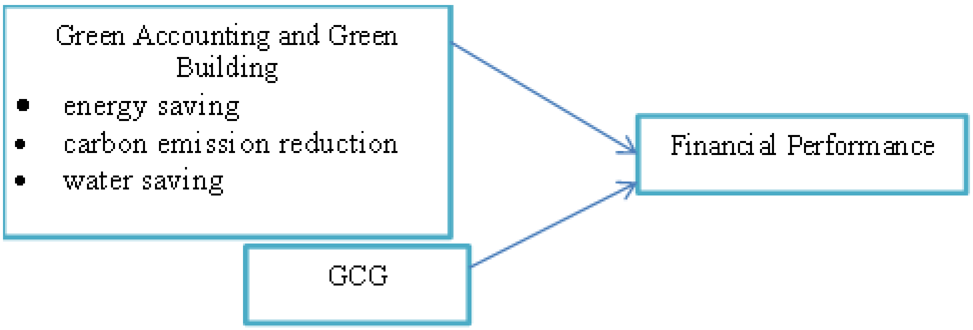

Figure1. Research Models

III. METHOD

Identification and Operational Definition of Variables:

This study concists of two types of variables, namely dependent and independent variables. The dependent variable is Financial Performance (FP) and independent variables are Green Accounting and green building (GAGB) and Corporate Governance (GC). Financial Performance is the level of achievement of the implementation of an activity or program in realizing the goals and objectives, mission, and vision of the organization contained in the formulation of the strategic scheme of an organization. The company's financial performance can be measured by profitability ratios, namely ROA. Green accounting is the activity of measuring, disclosing, and reporting environmental events in financial statements included green building. Green accounting and green building aims to provide information about the company's operational performance based on environmental protection. Green accounting and Green Building can be measured by PROPER ranking (ranking of companies based on environmental preservation -

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Indonesian Ministry of Environment), with 5 categories namely:
Gold: Score 5 = Very Good
Green: Score 4 = Good
Blue: Score 3 = Enough
Red: Score 2 = Bad
Black: Score 1= Very Bad.
Good Corporate Governance is a rule, standard and organization in the economic field that regulates the behavior of company owners, directors and managers as well as the details and description of the duties and authorities as well as their responsibilities to investors. GCG in this study is measured by the score of GCG of each company (CGPI). Index) based on IICG and SWA survey. CGPI Score Level are:
Very Trusted 85.00 – 100
Trusted 70.00 – 84.99
Fairly Trusted 55.00 – 69.99
This research was analyzed using Multiple Regression analysis, by forming the following equations:
FP= $\beta 0 + \beta 1$GAGB+ $\beta 2$GCG+ e.........................(1)

Data and Sample

Data analyzed is panel data which consist of cross-section data and time series data. Data derived from Indonesian Capital Market Directory (ICMD), PROPER report, IICG and SWA survey . The sampling method is purposive sampling.

IV. RESULT AND DISCUSSION

Table 1 presents the results of descriptive statistical analysis for each research variable consisting of the number of samples, minimum value, maximum value, average, and standard deviation. These conditions indicate that the company has a fairly good environmental management value. Corporate governance also shows a good rating. Table 1 also shows that the average company also has the ability to generate good profits.

Asymp Value. Sig. (2-tailed) is 0.167 greater than the 0.05 level of significance then the data is normally distributed. Thus, this normality test shows that the normality assumption is fulfilled.

The Durbin-Watson test results show a value of 2,013 with a total of 3 variables and (n) 166, so dU is 1,931 and dL is 1,675 (dU and dL results from the Durbin-Watson table) 4-dU values are 2,069 and 4-dL values of 2,235. This shows that the value of 2.013 is between dU to 4 –dU, the correlation coefficient is equal to zero. dU≤ d 4-dU where , 1.931≤ 2.013 2.069. So from these results it can be concluded that there is no autocorrelation.

The multiple linear regression equation is as follows: Y = 0.532 + 0.247X1 + 0.127X2. The constant coefficient value (α) is 0.532 with a positive value, a positive sign on the coefficient of this constant indicates that any increase in the independent variable will result in increase in dependent variable.

Table 1. The Results of Descriptive Statistics Test

Variable	min	max	mean	Std deviation
Financial Performance	0.05	0.18	0.09	0.141
Green Accounting and Green Building	1	5	3	0.751
Corporate Governance	5.5	10	7.5	0.7

Table 2. One-sample Kolmogorov-Smirnov Test

Asymp. Sig. (2-tailed)	0,167c

Table 3. Autocorrelation

Model	Durbin-Watson
1	**2,013**

Tabel 4. Multiple Linear Regression Result

	Unstandardized Coefficients		Standardized Coefficients		
Model	B	Std. Error	Beta	T	Sig
(Constant)	,532	,192		2,703	,008
GAGB	,247	,109	,233	2,137	,037
GCG	,127	,058	,266	2,428	,001

Table 5. F Tesst

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	,432	2	,110	7,912	,000[b]
Residual	,861	164	,014		
Total	1,293	166			

Table 6. t Tesst

	Unstandardized Coefficients		
Model	**B**	**T**	**Sig**
(Constant)	,532	2,703	,008
GA	,247	2,137	,037
GCG	,127	2,428	,001

Based on the table 5, it is obtained that the value of Fcount = 7,912 and F table = 2.52 the value of F count is greater than the value of F table and the value of sig. of 0.000 is known the value of sig. obtained is smaller than the significant level = 0.05. Then H0 is rejected. So, it can be concluded that So, it can be concluded that this research model is fit

The results of the significance test show that green accounting and green building has an effect on financial performance. These results are in accordance with the initial hypothesis which states "green accounting and green building has an effect on financial performance". These results prove that there is a unidirectional relationship or positive influence between environmental accounting disclosures and financial performance, if environmental accounting disclosures increase, then financial performance also increases. GCG has an effect on financial performance. These results are in accordance with the initial hypothesis, and prove that there is a unidirectional relationship or positive influence between GCG and financial performance.

V. CONCLUSION, LIMITATION AND RECOMENDATION

Based on the results of research that has been carried out on the effect of the influence of green accounting and green building also the mechanism of Good Corporate Governance as proxied by the GCG index on the financial performance of companies listed on the Indonesia Stock Exchange in 2015-2020, it can be concluded that based on the results of hypothesis testing environmental accounting and GCG have an effect positive and significant impact on financial performance. Companies can strengthen efforts to preserve the environment without worrying about reducing profits, on the other hand good corporate governance will give consumers confidence so that the company's ability to generate profits is higher.

Limitation of this study is lack of availability of financial data from companies that make up the population. Recomendation for future research is focuses on the data of companies that have gone public by comparing several countries in Southeast Asia with relatively similar geographical and climatic conditions

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