
SUSTAINABLE PRACTICES AND BUSINESS PERFORMANCE OF SMALL MEDIUM ENTERPRISES (SMES) IN ABA, ABIA STATE, NIGERIA

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ABSTRACT

This study examines the relationship between sustainable practices and business performance of Small and Medium Enterprises (SMEs) in Aba, Abia State, Nigeria. The study integrates environmental, social, and economic sustainability dimensions and evaluates their influence on profitability, customer satisfaction, and competitive advantage. A survey research design was adopted, using structured questionnaires administered to SME owners/managers. The study population consisted of 904,721 small and medium enterprises using leather cluster (254,491) and garment cluster (650,230) respectively as the two major industrial clusters. A sample size of 400 was drawn from the population using Taro Yamane statistical formula. Data were analyzed using regression and correlation techniques. Findings reveal that sustainability practices such as environmental (waste reduction, energy efficiency), social (ethical business conduct, community engagement) and economic (cost efficiency, long-term profit) have significant positive impact on SME performance in terms of profitability, customer satisfaction and competitive advantage respectively. Empirical evidence shows that sustainability enhances brand reputation, customer loyalty, and operational efficiency. However, challenges such as financial constraints, low awareness, and weak regulatory support hinder adoption. The study concludes that sustainability is a strategic tool for improving SME performance and recommends increased policy support, access to green finance, and sustainability awareness programs.

Keywords: *Sustainable Practices, Business Performance, Small Medium Enterprises (SMES), Aba, Abia State, Nigeria*

INTRODUCTION

Sustainability has emerged as a central concept in global development discourse, emphasizing the need to balance environmental protection, social equity, and economic growth. Sustainability is defined as development that meets present needs without compromising future generations. It has become vital due to environmental degradation, climate change, and socio-economic inequalities (UNEP,2024; WHO & UNICEF,2024; Adamu et al, 2020). Sustainability has become a critical issue in modern business management due to increasing environmental concerns, social responsibility demands, and economic pressures. (Ajayi, 2025). SMEs play a vital role in Nigeria's economy through employment generation, innovation, and poverty reduction. In commercial hubs like Aba, SMEs dominate sectors such as manufacturing, trading, and services. However, their long-term survival depends on adopting sustainable practices that balance economic, environmental, and social goals (Alaegor, 2024). Sustainable practices refer to business strategies that minimize environmental harm, promote social well-being, and ensure long-term profitability. These include waste management, energy efficiency, ethical sourcing, and sustainable marketing (Omeonu et al., 2025). Recent studies indicate that sustainability improves firm performance by enhancing efficiency and reputation. For example, sustainable marketing practices have been found to significantly improve SME performance in Nigeria through increased competitiveness and customer loyalty (Adejumo & Onuoha, 2025).

STATEMENT OF THE PROBLEM

Despite the importance of SMEs in Aba, many of them operate without structured sustainability strategies. This leads to environmental degradation (poor waste disposal, pollution), low operational efficiency, weak customer trust and brand reputation as well as limited long-term competitiveness (Alaegor, 2025; Ekanem et al., 2024; Sidhu, 2018)). Empirical studies show that while sustainability improves performance, many SMEs face barriers such as lack of capital, technological limitations, and low awareness (Allen-Taylor,2023; Akindele, 2022). Thus, there is a need to investigate how sustainable practices influence SME performance in Aba, Abia State.

OBJECTIVES OF THE STUDY

The main objective of the study is to examine the effect of sustainable practices on SME performance in Aba. Specifically, the study seeks:

- i. To assess the effect of environmental sustainability practices on SME performance in Aba, Abia State, Nigeria
- ii. To examine the influence of social sustainability practices on customer satisfaction in Aba, Abia State, Nigeria
- iii. To evaluate the impact of economic sustainability practices on profitability in Aba, Abia State, Nigeria
- iv. To identify challenges affecting sustainability adoption of SME's in Aba, Abia State, Nigeria

RESEARCH QUESTIONS

The research questions raised for this study are:

- i. How do environmental practices affect SME performance in Aba, Abia State?
- ii. What is the effect of social sustainability on customer loyalty in Aba, Abia State.?
- iii. How do economic sustainability practices influence profitability in Aba, Abia State.?
- iv. What challenges hinder SMEs from adopting sustainability practices in Aba, Abia State?

RESEARCH HYPOTHESES

The research hypotheses formulated for the study are:

H₀₁: Environmental sustainability has no significant effect on SME performance

H₀₂: Social sustainability has no significant effect on customer satisfaction

H₀₃: Economic sustainability has no significant effect on profitability

LITERATURE REVIEW

This section reviews the key concepts, theories, and empirical studies related to sustainable practices and business performance of SMEs. It focuses on environmental, social, and economic sustainability practices and how they influence profitability, customer satisfaction, and competitive advantage among SMEs in Aba, Abia State, Nigeria.

THEORETICAL REVIEW

This study is anchored on the Triple Bottom Line Theory and the Resource-Based View Theory. The Triple Bottom Line Theory was developed by John Elkington in 1994 and argues that business performance should not be assessed only through profit, but also through social and environmental

responsibility. The theory is based on three dimensions: profit, people, and planet. Profit represents the economic responsibility of firms, including revenue growth, cost efficiency, financial stability, and long-term profitability. People represent social responsibility, including fair employee treatment, ethical business conduct, customer welfare, and contribution to community development. Planet represents environmental responsibility, including waste reduction, energy efficiency, sustainable sourcing, pollution control, and responsible use of natural resources (Wackernagel & Rees, 1996; Chaudhary & Bisais, 2018).

The relevance of the Triple Bottom Line Theory to this study lies in its direct connection with environmental, social, and economic sustainability practices. SMEs that adopt environmental practices may reduce waste, lower energy costs, and improve operational efficiency. Those that adopt social sustainability practices may improve employee morale, customer trust, and community acceptance. Similarly, SMEs that adopt economic sustainability practices may improve cost control, innovation, profitability, and survival. In the Nigerian SME context, the theory is useful because businesses operate in environments affected by pollution, resource constraints, unemployment, and weak regulatory enforcement. Therefore, the theory supports the argument that SMEs in Aba can improve performance by balancing profitability with social and environmental responsibility.

The Resource-Based View Theory was popularized by Barney in 1991 and explains how firms achieve competitive advantage through the effective use of internal resources and capabilities. The theory argues that firms perform better when they possess resources that are valuable, rare, difficult to imitate, and properly organized. These resources may be tangible, such as machinery, finance, and business premises; intangible, such as brand reputation, customer loyalty, business networks, and organizational culture; or human-based, such as employee skills, managerial competence, and technical knowledge. In this study, sustainable practices are viewed as strategic internal capabilities that can help SMEs improve efficiency, build customer trust, strengthen market reputation, and achieve competitive advantage (Elshaer et al., 2023; Arachie et al., 2025). The theory is relevant because sustainability can become a business strength when SMEs use it to reduce costs, improve products, satisfy customers, and differentiate themselves from competitors.

EMPIRICAL REVIEW

Omeonu et al. (2025) examined innovative planning and sustainability strategies among SMEs in Aba, Abia State. The study adopted a survey design and collected data from 350 MSME respondents. Inferential statistics were used to test the relationship between sustainability strategies and business performance. The findings showed that economic and social sustainability strategies significantly improved SME performance. The study further found that innovation strategies enhanced productivity, profitability, and competitiveness. The findings imply that sustainable practices are not only ethical responses to environmental and social concerns but also strategic tools for business growth and resilience among SMEs in Aba.

Alaegor (2025) investigated technology-enabled sustainable practices among SMEs in Aba, with specific focus on artificial intelligence adoption. The study used a survey of 370 SMEs and applied regression and ANOVA analysis. The findings revealed that artificial intelligence adoption significantly improved business efficiency and market competitiveness. The model explained 26.2% of the variation in performance, indicating that technology adoption contributes meaningfully to SME outcomes. The study also identified major constraints, including high cost of adoption and low technical capacity. This suggests that technological sustainability can improve business performance, although many SMEs may not fully benefit from it because of financial and skills-related limitations.

Alaegor (2024) studied product-related sustainable practices among agro-based SMEs in Aba. The study adopted a survey design and used regression analysis to assess the effect of product quality, branding, and packaging on business performance. The findings indicated that product quality, branding, and packaging had significant positive effects on SME performance. This shows that market-oriented sustainability practices can improve profitability, customer satisfaction, and brand reputation. The study is relevant to the current article because it supports the view that sustainability is not limited to environmental protection alone but also includes product improvement, responsible branding, and long-term customer value.

Adamu et al. (2020) examined the relationship between innovation and firm performance among SMEs in Aba. The study adopted a survey research design and used Pearson correlation analysis to test the relationship between innovation and performance. The findings revealed a strong

positive relationship between innovation and firm performance. This means that SMEs that introduce new ideas, improve products, adopt better processes, and respond to market changes are more likely to experience improved performance. Since innovation is linked to sustainability, the study supports the argument that sustainable practices can promote long-term survival and competitiveness among SMEs.

Adejumo and Onuoha (2025) examined sustainability practices among Nigerian SMEs and found that sustainability adoption is associated with improved business performance. Their findings showed that sustainable practices can improve efficiency, customer loyalty, and competitiveness. Nevertheless, the study also reported that SMEs face barriers such as financial constraints, limited knowledge, weak policy support, and inadequate technical capacity. These findings are important to the present study because they show that although sustainability has clear business benefits, adoption may remain low where SMEs lack resources, awareness, and institutional support.

The reviewed studies generally show that environmental, social, economic, and technological sustainability practices improve SME performance. Economic sustainability supports cost reduction, profitability, and financial stability. Environmental sustainability supports waste reduction, energy efficiency, and responsible production. Social sustainability supports ethical conduct, customer satisfaction, employee welfare, and community trust. Technological sustainability supports innovation, productivity, and competitiveness. In Aba, these practices are especially important because SMEs operate in industrial clusters where production activities, waste generation, customer relations, and cost pressures directly affect business survival.

The literature also identifies several challenges affecting sustainability adoption among SMEs. These include limited finance, low technical expertise, weak institutional support, informal business structures, low awareness of sustainability benefits, and high cost of sustainable technologies. These constraints are important because they may reduce the ability of SMEs to implement sustainability practices even when such practices are beneficial. Therefore, sustainability adoption among SMEs requires not only business commitment but also policy support, training, affordable finance, and stronger institutional frameworks.

METHODOLOGY

This study adopted a mixed-method descriptive research design to examine the effect of sustainable practices on the business performance of SMEs in Aba, Abia State, Nigeria. The mixed-method approach was suitable because the quantitative component generated numerical evidence on SME distribution, sustainability practices, business performance, and regression relationships, while the qualitative component supported the identification of dominant SME clusters and contextual sustainability issues in Aba. The study focused on Aba because it is a major commercial and industrial hub in Abia State, particularly known for leather and garment enterprise clusters. The study population comprised 904,721 SMEs, consisting of 254,491 leather-cluster SMEs and 650,230 garment-cluster SMEs. A sample size of 400 respondents was determined using the Taro Yamane formula at a 5% margin of error, while Bowley's proportional allocation formula was used to distribute the sample across the two clusters, resulting in 287 respondents from the garment cluster and 113 respondents from the leather cluster. Purposive sampling was used to select SME owners and managers with relevant knowledge of sustainability practices and business performance. Primary data were collected using structured questionnaires, while secondary data were obtained from the National Bureau of Statistics, Small and Medium Enterprises Development Agency of Nigeria, Bank of Industry cluster reports, academic journals, and prior studies on SMEs in Aba. The data were analyzed using descriptive statistics, including frequencies and percentages, to summarize respondents' views, while simple linear regression analysis was used to test the hypotheses on the effect of environmental sustainability, social sustainability, and economic sustainability on SME performance indicators.

FINDINGS AND DISCUSSION

This section presents the findings of the study based on the responses obtained from 400 SME owners and managers in Aba, Abia State. The findings are organized according to sustainability practices, business performance indicators, challenges affecting sustainability adoption, and the regression results used to test the study hypotheses.

Environmental Sustainability Practices

This subsection presents respondents’ views on environmental sustainability practices among SMEs in Aba. The items focused on waste disposal, energy-saving measures, reduction of environmentally harmful materials, and reuse or recycling of materials.

Table 1: Respondents’ Responses on Environmental Sustainability Practices

S/N	Statement	SA	A	N	D	SD	Total
1	My business practices proper waste disposal methods	150 (38%)	230 (57%)	-	20 (5%)	-	400 (100%)
2	We adopt energy-saving measures in operation	140 (35%)	220 (55%)	10 (3%)	30 (7%)	-	400 (100%)
3	We minimize the use of environmentally harmful materials	100 (25%)	280 (70%)	-	20 (5%)	-	400 (100%)
4	We reuse or recycle materials where possible	120 (30%)	270 (67%)	-	-	10 (3%)	400 (100%)

Table 1 shows that environmental sustainability practices are widely adopted among the sampled SMEs in Aba. On proper waste disposal methods, 150 respondents representing 38% strongly agreed, while 230 respondents representing 57% agreed. This gives a combined agreement level of 95%, meaning that most SMEs reported using proper waste disposal methods in their business operations. Only 5% disagreed, suggesting that poor waste disposal exists among a small proportion of the sampled firms. The results also show that 35% of the respondents strongly agreed and 55% agreed that their businesses adopt energy-saving measures in operation, giving a combined agreement level of 90%. A small proportion of 3% remained neutral, while 7% disagreed. This indicates that energy efficiency is generally recognized among the SMEs, although a few businesses may still operate without deliberate energy-saving practices.

Regarding the reduction of environmentally harmful materials, 25% strongly agreed and 70% agreed, giving a total agreement level of 95%. This finding suggests that most SMEs are conscious of the environmental effects of the materials they use in production and operations. Similarly, 30% strongly agreed and 67% agreed that they reuse or recycle materials where possible, giving a total agreement level of 97%. This implies that recycling and reuse practices are common among the

sampled SMEs, possibly because such practices help reduce costs while supporting environmental responsibility. Overall, the results show that SMEs in Aba demonstrate strong engagement with environmental sustainability practices. The high levels of agreement across the four items suggest that waste management, energy efficiency, reduction of harmful materials, and recycling are important practices among SMEs in the leather and garment clusters. These practices may contribute to improved operational efficiency, lower production costs, better public image, and stronger long-term business performance.

Social Sustainability Practices

This subsection presents findings on social sustainability practices among SMEs in Aba. The analysis focused on fair employee treatment, customer satisfaction, community development, and honest business practices.

Table 2: Respondents’ Responses on Social Sustainability Practices

S/N	Statement	SA	A	N	D	SD	Total
1	We treat employees fairly and ethically	140 (35%)	250 (62%)	10 (3%)	-	-	400 (100%)
2	We ensure customer satisfaction in all our dealings	100 (25%)	260 (65%)	-	30 (7%)	10 (3%)	400 (100%)
3	We engage in community development activities	90 (22%)	280 (70%)	-	20 (5%)	10 (3%)	400 (100%)
4	We maintain honest and transparent business practices	110 (28%)	230 (57%)	30 (7%)	10 (3%)	20 (5%)	400 (100%)

Table 2 shows that social sustainability practices are also evident among SMEs in Aba. On fair and ethical treatment of employees, 35% of respondents strongly agreed and 62% agreed, giving a combined agreement level of 97%. Only 3% remained neutral, while no respondent disagreed. This suggests that most SMEs recognize the importance of treating employees fairly and ethically, which can support employee commitment, productivity, and business stability. The results further show that 25% strongly agreed and 65% agreed that their businesses ensure customer satisfaction in all dealings. This gives a combined agreement level of 90%, while 7% disagreed and 3% strongly disagreed. The finding indicates that most SMEs place importance on satisfying

customers, although a small proportion of respondents acknowledged weaknesses in customer handling. Since customer satisfaction influences repeat purchases and loyalty, this result suggests that social sustainability contributes directly to business performance.

On community development activities, 22% strongly agreed and 70% agreed, giving a combined agreement level of 92%. Meanwhile, 5% disagreed and 3% strongly disagreed. This means that many SMEs participate in community-related activities, although the level of involvement may vary depending on business size, financial capacity, and awareness. Community engagement is important because SMEs operate within local environments where public trust and social acceptance can affect business survival. The final item shows that 28% strongly agreed and 57% agreed that they maintain honest and transparent business practices, giving a total agreement level of 85%. A further 7% remained neutral, 3% disagreed, and 5% strongly disagreed. Although the majority agreed, this item recorded the lowest agreement level among the social sustainability indicators. This suggests that transparency and honesty in business practices may require further strengthening among some SMEs. Overall, the results show that social sustainability is present among the sampled SMEs, especially in employee treatment, customer satisfaction, and community engagement.

Economic Sustainability Practices

This subsection presents respondents' views on economic sustainability practices. The items assessed long-term profitability, cost management, innovation, and financial management practices among SMEs in Aba.

Table 3: Respondents' Responses on Economic Sustainability Practices

S/N	Statement	SA	A	N	D	SD	Total
1	We focus on long-term profitability instead of short-term gains	180 (45%)	220 (55%)	-	-	-	400 (100%)
2	We manage business costs efficiently	60 (15%)	290 (73%)	20 (5%)	30 (7%)	-	400 (100%)
3	We invest in innovation and business improvement	120 (30%)	280 (70%)	-	-	-	400 (100%)
4	We maintain stable financial management practices	80 (20%)	270 (68%)	-	30 (7%)	20 (5%)	400 (100%)

Table 3 shows strong evidence of economic sustainability practices among SMEs in Aba. The first item indicates that 45% of respondents strongly agreed and 55% agreed that their businesses focus on long-term profitability rather than short-term gains. This gives a total agreement level of 100%, showing that all respondents recognized the importance of long-term business survival. This is important because economic sustainability requires firms to balance immediate returns with future stability. The second item shows that 15% strongly agreed and 73% agreed that their businesses manage costs efficiently, giving a combined agreement level of 88%. A further 5% remained neutral, while 7% disagreed. This indicates that most SMEs pay attention to cost control, although some still experience weaknesses in cost management. Efficient cost control is important because SMEs often operate under financial constraints, and poor cost management can reduce profitability even when sales are high.

The results also show that 30% strongly agreed and 70% agreed that their businesses invest in innovation and business improvement. This gives a total agreement level of 100%. This finding suggests that all sampled SMEs recognize innovation as part of economic sustainability. Innovation may involve product improvement, better packaging, improved customer service, new technology, or improved production processes. Such improvements can strengthen competitiveness and business performance. On stable financial management practices, 20% strongly agreed and 68% agreed, giving a combined agreement level of 88%. Meanwhile, 7% disagreed and 5% strongly disagreed. This implies that while most SMEs maintain stable financial practices, some still face challenges in financial planning and control. Overall, the findings suggest that economic sustainability among SMEs in Aba is reflected in long-term profit orientation, cost efficiency, innovation, and financial management.

Profitability Performance of SMEs

This subsection presents findings on the profitability performance of SMEs in Aba. Profitability was assessed through increased profit, revenue growth, and return on investment.

Table 4: Respondents’ Responses on Profitability Performance of SMEs

S/N	Statement	SA	A	N	D	SD	Total
1	Our business has experienced increased profit in recent years	100 (25%)	260 (65%)	-	30 (7%)	10 (3%)	400 (100%)
2	Our revenue has grown consistently	180 (45%)	200 (50%)	-	20 (5%)	-	400 (100%)
3	We achieve good returns on investment	120 (30%)	270 (67%)	-	10 (3%)	-	400 (100%)

Table 4 shows that most SMEs reported positive profitability performance. On increased profit in recent years, 25% strongly agreed and 65% agreed, giving a combined agreement level of 90%. Meanwhile, 7% disagreed and 3% strongly disagreed. This indicates that most SMEs experienced improved profit, although a small proportion still faced profitability difficulties. The second item shows that 45% strongly agreed and 50% agreed that their revenue had grown consistently. This gives a total agreement level of 95%, while only 5% disagreed. This finding suggests that revenue growth is strong among the sampled SMEs, which may be linked to improved customer demand, better market positioning, or more efficient business practices. The third item shows that 30% strongly agreed and 67% agreed that their businesses achieved good returns on investment. This gives a combined agreement level of 97%, while 3% disagreed. This result indicates that most SMEs believe their investments are yielding positive returns. Taken together, the findings show that profitability performance among SMEs in Aba is generally strong, as reflected in increased profits, revenue growth, and good returns on investment.

Customer Satisfaction Performance of SMEs

This subsection presents the findings on customer satisfaction performance. The indicators examined were customer satisfaction with products or services, repeat customers, and minimal customer complaints.

Table 5: Respondents’ Responses on Customer Satisfaction Performance of SMEs

S/N	Statement	SA	A	N	D	SD	Total
1	Customers are satisfied with our products/services	60 (15%)	290 (73%)	20 (5%)	30 (7%)	-	400 (100%)
2	We have repeat customers	80 (20%)	270 (68%)	-	20 (5%)	30 (7%)	400 (100%)
3	Customer complaints are minimal	90 (23%)	280 (70%)	-	30 (7%)	-	400 (100%)

Table 5 shows that SMEs in Aba reported positive customer satisfaction outcomes. On whether customers are satisfied with their products or services, 15% strongly agreed and 73% agreed, giving a combined agreement level of 88%. A further 5% were neutral, while 7% disagreed. This indicates that most SMEs believe their customers are satisfied, although some businesses may still need to improve product quality, service delivery, or customer care. The second item shows that 20% strongly agreed and 68% agreed that their businesses have repeat customers. This gives a combined agreement level of 88%. Meanwhile, 5% disagreed and 7% strongly disagreed. This finding suggests that many SMEs enjoy repeat patronage, which is an important sign of customer loyalty. Nevertheless, the disagreement recorded by some respondents indicates that not all SMEs have been able to retain customers consistently. The third item shows that 23% strongly agreed and 70% agreed that customer complaints are minimal, giving a total agreement level of 93%. Only 7% disagreed. This means that most SMEs experience few customer complaints, which may indicate acceptable product quality and service delivery. Overall, the findings suggest that customer satisfaction performance is strong among the sampled SMEs, although continued improvement in customer relations remains necessary.

Competitive Advantage Performance of SMEs

This subsection presents findings on competitive advantage performance among SMEs in Aba. Competitive advantage was measured using performance relative to competitors, market position, and brand reputation.

Table 6: Respondents’ Responses on Competitive Advantage Performance of SMEs

S/N	Statement	SA	A	N	D	SD	Total
1	Our business performs better than competitors	140 (35%)	250 (62%)	10 (3%)	-	-	400 (100%)
2	We have a strong market position	120 (30%)	280 (70%)	-	-	-	400 (100%)
3	Our brand reputation is strong	100 (25%)	290 (72%)	-	10 (3%)	-	400 (100%)

Table 6 shows that SMEs in Aba reported strong competitive advantage performance. The first item shows that 35% strongly agreed and 62% agreed that their businesses perform better than competitors, giving a combined agreement level of 97%. Only 3% remained neutral, while no respondent disagreed. This indicates that most SMEs consider themselves competitively positioned within their markets. The second item shows that 30% strongly agreed and 70% agreed that their businesses have a strong market position. This gives a total agreement level of 100%. This finding suggests that all respondents perceived their businesses as having a clear market presence. This may be linked to Aba’s strong industrial identity, established trading networks, customer base, and cluster-based business operations. The third item shows that 25% strongly agreed and 72% agreed that their brand reputation is strong, giving a combined agreement level of 97%. Only 3% disagreed. This indicates that most SMEs believe they have built a positive reputation in the market.

Challenges Affecting Sustainability Adoption

This subsection presents the challenges affecting the adoption of sustainability practices among SMEs in Aba. The challenges examined include lack of finance, low awareness, high cost of sustainability technologies, and lack of skilled personnel.

Table 7: Respondents’ Responses on the Challenges of Sustainability Adoption

S/N	Statement	SA	A	N	D	SD	Total
1	Lack of finance limits sustainability adoption	180 (45%)	220 (55%)	-	-	-	400 (100%)
2	Lack of awareness affects sustainability practices	60 (15%)	290 (73%)	20 (5%)	30 (7%)	-	400 (100%)
3	High cost of sustainability technologies is a barrier	120 (30%)	280 (70%)	-	-	-	400 (100%)
4	Lack of skilled personnel affects implementation	80 (20%)	270 (68%)	-	30 (7%)	20 (5%)	400 (100%)

Table 7 shows that lack of finance is a major barrier to sustainability adoption among SMEs in Aba. The result indicates that 45% of respondents strongly agreed and 55% agreed that lack of finance limits sustainability adoption, giving a total agreement level of 100%. This means that all respondents recognized finance as a major constraint. Since many sustainability practices require investment in better technology, improved waste management, training, and efficient production systems, limited access to finance can slow down adoption. The second item shows that 15% strongly agreed and 73% agreed that lack of awareness affects sustainability practices, giving a combined agreement level of 88%. A further 5% remained neutral, while 7% disagreed. This suggests that awareness remains an important issue among SMEs. Some owners and managers may not fully understand the business value of sustainability or may view it only as an added cost rather than a performance-enhancing strategy.

The third item shows that 30% strongly agreed and 70% agreed that the high cost of sustainability technologies is a barrier. This gives a total agreement level of 100%. This finding is closely related to the finance challenge, as many SMEs may find it difficult to purchase energy-efficient equipment, recycling systems, digital tools, or cleaner production technologies. The result implies that cost remains a major obstacle to deeper sustainability adoption. The fourth item shows that 20% strongly agreed and 68% agreed that lack of skilled personnel affects implementation, giving a combined agreement level of 88%. Meanwhile, 7% disagreed and 5% strongly disagreed. This indicates that many SMEs lack the technical knowledge required to implement sustainability practices effectively.

Hypotheses

This section presents the regression results used to test the three hypotheses of the study. The hypotheses examined the effect of environmental sustainability on profitability performance, social sustainability on customer satisfaction performance, and economic sustainability on competitive advantage performance among SMEs in Aba, Abia State, Nigeria. The results are summarized in Table 8.

Table 8: Summary of Regression Results for Test of Hypotheses

Hypothesis	Predictor Variable	Dependent Variable	Coefficient	Std. Error	t-value	F-statistic	R	R ²	Decision
H ₀₁ : Environmental sustainability has no significant effect on profitability performance of SMEs in Aba, Abia State, Nigeria.	Environmental Sustainability	Profitability Performance	0.702	0.297	3.235**	35.210	0.646	0.417	Rejected
H ₀₂ : Social sustainability has no significant effect on customer satisfaction performance of SMEs in Aba, Abia State, Nigeria.	Social Sustainability	Customer Satisfaction Performance	0.802	0.217	3.335**	36.230	0.746	0.556	Rejected
H ₀₃ : Economic sustainability has no significant effect on competitive advantage performance of SMEs in Aba, Abia State, Nigeria.	Economic Sustainability	Competitive Advantage Performance	0.816	0.244	3.410**	36.361	0.820	0.672	Rejected

Table 8 shows that all three sustainability dimensions have positive and significant effects on the selected measures of SME performance in Aba, Abia State. Environmental sustainability has a positive coefficient of 0.702 and a t-value of 3.235, showing that practices such as waste management, energy efficiency, recycling, and reduced use of harmful materials significantly improve profitability performance. The R value of 0.646 indicates a positive relationship, while

the R^2 value of 0.417 shows that environmental sustainability explains 41.7% of the variation in profitability performance. Social sustainability has a coefficient of 0.802 and a t-value of 3.335, indicating that fair employee treatment, ethical customer relations, transparency, and community engagement significantly improve customer satisfaction performance. Its R^2 value of 0.556 means that social sustainability explains 55.6% of the variation in customer satisfaction. Economic sustainability has the strongest explanatory power, with a coefficient of 0.816, a t-value of 3.410, and an R^2 value of 0.672, meaning that long-term profitability focus, cost efficiency, innovation, and stable financial management explain 67.2% of the variation in competitive advantage performance. Since all the t-values are significant at the 5% level and the F-statistics confirm that the regression models are statistically meaningful, all three null hypotheses are rejected. Therefore, environmental sustainability, social sustainability, and economic sustainability have significant positive effects on SME performance in Aba, Abia State, Nigeria.

CONCLUSION

The study concludes that sustainable practices have a significant positive influence on the business performance of SMEs in Aba, Abia State, Nigeria. The findings show that environmental sustainability practices, including proper waste disposal, energy-saving measures, recycling, and reduction in the use of harmful materials, contribute to improved profitability performance. This means that SMEs that manage environmental issues responsibly are not only supporting ecological protection but are also improving operational efficiency and reducing avoidable business costs. Therefore, environmental sustainability should be understood as a practical business strategy rather than a compliance burden.

The study also concludes that social sustainability significantly improves customer satisfaction among SMEs in Aba. Practices such as fair treatment of employees, honest business conduct, customer-centered service delivery, transparency, and community engagement strengthen customer trust and loyalty. In a competitive SME environment such as Aba, where customers often compare firms based on reliability, product quality, service experience, and reputation, social sustainability becomes an important driver of repeat patronage and positive market perception.

Further, the study establishes that economic sustainability significantly enhances competitive advantage. SMEs that focus on long-term profitability, cost efficiency, innovation, and stable

financial management are better positioned to survive market pressures and compete effectively. The findings show that economic sustainability had the strongest explanatory effect on competitive advantage, suggesting that SMEs must combine responsible practices with sound financial planning and continuous business improvement. Overall, the study confirms that sustainability is not separate from business performance; rather, it is a strategic pathway through which SMEs in Aba can improve profitability, customer satisfaction, market reputation, and long-term competitiveness.

RECOMMENDATIONS

Based on the findings, the study recommends that SMEs in Aba should deliberately integrate sustainable practices into their daily operations by improving waste management, adopting energy-saving practices, treating employees and customers ethically, and strengthening cost control and innovation. Government and relevant SME-support institutions should provide financial incentives, training programmes, and access to green finance to help SMEs overcome the cost and knowledge barriers that limit sustainability adoption. In addition, regulatory agencies should promote practical sustainability guidelines that are affordable, sector-specific, and suitable for small and medium enterprises in leather, garment, manufacturing, and trading clusters.

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