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# Managerial ownership, firm size, financial performance, and corporate environmental disclosure

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### Abstract

This research aimed to analyze the effects of managerial ownership, firm size, and financial performance to the Corporate Environmental Disclosure. The research samples were determined by applying purposive sampling method. In this research, the utilized indicators in measuring the environmental disclosure were the environmental disclosure standards on the Global Reporting Initiative (GRI). The research results stated that the managerial ownership and firm size (total assets) caused positive effects to the corporate environmental disclosure, while the financial performance measured by the ROA demonstrated negative effects of the corporate environmental disclosure.

**Keywords**: Managerial ownership, Corporate environmental disclosure, Firm size, ROA.

# Propiedad gerencial, tamaño de la firma, desempeño financiero y divulgación ambiental corporativa

#### Resumen

Esta investigación tuvo como objetivo analizar los efectos de la propiedad gerencial, el tamaño de la empresa y el desempeño financiero de la Divulgación Ambiental Corporativa. Las muestras de investigación se determinaron aplicando un método de muestreo intencional. En esta investigación, los indicadores utilizados para medir la divulgación ambiental fueron los estándares de divulgación ambiental de la Global Reporting Initiative (GRI). Los resultados de la investigación indicaron que la propiedad gerencial y el tamaño de la empresa (activos totales) causaron efectos positivos en la divulgación ambiental corporativa, mientras que el desempeño financiero medido por el ROA demostró los efectos negativos de la divulgación ambiental corporativa.

**Palabras clave:** Propiedad gerencial, Divulgación ambiental corporativa, Tamaño de la empresa, ROA.

## **1. INTRODUCTION**

The existence of industries renders some impacts on society's life and the environmental condition. Economically, the existence of the industry improves public welfare through the provision of employment opportunities. Yet, ecologically, industrial activities may cause environmental pollution. The Ministry of Environment of the Republic of Indonesia released the Corporate Performance Rating Program in the Environmental Management known as PROPER. PROPER aims to encourage corporates' obedience and concern for the environment. The rating indicated by PROPER reflects a company's performance rating of obedience, concern, and management that are executed by the company to the environment. With the existence of PROPER rating, the companies whose activities more or less render some impacts to the environment are expected to be more transparent in the environmental information disclosure and report.

The Corporate Environmental Disclosure is an essential factor in environmental management transparency. Companies are one of the major contributors to the country's economic growth, as well as the dominant contributors to the environmental issues due to the production process which employs natural resources. It is important for the business entities to present a report that may reveal their contribution to various environmental and social issues that happen in their surroundings (GHOZALI AND CHARIRI, 2007). Such understanding explains that the corporate is not an entity merely making some profit but should also take responsibility toward the environment.

Recently, the Corporate Environmental Disclosure is still voluntary and has neither a system nor a format that is universally agreed on the environmental disclosure (WISEMAN, 1982). These inflict mutual accusations and the passing of responsibilities among the government, companies, and society regarding the environmental damage that occurs. The voluntary environment disclosure allows companies to not execute the disclosure and report on the environmental issues. This research describes the factors that affect the Corporate Environmental Disclosure conducted by the companies, i.e., the managerial ownership, the firm size, and the financial performance (FUJO & DIDA, 2019).

ANGGRAINI (2006) AND TARMIZI (2012) claim that managerial ownership positively affects Corporate Environmental Disclosure. The firm size significantly affects the environmental information disclosure and report (PATTEN, 1991; GRAY, 2001; AND BOWRIN, 2013). Contrarily, ROBERT (1992) stated that the firm size did not significantly affect the environmental information disclosure and report.

According to IAI (2007), financial performance is the company's ability to manage and control its resources. In this research, financial performance would be measured through the profitability ratio. The companies with low profitability level would focus more on their economic performance improvement and put less concern on the environment (ELIJIDO, 2004). Meanwhile, the companies with high profitability level possess a lot more resources to execute the environmental disclosure (MEEK ET AL., 1995). YAHYA (2007) mentions that profitability negatively affects the environmental information disclosure. According to PATTEN (1991) as well as Alikhani and MARANJORY (2013), there are no effects of profitability towards the environmental information disclosure. On the other hand, ROBERT (1992) and TARMIZI (2012) assumed that profitability positively affected the environmental information disclosure.

This research contributes to reconcile the previous research's findings related to the effects of managerial ownership, firm size, and financial performance to the environmental information disclosure conducted by companies. The samples of this research were 41 participant companies of PROPER that were listed on the Indonesia Stock Exchange (IDX) in the period 2011-2013. The research results claimed that the managerial ownership and the firm size positively

affected the corporate environmental information disclosure. Meanwhile, the financial performance negatively affected the environmental information disclosure.

The following part of this paper would present the literature review and hypotheses of how the managerial ownership, firm size, and financial performance affected the environmental information disclosure by the corporate. The subsequent part covers the method of the research as well as the results and discussion. The last part provides the conclusion and suggestions for further research.

The agency theory explains the relationship between the principal (the company owner or the party providing the mandate) and the agent (the company managers or the parties receiving the mandate) that is based on the separation of the company ownership and control as well as the separation of risk insurers, decision making, and function controlling (JENSEN AND MECKLING, 1976). According to BRIGHAM AND DAVES (2010), the agency relationship emerges when a person or more, i.e., the principal, employs the agent to execute the jobs and decision-making. The manager possesses its own objectives that are in competition with the intention of maximizing the shareholders' welfare. This generates the potential conflict of interest referred to as the agency theory.

There are three factors that affect the agency theory, i.e., the monitoring costs, the contracting costs, and political visibility. When a

company encounters high monitoring and contracting costs, it would tend to select the accounting methods that may increase the reported profit. Vice versa, a company that encounters low monitoring and contracting costs would tend to report the lower profit.

The legitimacy is a substantial aspect of the organization, the boundaries emphasized by the social norms and values, as well as the reactions toward the boundaries, encourage the importance of analyzing the organization's behaviours by paying attention to the environment (PATTEN, 1992 AND DOWLING AND PFEFFER, 1975). The aspect that underlies the legitimacy theory is referred to as the "social contract" between the company and the society where it operates and employs the economic resources (GHOZALI AND CHARIRI, 2007:412). The company's existence is indeed determined by the society since their relationship is mutually influential. Therefore, a good social contract is necessary to strike a balance to support the agreements that would protect the company's interests.

Legitimacy is a notable factor for the company in developing itself in the future. The items related to the business etiquettes, the concern on the employees' performance and development, the impact on the environment, and the corporate social responsibility would contribute to increasing the legitimacy. Therefore, the corporate's concern for the environment, later shown by the environmental disclosure, is expected to increase the legitimacy and cause a good impact on the long-run for the company. Managerial ownership, firm size, financial performance, and corporate 231 environmental disclosure

According to ELKINGTON (1998), if a company intends to maintain its sustainability, it should pay attention to the "3P". Besides pursuing profit, the company should also pay attention to and get engaged in people's welfare fulfilment and actively contribute to preserving the planet. When a company always pays attention to the 3P in conducting their operating activities, including the environmental conservation, the effort will bring the profit in, such as the shareholders' or the stakeholders' interests to the company's profit due to its responsible environmental management in the society's perspective. Thus, a company may achieve the best result without harming other society groups (YUSUF WIBISONO, 2007).

The Corporate Environmental Disclosure is the disclosure of the information related to the environment in the company's annual report. The disclosure is the company's form of responsibility to the public for its operating activities that, more or less, cause impacts to the environment. According to TAMIZI (2012), the company does not only take profit as its only goal, instead, but there is also another goal which is the company's concern for the environment since it has wider responsibility instead of merely pursuing profit for the shareholders. The environmental disclosure is a part of the disclosure of the corporate social responsibility. According to TARMIZI (2012), the disclosure of social responsibility is the process of communicating the social and environmental effects resulting from the company's economic activities for certain groups of society.

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The managerial ownership can be defined as the proportion of shares owned by the management. The management personnel who hold the company's shares would synchronize their interest with that of the shareholders. When managers do not possess the company's shares, there is a possibility that they only accentuate their interest (TARMIZI, 2012). According to DOWNESAND GOODMAN (1999), managerial ownership constitutes the shareholders as the partial owners of a company from the management who actively participate in the respective company's decision-making.

#### 2. METHODOLOGY

The approach employed in this research was quantitative approach while the data employed for the research was secondary data. The data of PROPER company participants was obtained from the PROPER report during the research period (2011-2013) and was downloaded from www.menlh.go.id. The next data was the data from the annual reports of the companies listed on the IDX along the 2011-2013 period that was acquired from the IDX official website, i.e., www.idx.go.idand from the official sites of each company. The next data was the standard data of the environmental disclosure items issued by the Global Reporting Initiative (GRI) as a comparison in measuring the environmental disclosure obtained from www.globalreporting.org. The last data was applied to measure the companies' financial performances, i.e., the ROA, acquired from the

Indonesian Capital Market Directory and the financial statements of each companies' research object.

The population of this research was all companies that became the participants of PROPER in 2011-2013 and were listed on the Indonesia Stock Exchange in 2011-2013. The sampling technique employed was the purposive sampling method. The criteria determined for this research is the PROPER company participants in 2011-2013, the companies that are listed on the Indonesia Stock Exchange and are still registered until 31st December 2013, the companies that issued the annual reports of the 2011-2013 periods, and the companies that issued the financial statements of the 2011-2013 periods. From the population criteria, there were 41 companies that met the criteria. Then, the panel data regression was applied to the companies that complied with the criteria for three periods, i.e., from the year of 2011 to the year of 2013, thus the observation number for this research reached 123 companies.

The variables employed for this research were the dependent and independent variables. The independent variables included the managerial ownership (X1), the firm size (X2), and the financial performance (X3), while the dependent variable of the research was the Corporate Environmental Disclosure (Y).

#### 2.1. Corporate Environmental Disclosure

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The Corporate Environmental Disclosure is the disclosure of the information related to the environment in the company's annual report. The indicators utilized in measuring the environmental disclosure of this research were the environmental disclosure standards of the Global Reporting Initiative (GRI) which can be acquired from www.globalreporting.org. The environmental disclosure index for each company sample was calculated as follows:

The environmental disclosure index = n / k

n = the reported number of the annual report

 $\mathbf{k} =$  the number that should be reported

### 2.2. Managerial Ownership

The managerial ownership can be observed from the financial statement issued by the company. The managerial ownership is measured by dividing the number of shares owned by the management with the overall total shares owned by the company. This is how the managerial ownership calculated:

% of managerial ownership = (shares owned by the manager / total number of shares) x 100%

2.3. Firm Size

The firm size indicates the magnitude of a company which can be measured by the market capitalization, total capital, total assets, and total sales. In this research, the firm size was expressed by the total natural logarithm of total assets owned by the PROPER Company participants listed on IDX in the periods of 2011-2013. The calculation of the firm size is as follows:

Sizet = Ln (Tat)

Sizet = Firm size in the t period

Tat = Total assets in the t period

4. Financial Performance

The financial performance is defined as the company's ability in managing and controlling its resources. The company financial performance in this research was measured by the profitability ratio. The employed profitability ratio was the ROA that can be seen from the financial statements of each company. The calculation of the ROA value is as follows:

Return on Asset (ROA) = Net income available to common stockholder / total asset.

The analysis of this research utilized the panel regression analysis. The panel data regression was employed to investigate the effects of managerial ownership, firm size, and financial performance to the Corporate Environmental Disclosure. Moreover, the descriptive analysis was also conducted to analyze the quantitative data in providing the illustrations of the Corporate Environmental Disclosure, managerial ownership, firm size, and financial performance.

The hypothesis testing was executed with the t-statistic and determination coefficient (R2). The t-statistic test is a hypothesis test to the partial regression coefficient which is utilized to observe the effect of each independent variable to the dependent variable individually. If the probability value is lower than the determined significance  $\alpha$  level, the coefficient in the significant model is employed. The R2 function is to decide whether the variation of independent variables available in the estimated equation is already capable of explaining the variations of the dependent variables well. The R2 values ranged from 0 to 1. If the R2 came closer to 1, the independent variables.

### **3. RESULTS AND DISCUSSION**

The sample employed for the research was the company participants of the Corporate Performance Rating Program in the Environmental Management (PROPER) listed on the Indonesia Stock Exchange (IDX) which had met the pre-determined criteria. These companies were selected since their operational activities, more or less, intersected with the environment and through the program from the Ministry of Environment that is PROPER, these companies' obedience in environmental management were assessed.

This research employed samples of 41 companies for three years with the total observation of 123 companies. Table 4.1 provides the information of minimum values, maximum values, means, and standard deviation of all research variables, i.e., the Corporate Environmental Disclosure (CED), the managerial ownership, the firm size, and the financial performance of all sample companies during three periods (2011-2013). This analysis was conducted to see how the performance of the overall sample companies along the three year periods.

	CED	Managerial	Size	ROA
				-
Min	0	0	25.80243	0.190712
Max	0.846154	70	32.04562	0.417203
Mean	0.404628	3.627635	29.33208	0.076671
Std.				
Deviation	0.236342	11.42493	1.49769	0.109389

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According to the table above, the least information disclosure and report about the environment conducted by the companies in the annual reports were at 0 point. The highest score of the environmental information disclosure reached 0.846154 from PT. Adaro Energy Tbk. The mean of the environmental information disclosure conducted by the company samples during three periods (2011-2013) was 0.404628. This score demonstrated that the average company disclosed as much as 5.2602 = 5 disclosure items out of 13 total environmental disclosure items as determined by the Global Reporting Initiative. The standard deviation value that was lower than the mean value indicated that the CED data variation did not indicate any extreme deviation.

# 3.1. The lowest percentage of the managerial ownership was 0%.

The score illustrated that the company management had very small to no share proportion or the shareholding by the management in comparison to the company's overall total shares. PT Sat Nusapersada Tbk was the company with the highest total managerial ownership during the three year periods where the shares owned by the managerial amounted to 70%. Meanwhile, the average managerial ownership during three periods reached 3.63% with the standard deviation value of 11.42493. This mean value was acquired from the total managerial ownership of all sample companies during the three

year periods (446.20%) that was divided by the research samples (123 companies-year).

The company with the least assets was PT Unitex Tbk with the total assets of 25.80243 or equal to Rp160, 639,854,610.00. Meanwhile, the company that owned the most assets was PT Indah Kiat Pulp & Paper Tbk with the total assets of 32.04562 or equal to Rp82,648,707,317,073.00. The average total asset of the sample companies was calculated by dividing the total asset of all sample companies during three year periods with the sample number, i.e., Rp13,503,403,889,807 (Rp1,660,918,678,446,290:123 companies). Thus, calculated with the *size* = Ln (*Tat*) formula, the result indicated29.33208. Therefore, the average asset owned by the 123 sample companies amounted to 29.33208 with the standard deviation of 1.497690.

The company with the lowest ROA was PT. Tirta Mahakam Resources Tbk with the ROA value of -0, 190712. The value reflected that the company's ability in making the profit through the total assets was-19, 07%. The negative ROA indicated that, from the total exploited assets, the company experienced loss. The company with the highest ROA during the three year periods (2011-2013) was PT. HM Sampoerna Tbk with the ROA value of 0.417203. The average value of the return of Asset of the 123 sample companies was 0.076671.

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The result was obtained by calculating the total ROA of all companies for three years period (943.05%) that was divided by the overall samples (123 companies). The average company samples are capable of generating net income amounting to 7.67% from the management of the assets owned with the standard deviation of 0.109389. The identification of panel data regression equation estimation resulting from this research was meant to discover the effects of managerial ownership, firm size, and financial performance to the Corporate Environmental Disclosure (CED) during the period of 2011-2013. The panel data regression equation result of this research can be observed in Table4.2 as follows.

Table 2: The panel data regression result with the REM model				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
С	-3.46386	0.457609	-7.569474	0
ROA	-0.171119	0.123925	-1.38083	0.1699
MANAJERIAL	0.001363	0.00209	0.652323	0.5155
SIZE	0.132165	0.015539	8.505153	0

Table 2: The panel data regression result with the REM model

Variable	Coefficient	Variable	Coefficient	
Random Effects (Cross)				
ADROC	0.091802	LPCKC	0.006795	
AMFGC	0.092517	LSIPC	0.010713	
ANTMC	0.07935	MEDCC	0.095036	
ARGOC	-0.192431	NIKLC	0.068372	
BRAUC	0.091173	PTSNC	-0.10496	
CPINC	-0.458915	SGROC	0.175025	

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CTBNC	0.113243	SHIDC	-0.222234
FASWC	0.096931	SMCBC	0.103778
GGRMC	-0.494255	SMGRC	0.20309
HMSPC	-0.222826	SPMAC	0.052309
ICBPC	-0.107587	SRSNC	0.08386
INDFC	-0.029373	TBLAC	0.087524
INDRC	-0.035433	TINSC	0.033799
INKPC	-0.023103	TIRTC	-0.073449
INRUC	0.013909	TOTOC	0.061235
INTPC	0.024743	TPIAC	-0.105978
JPRSC	0.070071	UNICC	0.058569
KAEFC	-0.041963	UNSPC	0.079382
KBRIC	-0.030006	UNTXC	0.03468
KIJAC	0.073586	UNVRC	0.16167
KLBFC	0.07935		

Weighted Statistics				
R-squared	0.382213	Mean dependent var	0.083551	
Adjusted R-squared	0.366638	S.D. dependent var	0.071238	
S.E. of regression	0.056694	Sum squared resid	0.382487	
F-statistic	24.54099	Durbin-Watson stat	1.476401	
Prob(F-statistic)	0			

## 4. CONCLUSION

This research indicates that the managerial ownership provides positive effects to the Corporate Environmental Disclosure, which means that the greater the managerial ownership, the higher the Corporate Environmental Disclosure level. The firm size has the similar positive effect to the Corporate Environmental Disclosure, which denotes that the larger the firm size, the higher the Corporate Environmental Disclosure conducted by the company. The corporate financial performance is proxied by utilizing one of the profitability ratios, i.e., Return on Assets, and it gives the negative effect to the Corporate Environmental Disclosure, which means that the higher the return on asset, the lower the Corporate Environmental Disclosure conducted by the company.

This research has some limitations that is the employed samples were only the PROPER company participants, listed on the IDX so it could not be extensively generalized to every company in Indonesia. Moreover, the periods engaged in this research were only three years and the panel data regression of the determination coefficient ( $R^2$ ) exhibited the value of 38.2%, which means that the Corporate Environmental Disclosure level as the dependent variable was affected by the independent variables of the research model by 38.2%, while the remaining 61.8% was affected by other variables beyond the research model. Thus, the suggestion for further research is to add the companies, periods, and other independent variables samples.

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