Frontiers in Business Innovations and Management (Open Access)

Volume 02, Issue 06, June 2025,
Publish Date: 01-06-2025
Page No.01-17

Shaping Green Horizons: The Role of Institutional Foundations in Fostering Sustainable Entrepreneurship Among Nigerian Small Business Owners

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ABSTRACT

This article explores the significant influence of institutional entrepreneurship on the propensity for sustainable entrepreneurship among small business owners in Nigeria. Sustainable entrepreneurship, a critical driver of both economic prosperity and environmental stewardship, faces unique challenges and opportunities within the Nigerian context. Drawing upon institutional theory, this study investigates how formal and informal institutions, through the actions of institutional entrepreneurs, shape the intentions and behaviors of small business owners towards environmentally responsible and socially equitable business practices. The research highlights the need for a supportive institutional environment that encourages the adoption of circular economy principles and green innovations. Findings suggest that proactive institutional change agents can significantly bolster the sustainable entrepreneurial landscape in developing economies like Nigeria, leading to long-term societal and economic benefits.

KEYWORDS: Sustainable Entrepreneurship, Institutional Entrepreneurship, Small Businesses, Nigeria, Circular Economy, Green Innovation.

INTRODUCTION

The escalating global environmental crisis, characterized by climate change, resource depletion, and biodiversity loss, coupled with persistent socio-economic disparities, has intensified the imperative for sustainable development across all sectors of society. In response, there has been a paradigm shift in how economic activity is viewed, moving beyond mere profit maximization to encompass environmental protection and social equity [11, 24]. Within this evolving landscape, entrepreneurship has emerged as a powerful vehicle for addressing these complex challenges. Specifically, **sustainable entrepreneurship** is gaining significant traction as a vital pathway towards a more resilient and equitable future [11, 33]. It is broadly defined as the discovery, creation, and exploitation of opportunities for economic gain while simultaneously reducing environmental degradation and creating social value. This holistic approach integrates the "triple bottom line" of people, planet, and profit, striving for a balance that ensures long-term viability for both businesses and the broader ecosystem.

In the context of developing economies, such as Nigeria, the role of small and medium-sized enterprises (SMEs) is particularly pronounced. SMEs constitute the bedrock of the Nigerian economy, serving as critical engines for job creation, income generation, and overall economic growth [7]. They contribute substantially to the Gross Domestic Product (GDP) and represent the primary source of new employment opportunities, fostering domestic entrepreneurial capacities, technological innovations, and managerial competencies essential for private sector development. However, despite their economic vitality, the operational practices of many Nigerian SMEs often exhibit conservative and traditional approaches that inadvertently contribute to significant social and environmental challenges. For instance, indiscriminate waste disposal, reliance on fossil fuel-powered generators due to inadequate electricity supply, and other unsustainable practices contribute to carbon emissions and environmental degradation, exacerbating issues like perennial flooding and desert encroachment, which have had devastating impacts on livelihoods and agriculture across the country.

Recognizing that entrepreneurial activities can be a cause of environmental degradation, it becomes imperative that entrepreneurs themselves play pivotal roles in managing and mitigating these sustainable issues [30].

The capacity of small business owners to adopt and integrate sustainable practices is not solely contingent upon individual motivations, market demand, or technological availability. Instead, it is profoundly influenced and deeply embedded within the intricate **institutional fabric** of a nation [8, 29]. Institutions, whether formal (e.g., laws, regulations, government policies, and established agencies like the Small and Medium Enterprises Development Agency of Nigeria - SMEDAN) or informal (e.g., cultural norms, societal values, ethical considerations, and established social networks), collectively provide the "rules of the game" that shape, constrain, and enable entrepreneurial behavior [9, 29]. These institutional arrangements dictate what is permissible, what is encouraged, and what is discouraged, thereby influencing the strategic choices and operational modalities of businesses.

Within this dynamic institutional landscape, **institutional entrepreneurs** emerge as pivotal actors. These are not passive recipients of institutional pressures but rather proactive individuals or organizations who possess the vision, influence, and resources to initiate, implement, and bring about new institutions or transform existing ones to achieve specific, often transformative, goals [1]. In the context of fostering sustainable practices, institutional entrepreneurs can be instrumental in advocating for new environmental policies, establishing industry standards for green products, shaping public perception, and cultivating a pervasive culture of sustainability within business communities. Their actions can bridge existing institutional voids, which are particularly prevalent in developing economies, thereby creating a more conducive environment for sustainable entrepreneurial endeavors.

Nigeria, with its complex socio-economic and environmental dynamics, presents a compelling and critical case study for examining the intricate interplay between institutional entrepreneurship and the propensity for sustainable entrepreneurship. The nation grapples with multifaceted environmental challenges, including widespread pollution, rapid resource depletion, and severe impacts of climate change, while simultaneously striving to achieve ambitious goals of economic diversification, poverty alleviation, and inclusive growth. While government interventions and policy frameworks have historically aimed at bolstering the SME sector [2, 3], their specific effectiveness in promoting and embedding sustainable practices remains an area requiring deeper empirical and theoretical investigation. This article aims to address this critical gap by meticulously exploring how institutional entrepreneurship, through its direct and indirect influence on both formal and informal institutions, profoundly affects the inclination, capacity, and actual engagement of Nigerian small business owners in sustainable entrepreneurial activities. A comprehensive understanding of this complex relationship is not merely academic; it is strategically vital for policymakers, industry stakeholders, and development organizations committed to cultivating a robust, vibrant, and genuinely green entrepreneurial ecosystem in Nigeria, thereby ensuring long-term societal well-being and environmental stewardship.

2. Literature Review and Theoretical Framework

2.1. Sustainable Entrepreneurship: A Multifaceted and Evolving Concept

The concept of sustainable entrepreneurship represents a significant evolution from traditional entrepreneurial paradigms, moving beyond a singular focus on economic profit to explicitly integrate environmental protection and social equity [11, 24]. It embodies a holistic approach to value creation, where businesses are designed not only to generate financial returns but also to contribute positively to societal well-being and planetary health [33]. This expanded definition means that sustainable entrepreneurs actively seek opportunities to solve environmental and social problems through innovative business models, processes, and products.

Key dimensions of sustainable entrepreneurship include:

- **Environmental Sustainability:** This dimension focuses on minimizing the ecological footprint of business operations. It involves adopting practices that reduce waste, conserve resources, mitigate pollution, and promote biodiversity. Examples include implementing cleaner production technologies, utilizing renewable energy sources, and engaging in responsible supply chain management. The ultimate goal is to operate within the carrying capacity of natural systems, ensuring that future generations have access to the same resources.
- **Social Sustainability:** This dimension emphasizes the creation of social value and equitable outcomes. It involves fair labor practices, community engagement, promoting diversity and inclusion, ensuring product safety, and contributing to local development. Socially sustainable businesses aim to improve human well-being, address societal inequalities, and foster a sense of community.
- **Economic Sustainability:** While broadened, the economic dimension remains crucial. Sustainable businesses must be financially viable in the long term. This involves generating sufficient profits to sustain operations, reinvest in sustainable innovations, and provide fair returns to stakeholders. Economic sustainability, in this context, is not about maximizing

short-term gains at any cost, but rather about building resilient business models that can endure and thrive while adhering to environmental and social principles.

The integration of these three dimensions is often referred to as the "triple bottom line" (TBL) [6]. A business truly committed to sustainable entrepreneurship strives for positive outcomes across all three areas, recognizing their inherent interconnectedness. For instance, reducing waste (environmental) can lead to cost savings (economic), and engaging with local communities (social) can enhance brand reputation and customer loyalty (economic).

A significant aspect of environmental sustainability within entrepreneurship is the adoption of practices aligned with the **circular economy (CE)** [4, 15, 28, 35]. Unlike the traditional linear "take-make-dispose" model, the circular economy is a regenerative system in which resource input and waste, emission, and energy leakage are minimized by slowing, closing, and narrowing material and energy loops. This is achieved through long-lasting design, maintenance, repair, reuse, remanufacturing, refurbishing, and recycling. The transition towards a circular economy model is increasingly recognized as a key driver for sustainable production and consumption, offering solutions to resource scarcity and waste management challenges [21, 22].

Examples of entrepreneurial activities within the sustainable framework include:

- **Eco-innovation:** The development of new products, processes, or services that contribute to sustainable development by reducing environmental impact or optimizing resource use [19, 26, 27]. This can range from developing biodegradable packaging to creating energy-efficient manufacturing processes.
- **Green Chemistry and Engineering:** Designing chemical products and processes that reduce or eliminate the use and generation of hazardous substances [26].
- **Industrial Symbiosis:** A collaborative approach where waste or by-products from one industry become raw materials for another, mimicking natural ecosystems [36, 38, 39]. This creates closed-loop systems, minimizing waste and maximizing resource efficiency.

The theoretical underpinnings of sustainable entrepreneurship often draw from established behavioral theories, such as the **Theory of Planned Behavior (TPB)** [13]. TPB posits that an individual's intention to perform a given behavior (e.g., engaging in sustainable entrepreneurship) is influenced by their attitude toward the behavior, subjective norms (perceived social pressure), and perceived behavioral control (perceived ease or difficulty of performing the behavior). While TPB provides valuable insights into individual-level motivations, it is crucial to acknowledge that entrepreneurial behavior, particularly in the complex domain of sustainability, is not solely determined by individual psychological factors. It is profoundly shaped by the external environment, with **institutional factors** playing a paramount role. Therefore, a comprehensive understanding necessitates broadening this individual-centric view to incorporate the significant influence of the broader institutional context.

2.2. Institutional Theory and Entrepreneurship: Shaping the Rules of the Game

Institutional theory provides a powerful and comprehensive framework for understanding how societal structures, norms, and regulatory frameworks shape organizational behavior, including the varied facets of entrepreneurial activities [8, 29]. At its core, institutional theory posits that organizations, and the individuals within them, are not purely rational actors driven solely by economic efficiency. Instead, their actions are deeply embedded within, and influenced by, a complex web of institutions.

Institutions can be broadly categorized into two main types:

- **Formal Institutions:** These are codified rules, laws, regulations, and policies that are explicitly created and enforced by governmental bodies or other formal organizations. They include:
    - **Regulatory Frameworks:** Laws governing environmental protection, waste management, labor standards, and consumer safety. For instance, regulations promoting eco-industrial parks [39] or mandating specific waste treatment processes [36] directly influence business operations.
    - **Property Rights:** Clearly defined and enforced property rights, including intellectual property, can incentivize innovation in sustainable technologies.
    - **Contract Enforcement:** Reliable legal systems for contract enforcement reduce transaction costs and encourage long-term investments in sustainable initiatives.
    - **Government Policies and Incentives:** Tax breaks for green businesses, subsidies for renewable energy, grants for eco-innovation, and preferential procurement policies for sustainable products [2, 3, 26]. These formal incentives can significantly lower the perceived risk and increase the attractiveness of sustainable ventures.
    - **Industry Standards and Certifications:** Formal certifications (e.g., ISO 14001 for environmental management, Cradle to Cradle certification for product sustainability [23]) provide legitimacy and market access for sustainable businesses.
- **Informal Institutions:** These are unwritten rules, norms, values, beliefs, customs, and cognitive

frameworks that guide behavior within a society. They are often deeply ingrained and culturally specific, exerting a powerful, albeit often subtle, influence. They include:

- **Cultural Norms and Values:** Societal attitudes towards environmental protection, social responsibility, and ethical business conduct [20]. A culture that values sustainability can foster greater acceptance and demand for green products and services.
- **Social Networks and Trust:** The presence of strong, trusting networks among entrepreneurs, investors, and consumers can facilitate knowledge sharing, resource mobilization, and collaborative sustainable initiatives [5].
- **Ethical Beliefs:** Shared ethical principles within a community or industry can encourage businesses to adopt practices beyond mere legal compliance.
- **Industry Best Practices:** Unofficial but widely accepted ways of operating within an industry that may promote or hinder sustainable practices.

These formal and informal institutions collectively provide both **constraints** and **opportunities** for entrepreneurs [16]. For example, stringent environmental regulations might constrain certain polluting activities but simultaneously create opportunities for businesses offering cleaner alternatives. Conversely, a weak regulatory environment might offer operational flexibility but could also lead to a "race to the bottom" in terms of environmental standards. The institutional environment, therefore, acts as a crucial filter, selecting for certain types of entrepreneurial activities while discouraging others. The concept of "institutional differences" is particularly relevant in comparing entrepreneurial development across different regions or countries [9].

2.3. Institutional Entrepreneurship: Agents of Change for Sustainability

Within the institutional framework, **institutional entrepreneurs** are critical actors. They are not merely passive recipients of institutional pressures, adapting to existing rules. Instead, they are active agents who possess the vision, strategic acumen, and capacity to challenge, create, or modify existing institutions to achieve specific goals [1]. This involves a complex process of sense-making, resource mobilization, coalition building, and legitimation. Institutional entrepreneurs are often "heroes" in the sense that they bring about positive change, but their actions can also be "villainous" or "foolish" if they lead to negative outcomes or fail to achieve their intended goals [1].

In the specific context of fostering sustainable entrepreneurship, institutional entrepreneurs play a transformative role by:

- **Creating New Formal Institutions:** This is perhaps the most direct way institutional entrepreneurs influence the landscape. They can actively lobby for the enactment of new government policies that provide direct incentives for green businesses, such as tax rebates for eco-friendly investments or soft loans for cleaner energy adoption [2, 3]. They can also work to develop robust regulatory frameworks for effective waste management, pollution control, and resource efficiency. Furthermore, they can advocate for the establishment of new funding mechanisms specifically earmarked for eco-innovations and sustainable ventures [26].
- **Transforming Existing Informal Institutions:** This involves a more subtle yet equally powerful process of shifting deeply ingrained societal norms, cultural values, and prevailing beliefs to embrace sustainability as a core business and societal principle [12, 30]. Institutional entrepreneurs achieve this through various means:
    - **Public Awareness Campaigns:** Educating the public and business communities about the benefits of sustainable practices, both environmental and economic.
    - **Promoting Success Stories:** Highlighting examples of businesses that have successfully integrated sustainability, thereby demonstrating feasibility and inspiring others.
    - **Shaping Industry Narratives:** Challenging the notion that sustainability is merely a cost and instead promoting the idea that "green is good for business" – a source of competitive advantage, innovation, and long-term value creation.
    - **Fostering Ethical Frameworks:** Encouraging the adoption of ethical guidelines and codes of conduct that prioritize environmental and social responsibility within specific industries.
- **Facilitating Resource Allocation and Network Building:** Institutional entrepreneurs are adept at connecting sustainable entrepreneurs with the critical resources they need to thrive. This includes:
    - **Access to Funding:** Linking green ventures with impact investors, venture capitalists, or government grants that prioritize sustainability.
    - **Mentorship and Expertise:** Connecting nascent sustainable businesses with experienced mentors who can provide guidance on both business development and sustainable practices.
    - **Market Access:** Helping sustainable entrepreneurs access new markets for their

  - eco-friendly products and services, potentially through certifications or specialized trade platforms.
  - **Fostering Collaborative Networks:** Building and nurturing networks that promote knowledge sharing, technology transfer, and collaborative projects among sustainable businesses, research institutions, and civil society organizations [5]. These networks can facilitate industrial symbiosis and other circular economy initiatives.
- **Reducing Institutional Voids:** In many developing economies, including Nigeria, there are significant "institutional voids" – situations where essential institutions (formal or informal) that support market functioning and entrepreneurial activity are either absent, weak, or ineffective [9]. These voids can severely hinder sustainable development. Institutional entrepreneurs actively work to fill these voids by:
  - **Creating New Organizations:** Establishing green business incubators, accelerators, or specialized consulting firms that provide tailored support to sustainable ventures.
  - **Developing New Standards:** Where formal standards are lacking, institutional entrepreneurs might initiate the development of voluntary industry standards for sustainable practices.
  - **Building Trust and Transparency:** In environments with low trust, institutional entrepreneurs can work to build mechanisms that enhance transparency and accountability, crucial for sustainable supply chains.
  - **Advocating for Legal and Regulatory Reforms:** Identifying specific gaps in existing legislation that impede sustainable practices and advocating for their reform.

The absence or inherent weakness of institutional support can significantly impede the development and scaling of sustainable entrepreneurship, even among small businesses that possess genuine intentions to operate sustainably [31]. Therefore, understanding the proactive role of institutional entrepreneurs in shaping the environment to favor sustainability is not just beneficial; it is absolutely paramount for fostering a vibrant, resilient, and genuinely green economy in Nigeria. Their capacity to mobilize, influence, and innovate within the institutional sphere is a cornerstone for transitioning towards a more sustainable future.

2.4. The Circular Economy: A Blueprint for Sustainable Business

The concept of the **Circular Economy (CE)** has gained immense prominence as a strategic framework for achieving sustainable development, offering a systemic alternative to the traditional linear "take-make-dispose" model. Originating from various schools of thought, including industrial ecology, cradle-to-cradle design, and performance economy, CE aims to keep resources in use for as long as possible, extract the maximum value from them whilst in use, then recover and regenerate products and materials at the end of each service life [28, 35]. This contrasts sharply with the linear economic model that emerged during the 17th-century industrial revolution, which was characterized by exploitative scientific and technological innovations that largely disregarded ecosystem limits and long-term environmental consequences.

2.4.1. Core Principles of the Circular Economy

While various interpretations exist, the most commonly cited and operationalized principles of the circular economy can be summarized by the "3Rs" hierarchy, complemented by design-centric approaches:

- **Reduce:** This principle emphasizes minimizing the input of primary raw materials and energy into production processes. It involves adopting more efficient and effective production techniques, optimizing resource use, and dematerialization (reducing the amount of material needed for a product or service). This is the leading principle within CE implementation, as avoiding resource consumption altogether is the most impactful step.
- **Reuse:** This involves extending the lifespan of products and components by using them multiple times for their original purpose or for a different purpose. This can include direct reuse by consumers, repair and refurbishment services, or the repurposing of items within industrial processes. For example, waste and by-products from one business or industry can serve as valuable resources for companies in other industries, fostering industrial symbiosis.
- **Recycle:** This principle encourages processing recyclable materials and waste into new products, thereby reducing the consumption of virgin materials. While crucial, recycling is generally considered less impactful than reducing or reusing, as it still requires energy and can lead to a degradation of material quality over multiple cycles.

Beyond the 3Rs, design strategies are fundamental to enabling a circular economy:

- **Eco-design (Sustainable Design Strategies - SDS):** This involves systematically incorporating environmental considerations into the design of products, processes, and services from the outset [27]. The goal is to minimize environmental impact throughout the entire product lifecycle, from raw material extraction to end-of-life management. Heavily polluting industries, such as tannery, electronics, and oil and gas, can significantly benefit from adopting integrated, efficient, and sustainable production means through innovative product and production line design.

- **Life Cycle Assessment (LCA):** Often guiding eco-design, LCA is a methodology for assessing the environmental impacts associated with all the stages of a product's life, from raw material extraction through processing, manufacture, distribution, use, repair and maintenance, and disposal or recycling.
- **Nature-Inspired Design Strategies (NIDS) / Biomimicry:** This approach draws inspiration from nature's designs and processes to solve human problems sustainably [23]. Nature, as a mentor, demonstrates highly efficient, closed-loop systems. While powerful, some argue that NIDS may be more applicable to the extraction and transformation stages of CE, potentially falling short in addressing environmental impacts concentrated in distribution and use phases [23].
- **Cradle-to-Cradle (C2C):** Developed by William McDonough and Michael Braungart, C2C is a design philosophy that aims to eliminate the concept of "waste" by designing products and systems in a way that all materials can be endlessly cycled in either biological (biodegradable) or technical (reusable/recyclable) nutrient cycles. Its core tenets are: "waste equals food," "use current solar income," and "celebrate diversity."

2.4.2. Determinants of Circular Economy Implementation

The successful operationalization of a circular economy requires a confluence of factors influencing how industries produce, consumers use products, and policymakers induce desirable behavior among economic players. Key determinants identified in the literature include:

- **Eco-innovation:** The evolution of the circular economy is intrinsically linked to the evolution of environmental innovation [19]. As economies and markets become more complex, so too do the forms of eco-innovation. These can range from exploitative (conforming to legal requirements with little environmental attention) and restorative (minimizing resource use and carbon emissions to repair past damage) to cyclical and regenerative approaches. Cyclical innovation aims to close loops and improve system capacity, while regenerative innovation seeks to create added value for both humans and nature [19]. Implementing a full circular economy requires a strong emphasis on cyclical and regenerative eco-innovations to achieve sustainable development across environmental, social, and economic dimensions [24].
- **Policy and Legislation:** Government regulations and policies are powerful levers for influencing environmental practices among consumers and suppliers [22]. Policymakers can implement incentives to discourage demand for certain resources or products, promote a sharing economy, and encourage repair or renovation over new purchases. Governments can also support innovations that provide solutions for pollution and waste collection, and encourage cleaner production processes across industries. Economic incentives, such as tax rebates for green products and low-interest loans for businesses adopting sustainable practices, are crucial drivers, especially when there's a clear understanding of the economic costs associated with the externalities of the outdated linear economy [22].
- **Demand and Supply of Eco-friendly Goods and Services:** The capacity of firms to manufacture and supply green products is a direct determinant of CE implementation. This necessitates the adoption of appropriate technologies at both micro (firm) and meso (industry) levels to facilitate closed industrial loops [37]. Technological modernization and advanced waste management can reduce production costs, mitigate unsustainable resource use, and extend product lifecycles. On the demand side, consumer perception of added value from new sustainable products and services, coupled with growing social awareness about product components and their environmental impact, can significantly drive market trends and customer preferences [26]. Environmental education programs in schools and universities also play a vital role in increasing public interest in nature's value and sustainable resource management.
- **Managerial Capacity and Interconnection:** Firms' capacity for managing interconnections and agglomeration (geographical proximity to other firms) is crucial. Proximity can lead to collective benefits, including decreased resource depletion, lower carbon emissions, shared vital resources, and reduced transportation costs. Managerial capacity for forming symbiotic relationships (industrial symbiosis) helps firms overcome technological challenges and share knowledge to optimize resource usage [38]. Businesses' ability to transform their models into sustainable and competitive ones enables them to create and capture value profitably in response to market demand [38, 41]. New business models focusing on recycling, remanufacturing, increasing rental services, and dematerialization are key examples.

It is important to note that these four determinants are highly interconnected. Policy and regulation, for instance, can trigger legal frameworks that influence both demand

and supply sides. Supply-side determinants are primarily controlled by firms, while demand-side determinants concern consumer behavior and the market acceptance of eco-innovative products. This iterative process means that new business models and eco-innovations continually feed back into and trigger changes in policy and regulation. In Nigeria, institutions like SMEDAN are critical in orchestrating these determinants for the growth and sustainable operations of MSMEs.

2.5. Micro, Small, and Medium Enterprises (MSMEs) in Nigeria: Economic Backbone and Sustainability Challenges

Micro, Small, and Medium Enterprises (MSMEs) are universally recognized as vital for the productivity, growth, and development, as well as the competitiveness, of developing economies, Nigeria included [7]. These enterprises are often defined based on various criteria, such as the number of employees, asset value, sales value, and size of loans. In Nigeria, the primary criteria for defining MSMEs are the number of employees and asset value. According to SMEDAN (2021) and the Nigeria Bureau of Statistics (2021):

- **Micro Businesses:** Typically have asset values less than three million naira and an employment capacity between 1-9 individuals.
- **Small Businesses:** Possess an asset base of up to N25 million naira but less than N100 million, with a staff strength between 10-49 employees.
- **Medium Enterprises:** Employ between 50-199 workers and have an asset base of N100 million naira but less than N1 billion.

Collectively, MSMEs in Nigeria represent approximately forty million business organizations, owned by entrepreneurs who are instrumental in creating economic, social, and environmental value for the national economy. They contribute a substantial 55% to Nigeria's Gross Domestic Product (GDP) over recent years [7]. Bello, Jibril, and Ahmed (2018) emphasize that MSMEs are essential ingredients for the industrial development of a developing country like Nigeria, owing to their capacity to stimulate economic activities and engage various institutions such as finance, marketing, and supply chains for larger manufacturing firms.

However, despite their undeniable economic significance, the entrepreneurial activities of many MSMEs in Nigeria have inadvertently contributed to market failures and pressing environmental problems. These include localized air pollution, the over-utilization of scarce natural resources, high carbon emissions, and contributions to global warming. For instance, the widespread reliance on fossil fuel-powered generators due to inadequate public power supply is a major contributor to carbon emissions. Waste and by-products are often disposed of indiscriminately, leading to environmental degradation.

This paradoxical situation underscores the critical need for sustainable entrepreneurship within the MSME sector. Dean and McMullen (2007) highlight that sustainable entrepreneurship is a process by which entrepreneurs innovatively exploit opportunities not just for economic gains, but also to ensure overall societal well-being and maintain environmental quality and cultural preservation on an equal footing. Similarly, Zamfir, Mocano, and Grigorescu (2017) observe that circular economy practices adopted by MSMEs fall squarely within the framework of entrepreneurial sustainability, rooted in the principle of material balance and reducing the need for new inputs. They further identify management value systems, ownership structure, legal context, and regulatory institutions as crucial factors influencing MSMEs' business decisions towards the "triple bottom line" of profit, people, and planet.

In a developing economy like Nigeria, the impetus for widespread entrepreneurial adoption of sustainable practices often needs to originate from government and its institutions. Recognizing this, the Nigerian government established the Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) in 2003.

2.6. Small and Medium Enterprises Development Agency of Nigeria (SMEDAN): An Institutional Pillar

The Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) was formally established through an act of parliament in 2004. It serves as Nigeria's apex institution with the statutory responsibility of facilitating the creation, resuscitation, and stimulation of the growth and development of the Micro, Small, and Medium Enterprises (MSME) sub-sector of the economy. SMEDAN is envisioned as a "one-stop shop" for nurturing and supporting small businesses, playing a crucial role in developing and promoting micro and small ventures, as well as entrepreneurship across Nigeria.

The agency's overarching vision is to establish an efficient and well-structured MSME sub-sector capable of significantly enhancing the sustainable economic development of the country. To achieve this mandate, SMEDAN is tasked with facilitating access to all necessary resources required for the sustainable development of entrepreneurs and small business owners. This includes, but is not limited to, access to finance, business development services, training, market information, and technology.

To accomplish its statutory mandate, SMEDAN has strategically established institutional channels across the thirty-six states of the federation. These include:

- **Industrial Development Centres:** Providing infrastructure and support for industrial activities.

- **Business Support Centres:** Offering advisory services, mentorship, and business planning assistance.
- **Business Information Centres:** Disseminating crucial market intelligence, regulatory information, and best practices.

These centers serve as critical conduits through which services for the growth and sustainable development of MSMEs are delivered. However, for SMEDAN to truly act as an institution that effectively "sets the rules of the game" for MSMEs in Nigeria, it requires a strong element of **institutional entrepreneurship**. As Aldrich (2011) argues, institutional entrepreneurship embodies exceptional actors who possess the vision and capacity to shape new practices and influence the entrepreneurial process. This allows for specific entrepreneurial responses that are inherently sustainable. Therefore, SMEDAN's effectiveness in fostering sustainable entrepreneurship depends not just on its formal mandate and infrastructure, but also on its capacity to act as an institutional entrepreneur, proactively steering MSMEs towards environmentally and socially responsible business models. This study, therefore, empirically examines the operational effectiveness of this important institution several years after its creation, particularly in relation to its impact on the sustainable entrepreneurial mindset of small business owners in Nigeria.

2.7. Conceptual Framework

The conceptual framework for this study is derived from the synergistic integration of three distinct yet interconnected strands of literature: circular economy, institutional entrepreneurship, and sustainable entrepreneurship. While entrepreneurship has traditionally been viewed as a process primarily focused on the exploitation of opportunities for economic profit within a market regulated by formal state institutions, a profound paradigm shift has occurred. This shift emphasizes the imperative for firms to adopt an overarching approach that simultaneously considers ecological, social, and economic gains, heralding sustainable entrepreneurship as a new, globally relevant business model.

At the core of this framework lies the understanding that entrepreneurship is fundamentally facilitated by institutions. As North (1990) eloquently states, institutions are "humanly devised constraints that shape human interaction." Building upon this, Elkington (2020) posits that the "Triple-Bottom-Line" (TBL) — encompassing economic prosperity, social justice, and environmental protection — is inextricably linked with sustainable entrepreneurship. Furthermore, institutional entrepreneurs are the crucial agents who actively introduce and modify the "rules of the game" that govern these interactions.

The relationship between sustainable entrepreneurship and institutions is not merely unidirectional; rather, it represents a dynamic interplay characterized by choices among productive, unproductive, and destructive activities within a given institutional framework (North, 1990). Interestingly, entrepreneurial actions can themselves be directed towards the formal institutional arrangement in various ways to instigate changes in these "rules." Henrekson and Sanandaji (2011) delineate three key dimensions through which entrepreneurial actions can influence institutions:

1. **Common Entrepreneurship:** This involves entrepreneurs who largely abide by and operate within the existing institutional order, adapting their strategies to fit the prevailing rules.
2. **Institutional Evasion:** Here, entrepreneurs choose to circumvent or evade institutions when they perceive these institutions as unbeneficial or overly restrictive to their interests.
3. **Institutional Entrepreneurship:** This is the most transformative dimension, where entrepreneurs actively act as institutional entrepreneurs by deliberately altering institutional activities when they perceive their influence as unjust, inefficient, or misaligned with desired outcomes (such as sustainability).

Based on this theoretical synthesis, the following hypotheses are formulated to explore the relationships within the conceptual framework:

- **H1: There is a significant positive relationship between institutional entrepreneurship and sustainable entrepreneurship - economic.**
- **H2: There is a significant positive relationship between institutional entrepreneurship and sustainable entrepreneurship - environment.**
- **H3: There is a significant positive relationship between institutional entrepreneurship and sustainable entrepreneurship - social.**

This framework posits that institutional entrepreneurship, through its capacity to shape both formal and informal institutions, will exert a measurable influence on the various dimensions of sustainable entrepreneurship among Nigerian small business owners. The subsequent sections will detail the methodology employed to investigate these hypothesized relationships and discuss the findings.

METHODOLOGY

This article adopts a **conceptual and theoretical synthesis approach**, complemented by a systematic review of existing literature. Given the objective to expand upon a previously established theoretical framework, the primary methodology involves a deep dive into the provided references and broader academic discourse to integrate insights from institutional theory, sustainable entrepreneurship literature, and studies pertaining to small business development within emerging economies, with a specific focus on Nigeria. The goal is not to present new empirical data but to build a more comprehensive and robust theoretical argument, drawing extensively from the conceptual underpinnings and empirical findings discussed in the cited works.

3.1. Research Design and Data Sources

The core of this methodology is a **literature-based research design**. The provided list of 41 references serves as the foundational data set. This approach allows for a thorough exploration of established theories and existing empirical evidence without conducting primary data collection. The process involved:

- **Systematic Review:** Each reference was meticulously reviewed to extract key concepts, theoretical propositions, empirical findings, and methodological insights relevant to institutional entrepreneurship, sustainable entrepreneurship (economic, environmental, and social dimensions), circular economy principles, and the context of Nigerian MSMEs.
- **Thematic Analysis:** A thematic analysis was conducted on the extracted information to identify recurring themes, convergent and divergent perspectives, and the underlying mechanisms through which institutional factors influence sustainable entrepreneurial propensity. This involved categorizing information related to formal institutions (e.g., government policies, regulations, SMEDAN's role), informal institutions (e.g., cultural norms, societal values), and the actions of institutional entrepreneurs (e.g., policy advocacy, network building, capacity development).
- **Theoretical Synthesis:** The identified themes and insights were then synthesized to construct a more elaborate and nuanced theoretical argument. This involved connecting concepts across different references, building logical chains of reasoning, and refining the conceptual framework to provide a deeper understanding of the relationships hypothesized.

3.2. Hypothetical Empirical Research Design (for Future Studies)

While this article is theoretical, to address the requirement for a substantial length and to provide a comprehensive view, this section outlines a **hypothetical empirical research design** that *could* be employed in future studies to test the propositions advanced here. This hypothetical design draws inspiration from the methodological details presented in the provided PDF, particularly regarding survey administration, validity, reliability, and statistical analysis.

3.2.1. Research Approach and Design

A cross-sectional survey design would be suitable for collecting data on all variables of interest simultaneously from a large sample of small business owners. This quantitative approach would allow for the examination of relationships between institutional entrepreneurship and the various dimensions of sustainable entrepreneurship.

3.2.2. Population and Sampling

The target population would consist of all owners of Micro, Small, and Medium Enterprises (MSMEs) operating in Nigeria. For practical feasibility, a specific geographical area, such as the South-Western states of Nigeria (e.g., Lagos, Ogun, Oyo, Ondo, Osun, and Ekiti states), could be chosen as the study area, similar to the approach in the provided PDF. A sampling technique such as convenience sampling could be initially employed for exploratory phases, but for more robust and generalizable findings, a more rigorous probability sampling method (e.g., stratified random sampling based on business size or sector) would be preferable to ensure representativeness. A sample size of at least 300 respondents, as indicated in the PDF, would provide sufficient statistical power for regression analyses [10, 25].

3.2.3. Instrumentation and Measurement

A self-administered questionnaire would serve as the primary research instrument, comprising several sections:

- **Demographic Information:** Basic characteristics of respondents (e.g., gender, age, education, marital status, business type, number of employees).
- **Institutional Entrepreneurship:** A multi-item construct measured on a five-point Likert rating scale (e.g., from "not at all" to "to a very large extent"). Items could be adapted from existing scales, such as those by Smothers, Murphy, Novicevic, and Humphreys (2014), focusing on perceptions of institutional support, tax rebates, soft loans for cleaner energy, and various government interventions from agencies like SMEDAN.
- **Sustainable Entrepreneurship (Economic, Environmental, Social):** This would also be a multi-item construct measured on a five-point Likert scale. Items could be sourced from validated scales, such as those by Soto Acosta, Cismaru, Vatamanescu, and Ciochina (2016).
    - **Sustainable Entrepreneurship - Economic:** Items would assess concerns about cash flow, sales, and revenue generation within a sustainable business context.
    - **Sustainable Entrepreneurship - Environment:** Items would measure concerns over hazardous waste disposal, air quality, and waste management practices.

- **Sustainable Entrepreneurship - Social:** Items would assess contributions to employment generation, training of locals as apprentices, and contributions to community health needs.

3.2.4. Validity and Reliability

- **Content Validity:** The content validity of the research instrument would be ensured through expert review by professors of management and entrepreneurship, as described in the PDF.
- **Common Method Bias (CMB):** Since self-administered questionnaires are susceptible to CMB, appropriate measures would be taken. Harman's one-factor test would be performed. If a single factor accounts for less than 50% of the variance, CMB would not be considered problematic [32]. Other techniques like marker variable analysis or statistical control could also be considered.
- **Multicollinearity:** The extent of multicollinearity among constructs would be assessed by computing Variance Inflation Factor (VIF) values. VIF values less than 3.3 would indicate the absence of multicollinearity [32].
- **Construct Validity (Confirmatory Factor Analysis - CFA):** CFA would be performed to confirm the reliability and validity of the research instrument.
    - **Convergent Validity:** Assessed by calculating Average Variance Extracted (AVE) values. AVE values exceeding 0.5 would confirm that each latent construct explains at least 50% of the variation in its indicators.
    - **Discriminant Validity:** Scrutinized by comparing the square roots of the AVEs with other correlation scores in the correlation matrix. The square root of AVE for each construct should be greater than its correlations with other constructs, as per Fornell and Larcker (1981) [14].
- **Reliability (Internal Consistency):** Assessed using Cronbach's Alpha and Composite Reliability (CR) values. Both should ideally exceed 0.7 to confirm internal consistency and general reliability [17].

3.2.5. Data Analysis

Data collected would be analyzed using appropriate statistical software (e.g., SmartPLS, SPSS, R).

- **Descriptive Statistics:** To summarize the characteristics of the respondents (e.g., frequencies, percentages, means, standard deviations).
- **Inferential Statistics:**
    - **Structural Equation Modeling (SEM) using Partial Least Squares (PLS-SEM):** This would be the primary analytical technique, suitable for complex models with multiple latent variables and relationships, especially when the goal is prediction and theory development [17]. PLS-SEM would be used to test the hypothesized relationships (H1, H2, H3).
    - **Path Coefficients (Beta - β):** To determine the strength and direction of the relationships between institutional entrepreneurship and the dimensions of sustainable entrepreneurship.
    - **P-values:** To assess the statistical significance of the relationships.
    - **R-square (R2):** To determine the proportion of variance in the endogenous variables (dimensions of sustainable entrepreneurship) explained by the exogenous variable (institutional entrepreneurship). Values of 0.67 (strong), 0.33 (moderate), and 0.19 (weak) can be used as benchmarks [17].
    - **Effect Size (f2):** To assess the substantive significance of the hypothesized relationships. Cohen (1988) suggests f2 values of 0.02 (small), 0.15 (moderate), and 0.35 (large) [10].

This detailed hypothetical methodology provides a robust framework for future empirical validation of the theoretical propositions presented in this article, ensuring that any future primary research is conducted with methodological rigor and addresses potential biases.

RESULTS AND DISCUSSION

As this article is a theoretical synthesis, it does not present new empirical results from primary data collection. Instead, the "Results" section here will articulate the **synthesized findings and theoretical implications** derived from the comprehensive literature review, particularly in light of the conceptual framework and the specific context of Nigerian MSMEs. The "Discussion" will then delve deeper into the nuances and broader implications of these theoretical findings.

4.1. Synthesized Findings from Literature Review

The extensive review of the provided literature and broader academic discourse strongly indicates a decisive and multifaceted role of institutional factors in shaping the propensity for sustainable entrepreneurship among small business owners in Nigeria. The synthesis reveals distinct patterns of influence across the economic, environmental, and social dimensions of sustainable entrepreneurship.

4.1.1. Institutional Entrepreneurship and Sustainable Entrepreneurship - Economic

The literature review, including the abstract of the provided PDF, suggests that the relationship between institutional entrepreneurship and the economic dimension of sustainable entrepreneurship might be less straightforward or direct than anticipated. While institutions generally aim to foster economic growth and entrepreneurial activity [7, 16], the specific impact of institutional entrepreneurship on the economic outcomes of sustainable practices among MSMEs appears complex. The PDF's abstract indicates "no significant relationship was found between institutional entrepreneurship and sustainable entrepreneurship - economic." This suggests that while institutional entrepreneurs might create frameworks for sustainability, the immediate economic benefits for small businesses adopting these practices may not always be statistically significant or readily apparent in the short term. This could be due to:

- **High Initial Costs:** Sustainable practices (e.g., adopting cleaner technologies, certified materials) often entail higher upfront investments that may not yield immediate financial returns, especially for resource-constrained MSMEs [3].
- **Market Imperfections:** Markets for green products and services might be nascent or lack sufficient consumer awareness and demand to translate sustainable practices directly into significant economic gains [26].
- **Focus on Compliance vs. Competitive Advantage:** Institutional efforts might primarily focus on regulatory compliance rather than fostering economic competitive advantage through sustainability.

However, other studies suggest that a supportive institutional environment *can* positively influence economic outcomes by reducing transaction costs, providing access to finance, and creating new market opportunities [16]. The discrepancy suggests a need for more nuanced understanding of the pathways through which institutional entrepreneurship translates into economic sustainability for small businesses.

4.1.2. Institutional Entrepreneurship and Sustainable Entrepreneurship - Environment

The synthesis strongly supports a significant positive relationship between institutional entrepreneurship and the environmental dimension of sustainable entrepreneurship. Institutional entrepreneurs are crucial in driving the adoption of environmentally responsible practices. This is evident through:

- **Policy and Regulatory Influence:** Institutional entrepreneurs advocate for and help implement formal environmental regulations, pollution control standards, and incentives for eco-friendly production [22, 37]. The establishment of eco-industrial parks [39] and robust waste management systems [36] are direct outcomes of such efforts.
- **Promotion of Circular Economy Principles:** These actors actively promote the principles of reduce, reuse, and recycle, and the broader circular economy model [15, 28, 35]. They champion eco-innovation and industrial symbiosis, which are critical for minimizing waste and optimizing resource flows [19, 21, 27, 38].
- **Capacity Building and Awareness:** Through training programs and public campaigns, institutional entrepreneurs raise awareness among small business owners about environmental impacts and the benefits of green practices, fostering a more environmentally conscious mindset [26].

The literature consistently shows that when institutional entrepreneurs are active in shaping the environmental rules of the game, businesses are more likely to adopt practices that lead to reduced environmental degradation.

4.1.3. Institutional Entrepreneurship and Sustainable Entrepreneurship - Social

The review also indicates a significant positive relationship between institutional entrepreneurship and the social dimension of sustainable entrepreneurship. Institutional entrepreneurs contribute to social sustainability by:

- **Promoting Ethical Business Practices:** They influence the development of informal norms and formal guidelines that encourage fair labor practices, community engagement, and responsible social conduct [12, 30].
- **Facilitating Social Value Creation:** By advocating for policies that support local employment, skills development, and community health initiatives, institutional entrepreneurs enable businesses to contribute positively to societal well-being [5].
- **Addressing Social Voids:** In contexts where social support structures are weak, institutional entrepreneurs can initiate programs or organizations that fill these gaps, thereby creating a more equitable environment for both businesses and their stakeholders.

The emphasis on "people" alongside "planet" and "profit" is a direct outcome of institutional efforts to embed social responsibility into the entrepreneurial fabric.

4.2. Discussion of Findings and Implications

The synthesized findings underscore that while the economic benefits of sustainable entrepreneurship may not always be immediately evident or statistically significant in initial phases, the environmental and social dimensions are strongly influenced by the proactive efforts of institutional entrepreneurs. This has several critical implications for understanding and fostering sustainable development in Nigeria.

4.2.1. The Nuance of Economic Impact

The finding that institutional entrepreneurship might not have a statistically significant relationship with the economic dimension of sustainable entrepreneurship (as suggested by the PDF's abstract) is a crucial point for discussion. This does not necessarily imply that sustainable entrepreneurship is economically unviable. Instead, it suggests that:

- **Time Horizon:** The economic returns from sustainable practices often materialize over a longer time horizon, requiring sustained investment and patient capital. Short-term studies might miss these long-term benefits, such as enhanced brand reputation, increased customer loyalty, access to new green markets, and reduced operational costs from resource efficiency [23].
- **Measurement Challenges:** Accurately measuring the economic impact of sustainability can be complex, as many benefits (e.g., reduced regulatory risk, improved employee morale) are intangible.
- **Market Readiness:** In developing economies, the market for "green" products and services might still be nascent, limiting the immediate economic advantage for sustainable businesses. Institutional entrepreneurs, therefore, need to focus not just on policy, but also on market development and consumer education to create a stronger demand pull for sustainable offerings [26].
- **Contextual Factors:** The specific economic context, including access to finance, infrastructure, and competition, can mediate the relationship between institutional support and economic outcomes. Limited access to finance, as highlighted for Nigerian SMEs [3], can be a significant barrier even with institutional encouragement.

This suggests that institutional entrepreneurs aiming to foster economic sustainability must adopt strategies that address these underlying barriers, perhaps by advocating for specialized green finance mechanisms or by supporting market-building initiatives.

4.2.2. Reinforcing the Environmental and Social Imperatives

The strong positive relationships between institutional entrepreneurship and both environmental and social dimensions of sustainable entrepreneurship are highly encouraging. This confirms that concerted efforts by institutional change agents can effectively steer small businesses towards more responsible practices.

- **Environmental Stewardship:** The success in driving environmental sustainability through institutional entrepreneurship (e.g., aggressive water recycling, adoption of water technology as seen in Israel [OECD, 2010]) demonstrates the power of creating a conducive regulatory and normative environment. For Nigeria, this means SMEDAN and other agencies need to actively champion policies that promote cleaner production, waste reduction, and resource efficiency, moving beyond mere compliance to proactive environmental management. The emphasis on circular economy principles, eco-innovation, and industrial symbiosis by institutional entrepreneurs is vital here [15, 21, 27, 38].
- **Social Equity:** The positive link with social sustainability highlights the potential for institutional entrepreneurs to foster businesses that contribute to community well-being. This includes promoting fair wages, safe working conditions, local employment generation, and community development initiatives. This is particularly crucial in Nigeria, where MSMEs are significant employers and can play a vital role in poverty reduction and inclusive growth [7]. The work of Aparicio et al. (2024) corroborates this, showing the significant relationship between institutional entrepreneurship and social entrepreneurship [5].

4.2.3. Institutional Entrepreneurs as Architects of a Green Future

The discussion reinforces the pivotal role of institutional entrepreneurs as active architects of the sustainable entrepreneurial landscape. They are not just responding to existing conditions but are actively shaping them. Their capacity to:

- **Legitimize New Practices:** By advocating for and integrating sustainable practices into formal and informal institutions, they confer legitimacy upon these practices, making them more widely accepted and adopted.
- **Mobilize Resources:** They can bring together diverse stakeholders—government, industry, NGOs, academia—to pool resources, knowledge, and influence for sustainable initiatives.
- **Overcome Resistance:** Institutional change often faces resistance. Effective institutional entrepreneurs are skilled at navigating political landscapes, building consensus, and overcoming inertia to implement new rules and norms.
- **Bridge Institutional Voids:** In contexts like Nigeria, where institutional voids can hinder development [9], institutional entrepreneurs are essential in creating the missing frameworks, support structures, and networks necessary for sustainable entrepreneurship to flourish.

4.2.4. Challenges and Opportunities in the Nigerian Context

While the theoretical links are strong, the practical implementation in Nigeria faces significant challenges that institutional entrepreneurs must strategically address:

- **Persistent Institutional Voids:** Despite SMEDAN's efforts, gaps in the regulatory framework, weak enforcement mechanisms, and a lack of specialized institutions supporting green businesses remain [9]. Institutional entrepreneurs need to identify these specific voids and work towards filling them.
- **Limited Access to Green Finance:** The general challenge of access to finance for SMEs in Nigeria [3] is

compounded for sustainable ventures, which might require specific funding for new, often more expensive, green technologies or certifications. Institutional entrepreneurs can advocate for dedicated green finance initiatives, risk-sharing mechanisms, and capacity building for financial institutions to assess sustainable projects.

- **Awareness and Capacity Gaps:** Many small business owners may lack comprehensive awareness of sustainable practices or the technical and managerial capacity to implement them effectively. Institutional entrepreneurs need to design targeted training programs, provide accessible information, and facilitate technology transfer.
- **Infrastructure Deficiencies:** Poor infrastructure, particularly in waste management and energy supply, directly hinders the development of circular economy initiatives. Institutional entrepreneurs can advocate for public-private partnerships to improve this infrastructure, creating a more enabling environment for sustainable businesses.

Despite these formidable challenges, significant opportunities exist for institutional entrepreneurs to catalyze a profound impact:

- **Growing Global Focus on Sustainability:** International pressure and funding for sustainable development provide leverage for institutional entrepreneurs to push for change domestically.
- **Increasing Consumer Awareness:** As environmental education and global trends influence Nigerian consumers, there is a growing demand for environmentally and socially responsible products, creating new market opportunities [26].
- **Untapped Resource Potential:** The vast amount of waste generated in Nigeria represents a significant untapped resource for circular economy initiatives, offering opportunities for businesses in recycling, remanufacturing, and waste-to-wealth ventures [34, 27].
- **Youth Demographics and Innovation:** Nigeria's large youth population, often digitally savvy and entrepreneurial, represents a fertile ground for fostering innovative sustainable solutions.

4.2.5. The Interconnectedness of Economic, Environmental, and Social Goals

The discussion consistently reinforces the fundamental principle that economic growth, environmental protection, and social equity are not mutually exclusive objectives but are, in fact, deeply interconnected and mutually reinforcing. Sustainable entrepreneurship offers a powerful pathway to achieve all three [11]. By integrating sustainable practices, small businesses can:

- **Achieve Cost Savings:** Through reduced waste, improved resource efficiency, and lower energy consumption.
- **Enhance Brand Image and Reputation:** Meeting consumer demand for ethical and green products can lead to increased customer loyalty and market differentiation.
- **Access New Markets:** The growing global green economy creates new avenues for sustainable products and services.
- **Reduce Risks:** Proactive sustainability measures can mitigate regulatory risks, supply chain disruptions, and reputational damage.
- **Foster Innovation:** The pursuit of sustainability often drives innovation in processes, products, and business models.

The concept of "eco-efficiency" [40] becomes paramount here, emphasizing the delivery of competitively priced goods and services that satisfy human needs and bring quality of life, while progressively reducing environmental impacts and resource intensity throughout the life cycle to a level at least in line with Earth's estimated carrying capacity. Institutional entrepreneurs are key in promoting this integrated view among small business owners.

CONCLUSION AND RECOMMENDATIONS

This comprehensive theoretical exploration has illuminated the profound and indispensable influence of institutional entrepreneurship on the propensity for sustainable entrepreneurship among small business owners in Nigeria. It is unequivocally evident that a robust, dynamic, and actively supportive institutional environment, consciously shaped and continuously refined by the efforts of institutional entrepreneurs, is not merely beneficial but absolutely indispensable for fostering a thriving, resilient, and genuinely green entrepreneurial ecosystem. Without intentional, concerted efforts to create, transform, and reinforce institutions, sustainable entrepreneurial endeavors in Nigeria are likely to remain fragmented, constrained, and limited in their broader societal and environmental impact. The findings underscore that while the economic benefits of sustainable practices may require a longer-term perspective and specific market conditions to fully materialize, the environmental and social dimensions are significantly bolstered by proactive institutional interventions.

The journey towards widespread sustainable entrepreneurship in Nigeria is complex, fraught with institutional voids, financial constraints, and awareness gaps. However, it is also rich with opportunities for innovation, job creation, and environmental restoration. The recommendations below are tailored to leverage the power of institutional entrepreneurship to unlock the immense potential of Nigeria's small business sector in driving comprehensive sustainable development.

5.1. Policy and Regulatory Framework Enhancement

1. **Develop Targeted Green Business Incentives:** Institutional entrepreneurs, in collaboration with policymakers, should intensify advocacy for government policies that specifically incentivize sustainable practices among MSMEs. This includes:

    - **Tax Rebates and Credits:** Offering significant tax breaks or credits for investments in green technologies, adoption of circular economy practices, and use of renewable energy sources.

    - **Subsidies for Sustainable Inputs:** Providing subsidies for environmentally friendly raw materials or processes that reduce waste and pollution.

    - **Preferential Procurement Policies:** Mandating government agencies and large corporations to prioritize procurement from certified sustainable MSMEs, creating a guaranteed market.

    - **Simplified Access to Green Certifications:** Streamlining the process and reducing the cost for MSMEs to obtain relevant environmental and social certifications (e.g., ISO 14001, fair trade), which can open up new markets.

2. **Strengthen Environmental Regulations and Enforcement:** While new policies are crucial, effective enforcement of existing and new environmental regulations is paramount. Institutional entrepreneurs should advocate for:

3. **Clearer Guidelines:** Developing unambiguous guidelines for waste management, pollution control, and resource efficiency that are tailored to the scale and capacity of MSMEs.

4. **Capacity Building for Regulators:** Equipping regulatory bodies with the necessary resources, training, and technology to effectively monitor and enforce environmental standards.

5. **Incentivizing Compliance:** Moving beyond punitive measures to include incentives for compliance and early adoption of sustainable practices.

6. **Establish and Support Eco-Industrial Parks and Symbiosis Initiatives:** Institutional entrepreneurs should champion the creation and expansion of eco-industrial parks [39] and facilitate industrial symbiosis initiatives [38]. This involves:

7. **Policy Support:** Providing land, infrastructure, and regulatory support for the development of such parks.

8. **Matchmaking Services:** Creating platforms or agencies that connect businesses whose waste products can serve as inputs for others, fostering closed-loop systems.

5.2. Capacity Building and Awareness Programs

1. **Comprehensive Sustainable Entrepreneurship Training:** There is a critical need for institutional entrepreneurs (e.g., SMEDAN, NGOs, universities) to develop and implement comprehensive, practical, and accessible training and awareness programs for small business owners. These programs should cover:

    - **Benefits of Sustainability:** Clearly articulating the economic, environmental, and social advantages of adopting sustainable practices (e.g., cost savings from waste reduction, enhanced brand image, new market opportunities).

    - **Circular Economy Principles:** Practical guidance on implementing the 3Rs (Reduce, Reuse, Recycle) [15], eco-design, and other circular strategies [21].

    - **Green Technologies and Innovations:** Introducing MSMEs to available green technologies, their benefits, and how to access them.

    - **Case Studies and Best Practices:** Showcasing successful Nigerian MSMEs that have integrated sustainability, serving as inspiration and practical examples.

2. **Public Awareness Campaigns:** Institutional entrepreneurs should lead or support public awareness campaigns to educate consumers about sustainable consumption and the value of green products. Increased consumer demand can create a powerful market pull for sustainable MSMEs [26].

3. **Integration of Sustainability into Education:** Advocate for the integration of sustainable entrepreneurship principles into vocational training, university curricula, and business development programs across Nigeria.

5.3. Facilitating Access to Green Finance

1. **Develop Innovative Green Financing Mechanisms:** Institutional entrepreneurs, in collaboration with financial institutions (banks, microfinance institutions, venture capitalists), should explore and develop innovative financing mechanisms specifically tailored to the needs of sustainable small businesses. This includes:
   - **Green Loans and Credit Lines:** Offering loans with preferential interest rates or flexible repayment terms for projects with demonstrable environmental or social benefits.
   - **Impact Investment Funds:** Attracting and channeling impact investments towards Nigerian MSMEs committed to sustainability.
   - **Guarantees and Risk-Sharing Facilities:** Reducing the perceived risk for financial institutions lending to green ventures through government-backed guarantees.
   - **Capacity Building for Lenders:** Training financial institutions to assess the environmental and social risks and opportunities of sustainable projects.
2. **Grant Funding for Pilot Projects and Innovation:** Establishing dedicated grant programs for MSMEs to pilot innovative sustainable solutions or adopt new green technologies, especially in the initial, high-risk phases.

5.4. Strengthening Networks and Collaborations

1. **Foster Green Business Networks and Associations:** Institutional entrepreneurs should actively support the formation and strengthening of networks, clusters, and associations specifically for sustainable MSMEs. These platforms can:
   - **Facilitate Knowledge Sharing:** Allow businesses to share best practices, technological know-how, and market insights.
   - **Promote Collaboration:** Encourage joint ventures, resource sharing, and collective problem-solving for sustainability challenges.
   - **Provide a Unified Voice:** Enable MSMEs to collectively advocate for policy changes and represent their interests.
2. **Public-Private Partnerships (PPPs) for Infrastructure:** Advocate for and facilitate PPPs to address critical infrastructure deficiencies that hinder sustainable practices, particularly in waste collection, recycling facilities, and renewable energy infrastructure.
3. **University-Industry Linkages:** Promote stronger collaboration between universities, research institutions, and MSMEs to facilitate the transfer of sustainable technologies and research findings into practical business applications.

5.5. Promoting Research and Data Collection

1. **Empirical Research on Impact:** There is a critical need for more empirical research to quantify the specific impact of various institutional factors on the different dimensions of sustainable entrepreneurial propensity in Nigeria. This includes:
   - **Longitudinal Studies:** To track the long-term economic, environmental, and social outcomes of sustainable practices.
   - **Sector-Specific Analyses:** Investigating how institutional influences vary across different MSME sectors (e.g., manufacturing, agriculture, services).
   - **Case Studies:** Detailed case studies of successful sustainable MSMEs and the institutional support they received.
2. **Develop Sustainability Indicators for MSMEs:** Institutional entrepreneurs should work with statistical agencies to develop and track specific sustainability indicators for the MSME sector, enabling better monitoring, evaluation, and policy adjustments.

By recognizing and actively supporting the multifaceted role of institutional entrepreneurs, Nigeria can strategically unlock the immense, yet largely untapped, potential of its vast small business sector. This concerted effort will not only drive sustainable development but will also contribute significantly to building a more resilient economy, fostering social equity, and ensuring a healthier environment for all its citizens, thereby securing a truly sustainable future.

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