

Systematic Literature Review (SLR): The Role Of Environmental Management Accounting In Enhancing Green Competitive Advantage And Sustainable Performance In The Hospitality Industry In Indonesia

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Abstract

The hospitality industry in Indonesia faces significant challenges in balancing business growth with environmental responsibility. This study aims to review the role of Environmental Management Accounting (EMA) in enhancing green competitive advantage and sustainable performance in the hospitality sector. Using a Systematic Literature Review (SLR) approach, this study analyzes 10 articles from a total of 60 relevant articles identified through Google Scholar and Semantic Scholar from 2019–2024. The selected articles cover research related to EMA and the factors influencing its implementation. The findings reveal that EMA plays a crucial role as a mediator in the relationship between green competitive advantage and sustainable performance. Studies by Saputra et al. (2023) and Noor & Bano (2023) indicate that implementing EMA can strengthen competitiveness and improve environmental management efficiency, contributing to sustainable performance outcomes. Additionally, institutional and regulatory pressures, as discussed by Che Ku Kassim et al. (2020) and Elhossade et al. (2020), encourage hospitality companies to adopt EMA practices effectively. EMA serves a strategic role in supporting sustainability in Indonesia's hospitality sector by helping firms enhance green competitiveness and environmental efficiency. Committed management and strong regulatory frameworks are essential for successful EMA implementation. This study recommends stronger management commitment and

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regulatory support to promote broader EMA adoption in the hospitality industry for long-term sustainability.

Keywords: Environmental Management Accounting, Systematic Literature Review, Sustainable Performance, Hospitality Industry

INTRODUCTION

The hospitality industry in Indonesia faces significant challenges in balancing business growth with environmental responsibility. In pursuit of sustainability, this sector increasingly adopts environmentally-friendly management practices, including the implementation of Environmental Management Accounting (EMA). EMA not only functions as a tool to measure environmental costs and impacts but also plays a critical role in supporting green competitive advantage and sustainable performance. Such practices are essential in a global context where companies are expected to focus not only on profit but also on social and environmental sustainability.

Research by Saputra et al. (2023) demonstrates that EMA holds a significant mediating role in linking green competitive advantage with sustainable performance in Indonesia's hospitality industry. They found that green-based competitive strategies, supported by EMA implementation, allow hotels to enhance their competitiveness while contributing to sustainability goals. This aligns with findings by Elshaer et al. (2023), who emphasize the importance of employees' pro-environmental behaviors in supporting green management practices and improving sustainable performance in small and medium-sized hospitality businesses. With the positive impact of green management on environmental, economic, and social performance, hospitality companies can gain a stronger competitive edge in a market increasingly concerned with sustainability issues.

Conversely, research by Mohd Fuzi et al. (2021) highlights key factors such as management commitment and environmental safety as essential elements for successful EMA implementation in the industrial sector, which also holds relevance for the hospitality sector. Managerial commitment to prioritizing environmental sustainability forms the foundation of effective green strategies. In this context, EMA application assists companies in managing environmental costs and improving operational efficiency, ultimately enhancing sustainable performance.

Furthermore, research by Soesanto (2021) underscores that environmental accounting supports transparency and accountability in reporting companies'

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environmental impacts. With increasing stakeholder awareness of environmental issues, environmental accounting not only benefits internal company management but also becomes a critical factor in attracting sustainability-focused investments.

Based on previous studies, it is evident that integrating EMA into operational strategies can enhance green competitive advantage and sustainable performance in Indonesia's hospitality industry. Therefore, it is vital for the hospitality industry to better understand and implement EMA as part of its commitment to sustainability and environmental preservation.

LITERATURE REVIEW

Environmental Management Accounting (EMA) represents an evolution in accounting designed to gather environmentally-related expenditures and report on environmental issues impacting organizational performance. EMA is founded on principles of natural preservation and environmental conservation integrated into modern accounting practices or generally accepted accounting principles. EMA serves as an accounting tool that assists companies in addressing environmental issues, promoting social welfare and community well-being. Company owners and managers need to recognize the importance of environmental preservation, demonstrating corporate responsibility for environmental conservation by including environmental information in both mandatory and voluntary reporting. Companies should establish environmental reporting standards that benefit stakeholder groups, positioning EMA as a specialized area within accounting that addresses environmental and broader accounting concerns (Burritt & Schaltegger, 2000).

EMA practices encompass both financial and physical information related to the environment. This information can be evaluated and analyzed for internal decision-making purposes (Burritt & Saka, 2006; Deegan, 2006; Llodra, 2006; Staniskis & Stasiskiene, 2006). Environmental accounting concepts can serve as measurement tools to assess corporate sustainability, embodying the holistic "Deep Greens" concept aimed at influencing internal decision-making by addressing environmental issues. Environmental accounting aims to foster environmental sustainability to protect all life on Earth, while corporate sustainability seeks to change human behavior by acting sustainably without harming ecosystems through business operations. Consequently, environmental accounting progresses toward environmental sustainability, reflected in expenditures on environmentally-related costs.



Kingkaew and Padungsit (2012) found that the industrial sector, governance, and audit firms are significantly correlated with environmental disclosure, while debt structure has a significant correlation with environmental disclosure in an opposite direction. Another study by Suthiphan (2012) investigated environmental disclosure in annual reports and found that 48 companies (96%) disclosed environmental information. Good corporate governance was prominently disclosed, with the industrial sector displaying the highest environmental disclosure levels, while the technology sector disclosed less environmental information. The study also found that industry characteristics and business ownership type significantly influenced environmental disclosure in the annual reports of listed companies in Thailand. As a result, stakeholders became more aware of environmental issues that could impact total company expenditures (Fuzi et al., 2019). Given the often-hidden nature of environmental costs, companies must provide accurate environmental information to address stakeholders' concerns (Jamila et al., 2015).

RESEARCH METHOD

This study adopts a systematic approach to conducting a Systematic Literature Review (SLR) on the "Role of Environmental Management Accounting in Enhancing Green Competitive Advantage and Sustainable Performance in the Hospitality Industry in Indonesia." To minimize bias and contribute robust scientific insights, we reference 10 relevant studies that discuss the impact of Environmental Management Accounting (EMA) on sustainable performance and competitive advantage. Key studies highlight EMA's role in facilitating sustainable outcomes and competitive benefits. For example, Saputra et al. (2023) reveal EMA's mediating role between green competitive advantage and sustainable performance. Research by Che Ku Kassim et al. (2020) underscores institutional pressures influencing EMA adoption by local governments in Malaysia, while Elhossade et al. (2020) explains how institutional and contingency factors affect EMA adoption in Libyan manufacturing firms.

Mohd Fuzi et al. (2021) identify critical success factors for EMA practices in Malaysia's manufacturing sector, relevant to the hospitality sector as well. In the hospitality industry, Elshaer et al. (2023) show that green management and employees' pro-environmental behavior can moderate the relationship between green management and sustainable performance in small and medium-sized enterprises. Safitri et al. (2022) review literature on the link between green intellectual capital and EMA, while Soesanto



(2022) examines how environmental accounting contributes to the green economy by supporting business sustainability.

Research by Ma'rifat et al. (2022) focuses on EMA application at PT Semen Bosowa Maros, while Nuleg et al. (2021) demonstrate how EMA and financial competitive advantage impact sustainability in Thai firms. Begum et al. (2023) also highlight the influence of green intellectual capital and EMA on sustainable performance, with stakeholder pressures as a moderating factor.

This research uses Google Scholar (<https://scholar.google.com/>) and Semantic Scholar (<https://www.semanticscholar.org/>) as primary sources for literature retrieval, serving as primary and secondary data sources. The journals included in the SLR are indexed nationally (SINTA) and internationally (Scopus) and were published between 2019 and 2024. Exclusion criteria cover studies indirectly related to EMA and studies related to EMA-related factors. Based on these criteria, 60 articles matching the research keywords were identified. Content analysis, organized into a literature review table, was applied. Relevant articles were identified by abstract and title, screened, and mapped into a matrix table. In total, 10 articles met the criteria for further analysis.

RESULT

The selected articles were carefully reviewed and categorized based on topic relevance, specifically focusing on the role of Environmental Management Accounting (EMA) in enhancing green competitive advantage and sustainable performance within Indonesia's hospitality industry. The findings from this research were organized in a matrix by the authors to streamline the classification process according to the topics discussed. This matrix is intended to provide a more structured and clear overview of EMA's contributions to improving environmental performance and competitiveness in the hospitality industry, as well as the interconnections between these aspects. The following table presents the classification of relevant topics:

Table 1 Classification of Relevant Topics

TITLE	AUTHORS AND YEAR	RESEARCH METHODOLOGY	FINDINGS
Mediation Role of Environmental Management	Komang Adi Kurniawan Saputra, Bambang Subroto,	Survey, Structural Equation Modeling (SEM)	Green competitive advantage positively affects sustainable



Accounting on the Effect of Green Competitive Advantage on Sustainable Performance	Aulia Fuad Rahman, and Erwin Saraswati, 2023		performance, with Environmental Management Accounting (EMA) acting as a mediator that enhances the focus on sustainability.
Institutional Pressures Influencing Environmental Management Accounting Adoption by Malaysian Local Governments	Che Ku Hisam Che Ku Kassim, Noor Liza Adnan, Roziani Ali, 2020	Survey, census technique	Institutional pressure from state government is a major factor driving the adoption of EMA among Malaysian local governments.
Impact of Institutional and Contingent Factors on Adopting Environmental Management Accounting Systems	Sami Salem Elhossade, Hafez Abdo, Abdulsalam Mas'ud, 2020	Survey, multiple regression	Coercive pressures, such as environmental regulations, significantly influence the adoption of EMA in Libyan manufacturing firms.
Critical Success Factors of Environmental Management Accounting Practices	Nursyazwani Mohd Fuzi, Nurul Fadly Habidin, Sharul Effendy Janudin, Sharon Yong Yee Ong, 2021	Survey, SPSS	Environmental safety and management commitment are key success factors for implementing EMA practices in Malaysia's manufacturing industry.



Green Management and Sustainable Performance of Small- and Medium-Sized Hospitality Businesses	Ibrahim A. Elshaer, Alaa M. S. Azazz, Sameh Fayyad, 2023	Survey, Smart PLS-SEM	Green management practices positively impact sustainable performance, with employees' pro-environmental behavior serving as a moderator that strengthens this relationship.
Green Intellectual Capital and Environmental Management Accounting: A Literature Review	Niken Safitri, Nurmala Ahmar, Muhammad Zaky, Moh. Ali Rahmani, 2022	Literature review	Green Intellectual Capital (GIC) and EMA enhance competitive advantage and sustainable performance, particularly in the manufacturing sector.
Environmental Accounting Towards a Green Economy: The Role of Natural Sustainability in Business Sustainability	Slamet Soesanto, 2022	Desk study, qualitative analysis	Environmental accounting is increasingly important for business transparency and sustainability, supporting a green economy and attracting investors.
The Role of Environmental Accounting at PT Semen Bosowa Maros	Harjauri Ma'rifat, Saiful Muchlis, Raodahtul Jannah, 2022	Phenomenology, interviews, document study	PT Semen Bosowa Maros adopts environmental accounting in compliance with government regulations to maintain sustainability and cost transparency.

Environmental Management Accounting and Financial Competitive Advantage Affecting Corporate Sustainability of Thai Companies	Anchalee Nuleg, Dararat Phoprachak, Kusuma Dampitakse, Oranoodj Ruepitiviriya, 2021	Survey, quantitative analysis	EMA and financial competitive advantage significantly influence corporate sustainability in Thai companies.
Impact of Green Intellectual Capital and Environmental Management Accounting on Sustainable Performance: The Moderating Role of Stakeholder Pressure	Aiman Noor, Asifa Bano, 2023	Partial Least Squares Structural Equation Modeling (PLS-SEM) using SmartPLS v.4.0.0	Green Human Capital (GHC) and Green Relational Capital (GRC) show a positive but not significant relationship with sustainable performance, while Green Structural Capital (GSC) has a significantly positive impact. EMA has a significant positive association with sustainable performance, mediating the relationships between GHC and sustainable performance as well as GRC and sustainable performance, though it does not mediate GSC and sustainable performance. Stakeholder pressure



			moderates the relationship between EMA and sustainable performance.
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Source: Processed Data, 2024

DISCUSSION

The findings from these studies indicate that Environmental Management Accounting (EMA) plays a crucial role in supporting green competitive advantage and sustainable performance across various sectors, including the hospitality industry. In the study by Saputra et al. (2023), EMA acts as a mediator, enhancing the positive impact of green competitive advantage on sustainable performance. Similarly, Noor and Bano (2023) found a significant relationship between EMA and sustainable performance, noting that EMA can serve as a mediator between green human capital (GHC) and green relational capital (GRC) with sustainable performance. This highlights EMA’s role not only in increasing transparency and environmental cost efficiency but also in reinforcing the focus on business sustainability.

Institutional pressures and other external factors, such as regulatory requirements and stakeholder demands, are primary drivers of EMA adoption across countries and sectors. Studies by Che Ku Kassim et al. (2020) and Elhossade et al. (2020) underscore the importance of coercive pressures, such as government regulations, in encouraging companies and local governments to adopt EMA practices. This implies that robust regulation can accelerate EMA implementation, supporting sustainability goals and encouraging companies to shift to greener business practices.

Key success factors for implementing EMA were also identified in Fuzi et al. (2021), which highlighted management commitment and attention to environmental safety as essential elements for EMA success, particularly in the manufacturing sector. A literature review by Safitri et al. (2022) further supports the idea that Green Intellectual Capital (GIC) and EMA play a significant role in enhancing competitive advantage and sustainable performance, especially in environmentally oriented sectors.

Ultimately, this research suggests that Indonesia's hospitality industry can benefit from implementing EMA to improve green competitive advantage and support sustainable performance. Successful adoption of EMA in this sector requires management commitment, regulatory support, and responsiveness to stakeholder pressures.



CONCLUSION

This research demonstrates that Environmental Management Accounting (EMA) holds a strategic role in enhancing green competitive advantage and sustainable performance in Indonesia's hospitality industry. Based on the analyzed studies, EMA functions not only as a tool to improve transparency and efficiency in environmental cost management but also as a mediator that strengthens the link between green competitive advantage and sustainable performance, as highlighted by Saputra et al. (2023) and Noor & Bano (2023). Additionally, institutional and regulatory pressures, as discussed by Che Ku Kassim et al. (2020) and Elhossade et al. (2020), play a significant role in driving EMA adoption. This study emphasizes the importance of factors such as management commitment and environmental safety, as noted by Fuzi et al. (2021), in supporting successful EMA implementation.

Overall, EMA in Indonesia's hospitality industry can help companies enhance green competitiveness, improve environmental efficiency, and achieve better sustainable performance. This study reinforces the urgency of implementing EMA in this sector as a step toward sustainability and compliance with evolving environmental regulations.

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