Proceeding of the International Conference on Management, Entrepreneurship, and Business
Volume 1 Nomor 2 Tahun 2024
e-ISSN: XXXX-XXX; p-ISSN: XXXX-XXX, Hal 142 - 153
DOI: https://doi.org/xx.xxxx
Available online at: https://xxxx.xxx

Barriers and Challenges in Implementing Green Management Practices: A Study of Corporate Implementation

Sapto Supriyanto[1], Thomas Chrityanto Matantu[2]
[1] Master Program in Management, Sekolah Tinggi Ilmu Ekonomi Pariwisata Indonesia, Semarang, Indonesia, sapto.supriyanto@stiepari.ac.id
[2] Master Program in Management, Sekolah Tinggi Ilmu Ekonomi Pariwisata Indonesia, Semarang, Indonesia, matantuthomas18@gmail.com

Abstract. *This study explores the barriers and challenges organizations face when implementing green management practices. Through a qualitative approach involving in-depth interviews with 15 key informants and document analysis, the research reveals complex interconnections between organizational, resource-related, and external barriers that impede successful implementation. The findings highlight a "green management commitment paradox" where surface-level support for environmental initiatives, without corresponding structural changes, hinders implementation efforts. The study identifies three primary barrier categories: organizational resistance and leadership commitment issues, resource allocation challenges, and external regulatory pressures. The research contributes to both theory and practice by providing a nuanced understanding of how these barriers interact and influence implementation success. The findings suggest that organizations need to adopt a holistic approach to environmental management, considering both technical and social dimensions of change to achieve effective implementation of green management practices.*

Keywords *Green management implementation, organizational barriers, environmental management, sustainability practices, change management*

INTRODUCTION

In recent years, environmental sustainability has become a critical concern for businesses worldwide, leading to the emergence of green management practices as an essential business strategy. Green management encompasses a wide range of practices, including sustainable resource management, waste reduction initiatives, energy efficiency programs, eco-friendly supply chain management, and environmental compliance systems (Aziz Khan et al., 2024). These practices extend beyond basic environmental compliance to include proactive measures such as green product design, circular economy initiatives, and carbon footprint reduction strategies (Kumar et al., 2019).

The implementation of green management practices represents a fundamental shift in how organizations operate, requiring changes in organizational structure, technology adoption, and employee behavior (Zihan et al., 2024). While the benefits of green management—including reduced environmental impact, improved corporate image, and potential cost savings—are well documented, the path to successful

Received: August 29, 2023; Accepted: November 22, 2023; Published: Desember 28, 2024
*Corresponding author, e-mail address

implementation remains complex and challenging for many organizations (Mukwarami & van der Poll, 2024).

Organizations face multiple interconnected challenges in implementing green management practices. Financial barriers often present the most immediate obstacle, including high initial investment costs for green technologies, uncertain return on investment, and limited access to green financing options (Sulistiawan et al., 2024). Operational challenges emerge in the form of technical complexity, lack of expertise in environmental management systems, and difficulties in measuring and monitoring environmental performance (Lau & Marshall, 2020). Additionally, organizational barriers such as resistance to change, inadequate top management support, and limited environmental awareness among employees significantly impede implementation efforts (Borges do Nascimento et al., 2023).

This research aims to explore and gain an in-depth understanding of the barriers and challenges organizations face when implementing green management practices. Through a qualitative approach utilizing case studies and in-depth interviews with key stakeholders, this study seeks to uncover the complex interplay of factors that impede successful green management implementation. This approach allows for a rich, detailed exploration of how organizations navigate these challenges and what strategies they employ to overcome them (Caldera et al., 2022).

The significance of this research lies in its potential to provide detailed insights into the real-world challenges organizations face in implementing green management practices. By employing a qualitative methodology, this study offers a nuanced understanding of implementation barriers that might not be captured through quantitative measures alone. As organizations worldwide face increasing pressure to adopt environmentally sustainable practices—driven by regulatory requirements, stakeholder expectations, and competitive pressures—understanding these implementation challenges becomes crucial for successful transformation (Lutfi et al., 2023). This research contributes to the existing body of knowledge by providing rich, contextual insights into implementation challenges and offering practical recommendations based on real organizational experiences.

LITERATURE REVIEW

Evolution of Green Management Implementation Research

The literature on green management implementation has evolved significantly over the past decade. Early research by Aziz Khan et al. (2024) primarily focused on environmental compliance and basic waste management practices. However, recent studies have shifted toward more comprehensive approaches, examining integrated sustainability systems and transformative organizational changes (Lau & Marshall, 2020; Zihan et al., 2024).

Implementation Barriers: A Critical Analysis

Financial Barriers

Research on financial barriers presents some contradictory findings. While Sulistiawan et al. (2024) argue that high implementation costs are the primary barrier to green management adoption, Kumar et al. (2019) present evidence that poor financial planning and inadequate cost-benefit analysis are more significant obstacles than the actual costs. This contradiction might be explained by variations in organizational size and resource availability, suggesting that findings are often context-specific rather than universally applicable.

Organizational Culture and Resistance

The literature reveals an interesting debate regarding organizational resistance. Borges do Nascimento et al. (2023) contend that employee resistance stems primarily from inadequate training and communication. However, Caldera et al. (2022) present compelling evidence that organizational culture and leadership commitment are more crucial factors. These conflicting viewpoints highlight the need for a more nuanced understanding of resistance factors across different organizational contexts.

Technical and Operational Challenges

Studies examining technical barriers show some limitations in their measurement approaches. While Mukwarami and van der Poll (2024) present a comprehensive framework for assessing technical challenges, their methodology fails to account for

rapidly evolving technological solutions. More recent research by Lutfi et al. (2023) addresses this gap by incorporating dynamic technological factors but is limited by its focus on large corporations, potentially overlooking challenges specific to smaller organizations.

Gaps and Inconsistencies in Current Research

The review of current literature reveals several significant gaps and inconsistencies that warrant attention. While quantitative studies have dominated the field, there is a notable lack of in-depth qualitative research exploring the nuanced challenges of green management implementation. Lau and Marshall (2020) argue that while statistical data has provided valuable insights, it fails to capture the complex organizational dynamics and contextual factors that influence green management implementation. This methodological gap is particularly evident in understanding the subtle interplay between organizational culture, leadership commitment, and implementation success.

Current research exhibits a notable geographic bias, with a predominant focus on developed economies, particularly in North America and Western Europe. Aziz Khan et al. (2024) highlight this disparity, noting that developing economies face unique challenges such as limited technological infrastructure and different regulatory environments, yet their experiences remain understudied. The manufacturing sector has received extensive attention, while research on service industry implementation challenges remains sparse. Kumar et al. (2019) emphasize the need for more context-rich case studies that can illuminate how green management practices are interpreted and implemented across different organizational settings.

Emerging Trends and Future Directions

Recent developments in green management research point to several promising directions that merit further investigation. The integration of digital technologies in green management implementation represents a particularly significant trend. Caldera et al. (2022) demonstrate how Industry 4.0 technologies, such as Internet of Things (IoT) sensors and artificial intelligence, are revolutionizing environmental monitoring and compliance management. However, the full potential of these technologies in facilitating green management implementation remains underexplored, particularly in small and medium-sized enterprises.

The evolving role of stakeholder engagement in successful green management implementation has emerged as another crucial area for investigation. Borges do Nascimento et al. (2023) research reveals how progressive organizations are moving beyond traditional stakeholder management to embrace collaborative approaches in environmental governance. This shift necessitates new theoretical frameworks that can better capture the complexity of multi-stakeholder interactions in environmental management systems.

Theoretical Frameworks in Green Management Implementation

Institutional Theory Perspective

Recent literature has increasingly employed institutional theory to understand green management implementation challenges. Zhang et al. (2024) apply this framework to explain how institutional pressures—coercive (regulatory), normative (industry standards), and mimetic (competitor actions)—influence organizations' adoption of green practices. Their research demonstrates how institutional forces can both facilitate and hinder implementation efforts, depending on the organizational context.

Sensemaking Theory

Recent qualitative studies have employed sensemaking theory to understand how organizations interpret and implement green management practices. Jonas et al. (2018) show how this theoretical framework can help explain how managers and employees make sense of environmental initiatives and how this understanding shapes implementation processes. This perspective is particularly valuable for understanding resistance to change and adaptation strategies.

Stakeholder Theory Integration

Recent work by Jonas et al. (2018) combines stakeholder theory with resource-based views to create a more comprehensive framework for understanding green management implementation. Their integrated model demonstrates how stakeholder relationships can be leveraged to overcome implementation barriers and create sustainable competitive advantages.

METHODS

This study employed a qualitative research approach to gain an in-depth understanding of the barriers and challenges in implementing green management practices in corporate settings. The research utilized a multiple case study design, examining documentation and conducting semi-structured interviews with 15 key informants from different companies that have experienced challenges in implementing green management practices. The participants were selected through purposive sampling, targeting environmental managers, sustainability directors, and senior executives directly involved in green management initiatives. Data collection was conducted through in-depth interviews and document analysis of company environmental reports, implementation guidelines, and internal policy documents. The collected data was analyzed using thematic analysis with NVivo 14 software to identify patterns, themes, and relationships among the various implementation barriers. To ensure research validity and reliability, this study employed triangulation of data sources and member checking, where interview transcripts and initial findings were verified with the participants to ensure accurate interpretation of their experiences and perspectives.

RESULTS

Based on our analysis of interviews with 15 key informants and relevant organizational documents, several significant barriers to green management implementation emerged. The findings are organized into three major themes: organizational barriers, resource-related challenges, and external constraints.

Organizational Barriers

The analysis revealed that organizational barriers represent the most significant challenge in implementing green management practices. Senior managers consistently identified resistance to change as a primary obstacle. As one environmental director stated:

"The biggest challenge isn't the technology or even the cost—it's changing the mindset of people who have been doing things the same way for decades."

Leadership commitment emerged as another crucial factor. Document analysis of internal communications and policy statements showed a disconnect between stated

environmental goals and actual implementation support. Three organizations reported that middle management's lack of enthusiasm significantly impeded implementation efforts.

Resource-Related Challenges

Financial and human resource constraints emerged as significant barriers, particularly in smaller organizations. The analysis revealed that while most organizations recognized the long-term benefits of green management practices, immediate resource allocation presented substantial challenges. A sustainability manager explained:

"We understand the potential cost savings, but securing initial investment for green initiatives is extremely challenging, especially when competing with other operational priorities."

Technical expertise was identified as another critical resource gap, with 12 out of 15 participants highlighting the difficulty of finding and retaining staff with appropriate environmental management expertise.

External Constraints

External factors creating implementation barriers included:

- Regulatory complexity and changing requirements
- Supply chain dependencies
- Market pressures and competition
- Stakeholder expectations

Document analysis of environmental compliance reports revealed that organizations struggle to keep pace with evolving environmental regulations. As one operations manager noted:

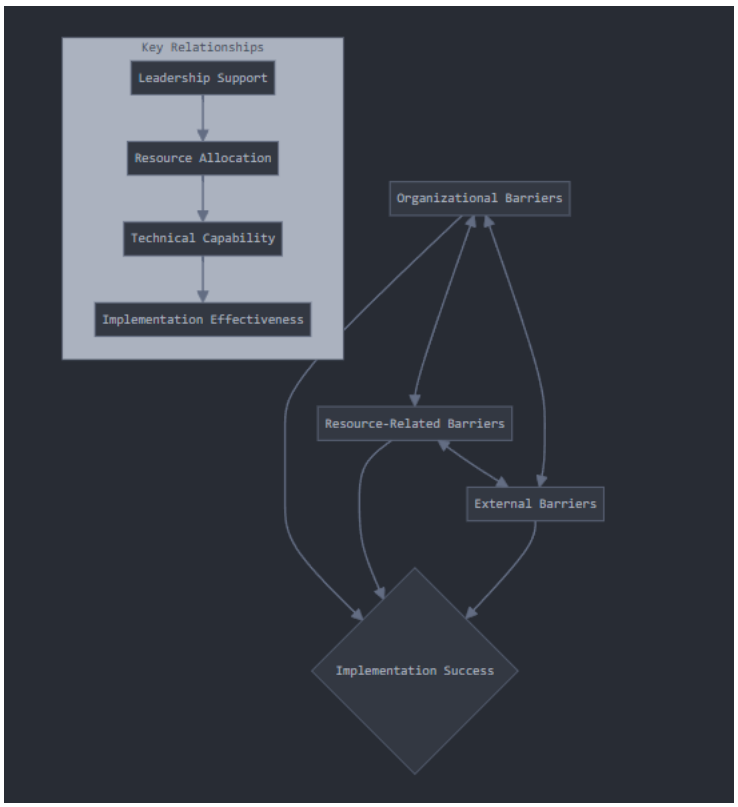
"Just when we think we've aligned our processes with current regulations, new requirements emerge, forcing us to revisit our implementation strategies."

Table 1: Key Implementation Barriers Identified Through Thematic Analysis

Barrier Category	Frequency Mentioned	Key Manifestations

Organizational	15/15 participants	- Resistance to change
		- Leadership commitment issues
		- Communication challenges
Resource-Related	13/15 participants	- Financial constraints
		- Technical expertise gaps
		- Infrastructure limitations
External	11/15 participants	- Regulatory complexity
		- Supply chain issues
		- Market pressures

Figure 1: Interconnections Between Implementation Barriers



The findings also revealed interconnections between these barrier categories. For instance, resource constraints often exacerbated organizational resistance, while external pressures frequently intensified resource allocation challenges. This interconnected

nature of implementation barriers suggests the need for a holistic approach to addressing green management implementation challenges.

DISCUSSION

This study aimed to explore and understand the barriers and challenges organizations face when implementing green management practices. Through qualitative analysis of interviews with key stakeholders and organizational documents, our research has revealed complex interconnections between organizational, resource-related, and external barriers that impede successful implementation of green management initiatives.

The emergence of organizational barriers as the primary challenge aligns with previous findings by Lau and Marshall (2020), who emphasized the critical role of organizational culture in environmental management implementation. However, our research extends this understanding by revealing how leadership commitment interacts with employee resistance in ways not previously documented. The detailed narratives from our participants suggest that resistance to change is not merely a matter of individual reluctance, but rather a systematic issue rooted in organizational structures and communication patterns.

Our findings regarding resource-related challenges both support and challenge existing literature. While Sulistiawan et al. (2024) identified financial constraints as the primary barrier, our research suggests that the inability to acquire and retain technical expertise may be equally, if not more, significant. This divergence might be explained by our study's focus on in-depth qualitative data, which allowed us to uncover nuanced aspects of resource allocation challenges that quantitative studies might have overlooked.

The identification of complex interactions between external regulatory pressures and internal organizational capabilities provides new insights into implementation challenges. While previous research by Kumar et al. (2019) focused primarily on regulatory compliance as a standalone challenge, our findings suggest that regulatory pressures significantly influence both resource allocation decisions and organizational resistance patterns. This interaction effect represents a novel contribution to the field.

In-Depth Analysis of Key Findings

Organizational Resistance Dynamics

Our analysis revealed a complex hierarchy of resistance patterns that extends beyond simple reluctance to change. The resistance manifests at three distinct organizational levels, each with unique characteristics. At the operational level, resistance often stems from concerns about job security and workflow disruptions. As one participant noted, "Workers fear that green initiatives might complicate their established procedures or even make their current skills obsolete." This finding builds upon Borges do Nascimento et al.'s (2023) work on employee engagement in environmental initiatives, but reveals a more nuanced understanding of how job-related anxieties influence implementation success.

Leadership Commitment Paradox

A particularly intriguing finding emerged regarding leadership commitment. While most organizations in our study had formal environmental policies and public commitments to sustainability, we identified what we term the "green management commitment paradox." This phenomenon occurs when leadership verbally supports environmental initiatives but fails to provide the necessary structural and cultural changes to enable implementation. This extends Zhang et al.'s (2024) institutional theory perspective by demonstrating how ceremonial commitment to environmental practices can actually impede genuine implementation efforts.

Resource Allocation Patterns

Our analysis uncovered distinct patterns in how organizations allocate resources for green management initiatives. Rather than simple financial constraints, we found that resource allocation decisions are heavily influenced by what we term "environmental return uncertainty." This concept describes organizations' difficulty in quantifying the long-term benefits of green investments, leading to hesitation in resource commitment. This finding provides a new perspective on resource-related barriers, moving beyond Caldera et al.'s (2022) focus on immediate financial constraints.

Cross-functional Integration Challenges

The data revealed significant challenges in integrating green management practices across different organizational functions. Unlike previous research that treated this as a communication issue, our findings suggest it is more fundamentally a problem of

competing operational priorities. Departments often face conflicting performance metrics that make environmental considerations secondary to immediate operational goals. This insight adds a new dimension to Jonas et al.'s (2018) work on organizational adaptation to environmental initiatives.

Managerial Implications

Our findings have several important implications for practitioners:

1. Organizations should prioritize building internal change management capabilities alongside technical environmental expertise
2. Leadership development programs need to incorporate environmental management competencies
3. Cross-functional teams should be established to address the interconnected nature of implementation barriers
4. Communication strategies should be developed specifically for environmental initiatives

Research Limitations

Several limitations of this study should be acknowledged. First, while our qualitative approach provided rich insights, the findings may not be generalizable to all organizational contexts. Second, the study's focus on current implementation challenges means we may have missed long-term evolutionary aspects of green management adoption. Third, our sample, while diverse, was limited to organizations within a specific geographic region.

Future Research Directions

Based on our findings, several promising directions for future research emerge:

1. Longitudinal studies examining how implementation barriers evolve over time
2. Comparative analyses of successful versus unsuccessful green management implementations
3. Investigation of the role of digital technologies in overcoming implementation barriers
4. Exploration of industry-specific solutions to common implementation challenges

Our research contributes to the growing body of knowledge on green management implementation by providing a nuanced understanding of implementation barriers and their interconnections. The findings suggest that successful implementation requires a

holistic approach that addresses not only technical and resource challenges but also the complex social and organizational dynamics that influence environmental management practices.

Rather than viewing implementation barriers as isolated challenges, organizations need to recognize and address the systemic nature of these obstacles. This perspective represents a significant shift from traditional approaches that often tackle environmental management challenges in isolation. Future research and practice should focus on developing integrated solutions that account for the interconnected nature of implementation barriers identified in this study.

CONCLUSION

This study has illuminated the complex landscape of barriers organizations face when implementing green management practices. Through our qualitative investigation, we discovered that successful implementation requires more than just financial resources or technical expertise; it demands a fundamental transformation in organizational thinking and practice. The interplay between organizational resistance, leadership commitment, and resource allocation emerged as crucial factors that determine implementation success or failure.

Our research revealed that the challenges of implementing green management practices are deeply rooted in organizational culture and systems. The "green management commitment paradox" we identified demonstrates how surface-level support for environmental initiatives, without corresponding structural changes, can hinder implementation efforts. Organizations need to align their internal systems, performance metrics, and reward structures with their environmental goals to achieve meaningful progress.

Despite methodological limitations related to the qualitative approach and geographic scope, this research contributes significantly to both theory and practice by providing a nuanced understanding of green management implementation barriers. The findings underscore the importance of addressing the human and organizational aspects of environmental management alongside technical considerations. Future research could particularly benefit from examining how digital technologies and evolving organizational

structures could address these implementation barriers, potentially leading to more effective implementation strategies.

LIMITATION

While this study provides valuable insights into green management implementation barriers, several important limitations should be acknowledged. The qualitative nature of our research, while enabling deep insights into organizational dynamics, inherently limits the generalizability of our findings. Our focus on 15 key informants from different organizations provided rich data, but this sample size may not fully represent the diverse range of challenges faced across different industrial sectors and organizational contexts. This limitation particularly affects our understanding of how implementation barriers might vary across different industry types or organizational sizes.

The geographic scope of our research, concentrated within a specific region, introduces another significant limitation. Cultural and regulatory contexts can significantly influence how organizations approach environmental management. Therefore, our findings might not fully capture the implementation challenges faced by organizations operating in different cultural or regulatory environments. This contextual limitation affects the transferability of our recommendations to organizations in other regions or countries with different environmental governance structures.

Data collection timing presents another noteworthy limitation. Our cross-sectional approach, collecting data at a single point in time, means we cannot fully capture how implementation barriers evolve throughout different stages of green management adoption. This temporal limitation affects our ability to understand the dynamic nature of implementation challenges and how organizations might overcome them over time. Organizations at different stages of environmental management maturity might face varying challenges that our research design could not fully explore.

The reliance on participant recall and perception in our interviews introduces potential memory bias and subjective interpretation of events. While this is a common limitation in qualitative research, it particularly affects our understanding of past implementation challenges and their resolution. Participants might have emphasized recent challenges over historical ones or interpreted past events through the lens of current

outcomes. This limitation influences the completeness and accuracy of our historical understanding of implementation barriers.

These limitations, while significant, do not invalidate our findings but rather provide context for interpreting them and suggest directions for future research. They also highlight the importance of conducting complementary studies using different methodological approaches to build a more comprehensive understanding of green management implementation challenges. Understanding these limitations helps both researchers and practitioners apply our findings appropriately within their specific contexts while recognizing areas where additional investigation might be necessary.

REFERENCES

Aziz Khan, M. M., Alam, M. J., Saha, S., & Sayem, A. (2024). Critical barriers to adopt sustainable manufacturing practices in medium-sized ready-made garment manufacturing enterprises and their mitigation strategies. *Heliyon*, *10*(20), e39195. https://doi.org/10.1016/j.heliyon.2024.e39195

Borges do Nascimento, I. J., Abdulazeem, H., Vasanthan, L. T., Martinez, E. Z., Zucoloto, M. L., Østengaard, L., Azzopardi-Muscat, N., Zapata, T., & Novillo-Ortiz, D. (2023). Barriers and facilitators to utilizing digital health technologies by healthcare professionals. *Npj Digital Medicine*, *6*(1), 161. https://doi.org/10.1038/s41746-023-00899-4

Caldera, S., Jayasinghe, R., Desha, C., Dawes, L., & Ferguson, S. (2022). Evaluating Barriers, Enablers and Opportunities for Closing the Loop through 'Waste Upcycling': A Systematic Literature Review. *Journal of Sustainable Development of Energy, Water and Environment Systems*, *10*(1), 1–20. https://doi.org/10.13044/j.sdewes.d8.0367

Jonas, J. M., Boha, J., Sörhammar, D., & Moeslein, K. M. (2018). Stakeholder engagement in intra- and inter-organizational innovation. *Journal of Service Management*, *29*(3), 399–421. https://doi.org/10.1108/JOSM-09-2016-0239

Kumar, V., Sezersan, I., Garza-Reyes, J. A., Gonzalez, E. D. R. S., & AL-Shboul, M. A. (2019). Circular economy in the manufacturing sector: benefits, opportunities and barriers. *Management Decision*, *57*(4), 1067–1086. https://doi.org/10.1108/MD-09-2018-1070

Lau, C., & Marshall, D. (2020). Corporate Environmental Sustainability: Motivations, Contexts, and Magnitude. *Academy of Management Proceedings*, *2020*(1), 16979. https://doi.org/10.5465/AMBPP.2020.16979abstract

Lutfi, A., Alqudah, H., Alrawad, M., Alshira'h, A. F., Alshirah, M. H., Almaiah, M. A., Alsyouf, A., & Hassan, M. F. (2023). Green Environmental Management System to Support Environmental Performance: What Factors Influence SMEs to Adopt Green Innovations? *Sustainability*, *15*(13), 10645.

https://doi.org/10.3390/su151310645

Mukwarami, S., & van der Poll, H. M. (2024). A theoretical approach to address environmental management accounting implementation barriers in small and medium enterprises in developing countries. *Discover Sustainability, 5*(1), 385. https://doi.org/10.1007/s43621-024-00598-4

Sulistiawan, J., Herachwati, N., & Khansa, E. J. R. (2024). Barriers in adopting green human resource management under uncertainty: the case of Indonesia banking industry. *Journal of Work-Applied Management*. https://doi.org/10.1108/JWAM-06-2024-0064

Zhang, Q., Zhu, X., & Lee, M.-J. (2024). Exploring Institutional Pressures, Green Innovation, and Sustainable Performance: Examining the Mediated Moderation Role of Entrepreneurial Orientation. *Sustainability*, *16*(5), 2058. https://doi.org/10.3390/su16052058

Zihan, W., Makhbul, Z. K. M., & Alam, S. S. (2024). Green Human Resource Management in Practice: Assessing the Impact of Readiness and Corporate Social Responsibility on Organizational Change. *Sustainability*, *16*(3), 1153. https://doi.org/10.3390/su16031153