

EMA On Firm Value: A Moderating Role Of Firm Performance

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Abstract: This study aims to examine the effect of EMA that focuses on social and environmental disclosure on firm value, as well as the moderating role of firm performance that can strengthen or weaken the relationship between the two variables. The population that is the focus of this study is palm oil companies that have been listed on the Indonesia Stock Exchange. This study applies a purposive sampling method in selecting samples, resulting in 10 palm oil companies as research objects. This sample will be observed over a period of 3 years. Using panel data, this study collected a total of 30 observations. Data processing was performed using Eviews 12, and the results of the analysis showed that Environmental Management Accounting (EMA) has no effect on company value. In addition, company performance has a negative and significant effect in moderating the relationship between EMA and company value. Thus, it can be concluded that the moderating role of financial performance has a negative and significant value, which indicates that company performance tends to weaken the relationship between Environmental Management Accounting (EMA) and company value.

Keywords: EMA, firm performance, firm value, MRA

Abstrak: Penelitian ini bertujuan untuk menguji pengaruh EMA yang berfokus pada pengungkapan sosial dan lingkungan terhadap nilai perusahaan: serta adanya peran moderat kinerja perusahaan yang dapat memperkuat atau memperlemah hubungan kedua variabel. Populasi yang menjadi fokus dalam penelitian ini adalah perusahaan kelapa sawit yang telah terdaftar di Bursa Efek Indonesia. Penelitian ini menggunakan metode purposive sampling untuk pemilihan sampel, sehingga diperoleh 10 perusahaan kelapa sawit sebagai sampel yang akan diobservasi selama periode 3 tahun dengan menggunakan data panel diperoleh 30 observasi pada penelitian ini. Pengolahan data menggunakan Eviews 12 dengan hasil

menunjukkan bahwa EMA tidak berpengaruh terhadap nilai perusahaan dan kinerja perusahaan berpengaruh negatif dan signifikan terhadap hubungan EMA dengan nilai perusahaan. Dengan demikian dapat disimpulkan bahwa peran moderasi kinerja keuangan bernilai negatif dan signifikan yang dapat diartikan bahwa kinerja perusahaan dapat memperlemah hubungan EMA secara negatif terhadap nilai perusahaan.

Kata kunci: EMA, kinerja perusahaan, nilai perusahaan, MRA

INTRODUCTION

Economic development has recently shown development in an increasingly positive direction. The development of the world economy cannot be separated from the emergence of new technologies that bring great changes to the world of the industrial economy. It cannot be denied that apart from the fact that technology plays an important role in improving the economy, it also has negative effects such as environmental pollution.

Environmental issues have recently become a rather sensitive topic of discussion. Recently, stakeholders have been particularly interested in companies that disclose environmental information through sustainability reporting. The appearance of such a perception led to the fact that organizations inevitably paid attention to the environment as a manifestation of a kind of environmentalist image through the adoption of EMA. Businesses are no longer just about profit, but about corporate survival (Effendi, 2021). The interest of interest groups and especially investors in the environmental performance of the company affects the demand for the shares of the company, which leads to an increase in the value of the company.

Improving the company's financial sector's performance is another way to raise its worth in addition to enhancing its environmental image. Investor interest in the company may rise because of its financial sector operations. Companies with good financial performance can describe good operations. A good operational performance can improve the economic perspective by introducing various innovations that match the interest focus of the interest groups, in this case the focus is social and environmental awareness, so that it increases the value of the company.

Plumlee's (2015) research states that environmental performance disclosure is often associated with efforts to increase company value. Environmental Management Accounting (EMA), as part of environmental accounting, allows companies to save on environmental costs by providing accurate cost information. With this information, management can determine more efficient cost allocations. This shows that environmental accounting disclosure has a positive influence according to research conducted by Lingga & Suaryana (2017), Arofah & Maharani (2021) and Effendi (2021). However, several other studies such as those conducted by Sawitri (2017), Anjarwasana (2018), and Pratiwi and Rachmawati (2021) found different results. In their study, Environmental Management Accounting (EMA) did not have a significant influence on company value. The contradictions in previous research findings indicate the need for further testing. Therefore, the purpose of this study is to examine the effect of Environmental Management Accounting (EMA) on firm value, with firm performance as a moderating variable that is expected to strengthen the relationship between these variables.

LITERATURE REVIEW

Legitimacy Theory

The theory of legitimacy was first created by Dowling and Pfeffer in 1975. This theory shows that companies must pay attention to the norms in society (Pujiningsih, 2020). Reporting on social and environmental performance can reduce threats to business continuity (business continuity). Businesses that can handle environmental protection in accordance with society's norms and values can enhance their reputation, which in turn can raise the company's value because they are seen as good.

If an organization does not implement its social contract, it becomes a serious threat to the operations of the organization. Threats to these organizations can include product boycotts, resource limitations (such as labor, raw materials, and financial capital) and even worst case revocation of licenses. Therefore, the organization is required to fulfill the social contract so that the company receives a positive image from the community and it is hoped that with this good image, the organization, especially the company, can increase profits. . to earn, and as a result the value of the company also increases.

Stakeholder Theory

This theory holds that a company has an obligation to generate benefits for its stakeholders in addition to acting in its own best interests. Therefore, a company will continue well if it receives good feedback and support from its stakeholders (Mumtazah and Purwanto, 2020) Recent phenomena have changed the focus of this theory, which initially focused on profitability, and is now moving into the field of social responsibility or often is called social responsibility, in which organizations must focus not only on the interests of stakeholders, but also on the interests of the surrounding environment (Sari et. al, 2014).

In recent years, information about corporate environmental responsibility has received more attention than other business information. Therefore, companies must pay special attention to the environment when defining policies and making decisions, so that they can support the company to achieve its goals, such as increasing profits and ensuring the continuity of the company or operation.

Enterprise values

Something that is frequently connected to stock prices is called a fixed value. A high corporate value indicates investor wealth. The management of the company aspires to the success of its shareholders and investors. According to Rahmazaniati et al. (2021) maximizing investor welfare is equivalent to maximizing the company's stock price, which implies that it also maximizes the company's value. Investors use a company's share price to determine its value. The price that prospective buyers are willing to pay if the company is sold is its intrinsic value (Dewi and Wirajaya, 2013).

The stock market price, which accurately reflects the public's perception of the business's operations, can be used to calculate a company's worth. Because the market value of a share serves as the equilibrium price between issuers and investors on the capital market, it is considered to be real (Harmono, 2015: 50). Several indicators that can be used to measure the value of a business include:

1. *Price Earning Ratio* (PER)
2. Tobins's Q
3. *Price Book Value* (PBV)
4. *Earnings Per Share* (EPS)

The value of the company is measured by Tobin's Q method, which can be used to calculate the value of the company based on tangible and intangible assets. In addition, the

value of Tobin's Q can also provide insight into the market value of the company (Arofah and Maharani, 2021).

Environmental Management Accounting (EMA)

EMA is an accounting derivative that reveals various environmental problems made by companies in monetary units (Widiarto, 2016). EMA tries to manage the environment and inform about environmental costs and ecological savings. The company's awareness of the importance of considering the environment brings positive success in the company's results (Yulariani, 2018). The company's operating results are inseparable from the resulting environmental effects, and environmental costs and savings illustrate the responsibility of good management. helps companies achieve their goals so that the value of the company increases.

The International Federation of Accountants (2013) cited by Suharton explains that EMA is a type of extension of environmental management and all aspects of the financial performance of a company and the application of a good environment in the relationship between the accounting system and its practices. Basically, EMA arose from the development of the concept of environmental accounting, which has limitations in handling environmental cost data.

EMA offered a more holistic approach to management accounting. Traditional accounting differs from EMA in that traditional accounting does not apply to non-reciprocal transactions and only records transactions on a reciprocal basis. At the same time, EMA itself also classifies the fixation of non-reciprocal events, such as pollution, environmental damage or negative issues caused by the company's activities (Rosmiati et al., 2020):

1. Communication or relationship between accounting and other departments is not going well
2. Cost information related to the environment is often hidden in indirect costs
3. Some types of environmental cost information are not found in the accounting records.
4. Investment decisions are often made based on imperfect information.

Firm performance

Firm performance refers to a company's ability to achieve its goals (Nugrahayu and Retnani, 2015). Fixed performance is the result achieved by the company's activity during a certain period of time, which in this case is related to the achievement of management efficiency and effectiveness. The results of carrying out the activities or programs of the company or the efficiency of the company are compared with the results of previous and other organizations to discover how efficient and effective the activities of the company are and how far the goal has been achieved (Nugrahayu and Retnani, 2015).

Accurate measurement is necessary for firm performance. A measurement system that can help management carry out control procedures and inspire management to enhance and boost performance is an effective system for measuring performance. Financial performance is one of the firm's accomplishments and a crucial factor that stakeholders will take into account as it influences the company's value and future performance. As a result, stakeholders' opinions may be impacted by the standard of good or poor financial performance, which may raise or lower the company's value. Profitability is one of the firm's performance measurement tools that is used to see the extent to which it is able to earn profits, the firm's ability to generate profits is considered a picture of the effectiveness of company activities in that period **Error! Reference source not found..**

The Effect of EMA on Firm Value

The effect of EMA on company value is a form of increasing company value through green and social environmental investments. According to Nurhidayat et al (2020) to build and maintain the sustainability of a company not only by increasing profits but also by ensuring social welfare and minimizing damage caused by company operations. In Plumlee's research (2015) states that disclosure of environmental performance is often associated with efforts to increase corporate value, EMA which is part of environmental accounting can save environmental costs by obtaining accurate cost information so that management can determine efficient costs. This shows that environmental accounting disclosures have a positive influence according to research conducted by Lingga & Suaryana (2017), Arofah & Maharani (2021) and Effendi (2021).

H₁ : EMA has a positive and significant effect on firm value

The Effect of EMA on Firm Value Is Moderated By Firm Performance

The application of EMA is a form of increasing competitiveness with the main focus being an efficient environmental cost strategy. According to Ikhsan (2015) EMA is an important consideration in companies, the use of EMA in companies can enable reduction or even elimination of environmental costs, improve environmental performance and can increase the profitability of financial performance and firm value. The anticipated enhancement of EMA's positive impact on firm value is presumed to be more pronounced when accompanied by an improvement in the company's performance within its financial sector. This forms the basis for hypothesizing that company performance, acting as a moderating variable, has the potential to reinforce the substantial positive correlation between EMA and firm value, as indicated in the studies conducted by Mardiana & Wuryani (2019) and Megananda & Prastiwi (2021).

H₂ : Firm performance has a positive and significant effect in strengthening the relationship between EMA and firm value

Based on formula hypothesis then get form framework thinking as following :

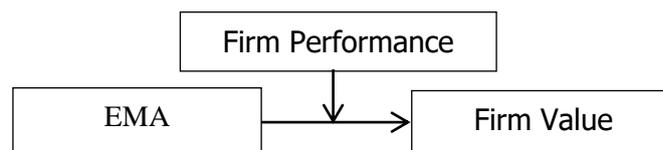


Figure 1. Framework thinking

RESEARCH METHODS

The study focused on companies listed on the Indonesia Stock Exchange (IDX) for its population. Purposive sampling was employed to select 10 sample companies based on specific criteria, which are:

1. Is a palm oil company that consistently publishes financial reports on the Indonesian Stock Exchange
2. Corporates participating in the PROPER program organized by the ministry of environment and forestry

Table 1. Measurements of variable

Variable	Indicator	Scale
Firm Value (Y)	Tobin's Q: $\frac{(MVE+DEBT)}{TA}$	Ratio
<i>Environmental management accounting</i> (X ₁)	PROPER rating	intervals
Firm Performance (X _{1.1})	ROA = $\frac{\text{Profit Before Tax}}{\text{Total Assets}}$	Ratio

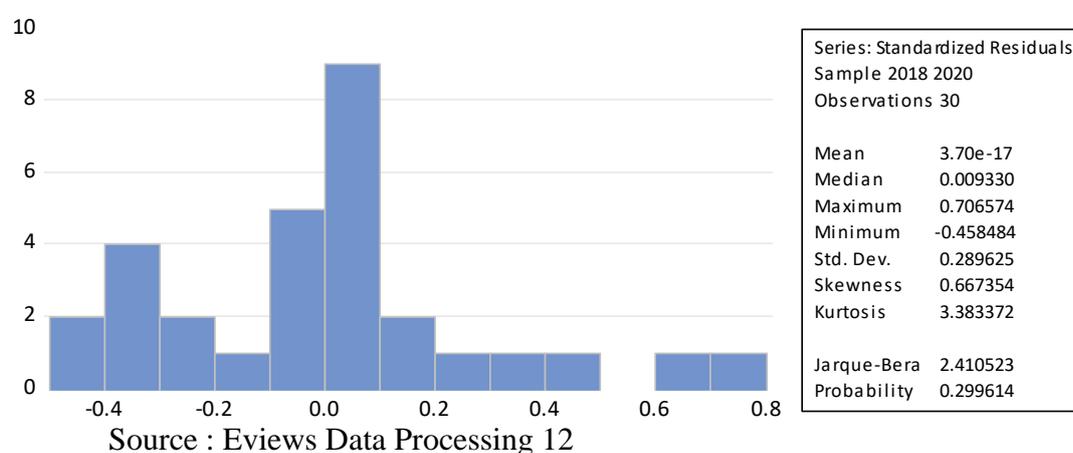
The analysis technique in this study used Eviews version 12 software because it is a recommended tool for processing panel data. The estimation method used in this study is the Random Model Effect (REM) because the Chow test shows a cross-section F probability value of $0.0002 < \alpha 0.05$ and the Hausman test shows a random cross-section probability of $0.6455 > \alpha 0.05$, so the Random Effect Model was chosen as the best estimation model in this study. Because the estimation model was chosen, the classical assumption test used is only the normality test and the multicollinearity test.

RESULTS AND DISCUSSION

Assumption Classic Test

Normality Test

The normality test in this study uses the Jarque-Bera test method as the method recommended in the Eviews 12 program. The results found in this test are normally distributed data as shown in the following figure:



Multicollinearity Test

The multicollinearity test in this study used the pairwise correlation method with the results indicating that there was no multicollinearity problem in this study. The results of the multicollinearity test can be seen in the results table as follows:

	EMA	KINERJA PERUSAHAAN
EMA	1.000000	-0.323667
KINERJA PERUSAHAAN	-0.323667	1.000000

Source : Eviews Data Processing 12

Hypothesis Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.770315	0.242509	3.176443	0.0037
EMA	0.082816	0.063051	1.313476	0.2001

Source : Eviews Data Processing 12

Based on the analysis test in the table above, it can be seen that the calculated t value for the EMA variable is $1.31 < t$ table 2.04 with the EMA interaction probability value of $0.20 > \alpha$ 0.05 so that Environmental Management Accounting (EMA) has no effect and not significant on firm value.

Interaction Test (Moderate Regression Analysis)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.061780	0.083979	12.64339	0.0000
X1_X1.1	-0.131886	0.061105	-2.158366	0.0396

Source : Eviews Data Processing 12

Based on the outcomes of the Moderated Regression Analysis (MRA), the probability value for the interaction term of EMA, treated as an independent variable, and company performance, functioning as a moderating variable (X1_X1.1) on firm value as the dependent variable, yielded a partial statistical test value of t count -2.15, surpassing the t table value of 2.04. Consequently, it can be deduced that a negative association exists between the interaction variable and the dependent variable, firm value. Meanwhile, the interaction probability value in this study was determined to be 0.03, falling below the significance level (α) of 0.05. Hence, the study concludes that a significant relationship is present in this interaction. Drawing from the interaction test results, it can be inferred that the moderating role of company performance has the capability to mitigate the impact of Environmental Management Accounting on firm value. Initially non-significant, this relationship has now been found to possess a negative and significant effect.

DISCUSSION

The Effect of EMA on Firm Value

After conducting a partial statistical test, the results of this study indicate that the t-count value (1.33) is smaller than the t-table (2.04) or with a significance value of 0.20 which is greater than α 0.05. Thus, it can be concluded that EMA does not have a significant effect on company value. The results of this study show that it contradicts research conducted by Lingga & Suaryana (2017), Arofah & Maharani (2021) and Effendi (2021) which state that the application of EMA has a positive and significant effect on firm value. However, there are similarities between the results of this study and research conducted by Sawitri (2017), Anjarwasana (2018) Pratiwi & Rachmawati (2021), which proves that there is no effect on the application of EMA on firm value, this is certainly contrary to the legitimacy theory used in this research with the existing facts.

EMA in this study is a form of social responsibility reporting which has recently become a trend and an important topic for corporate sustainability. However, after conducting statistical tests in this study, the researchers assume that the EMA measured using the

PROPER rating is not the main focus that attracts investors' attention so that when viewed from the market value of equity and the company's total debt compared to the company's total assets, EMA will not have a significant effect. Besides that the insignificant effect that arises can also be caused by a discrepancy between the company value measurement tool in this study that uses the Tobin's Q equation with the implementation of EMA in the company.

Effect of EMA on Firm Value in Moderating with Firm Performance

After testing the Moderated Regression Analysis (MRA) on panel data partially, the results of the study show that the company's performance has a negative and significant moderating influence, where the result value of t count is $-2.15 > t$ table 2.04 and the Probability value of t- statistics of $0.03 < \alpha$ 0.05. This contradicts the research by Mardiana & Wuryani (2019) and Megananda & Prastiwi (2021) which have a positive effect on moderation interactions. The significant negative influence given by the company's performance to this company is thought to be caused by the company's performance as measured using ROA which has a focus on earning profits not on increasing EMA. This is also influenced by the assumption that the greater the environmental costs incurred by the company, the worse the performance of the company. Poor environmental performance can pose risks that result in losses that will be received by the company every year so that profits are still a priority to decline. Therefore, it is impossible to obtain a significant positive effect on firm performance in moderating the EMA relationship on firm value.

The significant negative effect of company performance makes the effect of EMA on firm value, which previously had no positive and insignificant effect, turns into a negative and significant effect. Therefore it can be concluded that firm performance has a moderating role in the relationship between EMA and firm value, the moderation role of firm performance in this study is negative and significant which means that firm performance can weaken the EMA relationship negatively to firm value significantly.

Disclosure of environmental information does not necessarily increase investor assessments or improve the company's image. However, disclosure of environmental information is still necessary because companies are required to comply with the full disclosure accounting principle. In addition, the implementation of Environmental Management Accounting (EMA) requires additional costs that can have an impact on the decline in the company's financial performance, thus potentially reducing the overall value of the company.

CONCLUSIONS

The conclusions obtained in this study are as follows: 1) EMA has no effect on firm value with a significant value of $0.2 > 0.05$ with t count of $1.31 < t$ table 2.04 which means that H1 in this study is rejected because EMA has no influence on firm value; 2) Firm performance has a moderating role in the effect of EMA on firm value with a significant value of $0.03 < 0.05$ with t count of $-2.15 > t$ table 2.04 which means that H2 in this study is accepted because firm performance is able to moderate the effect of EMA on firm value becomes negative and significant.

Based on the research results, suggestions that can be given are that future researchers are expected to be able to measure company performance using other profitability ratios, the use of the GRI index, or the addition of other independent variables such as size and type of company.

BIBLIOGRAPHY

- Anjarwasana. (2018). Pengaruh Environmental Management Accounting (EMA) terhadap Nilai Perusahaan dengan Kinerja Keuangan sebagai Variabel Intervening. *Universitas Katolik Widya Mandala*.
- Lingkungan dan Kinerja Lingkungan Terhadap Nilai Perusahaan Melalui Pengungkapan Informasi Lingkungan. *Jurnal E-Bis (Ekonomi-Bisnis)*.
- Bursa Efek Indonesia. (2017-2019). *Bursa Efek Indonesia*. Retrieved oktober 28, 2021, from Idx.co.id: [www.Idx.co.id](http://www.idx.co.id)
- Effendi, B. (2021). Pengaruh Penerapan Akuntansi Manajemen Lingkungan Terhadap Nilai Perusahaan pada Perusahaan Manufaktur di Tangerang Raya. *Jurnal Online Insan Akuntan*.
- Fahmi, I. (2018). *Analisis Kinerja Keuangan: Panduan bagi Akademisi, Manajer, dan Investor dan Menganalisis Bisnis dari Aspek Keuangan*. Alfabeta.
- Kementerian Lingkungan Hidup dan Kehutanan. (2020). *PROPER- Kementerian Lingkungan Hidup dan Kehutanan*. Retrieved Oktober 28, 2021, from Kementerian Lingkungan Hidup dan Kehutanan: <https://proper.menlhk.co.id>
- Lingga, W., & Suaryana, I. G . N. A. (2017). Pengaruh Langsung dan Tidak Langsung Kinerja Lingkungan Terhadap Nilai Perusahaan. *E-Jurnal Akuntansi*.
- Mardiana, I. A., & Wuryani, E. (2019). Pengaruh Kinerja Lingkungan Terhadap Nilai Perusahaan dengan Profitabilitas Sebagai Variabel Pemoderasi. *Akuntansi UNESA*.
- Megananda, G. S., & Prastiwi, A. (2021). Pengaruh Pengungkapan Lingkungan Terhadap Nilai Perusahaan dengan Profitabilitas Sebagai Variabel Pemoderasi. *Universitas Diponegoro*.
- Mumtazah, F., & Purwanto, A. (2020). Analisis Pengaruh Kinerja Keuangan dan Pengungkapan Lingkungan Terhadap Nilai Perusahaan. *Diponegoro Journal of Accounting*.
- Nugrahayu, E. R., & Retnani, E. D. (2015). Penerapan Metode Balance Scorecard Sebagai Tolok Ukur Kinerja Perusahaan. *Jurnal Ilmu dan Riset Akuntansi*.
- Nurhidayat, E., Junaid, A., & Kamase, J. (2020). Penerapan Akuntansi Lingkungan Berdasarkan *Triple Bottom Line* pada RSUD H. M. Djafar Harun Kabupaten Kolaka Utara. *Jurnal Ilmu Akuntansi*.
- Plumlee, M., Brown, D., Hayes, R. M., & Marshall, R. S. (2015). Voluntary Environmental Disclosure Quality and Firm Value: Further Evidence. *Journal of Accounting and Public Policy*, 34 (4), 336-361.
- Pratiwi, E., & Rachmawati, D. (2021). Implementasi Environmental Management Accounting dan Nilai Perusahaan: Kinerja Perusahaan Sebagai Pemoderasi. *Ajar*, 110-132.
- Pujiningsih, V. D. (2020). Pengaruh Sustainability Report Terhadap Nilai Perusahaan dengan GCG sebagai Pemoderasi. *Jurnal Riset Akuntansi dan Keuangan*.
- Sawitri, A. P. (2017). Analisis Pengaruh Pengungkapan Akuntansi Lingkungan dan Kinerja Lingkungan Terhadap Nilai Perusahaan. *Seminar Nasional & Call for Paper, FEB Unikama " Peningkatan Pengetahuan Ekonomi Nasional dalam Rangka Menghadapi Persaingan Global" Malang*, 177-186.
- Widiarto. (2016). Environmental Management Accounting: Efisiensi Penggunaan Kertas, Listrik dan Air pada Badan Lingkungan Hidup Kabupaten Bondowoso. *Jurnal Ekonomi Bisnis dan Akuntansi Universitas Jember*.
- Yuliarini, S. (2018). Akuntansi Lingkungan dalam Prespektif Regulator. *Seminar Cendekiawan 2018 Buku II*.