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THE INFLUENCE OF ENVIRONMENTAL MANAGEMENT SYSTEM AND ENVIRONMENTAL PERFORMANCE ON FINANCIAL PERFORMANCE WITH ENVIRONMENTAL INNOVATION AS A MEDIATING VARIABLE (HOSPITAL AND HEALTHCARE COMPANY IN JAKARTA)

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Abstract:
Global warming and ozone depletion are acknowledged as significant environmental challenges, positioning environmental management systems as a central emphasis in endeavors to safeguard the environment. The entity's emphasis on its environment via an environmental management system corresponds to the growing trust of customers in the entity. It also becomes the focal point for a business in executing its operational activities that can influence its financial performance. This study seeks to evaluate the influence of the Environmental Management System and Environmental Performance on Financial Performance, with Environmental Innovation acting as a mediating variable. This research was conducted in several hospitals and healthcare companies in Jakarta. This study utilizes a quantitative approach that includes the dissemination of questionnaires and a comprehensive literature evaluation for reference enhancement. The findings of this study demonstrate that Environmental Innovation, Environmental Management Systems, and Environmental Performance substantially improve Financial Performance. The Environmental Management System and Environmental Performance significantly enhance Environmental Innovation.

Keywords: Environmental Management System, Environmental Performance, Environmental Innovation, Financial Performance

INTRODUCTION

Global warming and ozone depletion are acknowledged as worldwide environmental concerns (Schmidheiny, 1992). The environmental management system has emerged as a fundamental initiative to safeguard the environment, as every industrial operation produces waste—solid, liquid, or gaseous—that might compromise environmental quality. The entity's emphasis on its environment via an environmental management system corresponds with the growing trust of customers in the entity. The efficacy of the environmental management system's execution is contingent upon criteria that ascertain the precision and optimality of the system's outcomes. Therefore, it is essential to analyze the key factors affecting the implementation of the environmental management system within the business, providing a framework for other firms to improve their existing systems. An illustration is provided by ISO 14001 and the environmental management system (Eriandani, 2022). This approach is primarily intended to tackle environmental challenges and offer suitable management techniques to handle such challenges. ISO 14001 certification assists enterprises of all scales in enhancing the sustainability of their daily operations. They can fulfill both legal and regulatory obligations as well as customer requirements. A recent study focuses on clarifying the implementation of environmental management practices, particularly ISO 14001 (Delmas, 2008).

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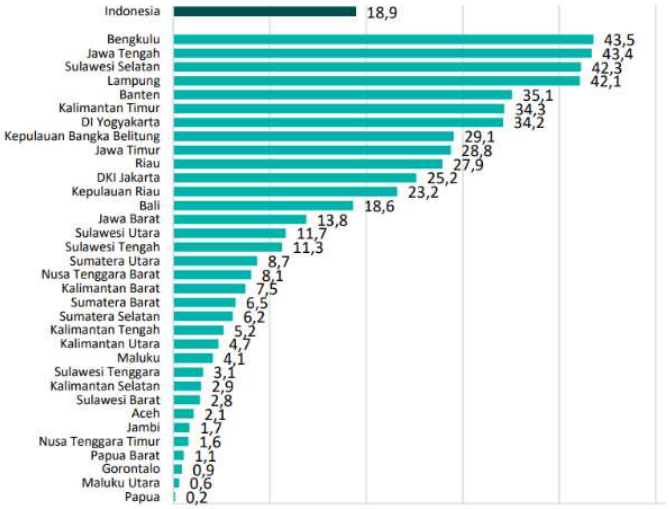
In Indonesia, medical waste generated by 2,820 hospitals and 9,884 community health facilities amounts to around 290 tons daily. (ugm.ac.id, 2021). Astuti and Purnama's 2014 research on waste management in public hospitals in NTB revealed that each hospital generates 56.77 kg of solid medical trash and 597.15 kg of solid non-medical garbage daily. According to Indonesian Ministry of Health data from 2020, 18.9% of healthcare facilities, including hospitals and community health centers, adhered to waste management guidelines nationally. The remaining 81.8% demonstrates the capacity of hospitals to contribute to environmental degradation, potentially resulting in accidents and the dissemination of infectious diseases.



Source: Beyer, M., Lenz, R., & Kuhn, K. A. (2020)

Figure 1. Medical Waste Processing in Accordance with Standards

The graphic above illustrates the percentage of healthcare facilities in 2020 that adhered to the relevant requirements for managing medical waste. Every hospital must implement a waste management strategy that prioritizes adherence to established rules. The rule is the Indonesian Minister of Health Decree Number 1204/Menkes/SK/X/2004, which stipulates the standards for a healthy environment, including the handling of hospital waste. The Environmental Management System (EMS) includes the responsibilities, training, practices, organizational structure, activity planning, methodologies, procedures, and resources required for the formulation, implementation, evaluation, and maintenance of environmental policies (ISO 14001, 2004). Implementing ISO 14001 requires the identification of characteristics and their environmental implications arising from the organization's operational activities. A hospital accredited with ISO 14001 displays its dedication to environmental management.

Sam and Shuqi (2019) researched three organizations with ISO 14001 certification. The findings indicate that firms that adopted EMS had numerous advantages and enhancements. Despite the substantial expense of deploying EMS, firms utilizing it continue to attain favorable outcomes. EMS serves as a mechanism for enterprises to manage and mitigate environmental challenges, thereby enhancing both environmental and financial performance. Feng and Wang (2016) assert that customer satisfaction, customer loyalty, and switching costs necessitate greater focus from organizations aiming to enhance their performance via the implementation of EMS. Aslam et al. (2020) did a study on 225 companies listed on the Nikkei Stock Exchange from 2007 to 2018. The research findings demonstrate that the Environmental Management System (EMS) significantly

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influences Financial Performance (FP). The research by Ong et al. (2019) encompassed 124 managers from manufacturing firms possessing ISO 14001 certification in Malaysia. The research findings indicate that environmental competitive competencies, specifically Environmental Innovation and Environmental Performance, are the primary catalysts for generating economic value in the proactive environments of manufacturing firms. Furthermore, Environmental Innovation was identified as a mediator that converts the advantages of environmental performance into financial performance (Paramitha et al., 2024). The researcher will conduct a study to analyze the influence of the Environmental Management System and Environmental Performance on Financial Performance, with Environmental Innovation acting as a mediating variable (Bangkara et al., 2023).

METHODS

Data collection employs quantitative methodologies via questionnaire distribution strategies and literature reviews. This research gathers data through questionnaires administered to management or departments associated with administration, finance, or sustainability, including the board of directors, corporate secretary, and finance and accounting division. The results are quantified on a 1-5 Likert scale. The sample for this study comprises 60 individuals and is spread throughout hospitals in Jakarta. The analytical method employs the Partial Least Squares (PLS) approach.

RESULT AND DISCUSSION

Environmental Innovation (EI) has a positive and significant impact on Financial Performance (FP).

Table 1. Size and significance of path coefficient

	Original Sample	*Sample Mean*	*Standard Deviation*	*T Statistics*	*P Values*
EI -> FP	0.245	0.271	0.117	2.089	0.018
EMS -> EI	0.419	0.420	0.142	2.950	0.002
EMS -> EP	0.785	0.776	0.075	10.514	0.000
EMS -> FP	0.309	0.304	0.131	2.364	0.009
EP -> EI	0.368	0.364	0.122	3.007	0.001
EP -> FP	0.367	0.349	0.122	2.996	0.001

Source: Data processed by researchers (2024)

The original sample has a connection direction of 0.245, showing a positive correlation. The t-statistic is 2.089, exceeding the t-table value of 1.65, and the p-value is 0.018, which is below the threshold of 0.05 (0.018 < 0.05). Consequently, it may be inferred that H1 is affirmed: "Environmental Innovation (EI) exerts a positive and significant influence on Financial Performance (FP)."

Potter and Chiang (1995) assert that Environmental Innovation (EI) enhances Financial Performance (FP) through two mechanisms: (1) firms with advanced environmental innovation are more inclined to achieve competitive advantages via innovative products, improved manufacturing and operational processes, and reduced operational costs; and (2) such firms can distinguish themselves from competitors, fostering legitimacy and reputation, which subsequently boosts total revenue.

Environmental Management System (EMS) has a positive and significant impact on Environmental Innovation (EI). The original sample has a relationship direction of 0.419, showing

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a positive correlation. The t-statistic is 2.950, exceeding the t-table value of 1.65, and the p-value is 0.002, which is below the threshold of 0.05 (0.002 < 0.05). Consequently, it may be inferred that H2 is validated: "Environmental Management System (EMS) exerts a positive and significant influence on Environmental Innovation (EI)."

A hospital with ISO14001 certification indicates that it is concerned about the environment and has innovations that improve its surroundings.

Environmental Management System (EMS) has a positive and significant impact on Environmental Performance (EP). The original sample has a relationship direction of 0.785, showing a positive correlation. The t-statistic is 10.514, exceeding the t-table value of 1.65, and the p-value is 0.000, which is below the threshold of 0.05 (0.000 < 0.05). Consequently, it may be inferred that H3 is validated: "Environmental Management System (EMS) exerts a positive and significant influence on Environmental Performance (EP)."

If the hospital effectively executes the environmental program, it must enhance its capacity to support the environmental management system.

Environmental Management System (EMS) has a positive and significant impact on Financial Performance (FP). The original sample has a connection direction of 0.309, showing a positive correlation. The t-statistic is 2.364, exceeding the t-table value of 1.65, and the p-value is 0.009, which is below the threshold of 0.05 (0.009 < 0.05). Consequently, it may be inferred that H4 is affirmed: "Environmental Management System (EMS) has a positive and significant impact on Financial Performance (FP)."

Efficient environmental management methods can augment firms' competitive advantage and growth potential by enhancing their reputation and cultivating robust partnerships with key stakeholders, ultimately impacting financial performance.

Environmental Performance (EP) has a positive and significant impact on Environmental Innovation (EI). The original sample has a connection direction of 0.368, showing a positive correlation. The t-statistic is 3.007, exceeding the t-table value of 1.65, and the p-value is 0.001, which is below the threshold of 0.05 (0.001 < 0.05). Consequently, it may be inferred that H5 is affirmed: "Environmental Performance (EP) significantly and positively influences Environmental Innovation (EI)."

These routines and environmental processes establish a basis for innovation in product design and manufacturing methods focused on environmental enhancement.

Environmental Performance (EP) has a positive and significant impact on Financial Performance (FP). The original sample has a connection direction of 0.367, showing a positive correlation. The t-statistic is 2.996, exceeding the t-table value of 1.65, and the p-value of 0.001 is below the threshold of 0.05 (0.001 < 0.05). Consequently, it can be inferred that H6 is accepted: "Environmental Performance (EP) exerts a positive and significant influence on Financial Performance (FP)."

Market players prioritizing environmental safety will be more inclined towards organizations exhibiting strong environmental performance and corporate social responsibility disclosures, which will positively impact those corporations' profits or earnings. Issuers must mitigate adverse effects to prevent social and environmental disputes while improving the quality of their performance and augmenting economic rewards.

CONCLUSION

The conclusion derived from this investigation is as follows.

1. Environmental Innovation (EI) has a significantly positive impact on Financial Performance (FP).

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2. The Environmental Management System (EMS) has a significantly positive influence on Environmental Innovation (EI).
3. Environmental Management System (EMS) has a significantly positive influence on Environmental Performance (EP).
4. The Environmental Management System (EMS) has a significantly positive influence on Financial Performance (FP).
5. Environmental Performance (EP) has a significantly positive influence on Environmental Innovation (EI).
6. Environmental Performance (EP) has a significantly positive impact on Financial Performance (FP).

Future researchers may incorporate other factors, research samples, and methodologies to enhance the comprehension of the variables and yield a more thorough and precise elucidation. Regulators should impose more stringent laws concerning waste generated by operational operations of businesses, ensuring that emission impacts are standardized and linked with global best practices, while avoiding detrimental effects. Moreover, for organizations without EMS certification, such as ISO 14001, it is prudent to pursue this certification promptly, as it can enhance environmental performance, hence influencing financial outcomes and bolstering the company's credibility with stakeholders.

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