

# Firm Characteristics, Islamic Corporate Social Responsibility, and Implementation of Environmental Management Accounting (EMA)

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## Abstract

This article aims to empirically examine the effect of industry sensitivity, public ownership, and Corporate Social Responsibility (CSR) on the implementation of Environmental Management Accounting (EMA). The three independent variables test the contingency theory in the form of a contingent or contextual variable relationship in encouraging the implementation of the EMA. This study uses secondary data to collect data using the documentation method in the annual report and sustainability report in 2021. The sample was determined using purposive sampling, consisting of 46 manufacturing firms in the basic and chemical industries, mining, and consumer goods industries registered at the Indonesia Stock Exchange (IDX). Data processing employs Ordinary Least Squares (OLS). The results showed that two of the three hypotheses were rejected, namely, industry sensitivity ( $H_1$ ) and public ownership ( $H_2$ ), indicating no effect on EMA, while Islamic Corporate Social Responsibility (ICSR) ( $H_3$ ) indicated an influence on EMA. The test results imply that contingencies considerations in the form of high-cost ICSR alignments and not necessarily recommendations in conventional accounting recognition encourage the implementation of EMA. It is necessary to determine the suitability of the contingency variables in encouraging the implementation of the EMA.

**Keywords:** *Industry Sensitivity, Public Ownership, Islamic Corporate Social Responsibility (ICSR), Contingencies, and Environmental Management Accounting (EMA).*



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## **INTRODUCTION**

The pace of modernization marked by industrialization can no longer be stopped (Basuki, 2015; Hadi & Baihaqi, 2020). On the other hand, industrialization offers benefits and contributes to development, such as creating jobs, boosting Gross Domestic Product (GDP), increasing per capita income, and addressing the issue of unemployment, among other benefits (Burhany, 2013). On the other hand, the industry also causes havoc, such as environmental damage, air pollution, water pollution, dust emissions, the emergence of viruses and deadly diseases, and the like (Rahmah et al., 2022). Firms involved in the development process must be environmentally oriented (Prawira & Herlina, 2018), even though they are costly and accounting challenging to manage, trace, and recognize (Burritt et al., 2019). Therefore, Environmental Management Accounting (EMA) is essential because it offers a concept to break down how to record all production activities and report environmental costs (Prawira & Herlina, 2018). There, the impact of environmental aspects on the accounting process is described through the stages of identifying costs, products, processes, and services in the company (Burhany, 2013). Alignment with environmental problems is mandated through *Undang-Undang No. 40 Pasal 74* [Law of the Republic of Indonesia No. 40 of 2007] regarding social and environmental responsibility (DPR and Presiden RI, 2007); thus, it must be well documented.

Although EMA offers alternative methods that complement conventional accounting, they remain ineffective (Azizah et al., 2011; Burritt et al., 2019; Syahrir et al., 2022; Talitha, 2022). There is a limitation in its application due to several factors, such as (1) the amount of environmental cost content; (2) weak communication between the accounting department and other divisions; (3) inclusion of environmental cost into overhead cost; (4) inaccuracy in the allocation of environmental costs to fixed costs; (5) inaccuracy in the calculation of the volume and cost of wasted raw materials; (6) environmental cost are not calculated in a relevant and significant manner in accounting records (Kumalawati et al., 2023; Sary, 2022). In addition, the constraints are also triggered by internal company factors, which are the dimensions of philosophy, commitment, and the often neglect of the transcendental or religiosity dimension in managing institutions (Damayanti & Pentiana, 2013; Mukwarami et al., 2023). Mutia et al. (2018) and Kustina

(2020) argue that industry intensity, the proportion of public ownership, and Corporate Social Responsibility (CSR) plays a decisive role in supporting EMA implementation. Research by Kustina (2020) and Huy et al. (2022) shows that the proportion of public ownership and industry sensitivity is a determinant of the use of EMA. In addition, Usmar (2017) reveals that firms in the heavy industry significantly support sustainability and eco-efficiency. Basuki (2015) shows that company concern for social and environmental issues encourages firms to implement EMA.

This study aims to empirically examine several internal factors of the company, namely industry sensitivity, Islamic Corporate Social Responsibility (ICSR), and the proportion of public ownership of EMA implementation. The theory that underlies the logic of testing the relationship between these variables is the contingency theory, which requires or determines contingent factors in the context of implementing EMA (Dewi et al., 2013; Purwati & Zulaikha, 2018). Contingency factors include internal and external factors, such as the proportion of ownership, level of alignment with ICSR, industry intensity, and other factors (Kustina, 2020; Mutia et al., 2018). Mayndarto and Murwaningsari (2021) state that industry sensitivity plays an important role in encouraging the implementation of EMA due to monitoring industry-related costs that need to be accounted for and disclosed (Arikarsita & Wirakusuma, 2020). These environmental costs need to be appreciated in the accounting process. The linkages in contingencies can also be seen from the effectiveness of supervision through the proportion of public ownership and partiality as well as the commitment to implementing EMA (Purnama, 2018; Putri et al., 2021). Rahayu et al. (2016) found that firms with a high proportion of public ownership tend to increase CSR implementation in the context of monitoring and maintaining legitimacy. It is highly recommended that this be documented by encouraging the implementation of the EMA.

The significance and distinction of the research show that the implementation of EMA has not been as expected, where so far, environmental costs, waste, and materials lost with waste are not recognized in accounting terms. Even if they are recognized, they are still considered part of overhead costs. Environmental costs and waste are currently considered fixed, which should not be by the rules because the variability of waste is not fixed but variable. Therefore, research is needed to encourage the implementation of EMA as an effort to complement the limitations of conventional accounting.

Research on the topic of EMA is expected to contribute to exploring the internal factors that trigger and constrain the implementation of EMA. Another distinction is demonstrated by incorporating transcendental values, namely the development of CSR expansion, which is imbued with the spiritual and religious dimensions of ICSR. The present research employed purposive sampling to select a sample from 46 manufacturing firms in the year 2021. The research data is secondary to the collection of data through the documentation technique, which involves examining the annual and sustainability reports and analyzing the data using OLSols.

## **LITERATURE REVIEW**

### **Contingency Theory**

Contingency theory is based on the general premise that no one-size-fits-all control system, including management and accounting systems, can be universally and appropriately applied to all firms in all circumstances. Instead, its effectiveness is contingent upon its existing situational factors (Rifai, 2019). In the implementation stage, compatibility with the contingency variables is needed, which will increase effectiveness and performance (Purwati & Zulaikha, 2018). Thus, suitability in contingency theory requires the suitability of contextual factors (contingency) with the designed system (Hidayati, 2002). In addition, the contingency factor was also established by integrating divine principles, specifically acknowledging that a portion of the company's assets and income is designated for the underprivileged and impoverished, as shown via the implementation of ICSR.

Borrowing the concept of contingency theory when pulled with the implementation of EMA has coherence that the EMA method, which is not yet considered common in conventional accounting, requires conformity of contextual factors (contingency) to company characteristics (Lanita & Rachmawati, 2020), such as human resources understanding and organizational effort element (understanding between the accounting section and other sections regarding recognition of environmental costs, industrial risk, industrial intensity, and the implementation of Islamic teachings in daily behavior, namely alignment with ICSR, public ownership, level of waste impact, and the like) (Huy et al., 2022; Mukwarami et al., 2023).

The inclusion of ICSR into the contingency variable is based on the argument that Islam is a source of values, including motivational values in the form of human and institutional piety measured by the level of implementation of Islamic teachings, which are the inner power of each adherent. The contingency variable determines the effectiveness of the system design and becomes a significant determinant of performance. The position of contingency theory in explaining the contextuality of EMA implementation is explained in Figure 1 below:

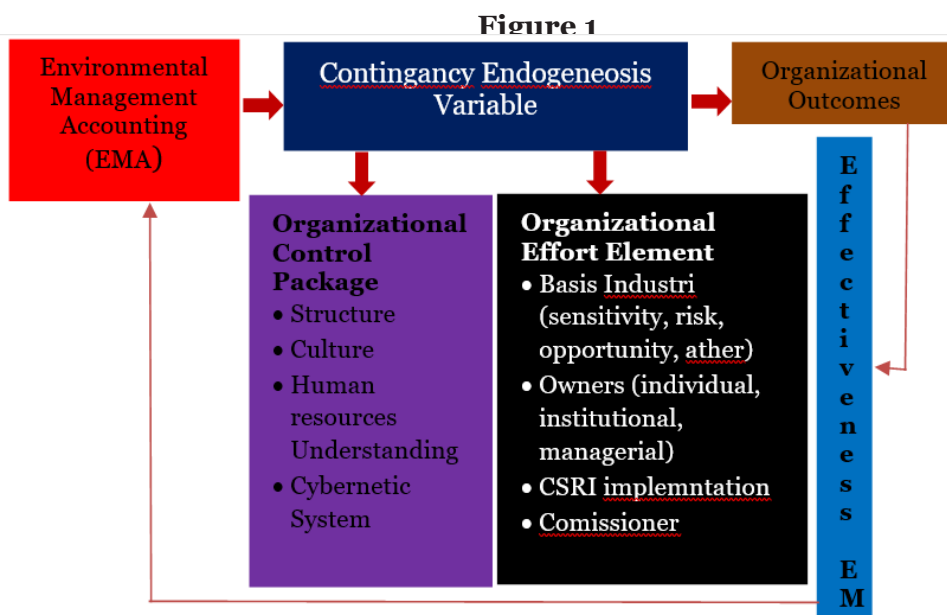


Figure 1 above explains that implementing EMA, considered uncommon in conventional accounting, requires fit with contextual variables (contingency endogenous), such as human recourses understanding, industry sensitivity, public ownership, and ICSR, which is expected to be an effort for effective implementation.

### 1. Implementation of Maqashid Sharia in Corporate Social Responsibility

The Qur'an and Sunnah are the foundation of their adherents in

carrying out life and living so that their daily behavior reflects their teachings (Indriani et al., 2021). Meanwhile, the Qur'an and Sunnah do not only consist of verses that provide productive operational procedures. Instead, it contains basic laws, concepts, and norms whose utilization requires interpretation and elaboration to become productive (Hadi & Baihaqi, 2020). Furthermore, not all adherents have the ability and scientific capacity to describe and translate the contents of the Qur'an and Sunnah into productive verses (Hadi & Baihaqi, 2020). Therefore, a scientific discipline is needed to translate verses into normative procedures so that they are productive or *maslahah* in the lives of their adherents (Fitri, 2021). *Maqashid sharia* is a discipline formulated by pious scholars to preserve life, preserve generations, preserve the character and the human mind, and preserve wealth. Maqashid sharia is a procedure that aims to make *maslahah* for humans in the form of fulfilling the levels of necessity, including *hajiyyat* (needs) and *tahsiniyat* (luxuries), so that humans carry out their roles and functions as creatures who obey Allah the Almighty (Indriani et al., 2021).

According to Asy-Syatibi, the values contained in maqashid sharia are how to create all kinds of benefits for humanity (Hadi & Baihaqi, 2020). It is further stated that there are five principles in maqashid sharia, namely: (1) *hifdzul al-din* (protecting religion); (2) *hifdzul al-nafs* (protecting the soul); (3) *hifdzul-al-nasl* (offspring); 4) *hifdzul al-aql* (protecting the mind); and (5) *hifdzul al-maal* (protecting assets) (Kania & Asroi, 2021). In the context of corporate governance, maqashid sharia provides a reference for how to be operational and protect assets (*hifdzul al-maal*) both for himself and the surrounding environment (Islam, 2023). The existence of a company cannot be avoided by the community and its surroundings (Indriani et al., 2021). They will be affected by operational presence (Prasetya & Safitri, 2023). Therefore, in protecting assets, the concept of ICSR can be *Pareto Optimum* so that the benefit of the two can be achieved in harmony and balance.

## **2. Hypothesis Development**

### **a. The Effect of Industry Sensitivity on EMA**

Industry sensitivity is sensitivity to business, environmental, and community risks (Arfah, 2022). Regarding this risk, sensitivity is categorized into sensitive and less sensitive (Mutia et al., 2018). High

sensitivity means business activities that can easily affect environmental risks directly or indirectly, while low sensitivity refers to business activities that have less impact on the environment directly or indirectly (Kustina, 2020). In the context of the need for and encouragement of EMA implementation, industry sensitivities have different sensitivities. Companies in high-sensitivity industries have significantly different demands in charging environmental costs, waste content, environmental impacts, emissions, and the like compared to firms in low-sensitivity industries (Syahrir et al., 2022). Consequently, operational expenses and investment related to waste are required (Purnama, 2018). In fact, concerning high sensitivity, it contains illegitimate content that can claim or protest stakeholders (Mutia et al., 2018). Mokhtar et al. (2016) stated that applying EMA to firms in industries that are sensitive to environmental risks puts greater demands on implementing eco-efficiency and EMA. This research is in line with the research by Mutia et al. (2018) and Kustina (2020), which shows that the company base and industry sensitivity are strong in demand for EMA implementation. Based on this description, the hypothesis is formulated as follows:

**H<sub>1</sub>** : Firms in environmentally sensitive industries are more likely to apply a higher level of EMA than those in less environmentally sensitive industries.

#### **b. The Effect of Public Ownership on EMA**

The proportion of public ownership is the number of shares owned by the public (Putri et al., 2021). According to agency theory, the level of public ownership is motoring bound, and if it is related to contingency theory, it contains variables that determine the effectiveness of EMA (Purnama, 2018). The amount of share ownership by the public means greater oversight by the public because publicly distributed shares mean sensitivity to the market (Mutia et al., 2018). The greater the ownership by the public, the higher the supervision carried out by the public, including regarding various matters related to company risk (Purnama, 2018). For this reason, shareholders are interested in various methods to avoid risks and produce risk control and accountability, including implementing EMA (Ardyaningsih & Oktarina, 2022; Kustina, 2020).

The higher the proportion of share ownership by the public, the more information is needed, including the implementation of environmental disclosures in annual reports in the context of company control. Shakil et al. (2019) explain that the company base and level of public ownership significantly influence social disclosure. Based on this explanation, the second hypothesis can be formed, namely:

**H<sub>2</sub>** : The proportion of public ownership represents supervision that will encourage the implementation of environmental management accounting (EMA).

**c. The Effect of Islamic Corporate Social Responsibility (ICSR) on EMA**

CSR is an internal movement of company managers aware of social and environmental issues (Zhang et al., 2022). Social responsibility was originally a form of the company's charitable attitude towards the surrounding community as a form of empathy for its problems. However, eventually, it became a form of corporate responsibility, especially after the negative impact on the community and the environment due to expanded company operations (Nazari et al., 2017). It should be realized that the company is the party that benefits from resource exploitation, while the community is the party that has to bear the social costs due to environmental impacts (Hadi & Udin, 2021). Subsequently, the community raised multiple demands to highlight their lack of legitimacy, which forced firms to bear the costs of restoring legitimacy (Einwiller & Carroll, 2020). The social and environmental costs are quite high and must be borne by the company to maintain legitimacy (Karim et al., 2019). These costs are sometimes unbalanced; moreover, there are environmental costs that may not necessarily be recognized in accounting (Li & Wang, 2022).

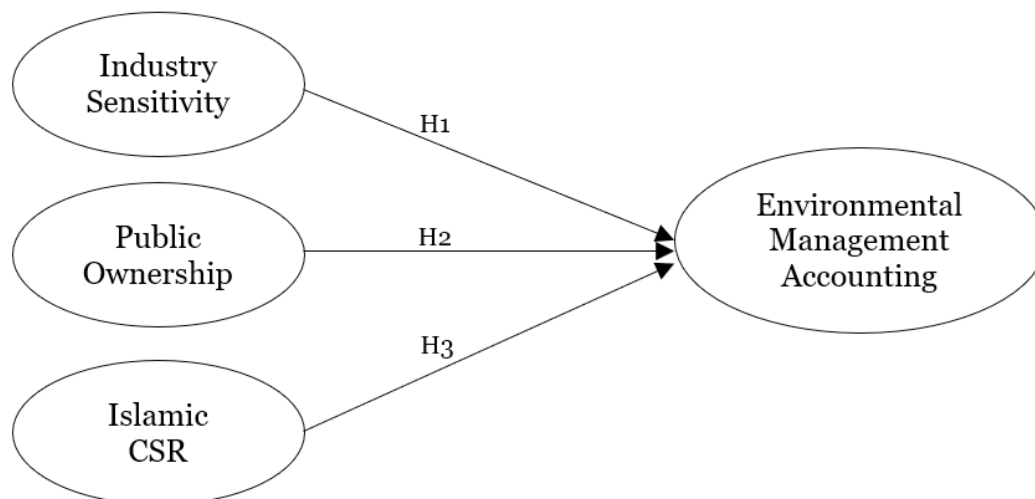
For this reason, firms that have a high commitment to society and the environment are interested in encouraging the implementation of EMA. Mutia et al. (2018) and Pratiwi et al. (2020) state that EMA is an alternative method because it appreciates and recognizes various social and environmental investment costs in the accounting process. According to Mutia et al. (2018), the high costs of CSR encourage firms



to implement EMA. Additionally, Ebimobowei (2011) shows that the level of CSR information disclosure in the company’s annual report affects increasing company value. On an industry basis, industrial risk is a determinant variable for implementing ICSR and encouraging firms to be open in social disclosure. Arikarsita and Wirakusuma (2020), Putri et al. (2021), and Mutia et al. (2018) stated that the level of CSR implementation requires accelerated implementation of EMA. Based on the description above, the third hypothesis in this study is:

**H<sub>3</sub>** : The level of commitment and alignment of firms in implementing ICSR encourages the implementation of environmental management accounting (EMA).

From the description above, the framework of this research can be described as follows:



**Figure 1. Theoretical Model**

**RESEARCH METHOD**

This study uses a quantitative positivistic approach to examine the influence of the independent variables, namely industry sensitivity, public ownership, and ICSR, on EMA implementation. The research was conducted in manufacturing firms, namely the sub-sectors of basic industry, chemicals, mining, and the consumer goods industry, listed on the Indonesia Stock Exchange (IDX) in 2021. A purposive sampling technique was used to

determine the sample, with a total sample of 46 firms. The type of research data is secondary data. The data collection technique uses documentation, namely reading the annual and 2021 sustainability reports. The operational design of each variable used in this study is as follows:

**Table 1**  
**Operational Definitions of Variables**

Variable	Scale
EMA	PROPER rating
Industry Sensitivity	Dummy
Public Ownership	$\frac{\text{total public shares}}{\text{total shares outstanding}} \times 100\%$
ICSR	$\frac{\sum xky}{N_y} \times 100\%$
	Where: xky = the amount disclosed by the company x Ny = Disclosure of all sample firms

To manage the data using multiple linear regression, with the formula as follows:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + e$$

Stands for :

Y = EMA

X<sub>1</sub> = Industry Sensitivity

X<sub>2</sub> = Public Ownership

X<sub>3</sub> = ICSR

a = constanta

b = beta

e = standard error

## RESULT

### 1. Data Description

The research was conducted on manufacturing firms in the basic industrial, chemical, mining, and consumer goods industries listed on the Indonesia Stock Exchange (IDX) in 2021, with a total sample of 46 firms. To provide an overview, the number of research samples is described in table 2 below:

**Table 2**  
**Number of Research Samples**

No	Industries	Amount Company
1.	Basic and chemical industry	18
2.	Mining	9
3.	Consumer goods industry	19
<b>Number of Samples</b>		<b>46</b>

*Source: Annual Report 2021*

The table above shows that the number of research samples was 46 firms, each consisting of 18 basic and chemical industries, 9 mining firms, and 19 consumer goods industries. Table 3 below describes the research variable data, where the industry sensitivity variable has a minimum value of 0 and a maximum of 1. The public ownership variable has an average value of 24.07. The company with the highest value of public ownership is 50, and the lowest value is 1. The ICSR variable has an average value of 30.35; the highest value is 56, and the lowest value is 19.

**Table 3**  
**Descriptive Statistics of Research Variables**

	N	Min.	Max.	Mean	Std. Dev.
Industry Sensitivity	46	0	1	.89	.315
Public Ownership	46	1	50	24.07	13.148
ICSR	46	19	56	30.35	7.301
EMA	46	2	5	3.24	.673
Valid N (listwise)	46				

*Source: Processed data, 2022*

## 2. Results of the Classical Assumption Test

The first classic assumption that must be fulfilled in OLS is whether the data is normally distributed or not. The results of statistical tests show that the data is normally distributed. Table 4 below explains the normality of the data as follows:

**Table 4**  
**Results of the Data Normality Test**

		<b>Unstandardized Residual</b>
N		46
Normal Parameters <sup>a,b</sup>	Mean	0E-7
	Std. Deviation	.59739122
	Absolute	.176
Most Extreme Differences	Positive	.176
	Negative	-.094
	Kolmogorov-Smirnov Z	1.191
Asymp. Sig. (2-tailed)		.117

*Source: Processed data, 2022*

The statistical output results in Table 4 above show that the significance value of 0.117 is greater than 0.05, meaning the data is normally distributed. The following classic assumption test is the multicollinearity test between the independent variables. The statistical output test results show a tolerance value of more than 0.01 and a VIF value of less than 10.0 and greater than 1.0 (see Table 5), which means the model is free from multicollinearity. Meanwhile, the heteroscedasticity test is shown by the distribution of the points in the scatterplot, which shows no heteroscedasticity.

### **3. Results of the Model Fit Test and Parameter Relationship between Variables**

After the model is free from classical assumptions, then hypothesis testing is carried out using OLS parametric statistics, where the results will be discussed in the following sub-chapters:

#### **a. Determination Coefficient Results**

The coefficient of determination examines the magnitude and closeness of the relationship between the dependent variable and

industry sensitivity, public ownership, and ICSR to the dependent variable, namely EMA. The statistical output results show an Adjusted R Square value of 0.155 or 15.5% (see Table 5). The statistical output implies that the ability of the independent variables, namely industry sensitivity, public ownership, and ICSR, to explain the EMA dependent variable is only 15.5%, while other variables outside this model explain the remaining 84.5%.

**b. Simultaneous Test Results**

Simultaneous testing was conducted to determine the combined effect of all three independent variables - industry sensitivity, public ownership, and ICSR - on the EMA as the dependent variable. Based on the statistical output, the calculated F value is 3,757, and a significance value of 0.018 is smaller than the p-value of 0.05. It can be concluded that simultaneously, the independent variables, namely industry sensitivity, public ownership, and ICSR, have a significant influence on the dependent variable, namely EMA.

**Table 5**  
**Test of Model Significance**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-.262	1.429		-.183	.855		
Industry Sensitivity	-.096	.308	-.045	-.311	.757	.904	1.107
Public Ownership	-.202	.130	-.217	-1.558	.127	.965	1.036
ICSR	1.237	.420	.417	2.942	.005	.935	1.069
R	0.460						
R <sup>2</sup>	0.212						
Adjusted R Square	0.155						
F	3.757		Sig.	0.018			

Source: Processed data, 2022

## DISCUSSION

### 1. Effect of Industry Sensitivity on Environmental Management Accounting (EMA)

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This section presents the significance test results and parameters for the influence of the relationship between the independent and dependent variables (testing the research hypothesis). The statistical output results show that the first hypothesis, “Firms in environmentally sensitive industries are more likely to apply a higher level of EMA than those in less environmentally sensitive industries,” has been found to be unacceptable or rejected due to a negative relationship. This is indicated by the statistical output, which produces a calculated t-value of -0.311 with a significance value of 0.757 above the p-value of 0.05 (see Table 5). The results of this test imply that industry sensitivity is not a strong consideration in supporting or encouraging EMA. Industry sensitivity is not a superior consideration for implementing EMA as it is not guaranteed that firms with a sensitive position to environmental risks voluntarily carry out treatments to prevent environmental damage in the case of many firms.

They are not necessarily responsive by imposing or investing in environmental risk prevention efforts. When a company takes decisive action to align with environmental standards in response to mandatory considerations, such as legislation or community concerns, it demonstrates a commitment to sustainability and responsible business practices. This can help firms build trust with their customers and stakeholders and make a meaningful contribution to a more sustainable environment. Implementing alignments with environmental problems is more aimed at aborting obligations. Although there are sample firms that have sustainable environmental programs and investments, their number remains limited. Similarly, the management and calculation of waste, pollution, dust emissions, and similar factors remain challenging, and there is currently no universally accepted system for their financial assessment. It is natural if the sensitivity of the industry does not affect the EMA. This research is in line with Julekhah and Rahmawati (2019), Karunia et al. (2023), and Meutia et al. (2019), which indicate that industry sensitivity does not affect EMA. However, in contrast to the findings of Mutia

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et al. (2018), the industrial base has no effect on EMA.

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## **2. Effect of Public Ownership on Environmental Management Accounting (EMA)**

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The second hypothesis tested in this study is “The proportion of public ownership represents supervision that will encourage the implementation of EMA.” When statistical calculations demonstrate that the hypothesis cannot be accepted or is rejected, this is shown by the statistical output, which generates a calculated t-value of -1.558 with a significance level of 0.127, above the p-value of 0.05 (see Table 5). Observing the results of testing this hypothesis implies that the proportion of ownership increases oversight. However, in cases where part of the public ownership is held by small investors who are more after capital gains, the supervisory role becomes less effective, especially related to the implementation of EMA, which is expected to have environmental risk and less attention. Empirical facts show that in almost all sample firms, the proportion of public ownership is quite significant (see Table 3), but it is not strong enough to encourage firms to take initiatives in paying attention to environmental risks. The results of this study are in line with the research of Fathurohman et al. (2022) and Wartina and Apriweni (2018), which shows that the proportion level of public ownership has no significant effect on CSR practices. In addition, Kustina and Asanah (2020) state that commitment to social and environmental issues does not increase social disclosure in company annual reports. However, this research contradicts the research of Julekhah and Rahmawati (2019) and Karunia et al. (2023), which shows that the proportion of public ownership is not significant in encouraging the initiative to implement EMA.

## **3. Effect of ICSR on Environmental Management Accounting (EMA)**

The third hypothesis is “The level of commitment and alignment of firms in implementing ICSR encourages the implementation of EMA.” Based on statistical calculations, it shows a significant positive effect or the hypothesis is accepted. This is shown through the statistical output, which produces a calculated t-value of 2,942 with a significance value of 0.005 which is below the alpha of 0.05 (see Table 5). The results of testing this hypothesis imply that the company is aware that ICSR has high costs, and not

all of them have an impact on company operations (Hadi & Baihaqi, 2020). Firms are increasingly aware that ICSR must be carried out because ICSR is not only a responsibility but also has economic and legitimate content. These two values are needed to guarantee the company's going concern. Therefore, as a form of concern and concern for the company for the costs incurred by the company for protection, conservation, and reducing the effects of pollution, the company voluntarily incurs an environmental burden, even though accounting standards cannot recognize many environmental costs. Therefore, firms are interested in encouraging the implementation of EMA. EMA will facilitate and cover conventional accounting gaps that have not recognized the waste costs and material losses carried away with the waste. This research is in line with the research of Soleman et al. (2023), Pertama et al. (2022), Puspita et al. (2014), and Mukwarami et al. (2023), which shows that corporate commitment to CSR determines and encourages EMA disclosure and implementation. However, this study contradicts Indrasari & Ardhi (2017) research, which shows that CSR has no relationship with the implementation of EMA.

## **CONCLUSION**

After analyzing the research findings, it became clear that there is still room for improvement. This is because the contingency variables that were examined have produced contradictory outcomes. Out of the three hypotheses that were tested, two were found to be rejected, while one hypothesis was considered accepted. The rejected hypothesis is hypothesis one (H1) about the influence of industry sensitivity variables and hypothesis two (H2) about public ownership of EMA. On the other hand, the third hypothesis (H3), namely ICSR on EMA, has a positive and significant effect (hypothesis accepted). EMA shows significance for maintaining eco-efficiency and development sustainability. It is crucial to maintain sustainability and safety standards in order to prevent damages caused by industrialization while also ensuring that EMA is used effectively. The results of the study show that EMA implementation requires a fit or contextual driving factor. The three independent variables tested resulted in accepted and rejected hypotheses. Consequently, this indicates that the contingency variable needs situational suitability analysis. ICSR, which takes into account the spiritual element, particularly Islamic teachings



in the examination of variables, has been proven to be both supporting and significant. This implies that the high operational and investment costs associated with the ICSR should be recognized in accounting. However, conventional accounting has not received the level of recognition it deserves. Therefore, in order to encourage the implementation of the EMA, more support from several internal and external contingent variables is required.

### LIMITATION

This research has been carried out optimally. However, there are still many limitations that require correction and development. Even though this research has involved various sub-industries, namely firms that are members of the manufacturing sector, it fails to include environmental risk considerations. The high cost of social and environmental alignments turns out to support the implementation of EMA. This implies that companies are concerned about the high environmental costs, waste, and their commitment to society, and they are interested in credit for these initiatives in their accounting procedures. Therefore, further research is suggested to develop contingency variables, especially those that intersect with environmental risk, related to industrial risk, industry base, company base, level of claims, or societal pressure due to environmental damage, to be included in the research. Further research is also suggested to develop a variable measurement that captures the commitment and awareness of company management regarding the environment and waste.

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