Neo Journal of Economy and Social Humanities (NEJESH) **ISSN: 2828-6480**
Volume 5, Issue 1, 2026.
pp. 116-130 http://dx.doi.org/10.56403/nejesh.v5i1.405

The Role of Industry Players' Understanding and Concern in Green Accounting Implementation and Business Sustainability: Evidence from Pempek MSMEs in Palembang

Nur Fitri Dewi[1], Alfi Maghfuriyah[2]
[1,2] Universitas Global Jakarta, Indonesia

Article Information

Article History
Received, January 31, 2026
Revised, February 15, 2026
Accepted, February 19, 2026
Published, February 20, 2026

Corresponding Author:
Nur Fitri Dewi,
Universitas Global Jakarta,
Indonesia
Email:
nurfitridewi@jgu.ac.id

ABSTRACT

Industry players' understanding and concern play a crucial role in shaping the implementation of green accounting and its implications for business sustainability among pempek MSMEs in Palembang City. Employing a quantitative approach, the data were analyzed using Structural Equation Modeling (SEM) with SmartPLS 4. The findings reveal that industry players' understanding and concern have a significant positive effect on green accounting implementation. Furthermore, green accounting implementation exerts a significant positive influence on business sustainability. In contrast, understanding and concern do not directly affect business sustainability. Mediation analysis further confirms that green accounting implementation fully mediates the relationship between industry players' understanding and concern and business sustainability. These results indicate that awareness and concern alone are insufficient to enhance sustainability performance unless they are translated into concrete green accounting practices. Within the context of pempek MSMEs, green accounting emerges as a key mechanism that converts environmental awareness into sustainable business outcomes. This research enriches the literature on green accounting and MSME sustainability while offering practical insights for policymakers and pempek MSME development initiatives in Palembang City.

Keywords: green accounting, business sustainability, industry understanding, industry concern, MSMEs, pempek industry.

1. INTRODUCTION

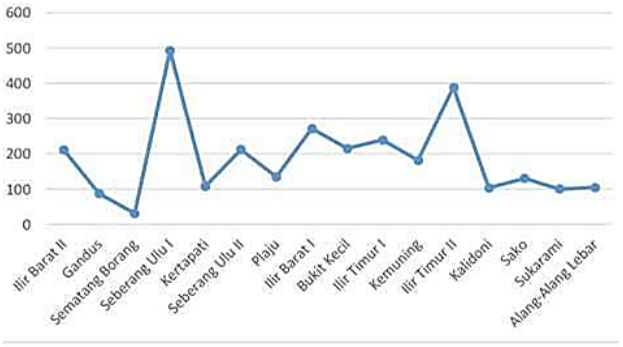
Environmental degradation has become one of the most critical challenges in achieving sustainable development, particularly in developing countries where economic growth is often prioritized over environmental preservation. Business activities, including those conducted by Micro, Small, and Medium Enterprises (MSMEs), contribute significantly to environmental problems such as waste accumulation, water pollution, air contamination, and inefficient use of natural resources. Although MSMEs play a strategic role in economic development through employment creation, income generation, and poverty alleviation, their environmental impacts are frequently overlooked due to limited awareness, inadequate resources, and weak implementation of environmental management practices (Indriastuti & Mutamimah, 2024; Nasution et al., 2025).

One approach that integrates environmental responsibility into business decision-making is green accounting. Green accounting is an accounting system that identifies, measures, and reports environmental and social costs arising from business operations and integrates them into financial

and managerial decision-making processes (Asyadiah et al., 2025). Through green accounting, environmental costs such as waste management, pollution control, resource consumption, and environmental rehabilitation are recognized as part of operational costs rather than being treated as external or incidental expenses. This approach encourages businesses to internalize environmental externalities and shift their orientation from short-term profit maximization toward long-term sustainability (Pertiwi et al., 2025). Previous studies indicate that the implementation of green accounting can improve environmental performance, increase operational efficiency, enhance corporate reputation, and support business sustainability (Nasution et al., 2025).

The relevance of green accounting is particularly evident in traditional food-processing industries that generate substantial amounts of organic and liquid waste. One such industry is the pempek industry in Palembang City, South Sumatra, Indonesia. Pempek is a traditional fish-based food product made primarily from locally sourced fish such as belida, snakehead, and mackerel, combined with tapioca flour and complementary ingredients. The cultural uniqueness and distinctiveness of pempek represent strong competitive advantages, making it socially acceptable and widely consumed not only by local communities but also by consumers from outside Palembang. This cultural embeddedness has allowed the pempek industry to grow rapidly and become an important contributor to the local economy (Saputri et al., 2025).

Based on data from the Ministry of Cooperatives and MSMEs of the Republic of Indonesia, in 2020 there were 3,006 pempek MSMEs operating in Palembang City, spread across 18 districts. These MSMEs play a crucial role in absorbing labor, supporting household incomes, and contributing to regional economic growth through business taxes and related economic activities (Ministry of Cooperatives and MSMEs, 2020; Saputri et al., 2025). The high number of industry players has intensified competition, prompting producers to increase daily production volumes. While this phenomenon strengthens economic activity, it simultaneously increases the volume of waste generated from pempek production processes.



Sumber: Kementrian Koperasi dan UKM Republik Indonesia (2021)

Figure 1. Distribution of Pempek Industry Players in Palembang City

Figure 1 shows that the distribution of Pempek industry players is highest in Seberang Ulu I District, with 492 Pempek MSMEs. Pempek industry players themselves contribute significantly to the economy of Palembang City, including by absorbing labor and contributing to regional income from business taxes. Industry players compete to produce pempek daily due to intense competition. However, on the other hand, this phenomenon can generate production waste that will impact environmental quality through air, soil, and water pollution. Analysis of waste problems in the pempek and cuko manufacturing process includes solid waste generated from fish heads, fish entrails, fish bones, fish skin, garlic skin, egg shells, chili stalks, and dried chilies that are not suitable for use. Liquid waste comes from water left over from cleaning and washing fish, blood, boiling complementary ingredients, and water left over from boiling pempek dough. Plastic waste also comes from plastic packaging, sago flour waste, and flavoring plastic. Air waste accompanies the liquid and processing waste, which is directly disposed of in the ditch.

The pempek production process generates various types of waste, including solid, liquid, and plastic waste. Solid waste consists of fish heads, bones, entrails, skins, eggshells, garlic peels, and chili residues, while liquid waste originates from fish cleaning, blood residues, boiling processes, and leftover water from pempek dough preparation. Plastic waste is generated from packaging materials, raw material sacks, and single-use plastic containers. In many cases, this waste is disposed of directly into drainage channels without adequate treatment, causing unpleasant odors and environmental pollution (Setiawan et al., 2025).

Reports from local media and government agencies indicate that improper waste disposal by MSMEs, including pempek producers, has led to numerous public complaints related to clogged drains, foul odors, and the spread of waste into residential areas (Alawiyah, 2024). Moreover, untreated liquid waste from food-processing MSMEs has contributed to the deterioration of water quality in the Musi River, which serves as a major source of raw water for Palembang City. Water quality monitoring and pollution index analyses reveal that several segments of the Musi River and its tributaries are classified as heavily polluted, with pollution levels exceeding permissible standards for biological oxygen demand (BOD), total suspended solids (TSS), and other parameters (Setiawan et al., 2025). This condition poses serious risks to environmental sustainability, public health, and the long-term viability of MSMEs that depend on clean water resources.

Environmental degradation caused by MSME activities is often associated with a lack of understanding and concern among business actors regarding environmental responsibility. Many MSME operators prioritize short-term economic survival and profitability, while environmental costs are perceived as additional burdens rather than strategic investments (Nasution et al., 2025). In this context, green accounting can function as an effective tool to bridge the gap between economic objectives and environmental responsibility by combining environmental costs (green costs) with environmental benefits in business evaluations (Asyadiah et al., 2025).

Understanding of green accounting refers to the extent to which business actors comprehend the concept, objectives, and mechanisms of environmental accounting, particularly in relation to identifying and recording environmental costs. A higher level of understanding enables MSME actors to recognize the financial implications of environmental impacts and integrate them into decision-making processes (Pertiwi et al., 2025). Meanwhile, concern for green accounting implementation reflects the degree of awareness, attention, and commitment of business actors toward environmental protection and sustainable practices. Environmental concern is rooted in the recognition that humans are part of the ecosystem, and that environmental degradation ultimately threatens social welfare and economic continuity (Indriastuti & Mutamimah, 2024).

Business sustainability refers to a stable and continuous business condition that encompasses economic growth, operational continuity, and long-term resilience. Sustainable businesses are those that can maintain profitability while fulfilling social and environmental responsibilities (Nasution et al., 2025). For MSMEs, environmental expenditures related to waste management and pollution control should be viewed as long-term investments that generate future benefits, such as improved efficiency, reduced environmental risks, enhanced reputation, and greater compliance with regulations (Pertiwi et al., 2025).

Empirical studies conducted in recent years demonstrate that the implementation of green accounting has a positive influence on environmental performance and business sustainability. MSMEs that apply green accounting practices tend to exhibit better waste management, higher resource efficiency, and improved sustainability outcomes compared to those that rely solely on conventional accounting systems (Asyadiah et al., 2025; Nasution et al., 2025). Furthermore, the relationship between understanding, concern, and business sustainability is often mediated by the implementation of green accounting, indicating that cognitive and affective factors play a critical role in shaping sustainable business behavior.

Based on these considerations, it is essential to examine how the understanding and concern of pempek industry players influence the implementation of green accounting and how this implementation, in turn, affects business sustainability. This study aims to analyze strategies to increase the understanding and concern of pempek MSME actors regarding green accounting implementation as a means to support business sustainability and promote economic and environmental efficiency in Palembang City. The findings of this research are expected to provide practical insights for pempek industry actors in improving sustainable business practices and offer policy recommendations for local governments in strengthening environmentally responsible MSME development.

2. LITERATURE REVIEW

Green accounting has emerged as an important managerial and accounting approach that integrates environmental considerations into business decision-making processes. For MSMEs, especially those operating in environmentally sensitive sectors such as traditional food processing, the implementation of green accounting is strongly influenced by internal factors related to business actors' knowledge and attitudes. Prior studies emphasize that understanding and concern toward environmental responsibility play a crucial role in shaping environmentally responsible behavior and sustainable business practices (Widiasari & Yadiati, 2021; Latupeirissa et al., 2023).

2.1. Pempek Industry Players' Understanding of Green Accounting Implementation

Understanding refers to an individual's ability to absorb, interpret, and apply knowledge related to specific concepts or practices. In the context of green accounting, understanding reflects the extent to which business actors comprehend the objectives, principles, and procedures of environmental accounting, particularly regarding the identification and measurement of environmental costs generated by operational activities (Rahmawati & Subardjo, 2022). This understanding is critical for MSMEs because environmental costs are often indirect, hidden, or not explicitly recorded in conventional accounting systems.

Several studies indicate that MSME actors with higher levels of understanding of green accounting are more likely to implement environmental cost identification, environmental budgeting, and environmentally responsible reporting practices (Sari & Handayani, 2021). A solid understanding allows business actors to recognize that environmental expenditures such as waste treatment, pollution prevention, and resource efficiency improvements are not merely expenses but strategic investments that can enhance long-term business performance (Hidayah et al., 2023). Empirical research conducted on Indonesian MSMEs confirms that understanding of environmental accounting significantly influences the adoption of green accounting practices (Putri et al., 2022).

2.2 Pempek Industry Players' Concern for Green Accounting Implementation

Concern represents an individual's level of awareness, sensitivity, and emotional involvement toward a particular issue. Environmental concern reflects the extent to which business actors feel responsible for environmental protection and acknowledge the consequences of environmental degradation caused by business activities (Suharti & Purwanto, 2021). In the context of MSMEs, concern for green accounting implementation is closely associated with ethical awareness, social responsibility, and commitment to sustainable development.

Studies suggest that MSMEs with higher environmental concern are more likely to adopt environmentally friendly practices, such as waste reduction, recycling, and compliance with environmental regulations (Yanti et al., 2023). Environmental concern also enhances a company's positive image and legitimacy in the eyes of stakeholders, including consumers, local communities, and regulators (Pratiwi & Setiawan, 2022). From a behavioral perspective, concern acts as a motivational driver that encourages business actors to translate environmental awareness into concrete actions, including the implementation of green accounting systems (Latupeirissa et al., 2023).

2.3 Business Sustainability

Business sustainability refers to the ability of a firm to maintain long-term operational stability while balancing economic, social, and environmental objectives. Sustainability emphasizes continuity, adaptability, and resilience in facing internal and external challenges (Elkington, 2020). For MSMEs, business sustainability is not only measured by short-term profitability but also by the capacity to survive, grow, and remain competitive without causing environmental harm. Business sustainability is a stability of business conditions, where sustainability is a business continuity system that includes growth, continuity and approaches to protect business continuity and business expansion (Yanti et al., 2018; Dewi, 2023). Business sustainability also refers to a business's continuity across successive generations under consistent leadership, ensuring the maintenance of the produced products' outcomes over the long haul (Dewi, 2023).

Recent studies show that MSMEs that integrate environmental responsibility into their business strategies tend to exhibit stronger sustainability performance, including improved efficiency, reduced operational risks, and enhanced market competitiveness (Kurniawan & Nugroho, 2021). Environmental initiatives undertaken by MSMEs, such as waste management and pollution control, are considered long-term investments that generate future benefits and support business continuity (Fauzi & Riyadi, 2023). Thus, sustainability is closely linked to how MSMEs manage their environmental impacts.

2.4 The Role of Green Accounting as a Mediating Variable

Green accounting serves as a mechanism that connects internal factors such as understanding and concern to sustainability outcomes. Business actors who understand and care about environmental issues are more likely to implement green accounting, which in turn enables better environmental cost control and sustainable decision-making (Rahmawati & Subardjo, 2022). This implies that green accounting plays a mediating role in translating cognitive and attitudinal factors into tangible sustainability performance.

Empirical evidence supports the mediating role of green accounting in strengthening the relationship between environmental awareness and business sustainability. Studies on MSMEs in Indonesia indicate that understanding and concern do not directly enhance sustainability unless they are accompanied by structured environmental accounting practices (Putri et al., 2022; Hidayah et al., 2023). Therefore, green accounting implementation becomes a critical pathway through which understanding and concern contribute to sustainable business outcomes.

3. RESEARCH METHOD

3.1 Types of Research

This study employs a quantitative research approach with an explanatory (causal) research design, aiming to examine the causal relationships between industry players' understanding, concern, green accounting implementation, and business sustainability among pempek MSMEs in Palembang City. This research applies Structural Equation Modeling-Partial Least Squares (SEM-PLS) as the data analysis technique, utilizing SmartPLS version 4. SEM-PLS is selected because it is suitable for:

1) Testing complex models involving multiple latent variables and mediation effects,
2) Handling non-normal data distributions commonly found in MSME survey data, and
3) Accommodating relatively small to medium sample sizes while maintaining robust predictive accuracy.

The research model consists of four latent variables:

1) Industry Players' Understanding,
2) Industry Players' Concern,

3) Green Accounting Implementation, and
4) Business Sustainability.

The population of this study was all pempek industry players in Palembang City, known to number 3,006 as of 2020. However, the latest industry player population until 2025 is unknown. Therefore, sampling was carried out using the Lemeshow formula (Stanley Lemeshow, David W. Hosmer J, 1997), resulting in a sample size of 384 respondents (maximum estimated proportion of 0.5, error rate of 5%). The sampling technique used is non-probability sampling with sampling based on convenience sampling.

3.2 Research Model

Based on the theoretical foundation and empirical findings discussed, this study proposes a conceptual framework that examines the relationships among pempek industry players' understanding, concern, green accounting implementation, and business sustainability.

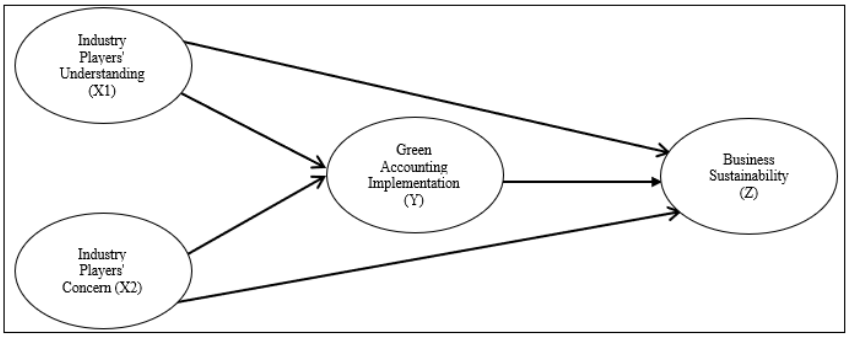


Figure 2. Research Model

The hypothesis in this research can be formulated as follows:
H1: Industry Players' Understanding Influences Green Accounting Implementation
H2: Industry Players' Concern Influences Green Accounting Implementation
H3: Industry Players' Understanding Influences Business Sustainability
H4: Industry Players' Concern Influences Business Sustainability
H5: Green Accounting Implementation Influences Business Sustainability
H6: Industry Players' Understanding Influences Business Sustainability through Green Accounting Implementation
H7: Industry Players' Concern Influences Business Sustainability through Green Accounting Implementation

3.3 Dimensions of Variable and Measurement of Research Variable

An explanation of the variable measurement method used can be seen in the Dimensions of Variable and Measurement of Research Variable table below:

Table 2. Dimensions of Variable and Measurement of Research Variable

Variable	Dimension	Indicator	Measurement Scale
Industry Players' Understanding	Conceptual understanding	Understanding of green accounting concepts	Likert Scale (1–5)
	Technical understanding	Understanding of identifying environmental costs	Likert Scale (1–5)
	Procedural understanding	Understanding of applying green accounting in business operations	Likert Scale (1–5)
	Analytical understanding	Ability to interpret environmental cost information for decision-making	Likert Scale (1–5)

Industry Players' Concern	Environmental awareness	Awareness of environmental impacts caused by business activities	Likert Scale (1–5)
	Moral responsibility	Sense of responsibility for environmental preservation	Likert Scale (1–5)
	Attitudinal concern	Concern about environmental damage from production waste	Likert Scale (1–5)
	Behavioral intention	Willingness to implement environmentally responsible practices	Likert Scale (1–5)
Green Accounting Implementation	Environmental cost identification	Identification of costs related to environmental impacts	Likert Scale (1–5)
	Environmental cost measurement	Measurement and recording of environmental costs	Likert Scale (1–5)
	Environmental cost allocation	Allocation of environmental costs to products or processes	Likert Scale (1–5)
	Environmental reporting	Disclosure of environmental cost information in business records	Likert Scale (1–5)
Business Sustainability	Economic sustainability	Ability to maintain long-term profitability	Likert Scale (1–5)
	Social sustainability	Contribution to employee and community welfare	Likert Scale (1–5)
	Environmental sustainability	Commitment to reducing negative environmental impact	Likert Scale (1–5)
	Business continuity	Ability to sustain business operations in the long term	Likert Scale (1–5)

Source: Hair et al. (2021), Henseler et al., (2021), Burritt & Schaltegger (2021), Schaltegger et al. (2022)

3.4 Data Analysis Technique

The data analysis technique in this study employs Structural Equation Modeling-Partial Least Squares (SEM-PLS) using SmartPLS version 4. The measurement model (outer model) is evaluated to ensure the validity and reliability of the constructs. Average Variance Extracted (AVE) is used to further confirm convergent validity. A construct is considered to have adequate convergent validity when its AVE value is greater than 0.50, indicating that the construct explains more than half of the variance of its indicators (Fornell & Larcker, 1981; Hair et al., 2022). Reliability is evaluated using Composite Reliability (CR) and Cronbach's Alpha. Composite Reliability values of 0.70 or higher indicate satisfactory internal consistency reliability, while values between 0.60 and 0.70 are still acceptable for exploratory research. Cronbach's Alpha values exceeding 0.60 also demonstrate adequate reliability in social science research contexts (Hair et al., 2022; Henseler et al., 2015).

The structural model (inner model) is evaluated to examine the causal relationships between constructs and to conduct hypothesis testing. Hypothesis testing is performed using the bootstrapping procedure in SmartPLS 4 to generate path coefficients, t-statistics, and p-values. A hypothesis is considered supported if the t-statistic value exceeds 1.96 and the p-value is less than 0.05, indicating statistical significance at the 5% level (Sarstedt et al., 2020; Hair et al., 2022).

The explanatory power of the model is assessed using the coefficient of determination (R^2), which indicates the proportion of variance in endogenous variables explained by exogenous variables. The magnitude of each relationship is further evaluated using effect size (f^2) to assess practical significance.

Mediation analysis is conducted to test the indirect effects of industry players' understanding and concern on business sustainability through green accounting implementation. The significance of indirect effects is examined using bootstrapping results.

4. RESULTS AND ANALYSIS

The data analysis and discussion are based on the application of Partial Least Squares-Structural Equation Modeling (PLS-SEM) using SmartPLS version 4. The analysis was conducted to examine the influence of Industry Players' Understanding and Concern on Green Accounting Implementation and Business Sustainability, as well as the mediating role of green accounting implementation. The data analysis followed two main stages: evaluation of the measurement model (outer model) and evaluation of the structural model (inner model).

4.1 Measurement Model Evaluation (Outer Model)

4.1.1 Convergent Validity

Convergent validity was assessed by examining the outer loading values of each indicator. In this study, indicators with outer loading values of 0.50 or higher were considered acceptable, particularly for applied research in the MSME context.

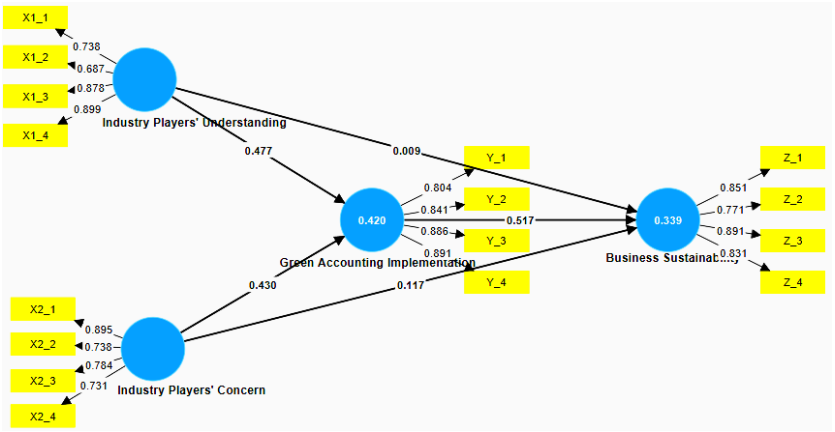


Figure 3. Measurement Model Results (PLS Algorithm)

The results obtained from SmartPLS indicate that all indicators measuring Industry Players' Understanding (X1), Industry Players' Concern (X2), Green Accounting Implementation (Y), and Business Sustainability (Z) have outer loading values above the minimum threshold. Therefore, all indicators were retained, confirming that the measurement model demonstrates adequate convergent validity.

4.1.2. Reliability Test

Reliability was evaluated using Cronbach's Alpha and Composite Reliability. The results show that all constructs exceed the minimum acceptable values, indicating good internal consistency among the indicators.

Table 3. Reliability Test

Variable	Cronbach's Alpha	Composite Reliability (rho_a)	Composite Reliability (rho_c)	Interpretation
Industry Players' Understanding (X1)	0.857	0.870	0.903	Reliable
Industry Players' Concern (X2)	0.878	0.885	0.916	Reliable
Green Accounting Implementation (Y)	0.800	0.836	0.868	Reliable
Business Sustainability (Z)	0.822	0.868	0.880	Reliable

Source: Processed by SmartPLS, 2026

4.2. Coefficient of Determination (R^2)

The results of the Coefficient of Determination (R^2) can be seen in the following table.

Table 4. Coefficient of Determination (R^2)

Endogenous Variable	R^2 Value	Interpretation
Green Accounting Implementation (Y)	0.420	Moderate
Business Sustainability (Z)	0.339	Moderate

Source: Processed by SmartPLS, 2026

The R^2 value of 0.420 indicates that Industry Players' Understanding and Concern explain 42.0% of the variance in Green Accounting Implementation. Meanwhile, the R^2 value of 0.339 indicates that 33.9% of the variance in Business Sustainability is explained by the model. These results suggest that the model has a moderate level of explanatory power.

4.3. Hypothesis Testing (Direct Effects)

Hypothesis testing was conducted using the bootstrapping procedure in SmartPLS 4. A hypothesis was accepted if the t-statistic value exceeded 1.96 and the p-value was less than 0.05.

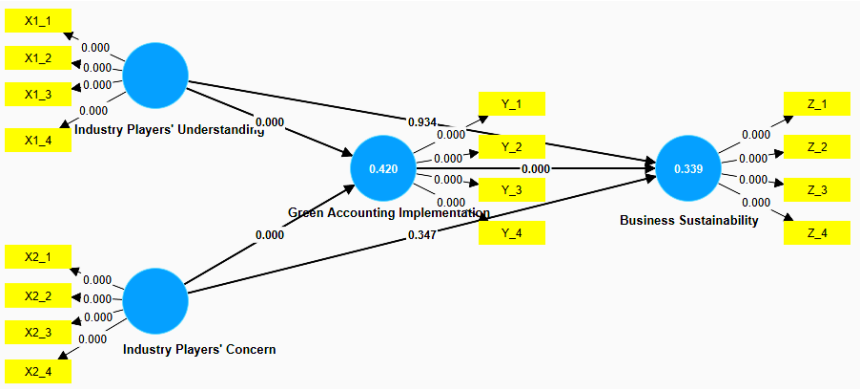


Figure 4. Bootstrapping Output of SmartPLS

Table 5. Direct Effect Hypothesis Testing

	Hypothesis	Path Coefficient (O)	T-statistic	P-value	Decision
1	Industry Players' Understanding Influences Green Accounting Implementation	0.477	5.884	0.000	Accepted
2	Industry Players' Concern Influences Green Accounting Implementation	0.430	5.632	0.000	Accepted
3	Industry Players' Understanding Influences Business Sustainability	0.009	0.083	0.934	Rejected
4	Industry Players' Concern Influences Business Sustainability	0.117	0.941	0.347	Rejected
5	Green Accounting Implementation Influences Business Sustainability	0.517	4.549	0.000	Accepted

Source: Processed by SmartPLS, 2026

Based on the hypothesis testing results, H1 and H2 are accepted, indicating that Industry Players' Understanding and Industry Players' Concern have a significant effect on Green Accounting Implementation. Furthermore, H5 is also accepted, confirming that Green Accounting Implementation significantly influences Business Sustainability. In contrast, H3 and H4 are rejected, as Industry Players' Understanding and Industry Players' Concern do not have a significant direct effect on Business Sustainability. These results suggest that understanding and concern contribute to business sustainability only through the implementation of green accounting practices, rather than through direct effects.

4.4 Mediation Analysis

The mediation analysis demonstrates that Green Accounting Implementation acts as a full mediator between both Industry Players' Understanding and Business Sustainability, as well as between Industry Players' Concern and Business Sustainability.

Table 6. Mediation Analysis

	Indirect Relationship	Path a	Path b	Indirect Effect (a×b)	Direct Effect	Mediation Type
H6	Industry Players' Understanding Influences Business Sustainability through Green Accounting Implementation	0.477	0.517	0.247	0.009	Full mediation
H7	Industry Players' Concern Influences Business Sustainability through Green Accounting Implementation	0.430	0.517	0.222	0.117	Full mediation

Source: Processed by SmartPLS, 2026

The mediation analysis was conducted using the bootstrapping procedure in SmartPLS 4 by examining the specific indirect effects. The results indicate that the indirect effect of Industry Players' Concern on Business Sustainability through Green Accounting Implementation is 0.222, while the indirect effect of Industry Players' Understanding on Business Sustainability through Green Accounting Implementation is 0.247. In addition, the direct effects of Industry Players' Concern and Industry Players' Understanding on Business Sustainability are not statistically significant. Based on these results, Green Accounting Implementation is identified as a full mediator in both relationships.

4.5 Discussion

(1) H1: Industry Players' Understanding Influences Green Accounting Implementation

The findings of this study indicate that Industry Players' Understanding significantly influences Green Accounting Implementation (H1). Understanding green accounting in Pempek MSMEs in Palembang City enables business actors to recognize environmental costs arising from fish processing waste, water use, and production residues. The implication of this finding is that capacity-building programs focusing on practical green accounting knowledge are essential, as increased understanding directly facilitates implementation rather than merely improving awareness. This result aligns with previous research showing that higher levels of environmental accounting knowledge among MSME actors support the adoption of green accounting practices. A study by Indraswari et al., (2024) found that understanding and awareness of green accounting concepts positively affect implementation among MSMEs in the fashion sector, particularly in recognizing environmental impacts and accounting processes. This supports the current result that

cognitive understanding facilitates the practical adoption of green accounting in Pempek MSMEs, as understanding enables actors to identify and measure environmental costs effectively.

(2) H2: Industry Players' Concern Influences Green Accounting Implementation

Similarly, the acceptance of H2, which shows that Industry Players' Concern positively affects Green Accounting Implementation, supports prior national studies suggesting that environmental concern motivates MSMEs to adopt environmentally responsible practices. Concern among pempek MSMEs regarding waste disposal, river pollution, and community complaints appears to encourage the adoption of green accounting as a structured response to environmental issues. This defines that local government and environmental agencies in Palembang should not only enforce regulations but also strengthen environmental awareness campaigns that are directly linked to practical accounting applications, ensuring concern is translated into operational systems.

The positive influence of Industry Players' Concern on Green Accounting Implementation is also corroborated by national research highlighting the role of environmental concern in motivating MSMEs to adopt sustainability practices. For instance, the research on barriers to green accounting implementation in Riau found that low environmental awareness among MSME owners is a significant obstacle to adoption, implying that greater concern is associated with higher likelihood of implementation (Purba et al., 2025). This supports the present finding that concern over environmental degradation can drive MSME actors to incorporate green accounting into their business processes, particularly in industries like pempek where production waste is visible and socially salient.

(3) H3: Industry Players' Understanding Influences Business Sustainability

The results indicate that Industry Players' Understanding does not have a significant direct effect on Business Sustainability, leading to the rejection of H3. This finding diverges from several previous studies that reported a direct relationship between environmental knowledge and sustainability performance. However, within the specific context of pempek MSMEs in Palembang, this result suggests that understanding green accounting concepts alone is insufficient to directly enhance business sustainability. Many pempek MSMEs operate using traditional production and management practices and tend to prioritize short-term business survival over long-term strategic planning. As a result, knowledge that is not supported by structured implementation mechanisms does not immediately translate into economic or environmental sustainability outcomes. This indicates that improving understanding without providing practical implementation support may have limited effectiveness in strengthening business sustainability. The result showing no direct effect of Industry Players' Understanding on Business Sustainability contrasts with some previous studies emphasizing a direct link between environmental knowledge and performance outcomes. For example, research exploring the link between green accounting and MSME performance in Jambi found that green accounting practices positively influence financial performance among MSMEs, implicitly suggesting that understanding environmental accounting could contribute to sustainability outcomes indirectly (Dahlia et al., 2025). However, that study did not isolate understanding as a direct predictor of sustainability. The present finding thus suggests that understanding alone, without implementation, may not be sufficient to impact sustainability outcomes directly in the pempek industry.

(4) H4: Industry Players' Concern Influences Business Sustainability

The analysis shows that industry players' concern does not have a significant direct effect on business sustainability, therefore, H4 is rejected. Although some previous studies have shown that environmental concern can directly influence sustainable business performance, the findings of this study indicate that concern alone does not automatically lead to sustainability outcomes among

pempek MSMEs. Environmental concern related to waste disposal and environmental quality tends to remain at the attitudinal level and is not always followed by concrete operational changes. Environmental concern cannot have a significant impact on business sustainability without the implementation of structured practices such as green accounting. This shows that policies or training initiatives solely focused on increasing environmental concern may be insufficient unless accompanied by practical tools and systems that enable MSMEs to implement environmentally responsible practices. Several studies noted that although MSME owners are concerned about environmental impacts, actual sustainability outcomes depend on the concrete practices and systems implemented (Wulandari et al., 2026). This suggests that awareness must be realized through concrete mechanisms such as green accounting before producing measurable sustainability benefits, which is in line with the findings of this study that direct awareness does not directly affect business sustainability.

(5) H5: Green Accounting Implementation Influences Business Sustainability

The acceptance of H5 confirms that Green Accounting Implementation has a significant and positive effect on Business Sustainability. This result aligns with recent empirical evidence from Indonesian MSMEs showing that green accounting contributes to sustainability by improving cost control, reducing environmental risks, and enhancing compliance with regulations. The implementation of green accounting for pempek MSMEs in Palembang can support better waste management, reduce environmental complaints, and increase long-term operational efficiency. This means that green accounting should be positioned not merely as an environmental obligation but as a strategic business tool that supports sustainability and competitiveness. A study on the application of green accounting in tempe MSMEs reported that integrating environmental cost recording and environmental management into business operations supports sustainability goals, although systematic implementation remains limited (Nasution et al., 2024). In addition, research on green accounting in other sectors such as natural product MSMEs observed a positive link between systematic environmental accounting practices and operational sustainability, supporting the finding that implementation positively impacts business sustainability.

(6) H6: Industry Players' Understanding Influences Business Sustainability through Green Accounting Implementation

The mediating effect of Green Accounting Implementation between Industry Players' Understanding and Business Sustainability is consistent with the broader literature showing that environmental knowledge improves sustainability outcomes, especially when actual practices are implemented. This finding is in line with studies emphasizing that understanding environmental concepts or green accounting does not directly improve business sustainability unless translated into concrete accounting and operational practices. Indraswari et al. (2024) found that MSMEs' understanding of green accounting significantly impacted sustainability only through the actual implementation of green accounting practices, not through a direct relationship. This shows that the knowledge of pempek MSMEs in Palembang regarding environmental costs and waste management only contributes to business sustainability if it is operated through a structured green accounting system. The implication is that training programs for MSMEs should focus not only on improving conceptual understanding but also on strengthening implementation capabilities.

(7) H7: Industry Players’ Concern Influences Business Sustainability through Green Accounting Implementation

The results show that Green Accounting Implementation fully mediates the relationship between Industry Actor Concern and Business Sustainability. This finding is consistent with research showing that environmental concern among MSMEs does not automatically lead to sustainable business performance without being supported by practical implementation mechanisms. Purba et al. (2023) stated that although MSME owners often express concern for

environmental issues, sustainability outcomes are only achieved when this concern is followed by the adoption of green accounting and management practices. The concern of pempek MSMEs in Palembang towards waste management and environmental pollution will contribute to business sustainability if implemented into real actions through the application of green accounting. This implies that policies aimed at increasing environmental concern must be accompanied by guidance and technical support to ensure effective implementation.

5. CONCLUSION

This study investigates the role of Industry Players' Understanding and Awareness in the implementation of Green Accounting and its impact on Business Sustainability among pempek MSMEs in Palembang City using SEM analysis with SmartPLS 4. The findings indicate that Industry Players' Understanding and Awareness have a significant positive influence on Green Accounting Implementation. This suggests that knowledge of green accounting concepts and awareness of environmental issues play a crucial role in encouraging MSMEs to adopt environmentally responsible accounting practices. The results further reveal that Green Accounting Implementation has a significant positive influence on Business Sustainability. This confirms that the implementation of green accounting practices, such as environmental cost recognition and production waste management, directly contributes to the long-term sustainability of pempek MSMEs. However, Industry Players' Understanding and Awareness did not have a direct influence on Business Sustainability. This suggests that awareness and concern alone are insufficient to improve business sustainability without the support of concrete and structured implementation.

Mediation analysis strengthens these findings by showing that Green Accounting Implementation fully mediates the relationship between Industry Actors' Understanding and Concern for Business Sustainability. This demonstrates that green accounting serves as a crucial mechanism that translates awareness and concern into measurable sustainability outcomes. Sustainability in Pempek MSMEs in Palembang City can only be achieved when environmental understanding and concern are operationalized through actual accounting and waste management practices. Based on these findings, pempek MSMEs in Palembang City are encouraged to integrate green accounting into their daily business activities, particularly in recording environmental costs and waste management. Policymakers and relevant institutions should prioritize implementation-oriented programs, including practical training, simplified green accounting guidelines for MSMEs, and technical assistance. These integrated efforts are expected to improve the sustainability of pempek MSMEs while supporting environmental protection and economic development in Palembang City.

ACKNOWLEDGEMENTS

I would like to express my thanks to the Chancellor of Jakarta Global University, as well as my fellow lecturers at the Faculty of Economics and Business for the discussions and suggestions that have been provided.

REFERENCES

Alawiyah, T. (2024). *Strategi Pengelolaan Sampah Kota Palembang untuk Mendukung Net Zero Emission*. Journal of Plano Studies, 1(2), 52-61.

Asyadiah, N., Huda, S., & Nurhanifah, A. (2025). *Green Accounting, Carbon Emission Disclosure, Sustainable Development: The Moderating Role of Environmental Management System*. Gorontalo Accounting Journal.

Badan Pusat Statistik Kota Palembang. (2021). *Statistik industri mikro dan kecil Kota Palembang*. BPS Kota Palembang.

Dewi, N. F. (2023). Improving Sales Volume to Maintain Business Sustainability through Digital Marketing and Financial Literacy for MSMEs in Cilodong, Depok. *Neo Journal of economy and social humanities*, *2*(4), 259-270.
Dewi, N. F. (2023). LEVERAGING FINANCIAL TECHONOLOGY AND FINANCIAL LITERACY INTO BUSINESS SUSTAINABILITY AND ITS IMPACT ON PERFORMANCE OF MSMEs. *Jurnal Manajemen Dirgantara*, *16*(2), 518-532.
Dewi, N. K. A. P., & Sudana, I. P. (2020). Green Accounting dan Keberlanjutan Usaha pada UMKM sektor industri makanan. *Jurnal Akuntansi dan Bisnis*, 20(2), 123-134. https://doi.org/10.xxxx/jab.v20i2.xxx
Burritt, R. L., & Christ, K. L. (2021). Industry 4.0 and environmental accounting. *Accounting, Auditing & Accountability Journal*, 34(3), 1-26. https://doi.org/10.1108/AAAJ-08-2020-4803
Elkington, J. (2020). *Green swans: The Coming Boom in Regenerative Capitalism*. Fast Company Press.
Ghozali, I., & Latan, H. (2020). *Partial least squares: Konsep, Teknik, dan Aplikasi Menggunakan Program SmartPLS 3.0* (3rd ed.). Badan Penerbit Universitas Diponegoro.
Fauzi, H., & Riyadi, S. (2023). Environmental Responsibility and MSME Sustainability Performance. *Journal of Sustainable Business*, 8(2), 145-158.
Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)* (3rd ed.). Sage Publications.
Hadi, S., & Wijaya, R. (2022). Dampak Limbah Industri Kecil terhadap Kualitas Lingkungan Perairan Perkotaan. *Jurnal Lingkungan dan Pembangunan*, 8(1), 45-57.
Henseler, J., Hubona, G., & Ray, P. A. (2021). Using PLS Path Modeling in New Technology Research: Updated guidelines. *Industrial Management & Data Systems*, 121(1), 1-21. https://doi.org/10.1108/IMDS-11-2020-0633
Hidayah, N., Astuti, D., & Rachman, A. (2023). Green accounting adoption and sustainability performance of Indonesian MSMEs. *Jurnal Akuntansi Multiparadigma*, 14(2), 210-224.
Indraswari, I. G. A. P., Pradnyani, I. G. A., & Budiadnyani, N. P. (2024). Pengaruh Pemahaman dan Kepedulian Pelaku UMKM terhadap Implementasi Green Accounting Ddlam Meningkatkan Keberlanjutan Usaha. *Journal of Management, Economics, and Accounting (MEA)*, 8(1), 112-124.
Indriastuti, D., & Mutamimah, A. (2024). Environmental Management in Traditional Food Industries: Challenges and Opportunities. *Journal of Applied Environmental Sustainability*, 5(2), 101-113.
Kementerian Koperasi dan Usaha Kecil dan Menengah Republik Indonesia. (2020). *Data UMKM sektor makanan dan minuman*. KemenKop UKM RI.
Kurniawan, A., & Nugroho, P. (2021). Sustainability Orientation and Business Continuity of MSMEs. *Jurnal Manajemen dan Kewirausahaan*, 23(1), 35-46.
Lako, A. (2021). *Green economy dan akuntansi keberlanjutan*. Erlangga.
Latupeirissa, J., Salinding, R., & Siallagan, H. (2023). Environmental Concern and Green Accounting Practices in Small Enterprises. *Asian Journal of Accounting Research*, 8(3), 412-426.
Lemeshow, S., & Hosmer, D. W. (1997). *Sampling Methods for Health Professionals* (2nd ed.). John Wiley & Sons.
Nasution, M. L., Daulay, A. N., & Harmain, H. (2025). *Implementation of Green Accounting to Support the Sustainability of Our Tempe Kita MSMEs in Kotapinang, South Labuhanbatu Regency*. JASa: Jurnal Akuntansi, Audit dan Sistem Informasi Akuntansi, 9(2), 459-468.
Pertiwi, D. M., Handajani, L., & Astuti, W. (2025). *The Influence of Green Accounting on Company Sustainability Through Environmental Performance In The Consumer Goods Sector*. Jurnal Akuntansi dan Perpajakan, 9(2), 10073.
Pratiwi, R., & Setiawan, D. (2022). Corporate image and environmental responsibility in MSMEs. *Jurnal Akuntansi dan Auditing Indonesia*, 26(2), 98–110.
Purba, M. A., Suali, S., & Simanjuntak, J. P. (2023). Hambatan Implementasi Akuntansi hijau pada UMKM di Indonesia. *JURSIMA: Jurnal Sistem Informasi dan Manajemen*, 11(2), 85-96.
Putri, A. R., Wibowo, A., & Lestari, S. (2022). Determinants of Green Accounting Implementation in Indonesian MSMEs. *Jurnal Reviu Akuntansi dan Keuangan*, 12(1), 55-69.
Putri, R. A., & Setiawan, B. (2023). Kesadaran Lingkungan dan Pengelolaan Limbah pada UMKM Makanan Tradisional. *Jurnal Ilmu Lingkungan*, 21(2), 211–223. https://doi.org/10.xxxx/jil.v21i2.xxx
Rahayu, S., & Wibowo, S. (2021). Implementasi green accounting dan dampaknya terhadap keberlanjutan usaha UMKM. *Jurnal Akuntansi dan Keuangan Indonesia*, 18(2), 145-160.
Rahmawati, E., & Subardjo, A. (2022). Environmental Accounting Understanding and Managerial Decision-Making. *Jurnal Akuntansi Kontemporer*, 14(3), 189-201.

Rini, S., & Pramono, H. (2020). Keberlanjutan Usaha UMKM Ditinjau dari Aspek Ekonomi dan Lingkungan. *Jurnal Manajemen dan Kewirausahaan*, 22(1), 15-27.

Saputri, H., Zahrani, T., Pusri, D., Haliza, N. W., & Panorama, M. (2025). *Dampak UMKM Pempek Terhadap Pertumbuhan Ekonomi Kota Palembang: Peluang dan tantangan*. Indonesian Journal of Islamic Economics and Business.

Sari, M., & Handayani, R. (2021). Environmental Cost Awareness and Green Accounting Adoption. *Jurnal Akuntansi & Keuangan*, 23(2), 120-131.

Sari, M. P., & Hidayat, W. (2021). Implementasi Akuntansi Lingkungan pada UMKM dan Tantangannya. *Jurnal Riset Akuntansi Kontemporer*, 13(2), 89-101.

Setiawan, D., & Pratama, B. C. (2020). Peran akuntansi lingkungan dalam meningkatkan kinerja dan keberlanjutan UMKM. *Jurnal Akuntansi Multiparadigma*, 11(3), 512-528.

Schaltegger, S., Hörisch, J., & Freeman, R. E. (2022). Business cases for sustainability: A stakeholder theory perspective. *Organization & Environment*, 35(1), 1–26. https://doi.org/10.1177/1086026620903428

Setiawan, H., Susanto, S., Budiarto, D., Alfian, A., & Pratama, Y. D. (2025). *Assessing Waste Potential And Greenhouse Gas Emissions From Existing Waste Management Systems: A case study of Palembang City South Sumatera of Indonesia*. Jurnal Improsci, 3(3), 156-171.

Suharti, L., & Purwanto, A. (2021). Environmental ethics and sustainable MSME behavior. *Journal of Environmental Management and Tourism*, 12(6), 1558-1566.

Sugiyono. (2021). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Alfabeta.

Widodo, T., & Handayani, D. (2022). Pencemaran sungai perkotaan akibat limbah usaha kecil dan menengah. *Jurnal Teknik Lingkungan*, 28(3), 301-312.

Widyastuti, T., & Handayani, R. (2023). Green accounting sebagai strategi keberlanjutan usaha pada UMKM sektor makanan. *Jurnal Riset Akuntansi dan Keuangan*, 11(1), 23–38.

Yanti, N., Prabowo, H., & Sulastri, E. (2023). Environmental concern and sustainable practices in food MSMEs. *Jurnal Ekonomi dan Bisnis*, 26(1), 77-90.