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-RESEARCH ARTICLE-

BETWEEN VISION AND PRACTICE: PERSPECTIVES ON GREEN ACCOUNTING ADOPTIONS IN THE MSMES

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─Abstract─

With the substantial rise in consumer expectations alongside tightening global regulatory frameworks in recent years, embedding environmental accountability within small enterprise operations has shifted from a peripheral consideration to an essential requirement for achieving sustainable development. This study proposes an original conceptual framework to elucidate the apparent contradiction surrounding the uptake of green accounting practices among micro, small, and medium enterprises (MSMEs) in emerging economies. Adopting a qualitative exploratory design and employing thematic analysis of interviews with owner-managers, the findings reveal a pronounced

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"adoption paradox". Although external and structural constraints emerge as significant obstacles to implementation, these impediments are counterbalanced and, in many instances, mitigated by a strong "internal compass". The study further advances the Value-Buffered Adoption Model, illustrating that a manager's ethical identity operates as a non-physical strategic resource. This intrinsic attribute reduces perceived psychological resistance associated with initial adoption costs, thereby fostering a durable competitive edge in markets that are progressively shaped by environmental considerations.

Keywords: Green Accounting, MSMEs, Emerging Economies, Sustainable Entrepreneurship.

INTRODUCTION

The intensifying global discourse on environmental degradation has driven a fundamental transformation in corporate accountability, compelling organisations to move beyond conventional financial reporting practices (Al-Mamary et al., 2025). In response, Green Accounting has emerged as a dual-function mechanism, operating both as an internal instrument for optimising resource utilisation and as an external tool for attaining institutional legitimacy (Friedrich & Kunkel, 2025). The growing importance of this approach is reinforced by Bloomberg Intelligence projections indicating that global ESG-related assets will surpass $50 trillion by 2025, highlighting environmental transparency as a decisive factor in international capital allocation. Although its conceptual advantages, ranging from improved resource efficiency to enhanced sustainable competitiveness, are widely recognised (Granà et al., 2025), its practical implementation continues to exhibit considerable variation.

According to KPMG data, approximately 96% of G250 corporations have adopted sustainability reporting frameworks; however, implementation within developing economies remains constrained at an estimated 30–45%, primarily due to technological expenses and the absence of standardised systems. This imbalance poses a significant challenge to establishing a cohesive global economic framework, where Green Accounting systems have the potential to reduce operational expenditures by identifying inefficiencies embedded within overhead costs, with estimated savings of 15–30%. Within emerging economies, MSMEs constitute the structural foundation of economic resilience, contributing substantially to gross domestic product (GDP) and employment generation (Ichsan et al., 2025). Despite this, their collective environmental impact, marked by elevated energy consumption and waste production, represents a major obstacle to achieving national sustainability objectives (Mondal et al., 2025; Singh et al., 2024). Paradoxically, the adoption of Green Accounting within this sector remains minimal, giving rise to a "Sustainability Paradox", whereby

MSMEs, although most exposed to environmental vulnerabilities, are the least equipped to measure and manage them (Asnawi et al., 2025).

A similar situation is evident in Indonesia, which serves as the contextual setting of this study. The Minister of Industry has advocated for large and medium-sized enterprises to pursue green certification, with the objective of aligning industrial development with long-term environmental sustainability while also benefiting broader societal welfare (Dura & Suharsono, 2022). Nevertheless, progress has been limited, as evidenced by the fact that only 0.15% of businesses were certified as environmentally compliant in 2021. Existing literature remains predominantly focused on large corporations that possess sufficient financial flexibility to accommodate the complexities associated with environmental reporting (Dhar et al., 2022; Lubaba et al., 2025). Moreover, prevailing theoretical frameworks are largely grounded in Institutional Theory, which presumes that regulatory structures and market-based incentives act as primary drivers of environmental adoption. Such a perspective introduces a conceptual limitation, as it does not adequately account for entrepreneurial behaviour in contexts characterised by institutional voids, where regulatory oversight is weak and financial incentives are minimal.

This study diverges from the traditional top-down approach by proposing an alternative perspective. Rather than assuming regulation as the sole driver of behavioural change, it introduces the notion of the "Internal Compass" as a mediating factor. It is argued that, for MSMEs, the transition towards green practices is not purely an economic decision, but rather a process deeply embedded in personal values and ethical considerations. From a theoretical standpoint, this argument aligns with Behavioural Finance, which challenges the conventional notion of Homo Economics. Within this framework, financial decision-making is influenced not only by rational profit maximisation but also by cognitive and emotional factors (Baker & Wurgler, 2013). In the context of MSMEs, investment in green practices often follows a non-linear pattern, where financial commitments are justified by psychological satisfaction, commonly referred to as the "Warm Glow" effect (Andreoni, 1990).

Additionally, from the Natural-Resource-Based View (NRBV), the "Internal Compass" can be conceptualised as an intangible strategic asset that facilitates the development of unique environmental capabilities. In situations where, formal regulatory mechanisms are limited, the personal values of the owner effectively substitute for institutional controls (Hart, 1995). This phenomenon can further be interpreted through Signaling Theory, where voluntary engagement in Green Accounting serves as an indicator of organisational quality and ethical integrity to external stakeholders (Connelly et al., 2011). Consequently, environmental expenditures are not perceived merely as financial liabilities but as investments in social capital, guided by intrinsic beliefs.

The primary contribution of this study lies in the formulation of a novel adoption model. By examining the lived experiences of entrepreneurs in labour-intensive sectors, the research seeks to reframe Green Accounting from a burdensome compliance requirement into a pragmatic, bottom-up survival strategy. In doing so, it challenges the dominant Western-centric assumption that formal institutional frameworks are the exclusive pathway to sustainability, instead advancing a new paradigm of agency-driven environmental action within the Global South. Accordingly, the central research question guiding this study is: What factors influence the implementation of the Green Accounting concept in MSMEs?

To address this question in a structured manner, the remainder of this study is organised as follows: Introduction, Literature Review, Research Design and Methodology, Results, Discussion, Study Limitations, and Conclusion and Recommendations.

LITERATURE REVIEW

Green accounting, also referred to as environmental accounting, differs fundamentally from conventional accounting systems by embedding environmental costs and benefits directly within financial reporting structures (Schaltegger & Burritt, 2017). Rather than being limited to the documentation of expenditures related to environmental management, it constitutes a comprehensive system designed to identify, quantify, evaluate, and report the environmental consequences and associated costs of organisational activities (Nations, 2001). Its central objective is to furnish management with actionable information that supports informed decision-making aligned with sustainable business practices, while simultaneously strengthening external accountability towards stakeholders.

MSMEs possess distinctive attributes that set them apart from large-scale corporations, including constrained financial and human resources, relatively simple organisational frameworks, and a predominant focus on short-term survival (Amoa-Gyarteng & Dhliwayo, 2023; Gamage et al., 2020; Gibbs, 2006; Nurjannah et al., 2023). These characteristics necessitate an adapted approach to green accounting within MSMEs. In contrast to large firms, where implementation often involves sophisticated digital systems and formalised annual disclosures, MSMEs tend to adopt more informal and incremental practices. For instance, they may begin by tracking electricity and water consumption, managing waste more systematically, or sourcing environmentally friendly raw materials (Gunawan et al., 2020; Sommer, 2017; Vásquez et al., 2024). Despite their simplicity, such practices reflect the essence of green accounting in resource-constrained MSMEs, as they embed environmental considerations into everyday decision-making processes.

Empirical evidence highlights several constraints affecting adoption. Al-shami et al. (2024), examining the Indonesian batik industry, identified limited financial capital as

a major impediment, where upfront expenditures for training, consultancy, and process adjustments were perceived as prohibitive due to delayed economic returns. Similarly, Tingey-Holyoak et al. (2019) describe a "resource paradox" in which MSMEs are disproportionately exposed to environmental risks, such as regulatory pressures and climate-related disruptions, yet lack the capacity to invest in mitigating systems like green accounting. Human resource constraints further compound these challenges. Fonseca et al. (2023), in a qualitative study conducted in Portugal, found that limited awareness and understanding of green accounting among MSME owners and managers significantly hinder adoption. In many cases, environmental accounting is perceived merely as an administrative obligation rather than a strategic mechanism for enhancing efficiency and value creation. This limited environmental and accounting literacy is consistent with findings by Jaswadi et al. (2015), which indicate that the flat and centralised structures typical of MSMEs result in innovation adoption being heavily dependent on the perceptions and values of owners.

External pressures also play a critical role. Customer demand and regulatory requirements can either facilitate or constrain adoption. Findik et al. (2023) demonstrate that increasing expectations from global supply chains have compelled MSMEs in the European manufacturing sector to adopt environmental reporting practices, albeit often at a basic level. However, the effectiveness of such pressures is inconsistent. Maghfirullah et al. (2024) show that regulatory pressure in Southeast Asia is only impactful when supported by clear incentives and consistent enforcement mechanisms; otherwise, MSMEs tend to engage in symbolic compliance rather than substantive change. Financial incentives outside formal regulations represent another important dimension. Ogunyemi and Akinwale Omowumi (2024) highlight that access to preferential financing, such as loans with reduced interest rates for environmentally responsible practices, can serve as a strong motivator for MSMEs. Nevertheless, the complexity involved in verifying environmental compliance creates an additional barrier, as MSMEs often lack the necessary resources to meet such verification requirements.

Beyond external drivers, an emerging body of research emphasises internal motivations. Several studies suggest that MSME adoption of green accounting is frequently influenced by owners' personal environmental values or strategic intentions related to legitimacy and reputation. Nida et al. (2024), through an in-depth qualitative investigation of organic culinary MSMEs in Bali, found that green accounting is often embedded within business identity and branding strategies, serving to enhance differentiation and customer loyalty within niche markets. Furthermore, Scarpellini et al. (2020) challenges the prevailing assumption that MSMEs are solely driven by short-term profit maximisation. The study reveals that MSMEs engaged in social entrepreneurship or circular economy activities adopt green accounting as a mechanism to capture and communicate their dual economic and environmental performance, thereby facilitating engagement with impact investors and strategic partners.

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The theoretical foundation of this study draws upon multiple perspectives. The Theory of Planned Behaviour (TPB) posits that behavioural intentions are shaped by attitudes towards the behaviour, subjective norms, and perceived behavioural control (Ajzen, 1991). In the MSME context, these dimensions translate into owners' environmental attitudes, external pressures from stakeholders, and perceived resource constraints. Institutional Theory further explains organisational behaviour as a response to pressures aimed at achieving legitimacy within the institutional environment (DiMaggio & Powell, 1983). These pressures include coercive forces, such as regulations, mimetic pressures arising from imitation of successful peers, and normative pressures stemming from industry standards. Within MSMEs, normative and mimetic pressures often outweigh coercive influences, particularly in contexts characterised by weak institutional enforcement, resulting in what can be described as an institutional void.

Despite the insights provided by these theoretical and empirical contributions, several gaps remain. Methodologically, existing research is predominantly quantitative, relying on survey-based approaches that capture broad trends but fail to explain the underlying motivations and decision-making processes (Fonseca et al., 2023; Scarpellini et al., 2020). Qualitative methodologies, such as case studies or phenomenological approaches, remain underutilised, despite their potential to uncover the nuanced reasoning behind MSME decisions. Contextually, prior studies often treat MSMEs as a homogeneous group, overlooking critical variations arising from industry type, geographic location, and cultural context. For example, Mondal et al. (2023) found that MSMEs located near large industrial firms in India tend to adopt green practices more rapidly due to spillover effects and supply chain pressures, whereas those in remote regions rely more heavily on governmental support and information access.

In synthesis, the literature identifies three dominant determinants of green accounting adoption in MSMEs: resource constraints, external pressures, and perceived benefits. However, limited attention has been given to the interactions among these factors in real-world contexts. Key questions remain unresolved, such as how MSME owners reconcile stakeholder pressure with financial limitations, or how personal values influence decisions under operational constraints. This study aims to address these gaps by adopting a qualitative, interpretive approach that integrates TPB and Institutional Theory into a novel adoption model. It examines how MSME actors in labour-intensive sectors construct meaning, navigate institutional voids, and sustain environmental practices. In doing so, it seeks to contribute both theoretically and practically to the literature on environmental management accounting, while offering actionable insights for policymakers, support institutions, and MSMEs.

METHODS

This research adopted a qualitative methodology Creswell (2017) to examine participants' interpretations of green accounting and its role in supporting MSME

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sustainability, as well as their descriptive accounts of related practices. This methodological choice is justified by the understanding that the adoption of green accounting within MSMEs extends beyond a purely technical adjustment, representing instead a socially constructed process shaped by the subjective beliefs and values of owner-managers. An exploratory research design was therefore employed to enable the identification of subtle and context-specific themes that may not be captured through conventional quantitative approaches, particularly within emerging economies characterised by relatively informal institutional arrangements. Primary data were collected through semi-structured, in-depth interviews. This approach ensured a structured yet adaptable interview process, allowing the researcher to systematically address key topics while also probing deeper into participants' intrinsic motivations, conceptualised as the "Internal Compass". The interview guide underwent validation through a pilot test and was further reviewed by two specialists in environmental accounting to ensure its clarity, relevance, and methodological robustness.

Participant Recruitment

Participants were selected through a purposive sampling strategy to ensure that the data collected were both rich and contextually relevant. The inclusion criteria targeted owner-managers of labour-intensive small enterprises who had incorporated at least two components of environmental reporting or sustainable practices into their operations for a minimum period of two years. A total of twelve key informants were included in the study. This sample size was determined based on the principle of theoretical saturation, which occurs when no new concepts or thematic insights emerge from additional data collection (Glaser & Strauss, 2017). To enhance variability and depth of understanding, participants were drawn from two distinct sub-sectors: high-material consumption industries, such as craft-based enterprises, and high-waste generation sectors, including service-oriented culinary businesses. Following approval from the university's ethics committee, participants were identified from sub-districts with the highest concentration of MSMEs that met the study's criteria. Of the MSMEs approached, twelve agreed to participate in the interviews, thereby fulfilling the predetermined sample size. During the recruitment process, the researcher provided a concise overview of the study's objectives and scope to prospective participants to ensure informed engagement. Demographic data were not collected, as they were not relevant to the focus of this investigation.

Semi-Structured Interviews

Semi-structured interview questions were designed to investigate participants' comprehension of green accounting within MSMEs and the various dimensions associated with its implementation. The questions were open-ended and developed collaboratively by the research team, drawing upon relevant literature and the researchers' professional expertise. The interview guide functioned as a flexible

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framework, enabling the inclusion of follow-up questions in response to participants' initial answers. Interviews were conducted at locations mutually agreed upon with participants after obtaining their informed consent. Each session lasted between 45 and 90 minutes, was audio-recorded with permission, and subsequently transcribed verbatim. To strengthen the robustness of the data, additional techniques such as field observations and document analysis (including basic financial records and waste management logs) were employed. This triangulation approach enhanced the credibility and trustworthiness of the findings.

ANALYSIS

The data analysis process was guided by the Thematic Analysis (TA) framework outlined by Braun and Clarke (2006). This method followed a structured and systematic procedure comprising six rigorous stages.

Transcribing and Immersion

All interview recordings were transcribed in full, preserving every spoken detail in written form to support a comprehensive analytical process. Each transcript was examined repeatedly and in depth to develop a thorough initial grasp of the complete dataset. During this stage, preliminary annotations were recorded to capture emerging ideas, noteworthy insights, and recurring patterns.

Generating Initial Codes

At this stage, the researcher undertook systematic coding of the dataset. Coding refers to the assignment of labels or tags to meaningful segments of data, including phrases, sentences, or paragraphs, that are relevant to the research objectives. This procedure was conducted manually, with codes recorded in the margins of the transcripts.

Searching for Themes

Once the coding process was completed, the identified codes were organised and clustered based on shared meanings, similarities, or recurring patterns, resulting in the formation of potential themes.

Reviewing Themes

This stage involved a critical process of evaluation and refinement. The preliminary themes were assessed in two ways: first, by examining their consistency and alignment with the underlying codes, and second, by evaluating whether they accurately reflected the broader dataset. During this refinement process, certain themes were merged due to overlap, divided if they were overly broad, or discarded when insufficient supporting evidence was present.

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Defining and Naming Themes

At this stage, each refined theme was clearly defined and conceptually articulated. The researcher identified the central essence of each theme and clarified its relevance in addressing the research questions. The final names assigned to the themes were carefully formulated to be both precise and descriptive of their content.

Producing the Report

The identified themes were presented in an organised manner, categorised into driving and hindering factors. Each theme was explained and interpreted in relation to existing literature and relevant theoretical frameworks.

TRUSTWORTHINESS

To ensure the credibility and dependability of the findings, member checking was employed, whereby preliminary interpretations were shared with participants to confirm their accuracy. In addition, an audit trail was maintained to systematically document all analytical decisions made throughout the research process. Ethical considerations were strictly upheld by ensuring participant anonymity and confidentiality, as well as respecting their right to withdraw from the study at any point.

FINDINGS

Based on the analysis of the interview findings, several key themes were identified as determinants influencing the implementation of green accounting within MSMEs, as presented in Table 1.

Table 1: Main Themes

Category	Factor	Description
DRIVING FACTORS	Personal Values & Environmental Awareness	Intrinsic motivation from the owner's personal ethics, religious values, or direct observation of environmental impact.
	Customer Demand & Market Pressure	Extrinsic pressure from consumers (especially in export, corporate, or millennial markets) demanding eco-friendly products and transparency.
	Long-Term Cost Efficiency	Recognition that resource efficiency (energy, water, materials) aligns with cost reduction.
INHIBITING FACTORS	Financial & Capital Constraints	High perceived upfront costs for green technology, materials, or system changes. Cash flow and survival are top priorities.
	Complexity & Lack of Understanding	Green accounting is perceived as overly technical and complex, beyond basic bookkeeping knowledge.
	Absence of Regulatory Pressure	Lack of laws, sanctions, or fiscal incentives (e.g., tax breaks) specifically targeting MSMEs' environmental reporting.
	Perception of Indirect Benefits	Benefits like brand image or long-term sustainability are seen as abstract and less valuable than immediate sales.

Source: Analysed data (2025)

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Driving Factors

Personal Values and Owner's Environmental Awareness

The majority of informants who had implemented environmentally friendly practices, such as utilising recycled packaging or minimising waste generation, reported that their actions were primarily driven by personal values and a genuine concern for environmental sustainability. One owner of a textile-based MSME stated, “I feel uneasy seeing piles of fabric waste, so we try to reprocess it into by-products.” Such motivation is inherently intrinsic, emerging from the internal convictions of the business owners themselves, as further reflected in another participant’s account:

Honestly, from a business perspective, using recycled packaging might be more hassle and expensive. But I personally can't bear to see my business add to the plastic waste in the environment. This is more of a personal call to protect our environment.

Informants exhibiting this factor frequently associated their practices with personal or religious principles, including the responsibility of being stewards of the earth and the aspiration to preserve a healthy environment for future generations. One participant noted:

My principle is that business shouldn't just be about profit, it should also be about blessings. So, we use environmentally friendly materials whenever possible. While we can't do everything yet, we're starting with small things within our means.

This awareness does not necessarily arise from formal environmental education; instead, it often develops through first-hand observation of the adverse effects generated by their business activities, such as the accumulation of packaging waste or production residues. This factor constitutes a critical foundation for enduring change. When green accounting is guided by deeply held personal values, MSME owners tend to demonstrate greater resilience in overcoming operational challenges, as they perceive such practices as integral to a broader personal mission rather than a purely commercial strategy. Nevertheless, this factor remains fragile, as it can be weakened by immediate financial constraints if it is not reinforced by concrete business-related incentives.

Customer Demand and Expectations (Market Pressure)

Some MSMEs, particularly those that engage with export markets or cater to millennial consumers, experience constructive pressure from their customers. As one owner of a packaged food business explained, “Some customers ask if our products are eco-friendly and have certification. That’s what pushes us to change gradually.” Such market-driven pressure represents an external factor that is becoming increasingly influential. MSMEs operating within export-oriented markets, partnering with large corporations in supply chains, or serving urban and millennial clientele tend to experience this influence more strongly. Customers increasingly demand not only high

product quality but also transparency regarding production processes, raw material sourcing, and the environmental policies of the firm. Another business owner further stated:

Our customers today, especially young people in big cities, are very discerning. They often ask on Instagram, "Is this packaging recyclable?" or "Is the process environmentally friendly?" Questions like these make us realize that if we want to stay in business, we have to start caring about the environment.

This phenomenon contributes to the formation of a “social license to operate.” As expressed by an MSME craft business owner, “Nowadays, if you don’t have a ‘green’ story behind your product, it’s hard to compete in the marketplace.” This factor establishes a direct connection between environmentally responsible practices and business sustainability, including profitability. For MSMEs, responding to such expectations becomes a strategic imperative for maintaining and expanding market presence. As a result, they tend to show greater willingness to adopt and learn aspects of green accounting that enable them to effectively communicate their environmental commitments to customers, such as documenting reductions in carbon emissions or the utilisation of recycled materials.

Long-Term Cost Efficiency

Although not the primary driver, certain owners recognise that practices such as energy conservation and the reuse of raw materials can contribute to reducing operational costs over the long term. While not the central motivation, some MSME owners are beginning to understand that improving resource efficiency aligns with environmental preservation, as reflected in the following statement by one owner:

While our primary motivation isn't solely environmental, we can't deny that resource efficiency makes for a healthier business. If we can use water or raw materials more wisely, production costs automatically decrease. So, protecting the environment and maintaining profits can go hand in hand.

Actions such as lowering electricity and water consumption, minimising raw material waste through zero-waste production, and reusing packaging materials ultimately contribute to reducing operational expenses. As one culinary business owner noted, “By redesigning the packaging, we can save 15% on monthly packaging costs.” This factor represents the most compelling entry point for the introduction of green accounting. When MSME owners recognise that environmentally responsible practices also enhance efficiency, their resistance to adoption tends to decline. In this regard, green accounting functions as a mechanism to quantify and substantiate these cost savings, thereby reframing environmentally friendly practices from being perceived as an expense to being understood as a strategic investment.

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Inhibiting Factors

Financial and Capital Constraints

This emerges as the most significant obstacle. Nearly all informants indicated that the initial expenses associated with adopting environmentally friendly technologies or modifying accounting systems are perceived as excessively high. One owner explained, "We really want to switch to environmentally friendly technology, but to be honest, the initial investment required is a huge burden on our current business budget." Other participants shared similar perspectives:

Our main obstacle is the cost. Not only that the equipment itself is expensive, but completely overhauling our accounting system to comply with green standards, we guess, it will require significant transition costs. (Owner of culinary business)

We view implementing this green system as a significant upfront expense. For a business of our scale, the initial costs are too high and pose a risk to cash flow. (Owner of craft business)

Their primary concern is the preservation of cash flow and overall business profitability, which represents the most tangible and frequently cited barrier. The transition towards green practices is widely perceived as costly, encompassing investments in technologies such as solar panels or waste treatment systems, the higher price of organic or recycled inputs, and expenses related to certification processes. For MSMEs operating under tight cash flow constraints and narrow profit margins, these expenditures are often viewed as financially unfeasible. Immediate priorities tend to centre on fulfilling operational obligations, such as paying employee wages and securing raw materials for the next production cycle, as highlighted by one culinary business owner:

Our cash flow is very tight with thin profit margins. If we had to choose between investing in expensive green systems or maintaining production continuity, we would definitely choose to purchase raw materials first. We don't have the financial luxury to consider such transition costs yet.

This constraint is structural in nature. In the absence of access to targeted financing, incentive mechanisms, or forms of capital support, MSMEs face substantial difficulty in undertaking comprehensive implementation of green accounting. Consequently, they are more inclined to adopt low-cost or no-cost environmentally friendly practices.

Complexity and Lack of Understanding

The concept of green accounting is often perceived as complex and highly technical. MSME owners frequently acknowledge that they lack an understanding of how to record environmental costs or measure environmental impacts in quantitative terms. As one informant remarked, "We only focus on profit and loss, not yet on things like that."

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The terminology itself, such as “green accounting” or “environmental accounting,” is often viewed as unfamiliar and somewhat intimidating to many MSME owners, who tend to associate it with highly intricate and sophisticated systems. Their accounting practices are typically limited to basic bookkeeping of revenues and expenditures. More advanced concepts, such as the internalisation of external costs or product life cycle assessment, are generally beyond their current level of understanding. One craft business owner further emphasised this point:

Well, that term "green accounting" sounds really complicated, doesn't it? Honestly, I'm unfamiliar with it. Here, we just record incoming and outgoing cash in a ledger. Calculating a product's life cycle or environmental impact feels too complicated and far removed from our daily work.

This knowledge gap leaves MSMEs uncertain about how to initiate the process. They require guidance that is highly practical, straightforward, and actionable, rather than abstract theoretical explanations. This underscores the importance of providing targeted education and support that translates green accounting concepts into simple, implementable operational procedures.

Absence of Regulatory Pressure

So far, there has been no requirement or inquiry from the government regarding green accounting. In the absence of formal regulations or sanctions, MSME owners do not perceive any urgency to prepare such reports. As one craft business owner stated, “If it is not required, why add to our workload?” We operate as a small business without the same level of strict oversight applied to larger corporations, whose waste management and reporting are closely monitored. This relative lack of external scrutiny creates a sense of operational flexibility, with minimal pressure to implement changes, leading businesses to continue their activities without significant adjustments. As noted by one culinary business owner, “We feel freer and there is no external pressure to change, so we just go with the flow.”

The absence of regulatory requirements or fiscal incentives that would either compel or encourage MSMEs to adopt green accounting results in its low prioritisation. MSME owners do not feel a sense of urgency to implement such practices. Unlike large corporations, which are subject to stringent monitoring, MSMEs generally function within a relatively relaxed regulatory environment concerning environmental obligations. There are no binding laws mandating environmental reporting or the payment of carbon-related taxes. Without clear penalties or financial incentives, such as tax reductions, MSMEs are unlikely to allocate their already limited resources to this area. In this context, the role of government becomes pivotal. In the absence of a supportive regulatory framework, the adoption of green accounting remains largely dependent on individual motivation (driving factor 1) and market-driven forces (driving factor 2). Policy approaches based on “nudge” strategies, such as providing incentives

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for environmentally responsible MSMEs, are considered more effective than punitive regulatory measures.

Perception of Indirect Benefits

The advantages associated with green accounting, including enhanced brand image and long-term sustainability, are often perceived as intangible and insufficient to justify the immediate costs and efforts required. One participant remarked:

If we implement this environmental system, what's in it for us? There are no tax breaks or capital assistance from the relevant agencies. So, as long as there are no real incentives, this issue will remain a secondary priority for us.

They tend to prioritise strategies that deliver immediate increases in sales. The intangible advantages associated with green accounting, such as improved brand reputation, stronger customer loyalty, and long-term sustainability, are often viewed as too abstract and uncertain to offset the costs incurred in the present. As one informant emphatically stated, “I need money to survive this month, not praise for saving the earth.” This represents a significant communication challenge. Proponents of green accounting must therefore translate these long-term advantages into clear, quantifiable financial benefits that can be realised in the short to medium term. This can be achieved, for instance, by presenting empirical case examples demonstrating how a green brand image contributes to higher sales volumes or enables access to more profitable market segments.

DISCUSSION: THE VALUE-BUFFERED ADOPTION PHENOMENON

The findings presented above lead to the proposal of a new model that conceptualises the adoption of green accounting within MSME practices. The model developed from the analysed data is illustrated in Figure 1.

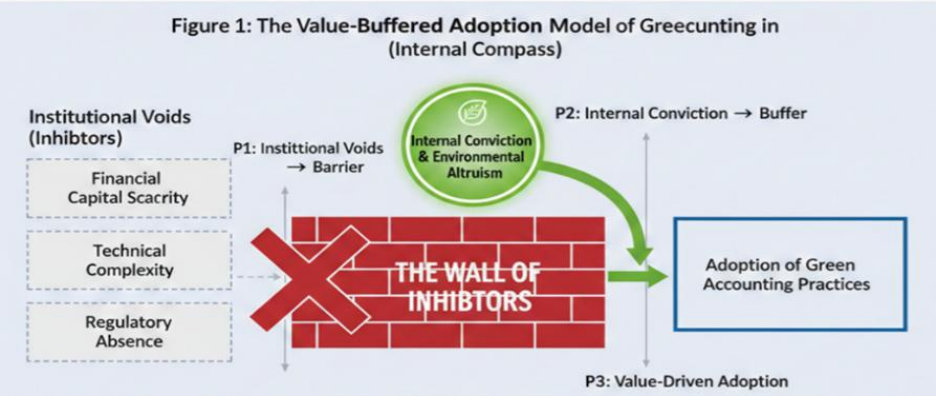

Figure 1: The Value-Buffered Adoption Model
Source: Analyzed data (2026)

Bridging the Institutional Void: Agency as a Substitute for Market Infrastructure

The findings of this study present an alternative perspective to Institutional Theory (DiMaggio & Powell, 1983), which assumes that efficient market functioning relies on established regulatory structures. Within conventional green accounting literature, the adoption of environmental practices is typically interpreted as a response to coercive pressures or mimetic behaviour aimed at reducing compliance costs or safeguarding firm value. However, in emerging markets, an institutional void persists, characterised by the absence of effective governmental incentives and limited enforcement of environmental regulations. In such contexts, the likelihood of information asymmetry increases, while the transaction costs associated with green investments become excessively high.

This study identifies the emergence of Value-Buffered Adoption, whereby the personal agency of entrepreneurs operates as a substitute for missing institutional infrastructure. Instead of responding to external market signals or regulatory requirements, entrepreneurs rely on their internal value systems as a guiding framework for allocating resources towards sustainable initiatives. This perspective extends Upper Echelons Theory into the financial domain, suggesting that strategic decisions within small organisations are shaped not by external market efficiency but by the personal utility functions of decision-makers. From an economic standpoint, such individual agency reduces entry barriers to green accounting practices, effectively bridging the gap between the absence of public policy and the need for sustainable organisational operations.

Beyond the "Cost-Benefit" Paradox

A key finding of this study is that MSME owners continue to engage in green accounting practices despite perceiving limited direct financial returns. This challenges Rational Choice Theory, which assumes that economic actors pursue sustainability only when a clear and immediate business advantage is evident. Within this framework, the “Internal Compass” operates as a non-economic driver of behaviour. MSME owners are motivated not solely by short-term profit maximisation, but also by environmental altruism and a commitment to long-term resilience. By adopting basic green accounting practices, they effectively engage in future-oriented risk management, preparing their businesses for potential climate-related disruptions, even in the absence of immediate market incentives. Furthermore, MSMEs that implement green accounting may realise indirect cost efficiencies. Through systematic tracking of waste generation and energy consumption, managers can identify operational inefficiencies. Applying the principle of “doing more with less” enables the reduction of variable costs, thereby improving overall profit margins.

In addition, the adoption of green accounting can enhance access to capital and improve competitiveness. In emerging markets, compliance with environmental standards is

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often a prerequisite for entry into Global Value Chains (GVCs) or for securing green financing at preferential interest rates. In this context, managerial ethical values act as a facilitating mechanism, accelerating the firm's ability to meet evolving market expectations. Green accounting also serves as a proactive risk management tool by acting as an early warning system against potential regulatory penalties or future carbon taxation. This reflects a cost-avoidance strategy that is essential for sustaining the long-term financial viability of MSMEs.

Risk Mitigation and Funding Access (Cost of Capital)

In environments characterised by weak regulatory frameworks, investors and creditors face heightened uncertainty. MSMEs that proactively adopt green accounting, driven by internal values, effectively communicate their commitment to transparency through signalling mechanisms (Signal Theory). By maintaining independent environmental records, these firms reduce information asymmetry and provide greater assurance to lenders and investors. Consequently, such firms become more attractive to financial institutions and investors seeking ESG-oriented portfolios, often benefiting from reduced costs of capital.

Operational Efficiency and Long-Term Profitability

Green accounting adoption, when driven by intrinsic values, often prioritises resource efficiency, which directly contributes to financial performance through eco-efficiency, future-proofing assets, and premium pricing strategies. Eco-efficiency is achieved through reductions in energy consumption and minimisation of waste, leading to lower operational costs and the establishment of a cost leadership advantage over less efficient competitors. Future-proofing assets involves investing in environmentally sustainable technologies at an early stage to mitigate the risk of asset obsolescence in anticipation of future regulatory changes. Premium pricing, on the other hand, can be achieved by targeting environmentally conscious consumer segments that exhibit lower price sensitivity, thereby enabling MSMEs to command higher profit margins.

STUDY LIMITATIONS

This study acknowledges several limitations in its findings. First, there is contextual specificity. Although this research provides a detailed local account of diverse labour-intensive sectors, the cultural and economic conditions within these sectors may differ substantially from MSMEs operating in other industries. Second, the study prioritised the exploration of "why" and "how" by conducting in-depth interviews with twelve business owners. This limited sample size enabled a rich and nuanced understanding of individual values and perspectives; however, the results are not intended to be statistically generalisable to the broader population of MSMEs across Indonesia. Third, given that "internal conviction" emerged as a key driving factor, the analysis relies heavily on participants' self-reported responses, including their honesty and level of

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self-awareness. This introduces the possibility of response bias, where participants may overstate their environmental intentions relative to their actual business practices, despite efforts to establish trust during the interview process. Finally, the findings reflect a period in which governmental environmental pressure in Indonesia remains relatively limited. Should stricter regulatory frameworks and enforcement mechanisms be introduced in the future, the current balance between market forces and regulatory pressure identified in this study may shift, thereby influencing the trajectory of green accounting adoption.

CONCLUSION AND POLICY RECOMMENDATIONS

This study was designed to address the research question of identifying the factors that influence the implementation of the green accounting concept in MSMEs. The findings indicate that both motivating and inhibiting factors shape the adoption of this concept within business practices. On one hand, MSME owners are primarily motivated by their personal environmental values, increasing customer demand for sustainable practices, and the expectation of long-term cost efficiencies. These factors reflect a combination of intrinsic motivations and market-driven incentives that encourage gradual adoption of green accounting practices. On the other hand, several key barriers hinder implementation. These include limited financial resources and capital constraints, insufficient understanding of green accounting techniques, the absence of regulatory pressure from the government, and the perception that green accounting does not yield immediate financial returns. In response to these dynamics, the study proposes the Value-Buffered Adoption Model, which extends beyond the notion of philanthropy and instead reflects a form of strategic altruism. Within this framework, managerial economic incentives enable decision-makers to move beyond short-term cost considerations and recognise the long-term financial value of environmental transparency. Consequently, green accounting evolves from a compliance-oriented administrative task into a strategic management instrument that enhances both competitiveness and financial resilience, particularly in contexts characterised by institutional uncertainty.

The findings further suggest that in emerging economies, conventional top-down regulatory approaches are often constrained by institutional voids. As a result, governments are encouraged to adopt a value-based engagement strategy rather than relying solely on compliance mechanisms. This approach involves cultivating an “eco-entrepreneurial identity” through national awareness initiatives that integrate environmental responsibility with cultural and religious values, which appear to exert a stronger influence on MSME owners than formal legal requirements. Additionally, given that technical complexity is a major barrier, there is a pressing need to develop a Simplified Green Accounting Framework (SGAF) tailored specifically to MSMEs. Instead of imposing complex international standards such as GRI or SASB, local accounting authorities should introduce simplified “micro-reporting” templates. These

templates should prioritise measurable indicators, such as energy consumption reduction and waste management practices, which are more accessible and practical for small-scale enterprises to monitor and report.

SUGGESTIONS FOR FUTURE RESEARCH

While this study establishes the conceptual foundation of the Value-Buffered Adoption Model and underscores the significance of strategic altruism in addressing institutional voids, it simultaneously generates several avenues for future empirical inquiry. The following directions are proposed:

1. Future studies should adopt experimental or action-oriented methodologies to test the effectiveness of the proposed Simplified Green Accounting Framework (SGAF). In particular, research should examine whether reducing technical complexity through the use of micro-reporting templates leads to a measurable decrease in compliance costs for MSMEs, as well as whether it improves the accuracy and reliability of environmental disclosures when compared with more complex international standards.
2. A longitudinal research design is necessary to investigate the sustained relationship between value-buffered adoption and firm-level financial performance. Future studies should explore whether MSMEs characterised by a strong ethical identity demonstrate lower default risk and higher survival rates, particularly during periods of macroeconomic instability and institutional uncertainty.
3. There is also a pressing need for econometric analysis to assess the influence of financial incentives, such as preferential interest rates and green grants, on MSME behaviour. Future research should identify the optimal level of incentives required to transition firms from compliance-driven practices to value-based adoption, while also examining the potential emergence of greenwashing within the MSME sector.

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