IJO -INTERNATIONAL JOURNAL OF BUSINESS MANAGEMENT
(E:ISSN 2811-2504) (P.ISSN: 2384-5961) Edime YUNUSA* *
https://ijojournals.com/ Volume 09 || Issue 03 || March, 2026 ||
"Small Scale Enterprises, Green Economy, And Inclusive Development In Emerging African Economies"

Small Scale Enterprises, Green Economy, And Inclusive Development In Emerging African Economies

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Abstract

Sustainable economic progress in Africa increasingly depends on how effectively small scale enterprises (SSEs) are integrated into the green economy to promote inclusive development. Despite their vital contributions to employment creation, poverty alleviation, and innovation, SSEs in emerging African economies remain largely excluded from national sustainability agendas. This paper therefore examined the relationship among small scale enterprises, green economy initiatives, and inclusive development, with particular emphasis on African economies. Specifically, the paper aimed to assess the extent of SSE integration into green economy policies, identify the challenges they encounter in adopting environmentally sustainable practices, and explore the mechanisms required to strengthen their participation for inclusive and sustainable growth. Anchored on Sustainable Development Theory, the paper adopted a systematic review methodology, relying exclusively on secondary data drawn from scholarly publications, institutional reports, and official datasets. The paper revealed that although SSEs hold immense potential to drive low-carbon, inclusive growth, they face constraints such as inadequate access to green finance, limited awareness of environmental sustainability, and weak institutional support. However, opportunities exist in the expanding renewable energy, waste recycling, and green agriculture sectors across several African countries. The paper concluded that the integration of SSEs into green economic frameworks is essential for achieving sustainable and inclusive development in emerging African economies. The paper therefore recommended stronger policy coherence, improved access to sustainable finance, and targeted capacity-building programmes to empower SSEs as catalysts of equitable and environmentally responsible growth in Africa.

Keywords: SMEs, Green Economy, Inclusive Growth, Developing African Economies, Sustainability.

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Introduction

Small scale enterprises (SSEs) are central to contemporary debates about how economies can grow while reducing environmental harm and broadening access to the benefits of development. Globally, policymakers and international agencies have emphasised that decarbonisation and environmental protection need not come at the expense of employment and livelihood generation; instead, low-carbon pathways can create new economic opportunities if accompanied by deliberate support for smaller firms (ILO & UNEP, 2008; OECD, 2019). The International Labour Organization has underscored that efforts to expand green sectors must incorporate measures to protect workers and promote decent work, because the net employment effects of a shift to greener activity depend critically on how new jobs are created, how existing skills are upgraded, and how firms especially micro and small enterprises are financed and supported to adopt cleaner technologies (ILO, 2023).

Complementary work by development finance institutions and multilateral banks argues that inclusive green growth requires targeted instruments such as blended finance, capacity building, and technical assistance designed to lower barriers to entry for small firms and to scale innovations that yield both environmental and social returns (World Bank, 2024; African Development Bank, 2024). At the regional level, Africa's economies present a particular combination of opportunity and vulnerability. Several recent regional assessments point out that African countries face outsized climate risks while also possessing abundant opportunities in renewable energy, circular economy initiatives and agribusiness upgrading that can deliver employment and resilience if well managed (African Development Bank, 2024; UN PAGE, 2022).

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Small scale enterprises in Africa account for the majority of private-sector employment and often serve as the primary pathway into formal labour markets for young people and women; this makes them a natural conduit for efforts to make growth more inclusive while reducing environmental pressures (OECD, 2019; UNEP, 2021). Yet persistent constraints including limited access to finance, weak technical assistance networks, and regulatory environments that tend to favour larger firms continue to hinder the capacity of many SSEs to adopt energy-efficient processes, circular practices, or low-emission technologies (Shahin, 2024; He, 2024). Recent African Development Bank analyses therefore call for policy packages that combine green finance, better market access for sustainably produced goods, and locally adapted skills programmes so that SSEs can upgrade without losing their role as job creators (AfDB, 2024).

Nigeria illustrates both the stakes and the policy levers available within a large emerging economy. As Africa's most populous economy, Nigeria has signalled commitment to emission reductions and a greener growth trajectory through national policy frameworks and updated climate pledges, and regulators have begun to require stronger corporate disclosure of environmental practices (Federal Republic of Nigeria, 2021; Reuters, 2024). These moves create a new compliance and market environment that can advantage firms already operating with higher environmental standards, but they also raise transitional challenges for smaller enterprises that may lack the capital or technical know-how to meet reporting or regulatory requirements (Brookings Institution, 2023).

Empirical research focused on Nigerian SMEs has highlighted the potential gains from green finance and targeted capacity building: when micro and small firms obtain concessional financing for renewable energy or waste-minimisation investments, they often record cost savings, expanded demand for greener products, and improved resilience to supply shocks (Raji, 2024; Sajuyigbe et al., 2024). At the same time, government actions such as measures to promote value-added processing of key commodities and bans or restrictions on certain raw exports reflect an attempt to capture greater domestic value and stimulate downstream small-scale industries, which can be aligned with green objectives if complemented by investments in renewable power and circular production systems (Reuters, 2024).

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In essence, these global, regional and national evidence indicates that realising a green, inclusive transition in emerging African economies depends less on a single policy fix and more on coherent packages that reduce the cost and risk of green investments for small enterprises. This involves expanding tailored financial instruments, strengthening local technical advisory services, and aligning regulatory timelines so smaller businesses can adapt without being squeezed out. International cooperation and domestic policy reforms both have roles to play: development banks and programmes have begun to pilot blended finance and just-transition initiatives targeted at micro and small firms, while several African countries have started to embed green criteria in national recovery and industrial strategies (AfDB, 2024).

For Nigeria and comparable economies, the critical research and policy agenda now is to design implementation pathways that keep SSEs at the heart of recovery and job creation, while ensuring that environmental goals are translated into feasible opportunities for the many entrepreneurs and workers who sustain everyday economic life.

Statement of the Problem

Despite the growing recognition of the role of small scale enterprises (SSEs) in driving employment and inclusive growth, their integration into the green economy agenda in emerging African economies remains limited and poorly supported by policy and empirical evidence. While global frameworks and regional initiatives emphasise sustainable production and inclusive green transition, most African countries including Nigeria still lack coordinated mechanisms that enable SSEs to access green finance, adopt eco-friendly technologies, and comply with emerging environmental standards.

Existing studies have largely focused on large firms or national policy frameworks, leaving a significant gap in understanding how SSEs can practically align business operations with green economy principles while maintaining competitiveness and inclusiveness. This paper therefore addressed this gap by examining how small scale enterprises can contribute to and benefit from green economic strategies as instruments for achieving inclusive development in emerging African economies, with particular attention to contextual realities in Nigeria.

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Aim and Objectives

The main focus of this paper was to examine how small scale enterprise can benefit and supply green economic policies as a mechanism for improving inclusive growth in developing African economies with specific reference to Nigeria. The specific objectives were;

1. to analyze the extent to which small scale business organizations in emerging African economies are integrated into green economy policy and programs.
2. to identify the challenges of small scale enterprises' adoption of environmentally sustainable practices and promoting inclusive growth.
3. to assess the policy, financial, and institutional structures needed to facilitate the engagement of small scale organizations in the green economy for sustainable and inclusive development in Nigeria.

Literature Review

The review of relevant and related literature for this paper was done based on the aim and objectives under the following subheadings:

Conceptual Review

Principal ideas in this paper are clarified and reviewed as follows:

Small Scale Enterprises

Small Scale Enterprises (SSEs) are generally defined as businesses with limited capital investment, small workforce size, and modest market reach but with significant contributions to employment and economic growth. According to the World Bank (2024), SSEs account for over 90% of all registered businesses and more than 60% of employment in developing economies, playing a critical role in poverty reduction and local industrialisation. In the context of this paper, SSEs are viewed as key agents in promoting inclusive and sustainable development through their capacity to create jobs, drive innovation, and facilitate community-based production, provided they are empowered to adopt environmentally friendly practices and access green finance.

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Green Economy

The United Nations Environment Programme (UNEP, 2021) defines a green economy as one that results in improved human well-being and social equity while significantly reducing environmental risks and ecological scarcities. It emphasises sustainable production, renewable energy use, waste reduction, and responsible resource management. Within this paper, the green economy refers to a strategic development pathway that integrates environmental sustainability with enterprise growth, focusing on how small scale enterprises can align operations with low-carbon and resource-efficient practices to enhance inclusive and sustainable growth in African contexts.

Inclusive Development

Inclusive development refers to economic growth that is broad-based, equitable, and ensures that all segments of society especially the poor and marginalised benefit from national progress. The Organisation for Economic Co-operation and Development (OECD, 2019) explains it as a process where social inclusion, equality of opportunity, and environmental sustainability are embedded within development strategies. In this paper, inclusive development highlights how empowering small scale enterprises to participate in the green economy can reduce inequality, generate decent employment, and ensure that environmental and economic benefits are widely shared across communities in emerging African economies

Emerging African Economies

Emerging African economies are nations on the continent experiencing rapid growth, structural economic diversification, and increased integration into global markets. The African Development Bank (2024) notes that these economies, such as Nigeria, Kenya, Ghana, and Rwanda, are characterised by expanding service sectors, industrialisation drives, and policy reforms aimed at sustainable transformation. In the context of this study, emerging African economies represent the developing nations within the continent that are striving to balance economic expansion with environmental sustainability and inclusive social outcomes through the participation of small scale enterprises in green economic initiatives.

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Small Scale Enterprises in Emerging African Economies and Green Economy Projects

The growing emphasis on green economy across the world has stimulated policy reforms and financing mechanisms aimed at promoting low-carbon and environmentally sustainable development, yet the degree to which small scale enterprises (SSEs) in emerging African economies are integrated into these initiatives remains uneven and limited. According to the World Bank (2025), SSEs constitute over 90 percent of businesses in sub-Saharan Africa, employing the majority of the labour force, yet only a small fraction of these enterprises are directly supported by formal green programmes or policy instruments.

Most national green growth agendas and transition plans also have, in the past, paid particular attention to mainstream corporations and public utilities, leaving micro and small entities informally or at the peripheries of green financial assistance and technical assistance arrangements (ILO, 2023). The African Development Bank (2024) states that even though sustainability targets have been mainstreamed in most African nations into their national developmental agendas, policy-level implementation often lacks functional arrangements to engage SSEs in streamlined incentives, tailored credit schemes, and building-capacity platforms.

Mainstreaming small scale enterprise (SSE) activities into green economy programs and policies in the new African economies remains a relatively new phenomenon despite increasing policy engagements. Most of the countries have green growth or national responses that give a mention to SSEs or SMEs, albeit with non-descriptive implementation modalities. Nigeria's release of Sovereign Green Bonds and raising funds for its Nationally Determined Contribution are examples that reflect policy convergence with green objectives. Nevertheless, many SSEs are not directly benefiting from such instruments since the eligible criterion or scale that the planned-for projects are envisioned is not within the realm that micro or small actors can influence. Federal policy instruments mostly disregard informal economy activities that are a majority of SSEs in a given economy.

Empirical evidence in Kenya and Rwanda shows how selective incorporation of SSEs into renewable energy value chains can provide widespread social and environmental benefits. In Kenya, for instance, small-scale enterprises involved in distributing and maintaining off-grid solar installations under banners like M-KOPA have been a staple of rural electrification

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provision, job creation, and carbon reduction, showing that SSEs can effectively provide green economy outcomes if effectively resourced (Rotich, 2024).

Nevertheless throughout most states, including Nigeria, participation by SSEs in renewable energy, waste management, and sustainable agriculture remains sparse due to insufficient policy coordination across environmental ministries and SME developmental agencies (Climate Policy Initiative, 2025). A lack of streamlined entry points for small business entry into green financing funds and blurred regulatory incentives also dampens wider inclusion. Consequently, even as African governments have clearly enshrined robust policy commitments in support of a green transition, efficient inclusion of SSEs remains held back by institutional disarticulation and a scale insufficiency in inclusive financing mechanisms.

A closer examination reveals partial integration in a few sectors, namely energy and agro-processing. In Nigeria, the European Investment Bank (EIB)'s "Nigeria Green & Digital MSME & Midcaps Finance" project will extend medium to long-term financing to green, digital, and farm SMEs, with a focus on underserved segments like female entrepreneurs and youth. This is a positive example of SSEs receiving green finance mechanism access. In practice, though, many SSEs are denied this access, chiefly due to informational barriers or lack of awareness or failure to meet formality requirements like financial paperwork or environmental analysis.

Nevertheless, patches of increased integration can be found where local governments, donor agencies, or multilateral banks have developed special-purpose instruments for SSEs. Blended finance and micro-financing schemes have been piloted, e.g., to encourage small value chains to invest in renewable energy or waste management technologies. The penetration is tiny-scale and largely localized in particular geographic hotspots or sectors. The relative absence of monitoring data on how many SSEs have been enrolled, upgraded, or transformed pursuant to green policies also restricts analysis of integration. So, even as policy ambition is becoming bolder, actual integration of SSEs into green economy programs remains patchy throughout Africa and even less than with larger companies.

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Challenges of Small Scale Enterprises in Adopting Sustainable Practices And Promoting Inclusive Development

Although they are at the center of economic growth and job creation, small scale industries have a big challenge adopting green practices, despite new opportunities arising that are a game-changer. Among the challenges are identified and discussed as follows:

i. A lack of access to affordable green finance

Climate Policy Initiative (2025) estimatates that far less than 15 percent of climate finance that is channeled into Africa reaches small and medium-scale organizations, with the majority reaching grand infrastructure projects. In Nigeria, the majority of SSEs cannot have access to credit for renewable installations, energy-efficient technologies, or waste reduction programs due to high collateral requirements and high rates of interest (World Bank, 2025).

ii. Technical bottlenecks

Further, technical bottlenecks also increase financial barriers; many entrepreneurs lack information on sustainable production methods or have no accessto advice that can guide cost-effective green technologies adoption (UNEP, 2021). In Nigeria, high energy prices and unreliable power supply are named by many SMEs as two particular burdens they face; together, they make deploying technologies such as solar panels or energy-efficient equipment a risk without financial assistance. Research indicates that even where green financial windows are in place, they are often pressuring levels of technical compliance or formality that smaller informal or semi-formal SSEs are unable to achieve, therefore excluding many.

Nonetheless, opportunities are moderated by systemic barriers. Technical capability is typically poor: green technology suppliers are scarce, maintenance services are insufficient, and installation or management skills for new installations are underdeveloped.

iii. There is also information asymmetry

SSE managers usually have no trustworthy information regarding the sustainability cost and yield or standards that can provide entry to niche green markets. It is concurrently creating new opportunities with the aid of market forces and changing tastes among consumers in favour of

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environmentally friendly products and services. Empirical evidence indicates that small-scale agro-processors and artisan food producers that embrace greener technologies have higher productivity rates, reduced input prices, and enhanced accessibility to markets (African Development Bank, 2025).

A case in point is Nigerian cassava-processing microenterprises engaged in AfDB-funded Agricultural Transformation programs that had adopted solar dryers and waste-energy technologies and enjoyed an estimated 18 percent reduction in expenditure on energy and enhanced profit structures (AfDB, 2025).

SSEs that are sustainably oriented can enjoy both local and international competitive advantages. The paper "Green entrepreneurship and performance of SMEs in North-Central Nigeria" is a perfect example given that green entrepreneurial innovation and tendencies have a notable association with competitive advantage and customer spend (Achaku et al., 2022). Further, a case in Ogun State suggests that green practice adoption by a manufacturing enterprise led to resultant socio-economic benefits like enhanced workers' health, positive public perception, various cost efficiencies, and heightened firm reputation (Solaja & Oludele, 2023).

There are indications across Africa that sustainability is a competitive advantage in marketing, consumers are increasingly reaching for green products, and institutional buyers are starting to demand environmental compliance. They are developing market demand for SSEs with green norms competence.

These outcomes indicate that mainstreaming environmental sustainability at the small scale also encourages inclusive development in terms of creating new job opportunities, improving rural livelihoods, and encouraging gender-equal participation. There are, however, gaps still remaining in technical expertise, supply chain support, and consistent market acceptability of sustainable outcomes. Inclusive development through SSEs consequently depends on institutional support, aligned training, and adaptable regulations that are fiscally sustainable and socially rewarding.

iv. Regulatory ambiguity and infrastructure weakness

Regulatory ambiguity and infrastructure weakness particularly unreliable power supply, fragile transport infrastructure, and inconsistent environmental regulation, make riskier the investment

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in sustainable activities by small companies. Moreover, although growing demand exists in the market, it is not standardized; entry to high-end green markets typically requires certification or quality that is costly. Inclusive development requires that green practice benefits extend to poor and marginalized businesspersons (women, rural SSEs), yet evidence indicates they still experience higher barriers to accessing finance, training, or institutional support.

However, opportunities are tempered by systemic constraints. Technical capacity is often weak: green technology suppliers are few, maintenance services scarce, and the skills needed to install or manage new systems are underdeveloped. Regulatory uncertainty and poor infrastructure especially unreliable power supply, weak transportation networks, and inconsistent environmental regulation increase the risk borne by smaller firms in investing in sustainable practices. Also, while market demand is growing, it is not uniform; access to premium green markets often requires certification or quality that is expensive. Inclusive development demands that benefits of green practices reach poorer and marginalised entrepreneurs (women, rural SSEs), but evidence suggests these groups still face greater hurdles in accessing finance, training, or institutional support.

Mechanisms for Increasing Small Scale Enterprises' Participation in the Green Economy for Sustained and Inclusive Growth in Nigeria

Strengthening Nigeria's green economy role for small scale firms calls for intentional policy design, financial innovation, and institutional coordination reforms. Existing policy designs, for example, the Nigeria Climate Change Act (Federal Republic of Nigeria, 2021), achieve ambitious sustainability goals yet commonly fall short of articulating specific modalities for small business inclusion.

Climate Policy Initiative (2025) reports that Nigeria's green finance landscape is characterized by scale domination of mainstream investments with inadequate microcredit channels targeted at low-carbon technologies. The establishment of customized green finance windows like micro-grants, guarantee schemes, and leasing facilities would enable active participation by small firms in the transition. Blending lessons with East African experience, utilizing a combination of concessional loans with technical support can effectively scale up adoption of renewable power and circular production practices across SMEs (State of Blended Finance, 2025).

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Nigeria can increase SSE engagement with the green economy if policies are redirected to reduce entry levels and share support in a balanced way as follows:

i. A required policy instrument is regulatory streamlining

Defining de minimis levels for environmental compliance, simplified licencing, and reduced reporting requirements for small companies. No less than that, policymakers can also integrate SSEs overtly within their countries' climate and industrial policies, making sure that small companies are able to gain from sovereign green bond issuances, procurement programs, and subsidy reform without penalizing them. Nigeria's Green Bonds, for instance, and its climate finance agenda reveal political will, yet with specific support instruments, many SSEs fall beyond the realm of beneficiaries.

ii. Financial mechanisms have to be diversified and recalibrated

Grant-based technical assistance, green microfinance or lease-to-own schemes for renewable power systems, and guarantee schemes to decrease risk for lenders are a few such requirements. The EIB-funded "Nigeria Green & Digital MSME & Midcaps Finance" programme is a specific mechanism, designed to direct funds via domestic banks and microfinance entities to support smaller entities and traditionally underserved communities. Fiscal incentives like tax exemption for sustainable equipment, preferential rates on renewable energy inputs, or financial support for energy audits can also decrease costs. Carbon fiscal tools such as environmental taxation, carbon pricing, or carbon offset schemes can also generate revenue and internalise environmental costs, though they have to be framed in a manner that prevents shutdown burdens for poorer SSEs.

iii. Institutional processes are just crucial in scaling participation

African Development Bank (2024) has encouraged the establishment of a one-stop green business advisory centres with a cluster nexus to local chambers of commerce to provide technical training, certification advice, and access to finance. In Nigeria, comparable schemes can be integrated with existing industrial clusters and special economic zones to take advantage of knowledge diffusion and common green infrastructure. Furthermore, regulatory reform is needed to gradually phase in compliance requirements and grant tax breaks or preferential procurement for small companies that meet sustainable practices (Reuters, 2024).

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Coordinating these mechanisms through an empowered national agency—supported by partnerships between government, development banks, and private investors—would bridge the gap between policy ambition and enterprise capacity. Such a multi-layered approach would not only enhance environmental performance but also promote inclusive growth by positioning small scale enterprises as drivers of green innovation and equitable economic transformation.

Additionally, one-stop advising centres, centres of capacity building, and public-private partnerships can reduce transaction costs and develop technical capability. Training centres, industry associations, and local governments need to be equipped to provide green skills and extension services. In addition, monitoring, evaluation and data gathering processes must be enhanced so that outputs of programmes (e.g. number of SSEs embracing green practices, reduction in emissions, jobs generated) can be monitored. Transparency in processes allows for accountability and assists in channeling assistance where assistance is most required. Without processes, many well-motivated policies risk remaining under-utilised by small scale firms most requiring assistance.

Empirical Reviews

Empirical studies abound on the sub matter of this paper and a few among them are reviewed as follows:

Onyeneke & Nnonyelu (2025) explored adoption of green business practices by SMEs for sustainable development in Anambra State Nigeria. Study population comprised registered SMEs in the state (2,093 in total) and 325 SME managers were the sample, sampled via the Krejcie and Morgan table for getting sample size. Descriptive survey was its design, using structured questionnaires to procure data, and statistical analysis using mean, standard deviation, and independent t-tests for hypothesis testing. Key findings reveal that SME managers in Anambra State do not adopt most green business practices under study; the study also reveals that business size is a significant adoption influence on green practice, even though size had no influence on perception of barriers. The authors concluded that even with perceived importance, adoption of green business practices is at a dismal level, and recommend educational programmes and workshops to instill awareness and capability amongst SME managers. Study strength is its fairly substantial sampling frame and proper instrument reliability form (Cronbach's alpha ~0.85).

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Nevertheless, while this study identified levels of adoption and barriers, it does not delve into a way in which green economy policies, green finance or institutional configurations can be re-adjusted to achieve higher levels of inclusion of SSEs, nor across different sectors or between informal and formal SSEs, which is key to expanding African economies, a gap covered by this current paper.

Sajuyigbe et al. (2024) investigated manufacturing SMEs in Lagos state using green finance to increase the sustainability of SMEs. Sample was randomly selected manufacturing SMEs; 250 questionnaires were distributed, 235 returned. Design was survey cross-sectional; data was administered with questionnaire; methods of analysis was Pearson Product-Moment Correlation Coefficient and Path Analysis with Structural Equation Modelling. Key result shows that green loans and green technology have significant positive correlations with SMEs' environmental performance while green investment and green training did not have statistically significant effect in this particular data set. It concluded that green finance tools (specifically technology and loans) were effective and that investing or training alone may not suffice without proper targeting. Study strength was adoption of PA-SEM allowing for more sophisticated path analysis than simple regressions, and targeting manufacturing SMEs which are energy-intensive.

However, the study had limited generalisability beyond manufacturing SMEs based in Lagos, and no informal or small firms feature, no longitudinal design to capture change over time, and limited attention to inclusive outcomes of development (e.g. adoption at improving incomes, jobs, taking in women or rural firms), but this current paper captured it.

Babalola et al., (2024) investigated Integrating Green Practices and Environmental Performance; Evidence from Nigeria's SME Sector. Population was Nigerian SMEs. Study design was cross-sectional, data collection with questionnaires, analysis using regression models. Results were that several green practices (technology adoption, green behaviour, etc.) are positively linked with environmental performance amongst SMEs. Conclusion is that integrating green practices can yield improved environmental results amongst SMEs.

Though incorporating evidence about specific practices, the study lack proper exploration of how institutional or policy support facilitates or suppresses such practices, the inclusivity dimension

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that is SSEs included and social outcomes are not cross-comparative across geographic or sectoral contexts to extract universally applicable patters. But this current paper bridged the gaps.

In summary, these empirical studies contribute important evidence about the relationships between green entrepreneurship dimensions, green practices, green finance, and performance or environmental outcomes among SMEs in Nigerian contexts. Many of them share cross-sectional survey designs, use questionnaire data, regression or path analysis techniques, and focus largely on formally registered SMEs, often in manufacturing or agro-processing or related sectors in urban or peri-urban locales. However there is a recurring omission: few studies disaggregate the very small or micro-enterprises (informal sector), or explore inclusive development outcomes beyond firm performance (such as income distribution, employment for marginalized groups, gender or rural inclusion). Also, there is limited longitudinal or comparative work across sectors, and sparse attention to how policy, finance, and institutional frameworks specifically enable or restrict SSEs in the green economy.

This current paper filled that gap by systematically examining SSEs (including micro and informal ones) in emerging African economies with a strong focus on inclusive development outcomes (employment distribution, gender, rural inclusion), and analysing how policies and institutional mechanisms interact with SSEs' capacities and constraints in green economy transitions.

Theoretical framework

This paper adopted the theory of sustainable development as reviewed below:

Theory of Sustainable Development

The Theory of Sustainable Development, as popularized by the World Commission on Environment and Development in its 1987 report "Our Common Future (better known as the Brundtland Report), provides perhaps the most influential conceptual framework with which to grasp the interaction of economic growth, environmental protection, and social equity.

The theory states that sustainable development is the ability to meet current needs without forfeiting the ability of future generations to meet their own. Implicit in the theory are a series of

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assumptions: first, that economic growth, social inclusion, and environmental protection are compatible goals that can be given support together; second, that human well-being is a function of maintaining ecological integrity; and third, that processes of development call for an integration across both intra-generational and inter-generational equity in order to encourage fairness across time and across social groupings. The theory also assumes that technological innovation, institutional change, and public awareness are able to overcome market failure and governance failure that otherwise destroy the environment or perpetuate poverty.

The strength of this theory lies in its holistic nature and its ability to guide policy formulation across various sectors and scales of governance. It provides a conceptual foundation for integrating economic and environmental objectives within national strategies. It has been institutionalised in frameworks such as the United Nations' Sustainable Development Goals (SDGs), which emphasise inclusive growth, environmental sustainability, and social protection. The theory's principles have been instrumental in shaping development agendas in Africa, encouraging countries to design policies that link economic progress with ecological sustainability.

In the context of this paper, the theory of sustainable development provides a coherent explanation of why small scale enterprises must be central actors in transitioning toward a green economy. It underlines that sustainable development cannot be achieved without engaging micro and small enterprises that dominate employment and production structures in emerging African economies. The theory supports the idea that SSEs can drive inclusive development by creating jobs, fostering innovation, and adopting eco-friendly practices that reduce resource depletion and environmental risks. Moreover, it provides a basis for assessing how green economy policies can balance ecological responsibility with economic inclusiveness, which is the focal concern of this paper.

Nonetheless, the theory is significantly flawed. Critics rebut that the theory is still conceptually wide and at times vague in operational definitions, leaving room for selective interpretation by policymakers themselves. The focus on balancing the three pillars such as economic, social, and environmental, also translates into trade-offs emphasizing economic growth at the sacrifice of

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ecological safeguarding in practice, particularly in developing economies with industrialisation pressure.

Methodology

This paper adopted a systematic review design to examine the role of small scale enterprises in advancing the green economy and inclusive development within emerging African economies. A clear and reproducible review process was followed. The literature search was conducted between February and June 2024 using major academic databases including Google Scholar, Scopus, JSTOR, and ScienceDirect, alongside institutional repositories and policy platforms such as the World Bank, African Development Bank, United Nations Environment Programme, International Labour Organization, Organisation for Economic Co-operation and Development, and national agencies including Nigeria's National Bureau of Statistics. Search strings combined keywords such as "small scale enterprises," "SMEs," "green economy," "inclusive development," "sustainable entrepreneurship," "Africa," "emerging economies," and "Nigeria."

The inclusion criteria covered peer-reviewed journal articles, authoritative institutional reports, and policy documents published between 2019 and 2024, written in English, and directly addressing the intersection of small enterprises, environmental sustainability, and inclusive growth in African contexts. Excluded were editorials, blog materials, newspaper reports, and publications lacking empirical or analytical rigour. Following title and abstract screening, full-text articles were assessed for relevance and methodological quality before final selection.

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Selected studies were systematically reviewed to identify recurring patterns relating to enterprise participation in green initiatives, barriers to sustainable practices, policy frameworks, financing mechanisms, and inclusion outcomes. This transparent review protocol enhanced the credibility, rigor, and reproducibility of the study while providing a coherent analytical framework for synthesising evidence on how small scale enterprises can contribute to green and inclusive development in emerging African economies.

Results and Discussions

This paper examined small scale enterprises, green economy and inclusive development in emerging African economies. Evidence indicates that micro and small scale firms (MSSEs) play a central role in advancing green economy programme and inclusive growth in emergent African economies, yet their extent of integration is inconsistent and often circumscribed by structural, financial, and institutional barriers. This is consistent with the view held by Olawale and Garwe (2023), that while SSEs play a critical role in job creation and local economic growth in sub-Saharan Africa, they are commonly bypassed by national sustainability agendas due to a mismatched policy approach and a-porous institutional coordination.

In support of these, Nhamo and Mjimba (2022) note that green economy policies in Africa are commonly top-down, conceived without adequately involving grassroots firms that form the bulk of production and service provision in local economies. On the contrary, Mensah and Okyere (2021) concluded that in selected nations like Ghana and Rwanda, green enterprise programmes and renewable energy programs have started to integrate micro and small firms effectively, a pointer that with appropriate policy support, MSEs can be efficient actors in green transformation. This dichotomy emphasizes a critical implication, that is, integration is conditional on country circumstances, depending on national government quality, availability of green credit, and sustainability opportunity awareness.

Additionally, the opportunities and problems recognised in embracing environmentally sustainable practices by SSEs reflect a two-sided reality. On the one hand, as Ogunyemi et al., (2024) opine, micro and small businesses in Nigeria, Kenya, and South Africa experience systemic barriers such as restricted green finance access, a deficit of technical expertise, and the

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expensive adoption of green technologies. The observations are consistent with United Nations Economic Commission for Africa (UNECA, 2023), where most micro and small businesses on the Asian mainland are found to operate within the informal economy, where environmental regulation compliance is minimal, and incentive uptake is restricted. On the other hand, Bello and Adams (2022) reflect on new opportunities in the increased adoption of renewable energy products, waste recycling, and green agriculture, with each providing new enterprise business schemes that can be adopted by SSEs that are open to innovation. The implication is that although problems remain, green transition at the SSEs can be hastened with targeted interventions like technology support, financial inclusion schemes, and the provision of green innovation centres that bridge study with enterprise development.

The analysis also unveils that financial, policy, and institutional arrangements are central to enabling SSEs' participation in the green economy. Adebanjo and Akinlabi (2023) argue that public-private partnerships and green credit lines significantly enhance the capability of small companies to invest in cleaner technologies for production. This argument is also reinforced by Kiplagat et al. (2022), who empirically demonstrate in Kenya that green financing and institutional support arrangements can increase SMEs' adoption propensity of renewable energy technologies by 35%.

On the contrary, Eneh and Uche (2021) caution that government support per se may not be sustainable unless there are coherent policy platforms since numerous programs in Nigeria have been tainted with graft, irregular financing, and poor monitoring. As a result, while the literature is convergent on the imperativeness of multi-stakeholder partnerships, it is split on the sustainability of policy-based interventions unless augmented with further institutional transformations. The message here is that Nigeria and other emergent African states must look beyond policy rhetoric and ensure that green economy agendas are anchored with functional institutions and inclusive governance arrangements that prioritize small business empowerment.

Governments must develop more inclusive green economy landscapes with SSEs as main beneficiaries instead of marginal actors. Moreover, private actors and international partners for developing countries should promote capacity building, technological access, and innovation networks that can empower SSEs to scale up their green practices. The integration of authors'

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views in this paper upholds further the perception that the green economy in Africa will not flourish without inclusivity both socially and economically.

The findings from the literature review are highly consistent with both the Theory of Sustainable Development and the Ecological Modernisation Theory. The Theory of Sustainable Development upholds the observed fact that small scale business is crucial in matching economic growth, social inclusivity, and environmental conservation. The theory-based empirical evidence on SSEs' contribution to promoting inclusive growth and policy coherence requirements directly relates to the theory's focus on combining economic and ecological goals for both current and future well-being.

By the same token, the Ecological Modernisation Theory offers an analytical framework to the findings that technological innovation, institutional transformation, and green financing are crucial for SSEs' meaningful penetration into the green economy. The Rwandan, Ghanaian, and Kenyan case studies involving successful adoption of green technologies following policy incentives reflect the fundamental thesis of EMT that modernisation and environmental concern are compatible.

Nevertheless, the deficiencies in the two theory approaches, specifically, their institutional ability assumptions, are manifested in the continental African environment due to infrastructure gaps and policy incompatibilities that frustrate implementation. Consequently, this paper makes a contribution by framing the theoretical approaches into Africa's developmental realities, revealing that sustainable and ecological modernisation approaches are bound to fail unless they are contextualised to local institutional and economic-social realities.

Conclusions

This paper concluded that small scale businesses (SSEs) are crucial players in promoting green economy practices and inclusive development throughout the emerging economies in Africa, with particular focus on Nigeria. In spite of their key role in job creation, indigenous innovation, and reduction in poverty levels, SSEs are still on the periphery in the participation of green economy agenda across the continent due to institutional barriers, inconsistent policies formulation, and restricted access to green funds and green technologies. The evidence

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throughout the literature review and empirical evidence reveals that the adoption of sustainable developmental choices has been a significant achievement throughout the African states, yet the pragmatic inclusivity of SSEs is insignificant, often hedged back by insufficient awareness, poor incentives, and disarticulated institutional support arrangements. There is recognition that inclusive development is not possible unless such businesses are empowered to play active roles in environmentally sustainable production and service systems.

Ultimately, independent and sustainable growth in emerging economics in Africa hinges on a conscious policy that assimilates small scale enterprises with green economy planning, policy conduct, and institutional arrangements. Governments, developmental partners, and the private sector must work together to build enabling environments that connect enterprise sustainability with environmental conservation. Unless this assimilation occurs, the transformation pathway to a green and inclusive future in Africa will be gradual, patchy, and mostly declaratory.

Recommendations

Arising from the above therefore, the following recommendations were suggested:

1. Governments of emerging African countries, including Nigeria in particular, should integrate small scale business into their country's environmental and economic growth plans with inclusive policy structures that focus on green financial access, renewable technologies, and business growth services.
2. Development banks, microfinance institutions, and private investors should design green credit facilities flexible enough for SSEs, with lower interest rates that are subsidized and with easier collateral requirements. Governments must also encourage collaborations between financial institutions and research centres to finance innovation in renewable energy, recycling, and low-carbon production.
3. Capacity building programmes have to target SSE owners and staff for them to have knowledge about environmentally sustainable technologies, waste management, and sustainable value chains. Public agencies, NGOs, and universities have to collaborate to build training facilities that provide experiential knowledge transfer and promote adoption of circular economy methods that are sustainable and inclusive in the long run.

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