



The Effect of Environmental Disclosure Practices on Firm Value of Malaysian Listed Firms BY

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Abstract

There are no clear laws in Malaysia requiring firms to disclose environmental information, although the Department of Environment and the Occupational Safety and Health Act mandate some disclosures, which creates uncertainty for investors and complicates the assessment of environmental risks and liabilities associated with their investments. In Agency theory, environmental disclosure reduces information gaps, which in turn increases the value of a firm, thereby aligning the interests of investors and managers. According to Legitimacy Theory, firms disclose environmental information to satisfy societal expectations and secure public approval, increasing their market value. This paper tries to find the relationship between environmental disclosure and firm value within a final sample of 344 firms listed in Bursa Malaysia. The non-financial data, which are environmental disclosure and firm age, were collected in the annual report, while other remaining data, such as firm size, leverage, profitability, and turnover ratio, were collected from Orbis's database. The panel regression analysis shows that environmental disclosure has a positive relationship with firm value. Investors and firms should acknowledge the enduring advantages of openness in environmental practices, as it enhances market valuation and aligns with the increasing desire for sustainable company operations.

Keywords: Environmental, sustainability, disclosure, performance, and Malaysia

1.0 Introduction

Environmental disclosure (ED) refers to corporate social responsibility practices arising from activities that adversely affect the environment. In corporate operations, the Executive Department must fulfill the informational requirements of various stakeholders such as investors, shareholders, customers, and other relevant entities. In practical application, generating sustainability reports or environmental disclosure remains subject to significant ambiguity. Smith (2007) asserts that stakeholders attach significance to environmental disclosure information, as it serves as a basis for making diverse decisions. Numerous scholarly investigations on environmental disclosure have employed samples from prominent firms (Rupley et al., 2012).

Moreover, firms that can provide better information will have a high possibility of attracting investors. The more investors

are attracted to the firms, the higher the possibility for investors to invest in the firms. If the number of investors in the firms increases, the firm's value will rise. According to Mohamad Nur Utomo (2020), the valuation of a firm's shares will be improved if the firm maintains a high standard of environmental disclosure, which is accomplished by providing pertinent information. Firms with high environmental performance can take on more social and environmental responsibilities, improve their ability to communicate with stakeholders, lower their anxiety about environmental management issues, and improve both their public image and their ability to compete.

According to Smith (2007), Malaysians have become more aware of the need for environmental protection. However, Malaysia still has no laws requiring firms to share information

about the environment. According to Section 37 of the Environmental Quality Act of 1974, the Department of Environment is authorized to request environmental information from firms. According to Sub Regulation 22 of the Occupational Safety and Health Act of 1996, manufacturers must disclose pertinent information regarding significant accidents and their corresponding impacts on individuals and the environment. In contrast, the Malaysia Accounting Standard Board (MASB) has issued MASB 1 to promote enhanced disclosure practices among firms. This standard encourages providing additional information, such as environmental reports, which can assist users in making informed decisions. According to the Malaysian Accounting Standards Board (MASB) 20, it is imperative for businesses to possess knowledge about their potential liabilities and assets. Environmental liabilities can be classified within this particular category.

Malaysia's need for more required environmental reports is a big problem for investors. It creates uncertainty in the investment process. Without full info on a firm's environmental practices and risks, investors guess a lot. This makes it hard to judge environmental risks like fines or clean-up costs. Investors face more financial risks, affecting their strategies and portfolio performance. No clear rules on environmental reports make it tough to make smart decisions. It also hurts efforts to promote transparency and accountability in firms' environmental actions.

In other words, exposing environmental action (environmental disclosure) can increase the value of a firm. The perception that investors have regarding a firm's success rate is what makes up the firm's value. This perception is strongly tied to the share price. The market price of a firm's stock is one of the components that determine a firm's value, which is derived from multiple components overall. If the firm's stock price continues to rise, it will be possible for the shareholders to enjoy the greatest amount of financial success. The prosperity of shareholders tends to increase in direct proportion to the stock price (Kamaliah, 2020). It is an economic concept that reflects the worth of a firm. It is the value a firm is worth at a given time. In theory, it is the amount required to purchase or take over a business entity. A firm's value, like an asset's, can be determined by either book value or market value. However, it generally refers to a firm's market value.

Numerous previous studies have demonstrated the impact of environmental disclosure on firm value in developed countries (Plumlee et al., 2015; Rupley et al., 2012). Therefore, the main aim of this study is to examine the association between environmental disclosure and firm value. Moreover, the primary aims of this research endeavor are to examine the various factors that impact the valuation of firms, including but not limited to firm size, fixed asset ratio, debt-to-asset ratio, return on equity, and firm age.

2.0 Literature Review

2.1 Agency Theory

The relationship between the principal and the agent is the central tenet of agency theory, and it must be understood from both perspectives. The owner of the firm or the investor is considered the principal, while the management team is considered the agent because they are the ones who operate the firm on the owner's behalf. The disparity in priorities between the principal and the agent, which is a central tenet of agency theory, can sometimes result in "managerial mischief." This behavior is connected to each party's activities because their own self-interest drives them. The existence of this conflict of interest is referred to as an agency problem, and it ultimately results in information asymmetry between investors and management (Iswajuni et al., 2018)

Based on agency theory, disclosure of risks voluntarily helps investors anticipate future earnings, reduces the information gap between investors, and adds to the firm's value (Surbhi Jain, 2022). Investors can decide to invest based on non-financial information stated by the firm. Shareholders also will receive information about the firm. Thus, the information may depend on the efficiency of the reporting process, such as the information about the demand from various stakeholders, to obtain validation within the social system of a firm's operation. Environmental disclosure can also be categorized as being based on the social system of a firm's operation. Firms are coming under reducing environmental pressure from a variety of stakeholder groups to adopt environmental policies, procedures, and strategies that are compatible with the organization's environmental goals (Ifada & Saleh, 2022)

2.2 Legitimacy Theory

According to Ifada and Saleh (2022), the requirement for the firm to legitimize its actions drives the disclosure practices of the firm. Based on this assumption, it can be deduced that environmental disclosure is one of the instruments that businesses employ to achieve, maintain, and improve their legitimacy status in the eyes of stakeholders. It is more vital to focus on "green narratives" than it is to focus on the substantive form of green initiatives themselves. The concept of legitimacy refers to an evaluation of whether an activity is consistent with the common or general values within a social system, specifically communities. It presupposes the existence of a "social compact" between an organization and the community in which it is active. According to this point of view, organizational behavior in the form of firm operations needs to be coherent with the values of the social system in which the firm operates. This view was presented in the previous section. Businesses never stop looking for new approaches to guarantee that their operations adhere to the standards and guidelines set forth by society. Firms are willing to incur costs in order to deal with disharmonious relations with the community because the effects on the firm, such as the loss of customers and employee loyalty, can be high. Firms are willing to incur costs in order to deal with disharmonious relations with the community because of this.

According to the legitimacy theory, businesses exist within societies with a social compact, which stipulates that businesses must participate in socially beneficial activities in exchange for the benefits that society delivers to the business. As a result, the general public's approval would likely lead to an increase in the firm's value. Recent research has observed, in accordance with the premises of the legitimacy theory, a firm's desire to employ CSR disclosure in order to boost both its reputation and, as a consequence, its worth. Activities related to corporate social responsibility (CSR) not only improve a firm's performance in the current term but also in the period that will follow (Hendratama & Huang, 2021). **Environmental disclosure is a crucial aspect of CSR, where companies share information about their environmental impact and sustainability efforts. It helps demonstrate their commitment to responsible practices and transparency.**

Therefore, for the corporation to obtain social legitimacy, time, energy, and assets need to be spent in dealing with environmental challenges surrounding the functioning of the firm.

2.3 Environmental Disclosure and Firm Value

The idea that greater environmental disclosure can greatly raise firm value by boosting investor confidence is supported by a number of empirical findings. Plumlee, Brown, Hayes, and Marshall (2015) found that important elements of firm value, such as corporate social responsibility (CSR) and overall financial performance, were related to the caliber of environmental disclosures. Firms can increase investors' willingness to invest by enabling them to make more informed judgments by eliminating informational asymmetry through transparent reporting. The increased transparency fosters greater levels of confidence and investment commitment by reassuring investors about the firm's long-term survival and ethical standing. Furthermore, enhanced firm image ensues when stakeholders acknowledge and incentivize firms that exhibit a responsible attitude to environmental management. A positive firm image draws in clients, makes collaboration easier, and lowers regulatory scrutiny. As such, firms that match their operations to the increasing need for sustainable business practices stand out in cutthroat marketplaces. Consequently, the strategic significance of thorough environmental disclosures in augmenting firm value is highlighted by these interrelated advantages.

Moreover, in addition to enhancing investor confidence and the firm reputation, the act of providing more detailed information on environmental practices is in perfect harmony with the growing need for sustainable business practices, ultimately increasing the overall worth of the firm. In a time when consumers and stakeholders place a high value on ethical behavior, firms that openly and clearly disclose their environmental activities have the potential to gain significant advantages. According to Rinsman and Prasetyo (2020), firms that do well in terms of both financial and environmental aspects might anticipate a significant increase in their firm value by effectively disclosing their environmental practices. This method not only complies with

regulatory standards but also appeals to an expanding market of environmentally concerned investors and customers. Firms can decrease expenses related to trash and energy usage, as well as improve efficiency and creativity, by integrating sustainable concepts into their operating plans. In addition, the practice of being transparent in sustainability initiatives helps to build confidence among many groups of stakeholders, ranging from customers to legislators. This, in turn, reduces the potential risks associated with public perception and adherence to regulations. Therefore, when firms voluntarily publish their environmental performance, they not only protect their brand but also strategically position themselves in a market that is becoming more environmentally conscious. The strong connection between ethical obligations and financial advantages highlights the crucial importance of comprehensive environmental reporting in promoting long-term firm worth.

According to Li, Gong, Zhang, and Koh (2018), implementing comprehensive environmental reporting not only meets regulatory requirements but also attracts a wider range of environmentally aware investors and consumers, who play an increasingly important role in today's market dynamics. This alignment promotes operational efficiencies by minimizing waste and energy usage, resulting in cost reduction and the promotion of innovation. Furthermore, open and honest communication about sustainability initiatives fosters confidence among different stakeholders, such as customers, legislators, and partners, thereby reducing the potential risks related to public opinion and adherence to regulations. Therefore, firms that voluntarily reveal their environmental efforts protect their brand and strategically position themselves in a market that values environmental consciousness. The crucial importance of strong environmental disclosure in enhancing long-term business value is emphasized by the interplay between ethical obligations and economic advantages.

2.4 Conceptual Framework

Figure 1 presents a research framework exploring how environmental disclosure, the independent variable, influences firm value, the dependent variable, which is measured using financial metrics like Tobin's Q, Price-Earnings Ratio, and Operating Cash Flow Ratio. Additionally, the model incorporates control variables such as firm size, debt-to-asset

ratio, return on equity, firm age, and fixed asset ratio to account for other factors affecting firm value. The framework suggests that environmental disclosure directly impacts firm value while acknowledging that other firm-specific characteristics could also play a significant role in this relationship.

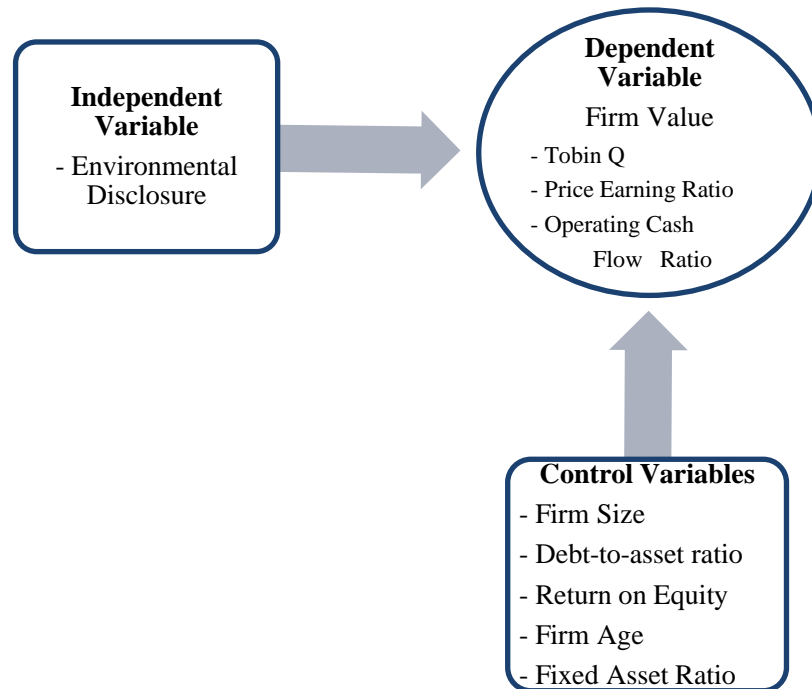


Figure 1: Conceptual Framework

3.0 Methodology

3.1 Research design

Research design is known as the conceptual plan within which research is performed (Akhtar, 2016). It constitutes an outline for collecting, measuring, and analyzing data, helping to identify the processes and techniques that should be used in gathering and analyzing the data. The construction of a research design enables researchers to gather information efficiently in terms of both cost and time.

In this study, secondary panel data of Malaysian publicly listed firms are used, obtained from Bursa Malaysia and firm websites over two years, 2020 and 2021. The final sample comprises 344 firms from various sectors, including Construction, Consumer Products and Services, Industrial Products and Services, Plantation, and Transportation and Logistics. The accessibility of the required data was confirmed prior to the study. The non-financial data were collected from

the annual report, and all financial data were collected from Orbis's database.

This study also employed statistical and descriptive analysis techniques to evaluate the relationship between the independent and dependent variables. A regression model will be used to analyze the association between the control variables. Firm value, the dependent variable, will be measured using Tobin's Q, Price Earnings Ratio, and Operating Cash Flow Ratio. The independent variable is Environmental Disclosure (ED). Additionally, six control variables will be included: firm size (SIZE), Debt-to-Asset Ratio (LEV), Return on Equity (ROE), firm growth (GROWTH), firm age (AGE), and Fixed Asset Ratio (FAR). Data for each variable are drawn from firm annual reports. The independent variable is derived from the overall annual report, while the dependent and control variables are based on the financial statements within these reports.

3.2 Estimation Models

The multiple regression model will be used to analyze the relationship between independent and dependent variables.

The functional form is structured as follows:

Firm Value = f (environmental disclosure, firm size, Debt-to-asset ratio, return on equity, firm age, fixed asset ratio)

Therefore, our function can be estimated under the following model:

$$\text{Firm Value}_{it} = \text{ED}_{it} + \beta_1 \text{SIZE}_{it} + \beta_2 \text{LEV}_{it} + \beta_3 \text{ROE}_{it} + \beta_4 \text{AGE}_{it} + \beta_5 \text{FAR}_{it} + \epsilon_{it}$$

Where; -

Dependent Variable

Firm Value

- i. Tobin's Q
- ii. Price Earnings Ratio (PE)
- iii. Operating Cash Flow Ratio (CF)

Independent Variable

ED = Environmental Disclosure

Control Variable

SIZE = Firm size,

LEV = Debt-to-asset ratio,

ROE = Return on equity,

AGE = Firm age,

FAR = Fixed Asset Ratio,

i = firm

t = time

3.3 Measurement of Variable

Dependent variable Measurement

Firm Value

The calculation of Tobin's Q involves dividing the combined value of outstanding shares, non-marketable shares, and net debt at the end of the year by the total assets at the end of the year. Tobin's Q is widely regarded as a more robust measure for assessing firm value due to its ability to incorporate the market's perception of a firm's growth and profit potential, as opposed to relying solely on historical or subjective evaluations. Consequently, Tobin's Q is forward-looking in nature and effectively captures investor expectations. In essence, Tobin's Q serves as a reliable indicator of the market's assessment of a firm's growth prospects (Hendratama & Huang, 2021)

$$\text{Tobin } Q = \frac{\text{Total capital of market value}}{\text{Total value of assets}}$$

Firm value can also be calculated using price the price-to-earnings ratio. To calculate the price to earnings, divide the total market value of the firm's stock as of the end of the year by the firm's total earnings for the most current financial year (Jitmaneroj, 2018)

$$\text{Price earning ratio} = \frac{\text{Total market value of the stock at the end of year}}{\text{Total earnings of the current year}}$$

One of the most important numbers in a firm's books is its operating cash flow. It shows how much cash a business makes just from doing its main business activities. Operating cash flow is closely watched by investors because it tells them a lot about a firm's health and worth. If a firm doesn't have a positive OCF, it can't stay in business in the long run. A negative OCF means that a firm isn't making enough money from its core business operations and needs to make more money from financing or investment activities (CFI Team, 2022).

$$\text{Operating cash flow ratio} = \frac{\text{Cash flow from operations}}{\text{Current liabilities}}$$

Independent variable Environmental Disclosure

The methodology for measuring the independent variables was derived and modified from the research conducted by Razeed (2015) as stated in Table 1. According to him, the environmental index presented subsequently serves to streamline environmental disclosure. **The method similar recent research done by Razali et al., (2024).** Consequently, the environmental index was employed as the independent variable measurement for assessing environmental disclosure in the study.

No.	Environmental Index
1.	Statement/Existence/ Disclosure of Environmental Concern
2.	Steps taken to monitor compliance with a policy statement
3.	Environmental Targets/Standards
4.	Performance against environmental targets
5.	Structural and responsibility changes undertaken in the organization to develop environmental sensitivity.
6.	Environmental Awareness Training
7.	Recognition of Government Regulations
8.	Presence of Environmental Department and Personnel
9.	Acknowledgement of the impact of activities
10.	Presence of Environmental Management System (EMS)
11.	Environmental programs – Restoration/ Rehabilitation
12.	Involvement with community projects
13.	Environmental audit-compliance
14.	Environmental audit-EMS
15.	Environmental programs-Response to environmental audits
16.	Environmental Accounting Policy
17.	Amount spent on environmental protection
18.	Anticipated pattern of future environmental spend
19.	Assessment of actual/contingent liabilities
20.	Physical unit analysis of materials/energy/waste

Table 1: Environmental Index

Control variable

Firm size

Firm size is determined by how much of assets the firm has. Normally, large firms engage in more activities than smaller firms, which also affects the firm's shareholders (Asmaul Husna, 2019). The formula for determining firm size would be:

$$Size = \log_{10} (Total\ Assets)$$

Debt-to-asset ratio

According to Asmaul Husna, (2019), Debt to asset ratio is used to test whether it will impact firm value. This study calculates the debt-to-asset ratio by total liabilities over total assets.

$$Debt\ to\ asset\ ratio\ (LEV) = \frac{Total\ liabilities}{Total\ assets}$$

Return on equity

The Return on Equity ratio, commonly referred to as ROE is a financial indicator that quantifies the rate of return earned by shareholders of a firm's common stock on their investments. The return on equity is a metric that serves as an indicator of a firm's ability to generate profits from the capital invested by its shareholders (Business News, 2022).

$$Return\ on\ equity\ (ROE) = \frac{Retained\ profits}{Balance\ of\ stockholder's\ equity}$$

Firm age

This study also uses the year of incorporation date to test the effects of firm age on firm value. The incorporation date is used instead of years of listing since that may lead to the exclusion of a good number of firms (Hirdinis, 2019). The firm age will be calculated as follows:

$$Firm\ ages\ (AGE) = Incorporation\ date - current\ years$$

Fixed asset ratio

Ardi Paminto (2016) says that the smaller the ratio, the more liquid the firm is.

$$Fixed\ asset\ ratio\ (FAR) = \frac{Net\ fixed\ asset}{Total\ asset}$$

4.0 Finding And Discussion

4.1 Descriptive Statistics Analysis

Table 4 presents the descriptive statistics for all the study's variables. Using descriptive statistics is crucial in comprehending how variables can be characterized through their respective means and standard deviations. The table reveals that the average Tobin's Q (TOBIN) is 0.806, suggesting that most enterprises have a market value slightly higher than their asset replacement costs, albeit with notable

variation. The average Cash Flow (CF) is 22.140. However, there are significant variations across different enterprises. The Price-to-Earnings ratio (PE) has a mean value of 12.046, although it exhibits significant variation, including certain corporations with negative values. The average value of the independent variable, Environmental disclosure (ED), is 0.297, and most firms exhibit comparable levels of transparency. The control variables, such as firm size (SIZE), leverage (LEV), and return on equity (ROE), exhibit a broad

spectrum, suggesting a variety of financial and structural attributes across the firms. The average age of enterprises is 28 years, indicating that most firms are relatively mature. The age of firms ranges from 1 to 85 years. The Fixed Asset Ratio (FAR) has an average value of 0.546, suggesting that fixed

assets constitute a moderate proportion of the firm's overall assets. However, it is important to note that this ratio might vary among different organizations. The presence of this variety indicates the significance of taking these aspects into account during the study analysis.

Variables	Mean	Median	Maximum	Minimum	Std. Dev.
<u>Dependent Variables</u>					
TOBIN	0.806	0.455	8.400	0.050	1.054
CF	22.140	14.937	214.554	0.247	23.312
PE	12.046	10.795	99.790	-94.630	22.256
<u>Independent Variable</u>					
ED	0.297	0.320	0.640	0.000	0.169
<u>Control Variables</u>					
SIZE	6.366	9.475	17.590	-8.510	7.352
LEV	0.938	0.150	184.090	0.000	10.125
ROE	2.279	3.686	166.699	-281.284	25.418
AGE	28.107	25.000	85.000	1.000	16.184
FAR	0.546	0.540	2.910	0.010	0.264

Table 2: Descriptive Statistics

Pearson's Correlation Coefficient Test

Table 5, presented herein, offers a pairwise correlation matrix encompassing all variables utilized in the analysis. The analysis includes conducting correlation analysis and a test for multivariate normality on the variables utilized. There exists a notable correlation between Environmental Disclosure (ED) and the financial metrics of Tobin Q, Price Earnings Ratio (PE), and Operating Cash Flow Ratio (CF).

The study uncovers multiple noteworthy correlations among the variables. Tobin's Q, a metric for assessing the worth of a firm, exhibits a positive correlation between cash flow (CF) and environmental disclosure (ED). This suggests that enterprises with greater cash flows and superior environmental reporting generally command higher market valuations. The size of a firm (SIZE) is positively correlated with Tobin's Q and return on equity (ROE), indicating that larger enterprises tend to have better market value and profitability. Furthermore, an inverse relationship between leverage (LEV) and firm size indicates that larger firms typically exhibit lower debt levels. Curiously, there is a negative correlation between the age of a firm (AGE) and its likelihood to participate in

environmental disclosure (ED), indicating that older enterprises are less inclined to engage in such practices. Furthermore, there is a direct correlation between the Fixed Asset Ratio (FAR) and the size of a firm, indicating that larger firms allocate a higher percentage of their assets towards fixed assets. The study's conclusions emphasize the interdependence between business size, profitability, market value, and financial practices.

The Variance Inflation Factor (VIF) test is performed to assess the presence of multicollinearity. In this study, it is observed that all VIF values are below 5, indicating that multicollinearity is not a significant concern. According to Berry and Feldman (1985), the table demonstrates no correlation exceeding 0.800. This finding implies that the issue of multicollinearity does not pose a significant concern in the regression analysis.

Variable	TOBINQ	PE	CF	ED	SIZE	LEV	ROE	AGE	FAR
TOBINQ	1.000								
PE	-0.004	1.000							
	0.923								
CF	0.163***	0.059	1.000						
	0.000	0.121							
ED	0.182***	0.062	0.098**	1.000					
	0.000	0.106	0.010						
SIZE	0.079**	0.045	0.062	-0.039	1.000				
	0.038	0.239	0.104	0.310					
LEV	0.005	-0.015	0.018	0.015	-0.122***	1.000			
	0.888	0.686	0.634	0.704	0.001				
ROE	0.134***	0.040	0.334***	0.010	0.028	0.011	1.000		
	0.000	0.291	0.000	0.801	0.458	0.775			
AGE	-0.042	0.026	0.031	-0.102**	-0.063*	0.032	0.013	1.000	
	0.271	0.492	0.414	0.007	0.097	0.403	0.734		
FAR	-0.039	0.006	0.060	-0.027	0.081**	-0.030	-0.059	0.006	1.000
	0.312	0.872	0.114	0.476	0.034	0.427	0.125	0.883	

***Correlation is significant at the 0.01 level (1-tailed), **Correlation is significant at the 0.05 level (1-tailed), and *Correlation is significant at the 0.10 level (1-tailed)

Table 3: Correlation Matric

4.2 Regression Analysis of Panel Data

In order to determine the most suitable model for panel regression, various tests can be employed, such as the Chow Test, Hausman Test, and Lagrange Test. Based on the findings of the Chow test and Hausman test, both of which yield p-values below the significance level of 0.05, it can be concluded that the fixed effect model is more appropriate for analyzing the Tobin Q data in the topic. Based on the Lagrange Multiplier test results, it is observed that the values for both PE and CF are below the threshold of 0.05. Consequently, a random effect model is more suitable for analyzing this dataset. The test results, namely the Chow Test, Hausman Test, and Lagrange Multiplier are provided. Based on the test results analysis, it can be concluded that Tobin Q demonstrates superior performance when employing the fixed effect model. In contrast, PE and CF exhibit better outcomes when utilizing the Random Effect model. Nevertheless, all the outcomes of the model have been documented.

Variable	TOBIN Q (Fixed Effect Model)	PE (Random Effect Model)	CF (Random Effect Model)
C	-0.834** (0.404)	15.786** (7.617)	-2.026 (3.285)
ED	1.599*** (0.619)	18.517 (12.544)	14.275** (5.247)
SIZE	0.017 (0.014)	0.389 (0.305)	0.057 (0.125)
LEV	0.038 (0.026)	-0.074 (0.260)	0.044 (0.114)
ROE	0.000 (0.001)	0.052 (0.047)	0.173*** (0.016)
AGE	0.036*** (0.008)	0.110 (0.141)	0.123** (0.060)
FAR	0.126 (0.366)	2.805 (7.290)	7.456* (3.144)
R-squared	0.858	0.007	0.137
Adjusted R-squared	0.690	-0.001	0.130
Observation	688	688	688
Prob (F-statistic)	0.000	0.462	0.000

***Correlation is significant at the 0.01 level (1-tailed), **Correlation is significant at the 0.05 level (1-tailed), and *Correlation is significant at the 0.10 level (1-tailed)

Table 3: Regression Result

The results of the estimation model data regression are presented in Table 6. The study's findings indicate a positive relationship between ED presence and two indicators of firm value, namely Tobin's Q and CF. This finding aligns with the research conducted by Yang et al., 2020, which suggests that firms exhibiting higher levels of environmental performance tend to engage in greater voluntary disclosures about their environmental impact in increasing firm value. One perspective suggests that ED has been employed as a "social contract" strategy to establish credibility within the community and cultivate a favorable corporate reputation conducive to long-term sustainability. This aligns with the predictions put forth by both voluntary agency and theories.

The examination of firm size (SIZE), leverage (LEV), return on equity (ROE), firm age (AGE), and fixed asset ratio (FAR) reveals varied degrees of relevance in different models. The size of a firm has no significant effect on Tobin's Q, Price-Earnings Ratio (PE), or cash flow (CF), suggesting that it has a minimal impact on these financial indicators. Similarly, the utilization of leverage does not substantially impact Tobin's Q, PE, or CF, indicating that the amount of debt in firms does not significantly influence these results. Conversely, the return on equity (ROE) is closely linked to increased cash flow, but it does not significantly impact Tobin's Q or PE. **A higher ROE indicates that the company is efficiently using its equity base to generate profits, which often results in stronger cash flows (Rompotis, 2024).** The age of a firm has a favorable effect on Tobin's Q and cash flow. Generally, older firms tend to have higher market value and cash flow. However, it does not have a major impact on PE. **As firms age, they typically accumulate**

greater expertise, enabling them to enhance their operational efficiency, increase productivity, and stronger client connections (Mallinguh et al., 2020). Furthermore, the fixed asset ratio (FAR) does not substantially affect Tobin's Q or PE. However, it has a significant positive effect on cash flow. This implies that firms with a greater fixed asset share may have improved cash flow, although the statistical confidence is restricted. **A higher FAR means the firms makes more money from its fixed assets (Uppal et al., 2005). This means more cash coming in. Using assets well means they don't need to buy more, freeing up cash. This extra cash can pay off debt, run the business, or give dividends.**

The R-squared values demonstrate that the model for Tobin's Q accounts for 85.8% of the variability, indicating a robust match. Conversely, the model for CF explains just 13.7% of the variability, suggesting a more limited fit. Nevertheless, the model for PE accounts for only 0.7% of the variability, indicating a subpar match. The modified R-squared provides additional evidence to support these conclusions. Tobin's Q is calculated to be 0.690, which confirms that the model is well-specified.

The CF value of 0.130 also suggests that the model fits reasonably well. Conversely, the corrected R-squared value for PE is -0.001, indicating that the model may not be appropriate for explaining PE. Consistency between analyses is ensured by basing all models on 688 observations. The Prob(F-statistic) indicates that the models for Tobin's Q and CF are statistically significant, with p-values of 0.000.

However, the model for PE is not significant, with a p-value of 0.462.

5.0 Conclusion and Implication of the Study

The study's findings indicate that environmental disclosure (ED) has a notable and favorable effect on business value, as the results for Tobin's Q and cash flow (CF) demonstrate. The robust positive relationship between ED and Tobin's Q indicates that firms with superior environmental disclosure policies generally possess greater market valuations, indicating that investors acknowledge the importance of sustainability initiatives. Similarly, the CF model shows a positive and statistically significant indicating that there is a connection between environmental disclosure and improved cash flow. This suggests that implementing environmental disclosure practices may result in better financial performance by enhancing operational efficiency or reducing costs. These findings suggest that firms have the opportunity to enhance their market value and financial performance by investing in strong environmental disclosure procedures and by connecting their firm strategy with the broader social demands for transparency and sustainability.

The study's conclusions have significant implications for both investors and firm policymakers. Investors benefit from the strong relationship between environmental disclosure and firm value, as it suggests that firms that openly provide information about their environmental policies are likely to

have a higher market worth. This implies that environmental disclosure indicates effective corporate governance and a possible predictor of sustained financial performance in the long run. Investors should prioritize firms with robust environmental reporting in their investment strategies, as these firms are expected to be more resilient and well-positioned to take advantage of sustainability trends.

The findings emphasize the significance of including environmental transparency within corporate strategies for firms. Firms can increase their market valuation and financial performance by openly disclosing their environmental impact and sustainability initiatives, as evidenced by the favorable effects on Tobin's Q and cash flow. Firms should consider environmental disclosure as more than just a statutory necessity or a public relations tool. Instead, it should be seen as a strategic asset that has the potential to generate value. Implementing thorough environmental disclosure processes can enhance firms' credibility with investors, attract socially conscious investments, and eventually bolster their competitive standing in the market.

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7.0 References

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