

ENVIRONMENTAL MANAGEMENT ACCOUNTING AND RSPO CERTIFICATION ON FIRM VALUE

Sandra Ayu Lestari¹, Insyirah Putikadea²

^{1,2} Departement of Accounting, Faculty of Economics and Business, Universitas Negeri Surabaya

sandra.22162@mhs.unesa.ac.id¹, insyirahputikadea@unesa.ac.id²

Sidoarjo, East Java

Corresponding email: sandra.22162@mhs.unesa.ac.id

How to cite: Lestari, Sandra Ayu., Putikadea, Insyirah. (2026). Environmental Management Accounting And RSPO Certification On Firm Value. *Jurnal Ilmiah Akuntansi, Manajemen Dan Ekonomi Islam (JAM-EKIS)*, 9(2), 839-854. <https://doi.org/10.36085/jam-ekis.v9i2.10330>

INFORMASI ARTIKEL

Article History:

Accepted : 9 April, 2026

Revised : 18 May, 2026

Approved : 24 May, 2026

Keywords:

Environmental Management Accounting, Roundtable on Sustainable Palm Oil, Firm Value, Sustainability, Palm Oil.

Pages: 839-854

This is an open access article under the [CC-BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license



ABSTRACT

This study examines whether Environmental Management Accounting (EMA) practices and Roundtable on Sustainable Palm Oil (RSPO) certification are reflected in the market valuation of palm oil companies listed on the Indonesia Stock Exchange during 2022–2024. Using purposive sampling, the study analyzes panel data from 19 companies over three years, resulting in 57 firm-year observations. Panel regression is employed to assess the relationship between firm value, EMA implementation, and RSPO certification, while profitability (ROA) and firm size are included as control variables. Model specification tests identify the Random Effect Model as the most appropriate estimation method. The findings indicate that neither EMA practices nor RSPO certification has a statistically significant effect on firm value. In contrast, profitability has a positive and significant impact, whereas firm size is negatively associated with firm value. Drawing on the Natural Resource-Based View and signaling theory, the results suggest that sustainability initiatives may represent environmental capabilities and signals of corporate commitment; however, these signals are not yet strongly incorporated into market valuation within Indonesia's palm oil industry. The findings highlight the limited market appreciation of sustainability-related practices in this sector.

INTRODUCTION

In the global economy, environmental sustainability is receiving increasing attention as international initiatives continue to promote development approaches that integrate economic growth with environmental responsibility. This concern is supported by empirical evidence. Data from Global Forest Watch (2024) indicate that agricultural expansion is the primary driver of tree cover loss in Indonesia, accounting for approximately 23.0 million hectares, or 73% of the total loss—far exceeding other factors such as logging (10%) and forest fires (7%). These figures not only highlight the magnitude of environmental pressure but also demonstrate that economic activities, particularly land-based industries, are structurally linked to ecological degradation. The growing emphasis on environmental issues requires firms to embed environmental considerations within their operational and strategic frameworks. Consequently, assessments of corporate performance now extend beyond financial results to increasingly consider how firms manage risks associated with environmental, social, and governance (ESG) factors (Angir & Weli, 2024). This shift also affects capital market dynamics, as investors increasingly incorporate sustainability-related information, such as carbon emissions and environmental performance, into their decision-making processes (Putikadea & Sari Siregar, 2023).

Growing investor concern for sustainability is increasingly evident in market assessments of companies. Firm value reflects market expectations about future performance while also indicating how managerial actions support the creation of sustainable long-term value (Jensen, 2001). Prior studies indicate that non-financial information, including environmental performance, plays a role in influencing investor judgment. Evidence summarized in the meta-analysis of Friede et al. (2015) shows that ESG performance is commonly associated with improved financial outcomes. This pattern indicates that sustainability-related factors are becoming increasingly relevant in investment decision-making and that firms demonstrating stronger environmental responsibility may gain greater competitiveness in attracting capital and sustaining long-term firm value.

In Indonesia, sustainability issues are particularly critical due to the economy's reliance on natural resource-based industries, especially the palm oil sector. As reported by USDA (2023), Indonesia ranks as the leading global producer of palm oil, contributing approximately 43 million metric tons, equivalent to about 57% of total world production. The country is also the top exporter, accounting for roughly 22.3 million metric tons or around half of global exports. While this dominance underscores the industry's economic importance, the scale of production and export activities also amplifies environmental impacts, particularly those related to land conversion and resource use. Deforestation driven by agricultural expansion highlights how the development of the palm oil industry is closely connected to environmental pressures and persistent sustainability challenges.

These conditions place palm oil companies in a complex position between maintaining production growth and responding to increasing global demands for sustainability. As a response, companies adopt various sustainability mechanisms, both

through external certification and internal management practices. One widely recognized international standard is the Roundtable on Sustainable Palm Oil (RSPO), which establishes principles and criteria for environmentally and socially responsible palm oil production (UNEP, 2014). RSPO certification may enhance a firm's legitimacy and reputational credibility, which can foster stronger investor trust in its future prospects. At the same time, the certification allows companies to signal their sustainability orientation to external stakeholders. Empirical studies examining the link between RSPO certification and corporate performance have produced mixed results. Several studies report that RSPO certification contributes to higher profitability and improved operational efficiency (Malau & Rambe, 2022). In contrast, other research indicates that the effect may be insignificant, as the costs required for implementing RSPO certification can offset the expected benefits (Suroso et al., 2021).

Apart from relying on external standards, firms may also enhance sustainability through internal initiatives. Environmental Management Accounting (EMA) provides a framework that allows firms to monitor environmental-related expenditures and integrate them into internal management processes. This approach contributes to more efficient resource management and better-informed managerial decisions (Huynh & Nguyen, 2024; Mukwarami & Van der Poll, 2024). Moreover, transparent environmental reporting facilitated by EMA can enhance stakeholder trust in the company's environmental commitment (Alnaim & Metwally, 2024). Higher levels of transparency can reduce disparities in the information held by corporate managers and market participants, a condition that influences how firms are assessed in capital markets. Although several studies suggest that EMA can positively influence operational efficiency and firm value (Agustia et al., 2019; A'zizah et al., 2024), other findings indicate that environmental initiatives may reduce performance if the associated costs are not supported by innovation and reputational benefits (Hellenikapoulos & Supramono, 2024; Ulfah et al., 2025). These contrasting findings suggest that the economic implications of environmental practices for firm value remain uncertain and may depend on how such initiatives are implemented and perceived by the market.

Previous studies have examined sustainability practices separately, either through RSPO certification or Environmental Management Accounting. However, limited research has investigated their combined role in influencing firm value, particularly in the palm oil industry. Empirical research has yet to provide consistent conclusions regarding how sustainability initiatives affect firm value, a condition that is particularly evident in emerging markets. In response to this gap, the present study examines how Environmental Management Accounting (EMA) and RSPO certification influence firm value in palm oil companies listed on the Indonesia Stock Exchange. The study extends existing literature in two main ways. It simultaneously considers internal sustainability practices and external certification as determinants of firm value, an area that has received limited attention, especially in the palm oil sector. Second, it contributes to the sustainability literature by providing evidence from the Indonesian palm oil industry, where environmental pressure and sustainability demands are particularly significant.

LITERATURE REVIEW

Signaling Theory

According to Michael Spence (1973), signal theory explains how information gaps between parties can be reduced when those with greater knowledge communicate credible signals to less informed stakeholders. In the corporate context, this theory describes how companies communicate their quality and future prospects to external stakeholders through observable actions, policies, or performance indicators, enabling investors to evaluate firm performance (Ross, 1977). Viewed through this lens, sustainability initiatives can serve as signals that help bridge differences in the information available to firms and their stakeholders. In this respect, Environmental Management Accounting (EMA) represents a managerial approach aimed at systematically tracking and managing environmental costs in organizational decision-making. These efforts are commonly communicated to external stakeholders through sustainability report disclosures. Meanwhile, Roundtable on Sustainable Palm Oil (RSPO) certification represents an externally verified signal of a firm's commitment to sustainable palm oil production. Through these mechanisms, EMA practices and RSPO certification may strengthen corporate credibility, influence investor perceptions, and ultimately contribute to enhancing firm value (Elwisam et al., 2024; Komara et al., 2020).

Natural Resource-Based View Theory

Stuart L. Hart (1995) proposed the Natural Resource-Based View (NRBV) as an extension of the Resource-Based View (RBV), highlighting the integration of environmental considerations into the concept of strategic resources. Within the RBV, sustained competitive advantage arises when firms possess strategic resources that competitors cannot easily obtain or reproduce. Expanding this perspective, the NRBV highlights the importance of environmental performance and the responsible management of natural resources as strategic organizational capabilities. The NRBV further outlines three types of environmental strategies, each emphasizing different dimensions of firm performance (Hart & Dowell, 2011). Pollution prevention focuses on reducing environmental impacts by limiting waste and emissions at the operational level. Here, Environmental Management Accounting (EMA) allows organizations to monitor environmental expenditures and patterns of resource consumption, making it easier to detect inefficiencies in operational activities. In contrast, product stewardship extends environmental responsibility beyond internal operations to include the entire value chain, covering product design, resource management, and supplier-related practices. Meanwhile, sustainable development represents a broader orientation that combines environmental, economic, and social objectives. Within the palm oil sector, this orientation is reflected in the adoption of RSPO certification, which promotes sustainability standards in both production and supply chain activities.

Environmental Management Accounting and Firm Value

Environmental Management Accounting (EMA) integrates environmental information into managerial systems to improve decision-making and resource efficiency. Through the integration of operational processes and their environmental impacts, firms are better able to detect hidden environmental costs, resource consumption, and inefficiencies that may be overlooked in traditional accounting methods (Schaltegger & Burritt, 2010). EMA is generally divided into two dimensions. The first, Monetary Environmental Management Accounting (MEMA), deals with the measurement of environmental costs in monetary terms. The second, Physical Environmental Management Accounting (PEMA), emphasizes the measurement of physical indicators, including patterns of material consumption and the utilization of energy and water in organizational operations (IFAC, 2005). As a managerial tool, EMA supports the identification of inefficiencies and facilitates the development of more effective sustainability strategies (Jamil et al., 2015). Conversely, firm value is influenced by market assessments of a firm's performance and long-term prospects, with sustainability practices becoming an additional consideration alongside traditional financial indicators (Fatemi et al., 2018).

Drawing on the Natural Resource-Based View (NRBV), EMA can be understood as an internal capability that enhances operational efficiency, supports environmental risk management, and potentially generates sustainable competitive advantage through firm-specific routines (Fuadah et al., 2020; Henri & Journeault, 2010; Journeault, 2016). At the same time, signaling theory explains that the disclosure of environmental information through EMA may serve as a signal to investors regarding managerial quality and sustainability commitment, thereby reducing information asymmetry and influencing firm value (Konar & Cohen, 2000).

Empirical evidence, however, remains mixed. Agustia et al. (2019) found that EMA positively affects firm value by improving eco-efficiency and environmental performance, which in turn strengthens corporate competitiveness and long-term value creation. Similarly A'zizah et al. (2024) showed that EMA contributes to firm value by supporting operational efficiency, environmental risk management, transparency, and sustainability practices. In addition, Pratiwi & Rachmawati (2021) showed that EMA contributes to sustainability performance, indicating that its benefits may be more visible in long-term sustainability outcomes than in short-term market responses. In contrast, Hellenikapoulos & Supramono (2024) found that EMA negatively affects firm value when environmental management practices are perceived merely as additional costs without generating operational efficiency or reputational benefits. These inconsistent findings indicate that the effect of EMA on firm value depends on how environmental practices are integrated into business strategy and operational decision-making. Therefore, this study examines the relationship between EMA and firm value in Indonesian palm oil companies, where environmental pressure and sustainability demands are particularly significant. These theoretical considerations give rise to the following hypothesis:

H1: Environmental Management Accounting positively affects the firm value of palm oil companies.

RSPO Certification and Firm Value

RSPO certification is part of a global initiative designed to guide the palm oil industry toward more sustainable practices. Its standards combine environmental protection measures, social responsibility, and economic sustainability as key principles in palm oil production. Companies that obtain RSPO certification are required to comply with principles related to environmental protection, biodiversity conservation, responsible labor practices, and respect for local communities (RSPO, 2013). The implementation of these standards encourages firms to enhance transparency, improve governance, and align operational processes with sustainability principles (RSPO, 2018). Investor perceptions of firm value reflect both present performance and long-term expectations. Financial indicators alone are no longer sufficient, since sustainability practices increasingly influence how companies are assessed (Fatemi et al., 2018; Suniantari & Yasa, 2022).

RSPO certification not only requires compliance with sustainability standards but also encourages firms to develop internal capabilities related to environmental management, supply chain coordination, and operational control, which aligns with the Natural Resource-Based View (NRBV). These capabilities can improve efficiency and strengthen competitiveness, including better access to international markets with stricter sustainability requirements (Rosyadi et al., 2021). When such capabilities are effectively integrated into corporate strategy and produce tangible economic benefits, RSPO certification may also be interpreted by investors as a credible signal of sustainability commitment and risk management quality, consistent with signaling theory. This signaling effect has the potential to reduce information asymmetry and strengthen investor confidence.

However, empirical findings remain mixed. Steffen (2015) and Malau & Rambe (2022) found that RSPO certification contributes positively to economic feasibility, operational efficiency, and financial performance, suggesting that sustainability certification can strengthen competitiveness and market position. In contrast, Suroso et al. (2021) found no significant relationship between RSPO certification and financial or market performance, arguing that high certification costs and limited economic incentives reduce the direct benefits of certification. These findings suggest that RSPO certification may function more as a form of sustainability legitimacy than as a direct driver of firm value, particularly when sustainability practices are not fully integrated into corporate strategy. Therefore, this study examines whether RSPO certification can influence firm value in the Indonesian palm oil industry. The above considerations form the basis for the following hypothesis:

H2: RSPO certification positively affects the firm value of palm oil companies.

RESEARCH METHOD

A quantitative method is employed in this study to examine how Environmental Management Accounting (EMA) relates to firm value. The analysis uses data from palm oil plantation companies traded on the Indonesia Stock Exchange during the 2022–2024 period. Firms included in the sample are selected through purposive sampling according to several predetermined criteria presented below:

- (1) Palm oil firms that remain listed throughout the observation period;
- (2) Palm oil firms that regularly publish both annual reports and sustainability reports during the study period;
- (3) Palm oil firms that generate positive earnings during the study period.

Applying these requirements results in a sample of 19 companies, which produces 57 firm-year observations. All observations were derived through manual extraction of information contained in corporate disclosures, specifically annual reports and sustainability reports issued by the companies. The hypotheses were tested using panel regression analysis conducted through the EViews 13 statistical program. The most appropriate estimation model is determined through a sequence of specification tests, the Chow test is used to assess the difference between the Common Effect Model (CEM) and the Fixed Effect Model (FEM), the Hausman test is applied to compare FEM with the Random Effect Model (REM), and the Lagrange Multiplier test is performed to determine whether CEM or REM is more suitable.

Details of variable measurement are provided in Table 1.

Table 1. Variable Measurement

Research Variables	Measurement Indicators
Environmental Management Accounting (X1)	EMA Index = Number of EMA indicators observed in sustainability reports / Total items (10)
RSPO Certification (X2)	Dummy variable (1 = RSPO certified; 0 = not-certified)
Firm Value (Y)	Tobin's Q = (Market Value of Equity + Total Debt) / Total Assets
ROA (Control 1)	ROA = Net Profit / Total Assets
SIZE (Control 2)	SIZE = ln (Total Assets)

EMA was measured using content analysis of sustainability reports. Each indicator was assessed based on the company's disclosure of environmental management activities related to the corresponding EMA item. A score of 1 was assigned if the company disclosed the relevant activity, and 0 otherwise. The EMA content analysis items, classified into Monetary Environmental Management Accounting (MEMA) and Physical Environmental Management Accounting (PEMA), are presented in Table 2:

Table 2. Environmental Management Accounting Items

MEMA	PEMA
Measurement and recording of environmental costs from operational activities	Measurement and recording of material, water, and energy use
Measurement and recording of costs related to environmental violations	Measurement and recording of emissions and waste generated from operations
Measurement and recording of environmental litigation or compensation costs	Measurement of environmental impacts using intensity units or ratios
Measurement and recording of cost savings from environmental management efforts	Implementation of environmental control systems or technologies
	Environmental information reporting mechanisms
	Process improvements to reduce environmental impacts

RESEARCH RESULTS AND DISCUSSION

Descriptive Statistical Analysis

Table 3. Descriptive Statistics

Statistic	EMA	RSPO	Firm Value	ROA	SIZE
Mean	0.679	0.456	1.313	0.068	15.843
Maximum	0.800	1.000	3.001	0.218	17.630
Minimum	0.300	0.000	0.513	0.001	13.780
Std. Dev	0.082	0.503	0.674	0.050	1.011

Source: Processed Data with EViews 13, 2026

An overview of the variables' characteristics is provided through the descriptive statistics reported in Table 3. EMA records an average value of 0.679, with observed values spanning from 0.300 to 0.800. A relatively small standard deviation of 0.082 reflects limited variability across the sampled firms. In contrast, RSPO certification shows an average of 0.456, with the lowest value at 0 and the highest at 1. This distribution implies that a portion of the companies in the sample have not adopted RSPO certification. Firm value shows an average value of 1.313, with values ranging from 0.513 to 3.001, indicating variation in market valuation among palm oil companies. The average ROA is recorded at 0.068, with the lowest value at 0.001 and the highest reaching 0.218, suggesting differences in profitability levels across companies. SIZE records an average value of 15.843, with values ranging from 13.780 to 17.630.

Model Selection

Panel data model selection was conducted using the Chow test, Hausman test, and Lagrange Multiplier test to determine the most appropriate estimation model. The Chow test reports a probability value of 0.000, indicating that FEM is more suitable than CEM. However, the Hausman test produces a probability value of 0.143, suggesting that REM

is preferred over FEM. This result is reinforced by the Lagrange Multiplier test, which also supports the use of REM with a probability value of 0.000. Based on these results, REM was selected for the panel data regression analysis, as presented in Table 4.

Table 4. Panel Data Model Selection

Model Selection Tests			
Test	Statistic	Prob.	Decision
Chow Test	20.698	0.000	FEM preferred
Hausman Test	6.860	0.143	REM preferred
Lagrange Multiplier Test	38.889	0.000	REM preferred

Source: Processed Data with EViews 13, 2026

Classical Assumption

When panel data regression is estimated using REM with the Generalized Least Squares (GLS) approach, classical assumption testing is generally limited. Unlike the Ordinary Least Squares (OLS) model, GLS estimation inherently accounts for differences in variance across cross-sectional units. Therefore, heteroskedasticity testing is not considered essential (Askiah et al., 2025). Nevertheless, in this study the heteroskedasticity test was still conducted as an additional diagnostic procedure to ensure the robustness of the regression results. In addition, normality testing is not a strict requirement for obtaining the Best Linear Unbiased Estimator (BLUE), while autocorrelation testing is generally more relevant for pure time-series data rather than panel data with dominant cross-sectional variation (Basuki & Prawoto, 2022).

Table 5. Classical Assumption Tests

Multicollinearity Test				
	EMA	RSPO	ROA	SIZE
EMA	1.000	-0.153	0.083	0.205
RSPO	-0.153	1.000	-0.029	0.231
ROA	0.083	-0.029	1.000	-0.056
SIZE	0.205	0.231	-0.056	1.000
Heteroskedasticity Test				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.207	1.236	2.595	0.012
EMA	-0.254	0.369	-0.690	0.493
RSPO	-0.110	0.131	-0.845	0.402
ROA	0.416	0.756	0.549	0.585
SIZE	-0.002	0.001	-1.983	0.053

Source: Processed Data with EViews 13, 2026

The multicollinearity and heteroskedasticity tests were conducted to ensure that the regression model satisfies the classical assumptions. The multicollinearity test results

show that all correlation coefficients among the independent variables are below the threshold of 0.85, indicating the absence of multicollinearity. The correlation values between EMA and RSPO, EMA and ROA, EMA and SIZE, RSPO and ROA, RSPO and SIZE, and ROA and SIZE are -0.153, 0.083, 0.205, -0.029, 0.231, and -0.056, respectively. The highest correlation value occurs between RSPO and SIZE at 0.231, which is still below the threshold [$0.231 < 0.85$]. Furthermore, the heteroskedasticity test results show that the probability values for EMA, RSPO, ROA, and SIZE are 0.493, 0.402, 0.585, and 0.053, respectively. Since all probability values exceed the significance level of 0.05, namely EMA [$0.493 > 0.05$], RSPO [$0.402 > 0.05$], ROA [$0.585 > 0.05$], and SIZE [$0.053 > 0.05$], the model does not exhibit heteroskedasticity. These findings indicate that the regression model used in this study satisfies the required assumptions and is appropriate for further analysis.

Panel Data Regression

Table 6. Panel Data Regression Result

Panel Data Regression Result			
Variable	Coefficient	t-Statistic	Prob.
EMA	-0.5469	-1.0458	0.3005
RSPO	-0.0980	-0.4664	0.6429
ROA	2.5683	2.3637	0.0219
Firm Size	-0.3908	-2.6933	0.0095
Constant	7.7456	3.4991	0.0010
Model Statistics			
Statistics	Value		
R ²	0.2612		
Adjusted R ²	0.2044		
F-statistic	4.5966		
Prob(F-statistic)	0.0030		

Source: Processed Data with EViews 13, 2026

The regression output indicates that neither EMA nor RSPO certification has a statistically significant impact on firm value, as shown by their probability values of 0.3005 and 0.6429. However, the control variables provide different results. ROA is found to have a positive and significant influence on firm value, with a probability value of 0.0219, suggesting that firms with higher profitability tend to be valued more highly. Conversely, SIZE demonstrates a significant negative effect, supported by a probability value of 0.0095.

An F-statistic probability of 0.0030 indicates a joint effect of the independent and control variables on firm value. The Adjusted R² of 0.2044 shows that 20.44% of the variation in firm value can be accounted for by the model, with the rest linked to variables not incorporated in the analysis.

Effect of Environmental Management Accounting on Firm Value

Environmental Management Accounting (EMA) is not found to have a significant impact on firm value, indicating that the first hypothesis is not supported. This finding suggests that the implementation of EMA in palm oil companies has not yet influenced market perceptions in determining firm value. Although EMA enables firms to systematically identify, measure, and disclose environmental costs and impacts, its measurement in this study relies on disclosures reported in sustainability reports. Such disclosures tend to reflect formal reporting practices rather than substantive operational improvements that generate observable economic benefits for investors.

One possible explanation is that the environmental information produced through EMA has not yet been fully incorporated into managerial decision-making processes. Prior research indicates that the implementation of EMA in Indonesian firms, including Physical Environmental Management Accounting (PEMA) and Monetary Environmental Management Accounting (MEMA), is still largely normative and remains limited in its integration with operational activities (Lanita & Rachmawati, 2020). This condition is reflected in the observation data, which show that the overall EMA disclosure level reached approximately 67.9% of the total research observations. Although this indicates that EMA has been relatively widely adopted by the sample companies, the disclosures still appear to be more compliance-oriented than strategically integrated into operational decision-making. Furthermore, the EMA composition reveals an imbalance between its two main approaches. PEMA disclosure was very high, reaching approximately 93.6%, indicating that physical-based environmental information such as resource use, emissions, and waste has become a common reporting practice among the sample companies. In contrast, MEMA disclosure was only around 29.4%, suggesting that the disclosure of environmental costs and benefits in monetary terms remains limited. In this situation, environmental initiatives tend to be reported as part of sustainability disclosures but are not consistently utilized as managerial tools to support investment planning, operational efficiency, or environmental risk management. Within the palm oil industry, such initiatives are often driven by regulatory compliance and reporting expectations rather than by strategic efforts to strengthen competitiveness.

From a theoretical perspective, the findings do not fully support the Natural Resource-Based View (NRBV), which posits that environmental management practices can develop into internal capabilities that generate competitive advantage and economic value. The results indicate that EMA practices have not yet evolved into such capabilities, as environmental information remains weakly connected to operational strategies and value creation processes. Similarly, signaling theory suggests that corporate disclosures may serve as signals of superior performance. However, when environmental disclosures are not accompanied by clear economic outcomes, investors may interpret them as symbolic rather than substantive signals. Consequently, EMA-related disclosures fail to elicit a significant market response and do not translate into higher firm value.

Effect of RSPO Certification on Firm Value

RSPO certification is not found to have a significant effect on firm value. Accordingly, the second hypothesis is not supported. These findings suggest that RSPO certification has not yet become a factor considered by investors in evaluating firm value of palm oil companies. Sustainability certification reflects a company's commitment to responsible environmental practices. However, investor attention tends to remain focused on financial performance and business prospects.

Similar evidence is provided by Suroso et al. (2021), indicating that RSPO certification is not associated with significant variations in financial and market performance among palm oil companies in Indonesia. One possible explanation is that the relatively high costs of certification and membership are not accompanied by significant increases in selling prices or market demand for sustainable palm oil, limiting the direct economic benefits of certification. This condition is also reflected in the observation data, which show that only approximately 45.6% of company observations held RSPO certification during the research period. Furthermore, in terms of consistency, only around eight companies maintained RSPO certification continuously throughout the observation period, while others either did not possess certification or discontinued their membership in certain years. One of the sample companies even voluntarily withdrew from membership in the Roundtable on Sustainable Palm Oil (RSPO) and no longer reported RSPO certification in its 2024 sustainability report, citing the lack of economic benefits obtained from the certification.

Within the Natural Resource-Based View, RSPO certification has not yet developed into an internal capability that generates sustained competitive advantage for palm oil companies. Although the certification requires the adoption of sustainability practices and responsible supply chain management, these elements may not be fully embedded in operational routines or managerial decision-making processes. As a result, the certification has not produced measurable economic benefits that can enhance firm value.

CONCLUSION

This study examines the relationship between Environmental Management Accounting (EMA) and RSPO certification and firm value of palm oil companies listed on the Indonesia Stock Exchange during the 2022–2024 period, with Return on Assets (ROA) and SIZE included as control variables. The results indicate that neither EMA nor RSPO certification has a significant effect on firm value. These findings suggest that the implementation of EMA in palm oil companies is still largely oriented toward disclosure practices rather than being fully integrated into strategic decision-making processes that generate observable economic benefits. Similarly, RSPO certification has not yet been perceived by investors as a strong signal of firm value, as the relatively high costs associated with certification are not necessarily accompanied by sufficient market incentives. Overall, the results indicate that sustainability practices do not automatically

translate into higher firm value. This finding also suggests that the assumptions of signaling theory and the Natural Resource-Based View (NRBV) are context-dependent, where sustainability initiatives may contribute to firm value only when they are effectively embedded within corporate strategies and capable of generating measurable economic outcomes.

This study has several limitations that should be considered. First, the sample is limited to palm oil companies that did not experience losses during the research period because the control variable Return on Assets (ROA) requires positive net income to measure profitability consistently, which may restrict the generalizability of the findings. Second, Environmental Management Accounting (EMA) is measured using content analysis of corporate disclosures in company reports, meaning that the EMA score may reflect reporting practices rather than the actual intensity of implementation and may involve subjectivity in the coding process. Third, the study focuses on the direct relationship between sustainability practices and firm value, while the results suggest that the effect may occur indirectly through other mechanisms that are not captured in the current model. Future research is therefore encouraged to expand the sample coverage, including firms experiencing losses, apply more objective EMA measurements such as eco-efficiency indicators, and incorporate mediating variables to provide a more comprehensive explanation of the relationship between sustainability practices and firm value.

REFERENCE

- Agustia, D., Sawarjuwono, T., & Dianawati, W. (2019). The Mediating Effect of Environmental Management Accounting on Green Innovation–Firm Value Relationship. *International Journal of Energy Economics and Policy*, 9(2), 299–306. <https://doi.org/10.32479/ijeep.7438>
- Alnaim, M., & Metwally, A. B. M. (2024). Institutional Pressures and Environmental Management Accounting Adoption: Do Environmental Strategy Matter? *Sustainability (Switzerland)*, 16(7). <https://doi.org/10.3390/su16073020>
- Angir, P., & Weli, W. (2024). The Influence of Environmental, Social, and Governance (ESG) Disclosure on Firm Value: An Asymmetric Information Perspective in Indonesian Listed Companies. *Binus Business Review*, 15(1), 29–40. <https://doi.org/10.21512/bbr.v15i1.10460>
- Askiah, U., Valdiansyah, R. H., & Firmansyah, A. (2025). Carbon Emission Disclosure and Profitability on Firm Value. *Accounting and Finance Studies*, 5(3), 296–310. <https://doi.org/10.47153/afs53.17902025>
- A'zizah, L. O. F., Aji, N. P., Puspawati, D., Ulynnuha, O. I., & Andriyani, N. (2024). Sustainability Reporting in Value Creation: The Critical Mediation of Environmental Management Accounting. *Jurnal Riset Akuntansi Dan Keuangan Indonesia*, 9(3), 338–349. <https://doi.org/10.23917/reaksi.v9i3.7030>
- Basuki, A. T., & Prawoto, N. (2022). *Analisis Regresi dalam Penelitian Ekonomika dan Bisnis (Dilengkapi Aplikasi SPSS & EViews)* (Monalisa, Ed.; 2nd ed.). PT RajaGrafindo Persada.

- Dwintama, F. P., Ramadhan, S., Darajat, I. F., Hak, N., & Hartini, K. (2021). Pengaruh NPF, CAR, dan FDR Terhadap Profitabilitas Pada Bank Umum Syariah di Indonesia Periode 2016-2020. *Jurnal Ilmiah Akuntansi, Manajemen Dan Ekonomi Islam (JAM-EKIS)*, 4(2).
- Elwisam, Muhani, Ria, Digidowiseiso, K., Kartini, Juliandi, D., & Saputra, D. (2024). Implementation of Signaling Theory in Financial Management: A Bibliometric Analysis. *Revista de Gestao Social e Ambiental*, 18(3). <https://doi.org/10.24857/rgsa.v18n3-092>
- Fatemi, A., Glaum, M., & Kaiser, S. (2018). ESG Performance and Firm Value: The Moderating Role of Disclosure. *Global Finance Journal*, 38, 45–64. <https://doi.org/10.1016/j.gfj.2017.03.001>
- Friede, G., Busch, T., & Bassen, A. (2015). ESG and Financial Performance: Aggregated Evidence from More than 2000 Empirical Studies. *Journal of Sustainable Finance and Investment*, 5(4), 210–233. <https://doi.org/10.1080/20430795.2015.1118917>
- Fuadah, L. L., Daud, R., & Burhanuddin. (2020). Akuntansi Manajemen Lingkungan Di Indonesia. *Jurnal Ilmiah STIE MDP*, 9(2), 132–139. <https://doi.org/10.35957/forbiswira.v9i2.3745>
- Global Forest Watch. (2024). *Indonesia Deforestation Rates & Statistic*. Global Forest Watch. <https://www.globalforestwatch.org/dashboards/country/IDN/?category=forest-change&lang=id&map=eyJjYW5Cb3VuZCI6dHJ1ZX0%3D>
- Hart, S. L. (1995). A Natural Resource-Based View of the Firm. *Academy of Management Review*, 20(4), 986–1014. <https://doi.org/10.5465/amr.1995.9512280033>
- Hart, S. L., & Dowell, G. (2011). A Natural-Resource-Based View of the Firm: Fifteen Years After. In *Journal of Management* (Vol. 37, Number 5, pp. 1464–1479). <https://doi.org/10.1177/0149206310390219>
- Hellenikapoulos, M., & Supramono, S. (2024). Green Innovation, Environmental Management Accounting, dan Nilai Perusahaan: Mampukah Reputasi Perusahaan Berperan Sebagai Pemediasi? *Perspektif Akuntansi*, 7(3), 231–252. <https://doi.org/10.24246/persi.v7i3.p231-252>
- Henri, J. F., & Journeault, M. (2010). Eco-Control: The Influence of Management Control Systems on Environmental and Economic Performance. *Accounting, Organizations and Society*, 35(1), 63–80. <https://doi.org/10.1016/j.aos.2009.02.001>
- Huynh, Q. L., & Nguyen, V. K. (2024). The Role of Environmental Management Accounting in Sustainability. *Sustainability (Switzerland)*, 16(17). <https://doi.org/10.3390/su16177440>
- IFAC. (2005). *Environmental Management Accounting: International Guidance Document*. 87.
- Jamil, C. Z. M., Mohamed, R., Muhammad, F., & Ali, A. (2015). Environmental Management Accounting Practices in Small Medium Manufacturing Firms. *Procedia - Social and Behavioral Sciences*, 172, 619–626. <https://doi.org/10.1016/j.sbspro.2015.01.411>
- Jensen, M. C. (2001). Value Maximization, Stakeholder Theory, and the Corporate Objective Function. *Journal of Applied Corporate Finance*, 14(3), 8–21.

- <https://doi.org/https://doi.org/10.2139/ssrn.220671>
- Journeault, M. (2016). The Influence of Eco-Control on Environmental and Economic Performance: A Natural Resource-Based Approach. *Journal of Management Accounting Research*, 28(2), 149–178. <https://doi.org/https://doi.org/10.2308/jmar-51476>
- Komara, A., Ghozali, I., & Januarti, I. (2020). Examining the Firm Value Based on Signaling Theory. *Advances in Economics, Business and Management Research*, 123, 1–4. <https://doi.org/https://doi.org/10.2991/aebmr.k.200305.001>
- Konar, S., & Cohen, M. A. (2000). Does the Market Value Environmental Performance? *Review of Economics and Statistics*, 83(2), 281–289. <https://doi.org/https://doi.org/10.1162/00346530151143815>
- Lanita, I., & Rachmawati, D. (2020). Penerapan Environmental Management Accounting (EMA) Terhadap Kinerja Perusahaan. *InFestasi*, 16(1), 28–43. <https://doi.org/10.21107/infestasi.v16i1.6886>
- Malau, L. R. E., & Rambe, K. R. (2022). Efek Sertifikasi RSPO dan Determinan Lainnya terhadap Kinerja Keuangan Perusahaan Perkebunan Kelapa Sawit di Indonesia. *Jurnal Ekonomi Modernisasi*, 18(2), 184–198. <https://doi.org/10.21067/jem.v18i2.7270>
- Mukwarami, S., & Van der Poll, H. M. (2024). Critical Environmental Management Accounting Practices Influencing Service Delivery of Growing Cities in a Developing Economy: A Review and Conceptual Framework. In *Environment Systems and Decisions* (Vol. 44, Number 3, pp. 710–739). Springer. <https://doi.org/10.1007/s10669-023-09960-9>
- Notalin, E., Afrianty, N., & Asnaini, A. (2021). Dampak Covid-19 terhadap tingkat efisiensi kinerja keuangan bank umum syariah di Indonesia menggunakan pendekatan Data Envelopment Analysis (DEA). *Jurnal Ilmiah Akuntansi, Manajemen Dan Ekonomi Islam (JAM-EKIS)*, 4(1), 169-178.
- Pratiwi, E. P. G., & Rachmawati, D. (2021). Implementasi Environmental Management Accounting dan Nilai Perusahaan: Kinerja Operasional Perusahaan sebagai Pemediiasi. *AJAR: Atma Jaya Accounting Research*, 4(2), 110. <https://doi.org/10.35129/ajar.v4i02.184>
- Putikadea, I., & Sari Siregar, C. (2023). Does Disclosure of Carbon Emission Able to Attract Investors? *AKRUAL: Jurnal Akuntansi*, 15(1), 2085–9643. <https://doi.org/10.26740/jaj>
- Ross, S. A. (1977). The Determination of Financial Structure: The Incentive-Signalling Approach. *The Bell Journal of Economics*, 8(1), 23–40. <https://doi.org/10.2307/3003485>
- Rosyadi, F. H., Mulyo, J. H., Perwitasari, H., & Darwanto, D. H. (2021). Export Intensity and Competitiveness of Indonesia's Crude Palm Oil to Main Destination Countries. *Agricultural Economics (Czech Republic)*, 67(5), 189–199. <https://doi.org/10.17221/371/2020-AGRICECON>
- RSPO. (2013). *Prinsip dan Kriteria untuk Produksi Minyak Sawit Berkelanjutan*.
- RSPO. (2018). *Principles and Criteria for the Production of Sustainable Palm Oil*.
- Schaltegger, S., & Burritt, R. L. (2010). Sustainability Accounting for Companies: Catchphrase or Decision Support for Business Leaders? *Journal of World Business*,

- 45(4), 375–384. <https://doi.org/10.1016/j.jwb.2009.08.002>
- Spence, M. (1973). Job Market Signaling. *The Quarterly Journal of Economics*, 87(3), 355–374. <https://doi.org/10.2307/1882010>
- Steffen, P. (2015). *Correlating Economic and Financial Viability with Sustainability for Palm Oil Plantations*.
- Suniantari, I. G. A. P., & Yasa, G. W. (2022). Kinerja Lingkungan, Kepemilikan Manajerial dan Nilai Perusahaan. *E-Jurnal Akuntansi*, 32(2), 3847. <https://doi.org/10.24843/eja.2022.v32.i02.p19>
- Suroso, A. I., Tandra, H., & Wahyudi, I. (2021). The Impact of Sustainable Certification on Financial and Market Performance: Evidence from Indonesian Palm Oil Companies. *International Journal of Sustainable Development and Planning*, 16(8), 1495–1500. <https://doi.org/10.18280/ijstdp.160810>
- Ulfah, Y., Smith, A., Serli, P. & Putri, A. (2025). The Influence of Intellectual Capital, Environmental Costs, and Environmental Performance on The Value of Manufacturing Companies Listed on The Indonesian Stock Exchange. *AKUNESA: Jurnal Akuntansi Unesa*, 14(1), 11–22. <https://doi.org/10.26740/akunesa.v14n1.p11-22>
- UNEP. (2014). *UNEP and Roundtable on Sustainable Palm Oil Sign New Agreement*.
- United States Department of Agriculture. (2023). *Production Palm Oil Data*. USDA. <https://www.fas.usda.gov/data/production/4243000>