

Original research

Green Finance Dimensions as tools for SMEs Environmental Performance: Evidence from Lagos State, Nigeria

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Abstract:

This research investigates the impact of various dimensions of green finance on the environmental performance of SMEs, focusing on selected manufacturing SMEs in Lagos, Nigeria. Two hundred and fifty surveys were distributed to the designated participants, resulting in the successful collection of 235 completed questionnaires. The data analysis utilized both the Pearson Product Moment Correlation Coefficient (PPMCC) and Path Analysis-Structural Equation Modeling (PA-SEM). The findings indicate a positive association between green investment and green training with SME environmental performance, although the correlation is not statistically significant. This suggests that while green investment and training show potential for enhancing SMEs' environmental performance, further exploration is needed. Conversely, the study confirms a positive and significant relationship between green loans, green technology, and SME environmental performance, highlighting the effectiveness of green loans and technology in promoting environmental responsibility among SMEs. In light of these results, it is recommended that governmental bodies, financial institutions, and other stakeholders provide financial incentives and support to SMEs for the adoption of green technology and green loans. Additionally, a collaborative effort is encouraged to actively promote green training initiatives for SME employees. This collective approach aims to cultivate a sustainable and environmentally conscious business environment, aligning with the overarching objectives of environmental sustainability.

Keywords: Green Finance, GI, GT, GL, SMEs, EP

1- Introduction

The advancement of developing countries is significantly influenced by the crucial role played by small and medium enterprises (SMEs), as highlighted by Djankov et al. in 2005 and 2006. They play a vital role in economic progress by diminishing poverty, nurturing entrepreneurship, and generating employment opportunities, as demonstrated by Maksimov et al. in 2017 and Toke and Kalpande in 2020.

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Additionally, SMEs exert considerable influence on the global economy, constituting a noteworthy share of economic activity and employment, as emphasized by Sajuyigbe et al. in 2021. Their advantages include lower capital requirements, agile decision-making, personalized product offerings, and a positive impact on income inequality, as observed by Toke and Kalpande in 2020. However, it is crucial to recognize that SMEs have a noteworthy environmental footprint, posing a growing concern. Challenges related to resource efficiency, sustainability, and environmental compliance are widespread among SMEs. Various studies, such as those conducted by Li et al. (2021) and Li et al. (2022), underscore the adverse environmental effects of SME operations. Furthermore, many SMEs are yet to embrace environmentally friendly practices, as noted by Gandhi et al. in 2018, and their strides toward green operations are in early stages, as discovered by Majumdar et al. (2020).

To address environmental challenges such as vulnerability to climate change, limited access to clean water, and air pollution faced by SMEs in Nigeria, green finance emerges as a promising solution. Green finance provides SMEs with essential funding, training, incentives, and expertise to improve their EP. Hitchens and Sivasubramaniam (2015) affirm that green training equips SMEs with the knowledge to implement sustainable practices effectively, fostering an understanding of the benefits of environmentally friendly actions and promoting a culture of sustainability within the organization. Furthermore, according to de Felipe et al. (2017), green investment plays a crucial role in providing SMEs with the essential capital needed to adopt environmentally friendly technologies and practices. This support extends to initiatives such as integrating energy-efficient equipment, minimizing waste, and developing cleaner products. Additionally, green policies establish a regulatory framework that encourages SMEs to embrace eco-friendly practices. Incentives, such as tax credits for environmentally conscious investments or penalties for non-compliance, drive SMEs to reduce their environmental impact (Horbach, 2008).

While previous studies have delved into the relationship between green finance and EP, particularly within sectors like banking, health, multinational organizations, and education (Oyedele et al., 2022; Gao et al., 2021; Bansal & Kumar, 2021; Wang et al., 2022; Hafeez et al., 2022; Su et al., 2022; Adesola et al., 2021), there is a notable gap in research exploring the correlation between green finance dimensions and the EP of SMEs, especially in Nigeria. This study aims to address this gap in the literature by investigating how various dimensions of green finance impact the EP of SMEs in Nigeria. The research holds particular significance for the sub-manufacturing sector of SMEs, offering the potential to enhance environmental sustainability, mitigate environmental consequences, and contribute to achieving the Sustainable Development Goals (SDGs) by 2030.

The following research questions will guide the study:

1. What is the association between green loans (GLs) and the environmental performance (EP) of SMEs?
2. To what extent does green investment (GI) influence the EP of SMEs?
3. Is there a significant connection between green technology (GTech) and the EP of SMEs?
4. What is the significant link between green training (GT) and the EP of SMEs?

1.1-Theoretical Framework

Numerous theories, including Resource-Based View (RBV), Institutional Theory, Green Innovation Theory, and Social Learning Theory, have been employed in prior studies to elucidate the connection between SMEs' EP and dimensions of GF such as GI, GT, GL, and green

technology (Chien et al., 2021; Shaumya & Arulrajah, 2017; Oyedele et al., 2022; Tran et al., 2020). In the present study, the foundational theories are Resource-Based View (RBV) and Institutional Theory, serving as frameworks to empower SMEs to enhance their EP and engage with GF. RBV aids SMEs in recognizing and efficiently utilizing their green assets for a competitive edge, sustainability, and adaptability, while Institutional Theory emphasizes adherence to external regulations, providing access to financial resources, risk reduction, and new market opportunities. Both theories underscore the pivotal role of incorporating GF into SME strategies for improved EP and sustained success.

1.2. Resource-Based View (RBV)

RBV, originating in the late 20th century through contributions by scholars Birger Wernerfelt and Jay Barney, posits that a company's competitive advantage and overall performance stem primarily from its resource portfolio and its adept deployment of these resources. These resources encompass tangible assets, intangible assets, organizational capabilities, knowledge, and distinctive attributes (Li et al., 2021; Li et al., 2021). Applied to green finance facets, such as green investments, green loans, green technology, and green training, RBV can elucidate their influence on SME performance and environmental impact (Wang et al., 2022; Shaumya & Arulrajah, 2017).

RBV supports SMEs in achieving a competitive edge by leveraging valuable, rare, and irreplaceable resources, as noted by Hafeez et al. (2022). This is particularly relevant in the green finance realm, where SMEs can distinguish themselves through investments in green technology, yielding cost savings and superior environmental performance (Oyedele et al., 2022; Gao et al., 2021). RBV's focus on long-term sustainability aligns with green finance dimensions, facilitating SMEs in becoming more sustainable and adaptable to changing environmental regulations and market demands (Adesola et al., 2021; Su et al., 2022).

RBV underscores the importance of knowledge and capabilities, making green training indispensable for SMEs to cultivate necessary knowledge and skills for eco-friendly practices, stimulating innovation in processes and product offerings (Gao et al., 2021; Nasim et al., 2022). Efficient allocation of green finance resources, prioritizing areas with the most substantial environmental performance improvements, is guided by RBV, promoting industrial sustainability and contributing to the 2030 Agenda for Sustainable Development.

1.3 Institutional Theory

Institutional Theory, a sociological framework, applied in environmental and sustainability studies, explores how institutions, formal and informal rules, norms, and practices, shape human behavior within a society. Developed in the 1970s and 1980s by scholars like Paul DiMaggio and Walter Powell, Institutional Theory contends that organizations adopt certain practices and structures for legitimacy and to avoid sanctions, leading to the diffusion of these practices across organizations (Chen, 2018; Ma, & Wang, 2020).

In the context of GF, Wang and Sarkis (2016) position Institutional Theory as a conceptual framework for understanding and advocating environmentally responsible financial practices. SMEs are inclined to adopt eco-friendly financial practices when perceived as legitimate and under external pressures from stakeholders (Goldstone, 2020). Institutional Theory guides SMEs in advancing eco-friendly investments, governments in incentivizing GLs, and encouraging GT for sustainability (Farrell, 2018; Alvesson & Spicer, 2019). Azari and Smith (2012) assert that SMEs can utilize Institutional Theory to champion green technology adoption through incentives

and standards set by governments. This underscores the crucial role Institutional Theory plays in promoting environmentally responsible practices across institutions and organizations.

In conclusion, both the Resource-Based View (RBV) and Institutional Theory offer valuable insights into comprehending the influence of internal resources and formal/informal institutions on environmental and sustainability endeavours across diverse domains, including GF, GT, GTech, and the EP of SMEs.

Development of Green Financing in Nigeria

Green financing in Nigeria is a developing concept that aligns with global efforts to promote sustainability and address environmental challenges. It involves providing financial support for projects aimed at reducing environmental impact, improving energy efficiency, and encouraging the use of renewable resources. This form of financing has gained momentum in Nigeria, particularly as the country fulfills its commitments to the Paris Agreement and the United Nations Sustainable Development Goals (SDGs) (Oyedele et al., 2022). As noted by Adesola et al. (2021), Nigeria has implemented several policies and frameworks to promote green financing. The Central Bank of Nigeria (CBN) has introduced sustainable banking guidelines that require banks to incorporate environmental and social risk management into their operations.

Additionally, the CBN launched the Nigerian Green Bond Market Development Programme in partnership with the FMDQ OTC Securities Exchange and the Climate Bonds Initiative. In 2017, Nigeria issued its first sovereign green bond, raising \$10.7 million for renewable energy, afforestation, and other climate-related projects, making it the first African country to issue a green bond (Oyedele et al., 2022). Hafeez et al. (2022) observe that although the volume of green financing in Nigeria has been increasing, it still represents a small portion of total financing. This growth has been fueled by government-issued green bonds, private sector involvement, and international support. Nasim et al. (2022) also highlight that the Nigerian financial sector, particularly banks, has begun to offer green financing products, including loans for renewable energy projects, energy efficiency improvements, and sustainable agriculture.

Despite these developments, Oyedele et al. (2022) point out that the share of small and medium-sized enterprises (SMEs) in green financing since 2017 has remained relatively low, with the market being dominated by larger enterprises and government-led projects. However, initiatives like the Development Bank of Nigeria (DBN) and the Bank of Industry (BOI) are working to increase SME participation in green financing by offering credit facilities and capacity-building programs. Industrial SMEs, especially those in manufacturing, agro-processing, and renewable energy sectors, have started to access green financing due to the need to reduce energy costs, improve resource efficiency, and comply with environmental regulations. Adeyemi et al. (2024) found that in the last two years, there has been a slight increase in the participation of industrial SMEs in green financing, particularly in renewable energy and waste management sectors. However, this growth has not yet translated into a significant share of the total green financing portfolio. According to Oyedele et al. (2022), green loans currently account for less than 10% of total industrial loans, while green investments represent approximately 5-15% of total industrial investments. The expansion of these percentages will rely on increased awareness, government incentives, and the creation of financial products specifically designed to support green initiatives within the industrial sector of SMEs.

Overall, the development of green financing in Nigeria is still in its early stages, with government initiatives like green bonds paving the way. The proportion of green financing

relative to total financing remains small, and the participation of SMEs, particularly industrial SMEs, is still limited. Continued efforts to raise awareness, provide tailored financial products, and build capacity among SMEs are essential for expanding their role in green financing in Nigeria.

1.4 Empirical Review and Hypotheses Development

Prior research highlights the significant impact of green financing (GF) on environmental performance (EP) across various industries. Studies have shown that dimensions of GF, such as green loans (GL), green technologies (GT), green investments (GI), and green technology adoption (GTech), are key predictors of improved EP. For example, Oyedele et al. (2022) and Bahmani-Oskooee et al. (2020) found that GF significantly influences EP in Nigerian banks and industrial pollution control, respectively. Research also suggests that GF enhances organizational sustainability, with studies like those by Shaumya and Arulrajah (2017) and Ren, Shao, and Zhong (2020) emphasizing the role of green strategies in reducing waste and improving business outcomes. Furthermore, green training (GT) has been shown to boost employee skills and motivation towards sustainability, as noted by Abbas (2020) and Ameer and Khan (2022). The adoption of green investments, particularly by SMEs, has led to significant reductions in energy consumption and waste production, as evidenced by studies from the World Bank (2020) and Chien et al. (2021). Overall, the research underscores the crucial role of GF in enhancing both environmental and organizational performance.

In sum, GF offers SMEs a win-win opportunity by enabling them to minimize their environmental footprint, enhance operational efficiency, fortify their brand image, attract and retain talented employees, and ultimately save money in the long term. This suggests that GF has the potential to assist SMEs in lowering their energy consumption, waste generation, and emissions of harmful pollutants. Consequently, this can result in noteworthy environmental advantages, including enhanced air and water quality, decreased greenhouse gas emissions, and the preservation of precious natural resources.

1.5 Conceptual Framework for the Study

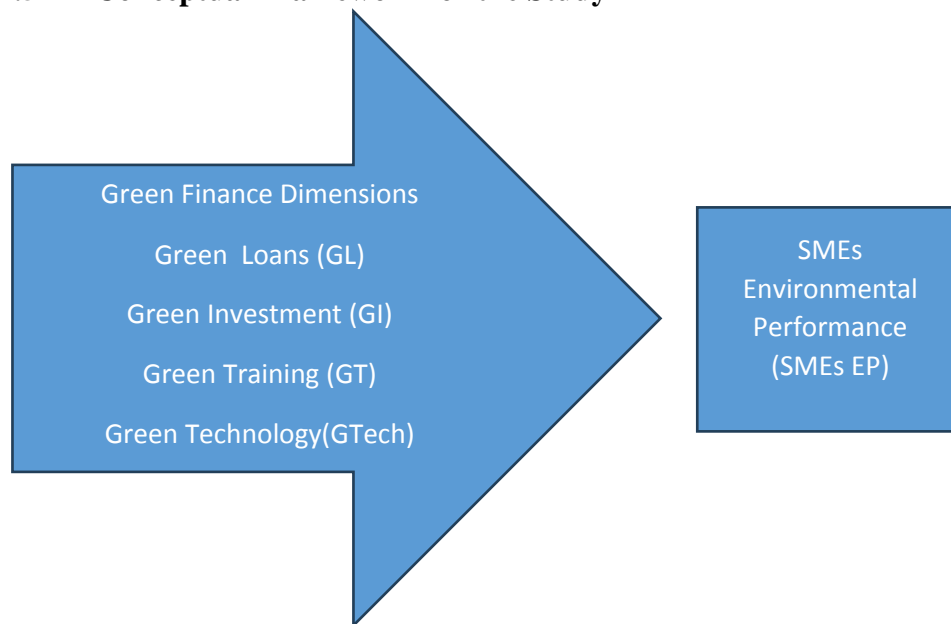


Figure 1: Conceptual Model

Building upon the aforementioned empirical insights, the following hypotheses emerge (See Figure 1):

- H1: A significant correlation exists between GLs and the EP of SMEs.
- H2: A significant relationship exists between GI and the EP of SMEs.
- H3: There is a significant connection between GTech and the EP of SMEs.
- H4: There is a significant link between GT and the EP of SMEs.

2. Methodology

This study used quantitative research methods to explain the relationship between GF and the EP of SMEs. Data collection was conducted through a structured survey, consisting of a series of systematically organized questions designed to elicit respondents' opinions. The survey was administered to SME operators engaged in manufacturing in Lagos who have been in operation for the past five years and are registered with the Manufacturers Association of Nigeria. To ensure a representative sample, a multistage proportional random sampling method was used. The total population for this study consisted of 666 SMEs particularly those involved in manufacturing, Agro-processing, and renewable energy. A sample size of 250 was determined using Yamane's (1967) formula. Of the 250 questionnaires distributed, 235 were returned, resulting in a high response rate of 94%. The data were analyzed using inferential statistics, including Pearson Product Moment Correlation Coefficient (PPMCC) and Path Analysis Structural Equation Modelling (PA-SEM), with STATA version 15. This study relied on established measurement scales for green loans, green investment, green training, green technology, and SME environmental performance, developed and validated by various researchers (Oyedele et al., 2022; Su et al., 2022; Nasim et al., 2022; Hu et al., 2022; Ameer & Khan, 2022). All scales used a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). Their internal consistency, measured by Cronbach's alpha, ranged from 0.792 to 0.832, indicating good reliability. For further details on the scales' psychometric quality, refer to Table 1.

Table 1: Instruments Validation

Code	Details	GRI	GRL	GRT	GRTE	SMEP	Source
Green Investment – Cronbach Alpha – (GRI = 0.821)							
G11	In my organization, investing in green initiatives leads to cost savings.	.798					Kala and Vidyakala (2020)
G12	My SME conducts a thorough environmental impact assessment before making green investments.	.789					
G13	My SME receives adequate financial support for our green investment projects.	.802					
G14	My SME is committed to adopting sustainable practices	.811					

	through green investments.		
Green Loans – Cronbach Alpha – (GRL = 0.809)			
GL1	I hold the view that embracing eco-conscious practices is crucial for my business in order to secure financing.	.795	Oyedele et al. (2022)
GL2	I'm keen on securing a sustainable loan to support environmentally responsible projects within my small to medium-sized enterprise (SME).	.802	
GL3	My SME has already put into action, or intends to put into action, green and sustainable endeavors as a direct result of our ability to access sustainable loans.	.788	
GL4	Gaining access to such financial support empowers us to realign our business operations in harmony with eco-friendly practices.	.805	
Green Training – Cronbach Alpha – (GRT = 0.819)			
GT1	Our SME has access to an adequate amount of resources and materials for implementing green training initiatives	.792	
GT2	Green training programs are relevant and beneficial for our SME in terms of sustainability and environmental responsibility.	.809	Oskooee et al. (2020)
GT3	The green training	.810	

	programs provided to our employees have proven to be effective in improving our environmental practices and sustainability efforts.		
GT4	Green training is seamlessly integrated into our daily SME operations, and our employees actively participate in sustainability efforts.	.812	
Green Technology– Cronbach Alpha – (GRTE = 0.822)			
GTECH1	Our SME actively seeks to reduce its environmental footprint	.821	
GTECH2	Our SME has integrated green technology solutions into its operations.	.804	Ren, Shao and Zhong (2020)
GTECH3	Our SME is willing to invest in green technology, even if it involves higher initial costs.	.791	
GTECH4	Our SME provides training and incentives with moder green technology to encourage employees to embrace eco-friendly practices.	.809	
SMEs Environmental Performance – Cronbach Alpha (SMEP = 0.816)			
SMEP1	My SME consistently complies with local and national environmental regulations	.806	Nasim et al (2022)
SMEP2	My SME implements eco-friendly practices, such as recycling, energy conservation,	.787	

SMEP3	and reduced emissions My SME actively seeks to reduce waste and improve resource efficiency in its operations.						.795
SMEP4	My SME consistently complies with local and national environmental regulations.						.811
SMEP5	My SME implements eco-friendly practices, such as recycling, energy conservation, and reduced emissions.						.808
Eigenvalue		2.8078	2.4340	3.423	3.243	2.875	
Percentage of Variance		55.523	56.3452	58.672	58.921	55.973	
KMO		.803	.792	.802	.787	.792	
Bartlett's Test of Sphericity		385.87	252.12	341.65	352.21	351.87	
Reliability Test (Cronbach Alpha)		.801	.798	.836	.796	.812	
Significance		.000	.000	.000	.000	.000	

According to the data in Table 1, all indicators have a factor weight exceeding 0.5. This suggests that the questions effectively capture the variability in their respective variables, affirming the suitability of the measurement model for analysis.

3. Results and Discussion

Table 2: Relationship among variables

Model	Mean	SD	1	2	3	4	5
1. SMEEP	4.6750	.56750	1				
2. GI	4.4917	.50203	.389**	1			
3. GL	4.6167	.59668	.746**	.214*	1		
4. GT	4.5333	.50098	.467**	.753**	.240**	1	
5. GTECH	4.5750	.58930	.840**	.400**	.656**	.490**	1

Note: SME EP= SMEs environmental performance, GL = green loans, GI = green investment, GT = green training and GTECH = green technology

The mean represents the average value in a dataset. For SMEP, the mean is 4.6750, indicating that SMEs, on average, score 4.6750 on the environmental performance measure. GRI has a mean of 4.4917, suggesting an average score of 4.4917 for green investments among SMEs.

The mean for GRL is 4.6167, signifying an average score of 4.6167 on green loans. Additionally, GRT and GRTE have means of 4.5333 and 4.5750, respectively, implying SME scores of 4.5333 for green training and 4.5750 for green technology on average. The SD, or standard deviation, indicates the extent to which values in a dataset are dispersed. A higher SD implies greater dispersion, while a lower SD suggests more closely clustered values. In this instance, the SD for SMEP is 0.56750, indicating a relatively tight clustering of values. Similarly, GRI has a low SD of 0.50203, suggesting a similar trend of closely grouped values.

The findings also indicate notable positive correlations between SMEP and GRL (0.746), SMEP and GRT (0.467), and SMEP and GRTE (0.840). This implies that as SMEP scores rise, so do the scores for GRL, GRT, and GRTE. Similarly, there's a significant positive correlation between GRI and GRT (0.753) as well as GRI and GRTE (0.656), suggesting that higher GRI scores align with increased scores in GRT and GRTE. Lastly, a significant positive correlation of 0.490 exists between GRT and GRTE, indicating that higher GRT scores are associated with elevated GRTE scores.

These findings indicate a robust positive connection between environmental performance and green investments, loan, training, and technology. It suggests that SMEs engaging in green initiatives are likely to exhibit enhanced environmental performance.

Table 3: Structurer Equation Modelling (Direct Effect)

Path	Coef.	Std. Err.	z-value	P> z	Hypothesis
SMEP <- GRI	.0209458	.0734204	0.29	0.775	H₁ not confirmed
SMEP <- GRL	.3399895	.0542037	6.27	0.000	H₂ confirmed
SMEP <- GRT	.1110614	.0777454	1.43	0.153	H₃ not confirmed
SMEP <- GRTE	.5296363	.0611126	8.67	0.000	H₄ confirmed

From Table 3, coefficient value of .0209458 and z-value of 0.29 showcase that GI is positively associated with SMEs' EP, meaning that as the amount of GI increases, SMEs' EP also tends to increase. However, the p-value of 0.755 indicates that this relationship is not statistically significant. This means that the increase in SMEs' EP associated with GI is not strong enough to be reliably detected. This could be due to the low level of GI among SME operators in Nigeria.

The coefficient value of 0.3399895 and z-value of 6.27 connotes that GL is positively and significantly associated with SMEs' EP. Based on the results of the analysis, it can be concluded that GLs are an effective way to encourage SMEs' EP. This is because GLs provide financial incentives for SMEs to invest in environmentally friendly practices. The study further reveals that GT has a positive but insignificant relationship with SMEs' EP with coefficient value of .1110614, z-value of 1.43, and p-value of 0.153. This implies that GT is a promising tool for helping SMEs improve their EP. Therefore, **SMEs should carefully consider how they implement GT.** The training should be tailored to the specific needs of the SME and its employees, and it should be adequately integrated into the SME's overall environmental management system.

Evidence showcases that GTech is positively and significantly related to SMEs' EP with coefficient value of .5296363, z-value of 8.67, and p-value of 0.000. This result has a number of implications for SMEs. First, it suggests that SMEs can achieve environmental goals without sacrificing economic performance. In fact, the study suggests that GTech can actually lead to improved economic performance. This is because GTech can help SMEs to reduce costs, improve

efficiency, and gain a competitive advantage. Second, the result suggests that governments and other stakeholders can support SMEs to adopt GTech by providing financial incentives and other forms of support. This will help SMEs to achieve their environmental goals and contribute to a more sustainable economy.

The study suggests that there are a number of ways to encourage SMEs' EP. By adopting GL, GT, GI, and GTech, SMEs can improve their EP without sacrificing economic performance. Governments and other stakeholders can play a role in supporting SMEs to achieve their environmental goals.

4. Conclusion

This research, focusing on Lagos-based manufacturing SMEs in Nigeria, investigates the impact of different aspects of GF on their EP. While the study finds a positive association between GI and EP, this link is not statistically significant. This could be due to the low level of GI among SME operators in Nigeria. The study also attests that GLs are positively and significantly associated with SMEs' EP. This suggests that green loans are an effective way to encourage SMEs' EP. It was discovered that GT has a positive but insignificant relationship with SMEs' EP. This suggests that GT is a promising tool for helping SMEs improve their EP, but more research is needed to determine its effectiveness. Furthermore, the study finds a **strong and positive** connection between **investments in green technology (GTech) and SMEs' environmental performance (EP)**. This implies that SMEs have the potential to **significantly reduce their environmental impact** and contribute to a **more sustainable future**, all **without harming their economic performance**.

5. Theoretical Implications

This research strengthens the theoretical foundation of environmental sustainability management, specifically by advancing our understanding of green finance. The study examines existing theories used to explain the relationship between GF and EP. It uniquely integrates two of these theories - the Resource-Based View and Institutional Theory - to provide practical insights into their influence on the environmental performance of manufacturing SMEs. Both theories offer valuable insights into understanding the influence of internal resources and formal/informal institutions on environmental and sustainability initiatives, spanning areas such as green finance, training, technology, and the EP of SMEs.

Specifically, the Resource-Based View Theory guides SMEs in optimizing the allocation of their green finance resources by prioritizing areas like green technology or training that can yield the most significant improvements in environmental performance. Moreover, this theory provides a framework for Small and Medium-sized Enterprises (SMEs) to access green financial instruments such as loans, training, investments, and technology. This holistic approach seeks to promote environmentally friendly practices within the manufacturing sector, addressing specific environmental concerns like pollution or resource depletion. Additionally, it aims to fortify the economic landscape through sustainable practices and contribute to the attainment of the United Nations' Sustainable Development Goals by 2030.

Similarly, Institutional Theory provides a foundation for governments to incentivize banks to offer green loans, potentially through mechanisms like tax breaks or subsidies, to support environmentally friendly financing for SMEs. Moreover, this theory encourages the promotion of green training by prompting SMEs to invest in educating their workforce on sustainable

practices. Governments, for example, can allocate funds for green training initiatives or mandate SMEs to provide sustainability training to their employees.

6. Practical Implications

Environmental sustainability has garnered increasing attention from entrepreneurs, scholars, researchers, and policymakers in recent times. This study adds to the current body of literature on green finance dimensions, offering practical implications for SME operators/managers, scholars, researchers, and policymakers. Consequently, the study makes significant practical contributions to the sub-manufacturing sector of SMEs in Nigeria, a sector crucial for the country's economy in terms of financial contributions and employment. This significance arises from the sector's status as the largest contributor to employment generation and poverty reduction in Nigeria and Africa (Sajuyigbe et al., 2021). The research findings reveal that green investment and green training exhibit a positive but insignificant association with SME environmental performance. On the other hand, green loans and green technology show a positive and significant association with SME environmental performance. This suggests that SMEs should contemplate embracing green loans to finance environmentally friendly initiatives. Moreover, they should carefully strategize the implementation of green training, ensuring it aligns with their specific needs and integrates seamlessly into their overall environmental management system. Additionally, SMEs are encouraged to persist in investing in green technology to enhance their environmental performance.

Furthermore, it is recommended that government bodies, financial institutions, and other stakeholders offer financial incentives and support to SMEs for the adoption of green technology and green loans. Moreover, there should be a concerted effort to promote green training initiatives for SME employees. This collaborative approach aims to foster a sustainable and environmentally conscious business environment, contributing to the broader goals of environmental sustainability.

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