Decoding Profitability: How CSR and Working Capital Management Interact Across Firm Sizes

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Abstract. This study investigates the effects of Corporate Social Responsibility (CSR) disclosure and working capital management (WCM) on firm profitability, with firm size examined as a moderating variable. Working capital management is proxied by three components: Days Sales Outstanding (DSO), Days Inventory Outstanding (DIO), and Days Payable Outstanding (DPO). The research draws on panel data from 36 companies listed in the ESG Quality 45 Index during the 2021–2024 period, analyzed using panel regression with interaction terms to capture the moderating role of firm size. The findings indicate that CSR disclosure and DPO exert a significant positive influence on profitability, while DSO exerts a significant negative influence. DIO, by contrast, shows no significant effect. Moreover, firm size is found to strengthen the positive relationships between CSR disclosure, DPO, and profitability, while simultaneously amplifying the negative effect of DSO on profitability. These results suggest that firm size functions as a critical contextual factor shaping how sustainability initiatives and working capital efficiency translate into financial performance. The study concludes that profitability among ESG-oriented firms is not determined by CSR disclosure or working capital efficiency in isolation, but by the alignment between sustainability strategies and financial management practices, further conditioned by firm scale. These findings offer theoretical contributions to the CSR–financial performance literature and practical implications for corporate managers and policymakers seeking to optimize profitability within ESG-driven business environments.

Keywords: CSR Disclosure, Working Capital Management, Firm Size, Profitability

1 Introduction

Increasing global competition requires firms to continuously enhance profitability while maintaining sustainability commitments. Profitability reflects the efficiency of resource allocation and managerial effectiveness in generating returns, making it a key indicator of firm performance [1], [2]. At the same time, stakeholder expectations have shifted toward responsible business practices, positioning Corporate Social Responsibility (CSR) as a strategic tool to strengthen reputation, build stakeholder trust, and

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support long-term value creation [3], [4], [5]. From the perspective of legitimacy theory, firms improve financial outcomes by aligning their operations with societal expectations, where CSR serves as a signal of sustainability commitment and corporate accountability.

Beyond CSR, working capital management (WCM) plays a critical role in ensuring liquidity and operational efficiency. WCM focuses on managing short-term assets and liabilities, particularly receivables, inventory, and payables, which are commonly measured by Days Sales Outstanding (DSO), Days Inventory Outstanding (DIO), and Days Payable Outstanding (DPO). According to the cash conversion cycle theory, inefficient receivables collection and excessive inventory holding can reduce liquidity and profitability, while optimized payables management may improve financial flexibility and internal financing capacity [6], [7], [8]. Efficient working capital management enables firms to accelerate cash inflows, minimize operational costs, and improve financial performance [9].

However, evidence from Indonesia suggests that working capital management remains suboptimal. Inventory holding periods tend to be relatively high, while profitability fluctuates, indicating an imbalance in cash flow management. These conditions suggest that firms still face challenges in aligning liquidity management with financial performance. At the same time, ESG-oriented firms are increasingly recognized for their strong sustainability practices and governance structures, which may influence financial outcomes differently compared to conventional firms [10], [11].

Despite extensive research on CSR and WCM, prior studies largely focus on specific sectors or generalized samples, limiting their applicability to ESG-based firms and cross-sectoral contexts [5], [12]. Moreover, empirical findings remain inconsistent across countries and industries, suggesting that contextual factors play an important role. One such factor is firm size, which may influence how firms implement sustainability strategies and manage working capital.

From the resource-based view (RBV), firm size reflects the availability of internal resources, including financial capacity, technological infrastructure, and managerial expertise [13]. Larger firms are more likely to achieve economies of scale, improve operational efficiency, and access external financing more easily, leading to higher profitability [14], [15], [16]. In addition, firm size may enhance the effectiveness of CSR by enabling broader implementation and stronger stakeholder communication [17]. However, increased organizational complexity in larger firms may reduce efficiency in certain areas, particularly in receivables management, creating asymmetric effects.

Based on these arguments, this study examines the effect of CSR disclosure and working capital management on profitability, with firm size as a moderating variable, focusing on ESG Quality 45 companies listed on the Indonesia Stock Exchange during 2021–2024. This study contributes by integrating sustainability and financial efficiency perspectives within ESG-oriented firms, providing empirical evidence on how CSR and working capital strategies jointly influence financial performance in an emerging market context.

Accordingly, CSR disclosure and payables management (DPO) are expected to positively affect profitability, while receivables management (DSO) and inventory management (DIO) are expected to negatively affect profitability. Firm size is proposed to

strengthen the effects of CSR and DPO, while weakening the negative effects of DSO and DIO, reflecting its role as a contextual factor in shaping the relationship between sustainability practices, operational efficiency, and financial outcomes.

2 Methods

This study employs a quantitative associative design to examine the effects of CSR disclosure and working capital management—proxied by DSO, DIO, and DPO—on profitability, with firm size as a moderating variable. The sample consists of 36 non-financial companies listed in the ESG Quality 45 Index on the Indonesia Stock Exchange during 2021–2024, resulting in 144 firm-year observations selected using purposive sampling. Profitability is measured by ROA, CSR by GRI 2021 disclosure index, WCM by DSO, DIO, and DPO, and firm size by the natural logarithm of total assets. Panel data regression is conducted using EViews 13. Multicollinearity is assessed through correlation coefficients (<0.85). Model selection is determined using Chow, Hausman, and Lagrange Multiplier tests. Interaction terms are included to test moderation effects, with a 5% significance level applied.

3 Results and Discussion

Prior to hypothesis testing, classical assumption and model specification tests were conducted to ensure the validity of the regression results. The multicollinearity test shows that all correlation coefficients are below 0.85, indicating no multicollinearity issues. Furthermore, the model selection tests indicate that the Random Effect Model (REM) is the most appropriate model for the baseline regression, while the Common Effect Model (CEM) is selected after incorporating the interaction terms.

Table 1. Regression Result.

Variable	Coefficient	P-value	Adjusted R-squared
CSR	0.111048	0.0000	
DSO	-0.000515	0.0465	
DIO	4.56E-05	0.3110	0.718569
DPO	0.000703	0.0003	
SZ	0.094112	0.0000	
CSR*SZ	0.065600	0.0000	
DSO*SZ	-0.000503	0.0161	0.866014
DIO*SZ	3.90E-05	0.6873	
DPO*SZ	0.000615	0.0006	

Source : Author's Work

Table 1 presents the regression results. The findings indicate that CSR disclosure, DSO, DIO, DPO, and firm size exhibit heterogeneous effects on profitability, reflecting

the interaction between sustainability strategies and working capital efficiency. CSR disclosure shows a positive and significant effect, suggesting that firms benefit financially from aligning their activities with stakeholder expectations, consistent with legitimacy theory [3], [4], [5]. In ESG-oriented firms, CSR functions not only as a compliance mechanism but also as a strategic signal that enhances reputation, strengthens investor confidence, and supports long-term value creation.

In contrast, DSO has a negative and significant effect on profitability, indicating that inefficient receivables management constrains liquidity and increases financial risk [6], [18], [19]. This supports the cash conversion cycle theory, where delayed cash inflows reduce operational flexibility and increase financing costs. Meanwhile, DIO does not significantly affect profitability, suggesting that inventory management is not a dominant determinant of financial performance. This may reflect strategic inventory decisions in ESG firms, where maintaining higher inventory levels ensures supply stability and demand responsiveness, offsetting potential efficiency losses [7], [20], [21].

Conversely, DPO positively affects profitability, indicating that firms benefit from delaying payments and utilizing internal financing to support operations [8], [22], [23]. This finding suggests that payables management serves as an effective liquidity strategy, particularly when firms maintain strong relationships with suppliers. Firm size also shows a positive and significant effect, confirming that larger firms achieve higher profitability through economies of scale, stronger resource access, and improved operational efficiency [14], [15], [16].

The moderating analysis reveals that firm size plays an asymmetric role in shaping these relationships. Firm size strengthens the positive effect of CSR, indicating that larger firms are more capable of translating sustainability initiatives into financial benefits due to superior resources, governance structures, and broader stakeholder engagement [5], [17], [24]. However, firm size intensifies the negative effect of DSO, suggesting that operational complexity in large firms may reduce receivables efficiency, particularly when credit policies become more flexible or decentralized [6], [9], [18].

Firm size does not significantly moderate the relationship between DIO and profitability, indicating that inventory management effectiveness is less dependent on scale and more influenced by strategic considerations such as demand stability and supply chain resilience [7], [20], [21]. In contrast, firm size strengthens the positive effect of DPO, confirming that larger firms can leverage stronger bargaining power and better financial planning to optimize payment strategies and improve liquidity [8], [22], [23].

Finally, the increase in adjusted R-squared from 0.7186 to 0.8660 indicates that incorporating interaction terms significantly improves the model's explanatory power, confirming that firm size acts as a key contextual factor in translating sustainability and operational strategies into financial outcomes.

4 Conclusion

This study finds that CSR disclosure, DPO, and firm size positively influence profitability, while DSO has a negative effect and DIO shows no significant relationship. Firm

size strengthens the effects of CSR and DPO but intensifies the negative impact of DSO, highlighting its asymmetric moderating role. These results suggest that profitability in ESG-oriented firms depends on the alignment between sustainability practices and working capital efficiency. However, the study is limited to ESG Quality 45 firms and quantitative data. Future research should explore broader samples and additional moderators, while managers should enhance CSR integration and working capital management to improve financial performance.

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