VOL. 10 NO. 2,
NOVEMBER, 2025
E-ISSN 3027-1533
P-ISSN 3026-8648



African Scholar Publications & Research International
www.africanscholarpub.com

Journal of African Innovation & Advanced Studies (JAIAS)

Quality Service Delivery and Sustainability of Beverage Firms in South-East Nigeria

Ononogbo Martins Chibuzor (PhD); & Alaefule Fidelis Odinakachukwu(PhD)

Department of Business Administration, University of Agriculture and Environmental Sciences, Umuagwo.Imo State.

DOI: https://doi.org/10.70382/ajaias.v10i2.060

Abstract

This study examined the effect of quality service delivery on the sustainability of beverage firms in South-East Nigeria.The study adopted a descriptive survey research design and utilized primary data collected through a structured questionnaire developed from the SERVQUAL model and the Triple Bottom Line theory. The population comprised 550 managerial and supervisory staff drawn from Seven-Up Bottling Company Plc, Aba, and Nigerian Bottling Company Plc, Owerri. Using the Taro Yamane formula, a sample size of 232 respondents was determined and selected through proportionate stratified random sampling. Data were analyzed using descriptive statistics, Spearman Rank Correlation, and Multiple Regression Analysis at a 0.05 level of significance. Findings revealed that reliability had a significant positive effect on economic sustainability, indicating that consistency, dependable operations, and timely delivery enhance firm profitability and efficiency. Responsiveness showed a significant influence on environmental sustainability, implying that prompt adaptation to customer concerns and environmental regulations improves eco-friendly practices and compliance. Similarly, assurance exerted a significant positive effect on social sustainability, suggesting that ethical practices, transparency, and community welfare initiatives strengthen public trust and social legitimacy. The study concludes that quality service delivery is crucial to the sustainable performance of beverage firms, as reliability, responsiveness, and assurance jointly promote economic growth, environmental responsibility, and social stability. It is therefore recommended that beverage firms enhance process reliability through operational efficiency, strengthen responsiveness to

environmental and customer concerns, and promote assurance through ethical conduct, product safety, and transparent stakeholder relations.

Keywords: Quality Service Delivery; Sustainability; Beverage Firms; South-East Nigeria; SERVQUAL Model; Triple Bottom Line Theory

Introduction

Background of the Study

A crucial part of Nigeria's industrial sector, the beverage industry makes a substantial contribution to the country's output, job creation, and socioeconomic advancement (National Bureau of Statistics [NBS], 2023). The industry includes several businesses in the South-East that produce soft drinks, fruit juices, bottled water, and alcoholic beverages for local and regional markets. Competition in the beverage industry has increased due to growing urbanization, population expansion, and customer sophistication. This has forced businesses to enhance both the quality of their services and their products in order to maintain sustainability (Okeke&Onuoha, 2022).

The importance of providing high-quality services in boosting customer satisfaction and business competitiveness is becoming more widely acknowledged. According to Parasuraman, Zeithaml, and Berry's (1988) SERVQUAL model, it entails satisfying or beyond customer expectations in terms of dependability, responsiveness, assurance, empathy, and tangibility. Service quality for beverage companies includes customer involvement, effective distribution, and post-purchase assistance in addition to the production process. Businesses that continuously provide high-quality services have a higher chance of achieving sustainable profitability, customer loyalty, and operational efficiency (Adewale&Aremu, 2021).

Conversely, sustainability has become a major issue in contemporary company operations. In order to ensure long-term company survival and societal well-being, the notion of sustainability incorporates economic, environmental, and social goals (Elkington, 1997). According to Nwachukwu and Ibe (2020), sustainable practices in the beverage industry may include waste reduction, ecologically friendly packaging, employee welfare, ethical corporate practices, and effective use of water and energy.

Beverage companies in Nigeria deal with a variety of issues that jeopardize sustainability and service quality. These include inadequate water resources, high manufacturing costs, unpredictable electrical supply, poor logistical networks, inadequate infrastructure, and poor quality management system implementation (Uzochukwu, 2021). In addition, a lot of small and medium-sized businesses have trouble obtaining financing and adopting new technology, which makes it difficult for them to maintain sustainable operations and consistent service standards (Adeleke&Ogundele, 2021). Additionally, beverage companies have been forced to reassess their operational strategies in order to conform to global sustainability trends due to growing consumer awareness and

governmental demands for ecologically responsible practices (Eze&Nwankwo, 2022).
The relationship between sustainability and service quality is critical to beverage companies' long-term success. By encouraging client loyalty, cutting waste, increasing resource efficiency, and enhancing brand reputation, high-quality service delivery can improve sustainability (Kotler& Keller, 2016). On the other hand, businesses that disregard service quality risk losing market share, unhappy customers, and operational inefficiencies that impede long-term success. Therefore, it is essential for management decision-making and policy formation to comprehend how aspects of service quality impact the sustainability of beverage companies in South-East Nigeria.

Statement of the problem

The beverage industry has grown to be one of Nigeria's most dynamic manufacturing sectors over the last ten years, generating jobs, revenue, and industrial expansion (National Bureau of Statistics [NBS], 2023). However, despite its economic importance, a lot of beverage companies, particularly in the South-East, still struggle with issues like subpar customer service, inefficient operations, and unsustainable business methods (Uzochukwu, 2021). These difficulties jeopardize the companies' long-term viability, competitive edge, and capacity to satisfy stakeholders' and customers' rising demands.
Service quality is a strategic driver of business performance and sustainability, according to empirical data. For example, among beverage companies in Lagos State, Okeke and Onuoha (2022) discovered a strong positive correlation between customer retention and service quality aspects (reliability, responsiveness, assurance, empathy, and tangibility). In a similar vein, Adewale and Aremu (2021) found that in Nigeria's food and beverage sector, better service quality improves customer satisfaction and organizational image. However, the majority of these studies did not sufficiently investigate how service quality methods affect sustainability performance, especially in terms of economic, environmental, and social dimensions, instead concentrating on customer satisfaction and performance results.
Although service quality and sustainability are acknowledged to be important, there is still a lack of empirical and contextual information in the literature regarding the relationship between quality service delivery and the sustainability of beverage companies in South-East Nigeria. By empirically investigating the impact of service quality dimensions reliability, responsiveness, assurance, empathy, and tangibility on the social, environmental, and economic sustainability of beverage companies operating in the area, this study aims to close that gap. The results will offer evidence-based perspectives that managers and legislators can use to support customer-focused and sustainable operations in Nigeria's beverage sector.

Objectives of the study

The main objective of this study is to examine the effect of **quality service delivery** on the **sustainability** of beverage firms in South-East Nigeria.
The specific objectives of this study are to:

1. **Examine the effect of reliability** on the **economic sustainability** of beverage firms in South-East Nigeria;
2. **Determine the influence of responsiveness** on the **environmental sustainability** of beverage firms in South-East Nigeria; and
3. **Assess the effect of assurance** on the **social sustainability** of beverage firms in South-East Nigeria.

Research questions

1. What is the effect of reliability on the economic sustainability of beverage firms?
2. To what extent does responsiveness influence the environmental sustainability of beverage firms?
3. What is the effect of assurance on the social sustainability of beverage firms?

Research Hypotheses

H_{01}: Reliability has no significant effect on the economic sustainability of beverage firms.

H_{02}: Responsiveness has no significant influence on the environmental sustainability of beverage firms.

H_{03}: Assurance has no significant effect on the social sustainability of beverage firms.

Scope of the study

1. Content Scope: The content scope of this study focuses on examining the relationship between **quality service delivery** and the **sustainability**of beverage firms in South-East Nigeria. Specifically, the study investigates how key dimensions of service quality: **reliability, responsiveness, and assurance** affect the three pillars of sustainability: **economic, environmental, and social sustainability.**

2. Geographic Scope: The geographic scope of this study covers **beverage manufacturing firms operating in the South-East geopolitical zone of Nigeria**, comprising **Abia, Anambra, Ebonyi, Enugu, and Imo States.** For the purpose of this study, the researcher selected beverage firms in Abia and Imo State. The beverage firms are Seven-Up Bottling Company Plc Aba (Aba Plant) and Nigerian Bottling Company PlcOwerri plant / Irett (Onitsha Road Industrial Layout).

3.Unit Scope: The unit scope of this study centers on **organizational-level analysis**, with data collected from **managerial and supervisory staff** of selected beverage firms in the South-East region.

REVIEW OF RELATED LITERATURE

Conceptual Review

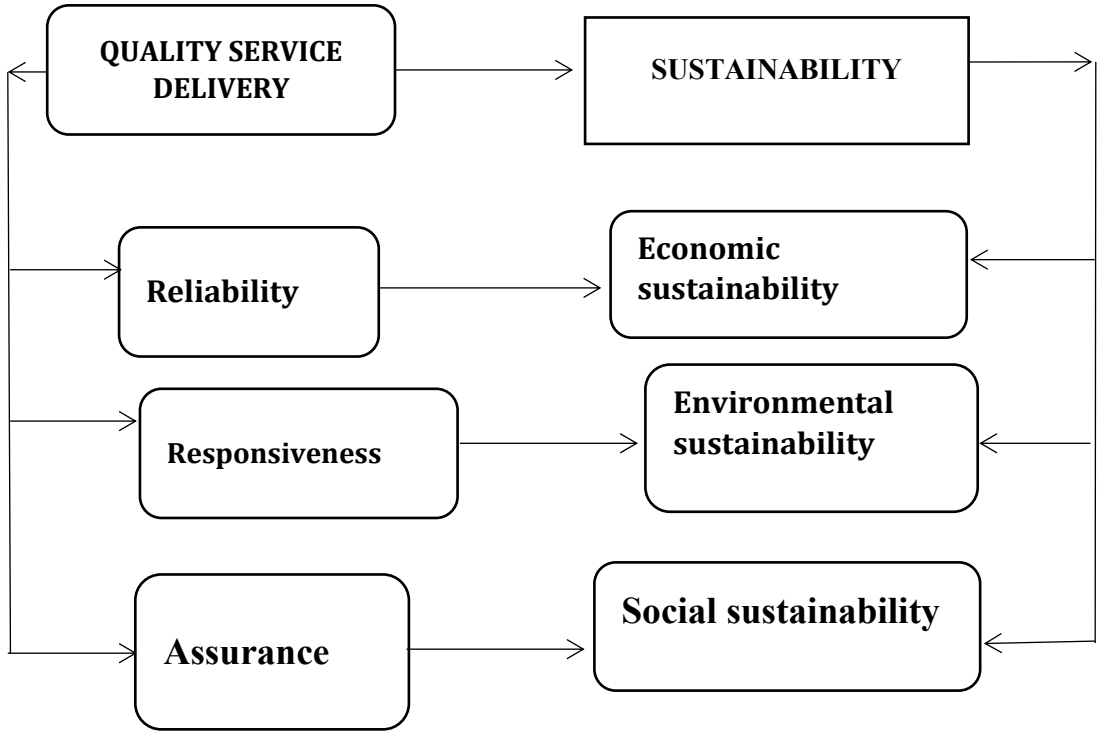


Fig 2.1: Operational Conceptual Framework
Source: Researchers Desk 2025

Concept of Quality Service Delivery

The ability of the business to continuously meet or beyond customer expectations through dependable, effective, and customer-focused operations is referred to as quality service delivery (Parasuraman, Zeithaml& Berry, 1988). Service quality in the beverage sector includes order correctness, prompt delivery, customer complaint handling, and guaranteeing product dependability and safety. Kotler and Keller (2016) assert that providing high-quality services is a strategic instrument for attaining competitiveness, brand loyalty, and sustainable growth in addition to being a marketing role.

The SERVQUAL approach, which specifies five essential dimensions—reliability, responsiveness, assurance, empathy, and tangibles—is frequently used to evaluate service quality. However, the aspects of certainty, responsiveness, and dependability that are most pertinent to the sustainability performance of beverage companies are the subject of this study.

Dimensions of Quality Service Delivery

(a) Reliability: Reliability is the capacity of an organization to consistently and precisely deliver the promised service. It entails providing reliable customer service, prompt service, and consistently high-quality products (Zeithaml et al., 1990). Reliability in

beverage companies refers to upholding product standards, effective distribution systems, and precise order fulfillment—all of which improve financial sustainability.

(b) Responsiveness: According to Parasuraman et al. (1988), responsiveness is the readiness and promptness of staff members or the company to assist clients and deliver prompt service. Responsiveness in the context of beverage companies includes timely customer service, rapid complaint resolution, and proactive participation in environmental sustainability activities like recycling and waste management programs.

(c) Assurance: According to Zeithaml et al. (1990), assurance stands for staff members' expertise, politeness, and capacity to instill confidence and trust in clients. Product safety, adherence to legal requirements (such NAFDAC), and the company's moral standing are all aspects of assurance in the beverage industry. By boosting community trust and consumer confidence, it promotes social sustainability.

Concept of Sustainability

The ability of a business to run economically over time while reducing adverse effects on the environment and society is referred to as sustainability (Elkington, 1997). It includes three interconnected dimensions:

- **Economic Sustainability:** The firm's ability to maintain profitability and competitiveness over time through efficient resource utilization and consistent customer satisfaction.
- **Environmental Sustainability:** The minimization of negative ecological impacts through waste reduction, energy conservation, and eco-friendly production processes.
- **Social Sustainability:** The firm's responsibility to its workforce, consumers, and host communities, ensuring fair labor practices, product safety, and corporate social responsibility.

In the beverage industry, sustainability means balancing profitability with environmental stewardship and social accountability (Dangelico & Vocalelli, 2017).

Theoretical Review

SERVQUAL Model (Parasuraman, Zeithaml& Berry, 1988): This model serves as the basis for evaluating the quality of services. It asserts that the discrepancy between observed and intended service performance leads to client satisfaction. The model's emphasis on dependability, responsiveness, and assurance as factors that determine perceived quality—all of which have a direct impact on a firm's sustainability outcomes—makes it relevant to this study.

Triple Bottom Line idea (Elkington, 1997): According to this idea, businesses should evaluate their performance by taking into account social and environmental impacts in addition to financial profit. This idea, which connects long-term economic, environmental, and social

performance with high-quality service practices, serves as the foundation for the sustainability aspects of the current study.

Theoretical Framework (Anchored Theory)

The Service Quality (SERVQUAL) Theory, which was created by Parasuraman, Zeithaml, and Berry (1988), serves as the foundation for this investigation. According to the SERVQUAL Theory, the discrepancy between customers' expectations and their actual experiences determines the quality of service provided by a business. It highlights important aspects of service quality such tangibles, certainty, responsiveness, empathy, and dependability. Together, these factors influence client loyalty, satisfaction, and repeat business.

Because service quality has evolved into a strategic instrument for maintaining market share, customer retention, and competitive advantage in an increasingly dynamic business environment, the idea is pertinent to the sustainability of beverage companies in South-East Nigeria. Sustainability in the beverage sector depends not just on product quality but also on effective distribution, prompt delivery, attentiveness to client needs, and reliable post-purchase assistance. Therefore, the SERVQUAL paradigm offers a good starting point for investigating how enhancing service delivery improves operational stability, customer loyalty, and long-term sustainability of beverage companies operating in a volatile Nigerian environment.

Empirical Review

Adegbite, Adebayo, and Olaleye (2023) investigated the connection between South-West Nigerian manufacturing companies' sustainability performance and service quality. They discovered through the use of structural equation modeling (SEM) that businesses who adopted service quality standards saw improvements in performance in the social, environmental, and economic aspects of sustainability as well as increased stakeholder satisfaction.

Ogwumike and Ijeoma (2022) looked into South-West Nigerian manufacturing companies' environmental sustainability and customer responsiveness. Using multiple regression analysis, they found that companies' environmental performance was greatly enhanced and production waste was decreased when they responded to customer requests, especially those related to packaging and waste management.

The impact of assurance in encouraging social responsibility among beverage firms in Imo and Abia States was investigated by Okafor and Nwachukwu (2022). Their correlation and regression analysis showed that assurance in the form of transparent labeling, personnel training, and quality certification greatly enhanced public perception and the social license to operate.

Oladipo and Eze (2021) investigated customer retention and service quality in the South-East beverage sector, particularly in the states of Anambra and Enugu. By using regression and

correlation analysis, they found that responsiveness and dependability greatly increased customer retention, hence improving beverage companies' long-term viability.

Gap Identification

While a number of studies have emphasized the significance of service quality in fostering business sustainability, the majority have concentrated on manufacturing enterprises generally rather than beverage companies in particular.

Furthermore, many of these studies either evaluated one or two aspects of sustainability, such as economic or environmental performance, or looked at various aspects of service quality in isolation, failing to take into account the economic, environmental, and social pillars collectively.

Furthermore, the South-East of Nigeria has received relatively less attention due to the majority of current study being focused on areas like the South-West and Northern Nigeria. As a result, there is no empirical data regarding the combined effects of assurance, responsiveness, and dependability on the social, environmental, and economic sustainability of beverage companies in South-East Nigeria.

This disparity highlights the need for a study that incorporates these aspects of service quality in order to offer a thorough grasp of their influence on the long-term viability of beverage companies in this area.

Research Design

The research design used in this study was a descriptive survey. This design was chosen because it is a good way to collect views, perceptions, and experiences from a specific demographic about the connection between the sustainability of beverage companies and the provision of high-quality services.

Population of the Study

The managerial and supervisory employees of particular beverage companies in the Southeast make up the study's population. The entire population size is projected to be 550 employees, consisting of 250 from Nigerian Bottling Company Plc, Owerri, and 300 from Seven-Up Bottling Company Plc, Aba, based on the human resource information acquired from the chosen organizations. The population is produced by the organization's human resources department.

Sample Size Determination

The sample size was determined using the **Taro Yamane (1967)** formula for finite populations, expressed as:

$$n = \frac{N}{1 + N(e)^2}$$

Where:

- n = sample size
- N = population size (550)
- e = margin of error (0.05)

Substituting values:

$$n = \frac{550}{1 + 550(0.05)^2}$$

$$= \frac{550}{1 + 1.375}$$

$$= \frac{550}{2.375}$$

$$= 232$$

Thus, the sample size for this study is **232 respondents**. To ensure adequate representation, the sample was proportionately distributed between the two firms according to their staff strength.

Sampling Technique

A **proportionate stratified random sampling technique** was adopted. The population was first stratified into managerial and supervisory categories, after which respondents were randomly selected from each stratum proportionally. This technique ensured fair representation of all staff levels involved in quality service delivery and sustainability-related activities, minimizing sampling bias.

Sources and Method of Data Collection

The study relied primarily on **primary data**, collected through a **structured questionnaire**administered to respondents. The questionnaire was designed based on constructs derived from the SERVQUAL model and the Triple Bottom Line theory. It consisted of five sections:

i. Section A: Demographic characteristics of respondents;
ii. Section B: Reliability dimension of service quality;
iii. Section C: Responsiveness dimension;
iv. Section D: Assurance dimension; and
v. Section E: Sustainability outcomes (economic, environmental, and social).

Responses were measured using a **five-point Likert scale**, ranging from *Strongly Disagree (1)* to *Strongly Agree (5)*.

Validity and Reliability of Research Instrument

Experts in operations management and business administration evaluated the questionnaire's face validity and content. Their evaluations made sure that every item appropriately reflected the concepts of sustainability and service quality in the beverage industry. Following a pilot

study with 30 respondents from non-sampled beverage companies in Enugu, the instrument's reliability was assessed using the Cronbach's Alpha coefficient. The instrument's internal consistency and suitability for the primary study were validated by the overall reliability coefficient of 0.83 (Nunnally, 1978).

Method of Data Analysis

The Statistical Package for Social Sciences (SPSS) Version 26.0 was used to code and analyze the data. Both descriptive and inferential analyses were carried out: Demographic information and respondents' opinions were compiled using descriptive statistics such frequency tables, percentages, and mean scores. The study hypotheses were tested at the 0.05 level of significance using inferential statistics like Spearman Rank Correlation.

DATA PRESENTATION, ANALYSIS, AND INTERPRETATION

The data gathered on the connection between the sustainability of beverage companies in South-East Nigeria and the provision of high-quality services is presented, examined, and interpreted in this part. The goals, research questions, and hypotheses of the study as described in section one are followed throughout the data presentation. Statistical tools that were both descriptive and inferential were used. Frequencies, percentages, and mean scores based on a 4-point Likert scale (1 = Strongly Disagree, 2 = Disagree, 3 = Agree, and 4 = Strongly Agree) were used for descriptive analysis. Spearman Rank Correlation and Multiple Regression were used in inferential analysis to assess the study's hypotheses at a significance level of 0.05.

Questionnaire Distribution and Retrieval

Out of **232 copies** of the questionnaire distributed to employees of **Seven-Up Bottling Company Plc (Aba)**and **Nigerian Bottling Company Plc (Owerri), 218 copies** were properly filled and returned, representing a **94% response rate**, which was deemed adequate for analysis.

Firms	Questionnaires Distributed	Returned	% Returned
Seven-Up Bottling Company Plc, Aba	127	120	94.5%
Nigerian Bottling Company Plc, Owerri	105	98	93.3%
Total	**232**	**218**	**94.0%**

Demographic Characteristics of Respondents

Variable	Category	Frequency (n=218)	Percentage (%)
Gender	Male	130	59.6
	Female	88	40.4
Age	20–29 years	42	19.3
	30–39 years	96	44.0

	40–49 years	58	26.6
	50 years and above	22	10.1
Education	OND/NCE	30	13.8
	HND/B.Sc.	126	57.8
	M.Sc. and above	62	28.4
Years of Experience	1–5 years	40	18.3
	6–10 years	94	43.1
	Above 10 years	84	38.5

Most respondents were male and within the 30–39 age range, indicating a workforce with considerable industrial exposure. The majority (86%) held tertiary qualifications, showing that responses came from well-informed employees.

Data Presentation According to Research Questions

Research Question 1: What is the effect of reliability on the economic sustainability of beverage firms in South-East Nigeria?

Statement on Reliability	Mean ($\bar{x}$)	Std. Dev.	Decision
Our firm delivers products as promised.	3.38	0.65	Agree
Product quality is consistent across production cycles.	3.42	0.61	Agree
We deliver orders on time and without errors.	3.29	0.72	Agree
We maintain dependable supplier and customer relationships.	3.31	0.68	Agree
Grand Mean	**3.35**		**Agree**

The grand mean of 3.35 suggests that respondents agreed that reliability measured through consistency, dependability, and timely delivery—positively contributes to the **economic sustainability** of beverage firms through reduced operational inefficiency and increased profitability.

Research Question 2: To what extent does responsiveness influence the environmental sustainability of beverage firms in South-East Nigeria?

Statement on Responsiveness	Mean ($\bar{x}$)	Std. Dev.	Decision
Our firm promptly responds to customer inquiries and complaints.	3.33	0.70	Agree
Environmental issues raised by customers are addressed immediately.	3.27	0.73	Agree
The company quickly adjusts to changes in environmental regulations.	3.29	0.68	Agree
We actively participate in recycling and waste reduction initiatives.	3.18	0.75	Agree
Grand Mean	**3.27**		**Agree**

With a grand mean of 3.27, respondents agreed that responsiveness enhances **environmental sustainability**, as firms that react swiftly to environmental and customer feedback improve their eco-friendly practices and compliance levels.

Research Question 3: What is the effect of assurance on the social sustainability of beverage firms in South-East Nigeria?

Statement on Assurance	Mean ($\bar{x}$)	Std. Dev.	Decision
Our firm maintains transparent and ethical business practices.	3.36	0.67	Agree
Customers trust our quality certification and labeling standards.	3.28	0.71	Agree
Employees are trained to ensure product safety and compliance.	3.33	0.69	Agree
The company supports community and employee welfare programs.	3.24	0.74	Agree
Grand Mean	**3.30**		**Agree**

Interpretation: A grand mean of 3.30 indicates that **assurance**significantly supports **social sustainability**, as ethical conduct, product safety, and transparency enhance public confidence and strengthen community relations.

Test of Hypotheses

Hypothesis One (H_{01}): *Reliability has no significant effect on the economic sustainability of beverage firms.*

Model Summary	R	R^2	Adjusted R^2	F-Statistic	Sig. (p)
Reliability → Economic Sustainability	0.624	0.389	0.386	138.72	0.000

Decision: Since $p < 0.05$, the null hypothesis (H_{01}) is **rejected**.

Interpretation: Reliability has a statistically significant effect on economic sustainability of beverage firms. This implies that consistent service performance and dependable delivery enhance profitability and operational efficiency.

Hypothesis Two (H_{02}): *Responsiveness has no significant influence on the environmental sustainability of beverage firms.*

Model Summary	R	R^2	Adjusted R^2	F-Statistic	Sig. (p)
Responsiveness → Environmental Sustainability	0.592	0.350	0.347	116.54	0.000

Decision: Since $p < 0.05$, H_{02} is **rejected**.

Interpretation: Responsiveness significantly influences environmental sustainability, showing that timely responses to environmental issues improve eco-friendly practices and regulatory compliance.

Hypothesis Three (H_{03}): *Assurance has no significant effect on the social sustainability of beverage firms.*

Model Summary	R	R^2	Adjusted R^2	F-Statistic	Sig. (p)
Assurance → Social Sustainability	0.606	0.367	0.363	126.21	0.000

Decision: Since $p < 0.05$, the null hypothesis (H_{03}) is **rejected**.

Interpretation: Assurance significantly affects social sustainability, demonstrating that firms that uphold transparency, certification, and ethical practices maintain stronger community relationships and social credibility.

Discussion of Findings

The findings reveal a clear linkage between **quality service delivery dimensions** and the **sustainability performance** of beverage firms in South-East Nigeria.

1. **Reliability and Economic Sustainability:** Results indicate that reliability significantly enhances economic sustainability. This agrees with **Olanipekun and Akinola (2021),** who reported that consistent service delivery and operational reliability improved profitability and competitiveness in manufacturing firms.
2. **Responsiveness and Environmental Sustainability:** Responsiveness was found to significantly influence environmental sustainability, aligning with **Ogwumike and Ijeoma (2022)** and**Ike and Nwosu (2019)** who established that proactive responses to customer feedback and eco-friendly demands promote environmental responsibility.
3. **Assurance and Social Sustainability:** Assurance positively affects social sustainability, consistent with **Okafor and Nwachukwu (2022)**and **Nnadi and Okoro (2020)** who emphasized that employee competence, quality certification, and transparent labeling strengthen stakeholder trust and social legitimacy.

SUMMARY, CONCLUSION AND RECOMMENDATIONS

The study examined the relationship between **quality service delivery** and the **sustainability of beverage firms in South-East Nigeria**, focusing on three key service quality dimensions—**reliability**, **responsiveness**, and **assurance**—as they relate to **economic**, **environmental**, and **social sustainability**, respectively. Data were gathered from employees of **Seven-Up Bottling Company Plc (Aba)** and **Nigerian Bottling Company Plc (Owerri)**, with a 94% response rate (218 valid questionnaires).

Summary of findings

1. **Reliability and Economic Sustainability:** The analysis showed a **significant positive relationship** between reliability and economic sustainability ($R = 0.624$, $p < 0.05$).

2. **Responsiveness and Environmental Sustainability:** Responsiveness demonstrated a **significant influence** on environmental sustainability ($R = 0.592$, $p < 0.05$) with a grand mean of **3.27**.
3. **Assurance and Social Sustainability:** Assurance had a **significant positive effect** on social sustainability ($R = 0.606$, $p < 0.05$) with a grand mean of **3.30**.

Conclusion

The study concludes that quality service delivery is indispensable to the sustainable performance of beverage firms in South-East Nigeria. Reliability promotes economic growth, responsiveness supports environmental stewardship, and assurance fosters social responsibility together ensuring that beverage firms remain competitive, responsible, and resilient in a dynamic business environment.

Recommendations

In line with the findings and conclusions, the following recommendations are proposed:

1. **Enhance Reliability through Process Optimization:** Beverage firms should invest in modern production and logistics systems that guarantee consistency in product quality, timely delivery, and dependable service. Regular performance audits should be conducted to ensure operational reliability and reduce inefficiencies.
2. **Strengthen Responsiveness to Environmental and Customer Concerns:** Management should establish rapid feedback mechanisms and environmental monitoring systems that enable swift responses to customer complaints, environmental regulations, and market changes. Firms should also integrate sustainability targets into their operational strategies.
3. **Promote Assurance through Ethical and Transparent Practices:** Firms should prioritize staff training on product safety, labeling standards, and customer interaction. Transparent communication with stakeholders and compliance with national and international quality certifications will help build trust and strengthen social legitimacy.

Suggestions for Further Research

Future studies should consider expanding the scope of this research to include other regions and sectors beyond the beverage industry. Longitudinal studies may also be conducted to assess the long-term causal relationship between service quality dimensions and firm sustainability. In addition, qualitative approaches such as interviews and focus group discussions could be employed to gain deeper insights into managerial and employee perspectives on sustainability practices.

References

Adewale, A., &Aremu, M. (2021).Service quality and organizational image in the Nigerian food and beverage sector.*International Journal of Marketing and Business Innovation*, 7(1), 112–124.

AdegbiteAdeleke, A., &Ogundele, O. (2021).Challenges of financing and technology adoption among, T., Adebayo, O., &Olaleye, J. (2023).Service quality and sustainability performance of manufacturing firms in South-West Nigeria.*International Journal of Industrial Research*, 15(4), 22–38.

Dangelico, R. M., &Vocalelli, D. (2017). “Green Marketing”: An analysis of definitions, strategic approaches, and challenges. *Journal of Cleaner Production*, 165, 1263–1279.

Elkington, J. (1997). *Cannibals with forks: The triple bottom line of 21st century business*. Oxford: Capstone Publishing.

Eze, F., &Nwankwo, C. (2022).Regulatory pressure and sustainability adoption in Nigerian beverage firms.*Journal of Corporate Governance and Development*, 6(3), 99–114.

Ike, C., &Nwosu, C. (2019).Environmental responsiveness and corporate sustainability in Nigerian industry.*African Journal of Development Studies*, 8(2), 76–90.

Kotler, P., & Keller, K. L. (2016).*Marketing management* (15th ed.). Pearson Education.

National Bureau of Statistics (NBS).(2023). Nigerian manufacturing and industrial sector performance report. Abuja: NBS Publications.

Nnadi, U., &Okoro, S. (2020). Corporate transparency and stakeholder trust in manufacturing firms. *Journal of Social Responsibility and Policy*, 11(2), 55–71.

Nunnally, J. C. (1978). *Psychometric theory* (2nd ed.). McGraw-Hill.

Nwachukwu, A., &Ibe, S. (2020). Sustainability practices and operational efficiency in Nigerian beverage industry.*Journal of Business Administration Review*, 5(1), 33–47.

Ogwumike, V., &Ijeoma, R. (2022).Customer responsiveness and environmental sustainability of manufacturing firms in South-West Nigeria.*Journal of Sustainable Business Research*, 14(3), 188–201.

Okafor, C., &Nwachukwu, M. (2022).Assurance and social responsibility among beverage firms in Imo and Abia States.*Journal of Management and Policy Studies*, 9(2), 50–67.

Okeke, K., &Onuoha, B. (2022).Service quality and customer retention in beverage firms in Lagos State.*Journal of Industrial and Business Research*, 13(1), 110–125.

Oladipo, A., &Eze, V. (2021).Service quality and customer retention in the South-East Nigerian beverage industry.*Journal of African Business Insight*, 10(2), 62–79.

Olanipekun, F., &Akinola, T. (2021).Operational reliability and competitive performance of Nigerian manufacturing firms.*Nigeria Journal of Operations Research*, 8(2), 27–39.

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: A multi-item scale for measuring consumer perceptions of service quality. *Journal of Retailing*, 64(1), 12–40.

Taro Yamane. (1967). *Statistics: An introductory analysis* (2nd ed.). Harper & Row.

Uzochukwu, I. (2021). Operational challenges and quality management in Nigerian beverage companies.*Journal of Production and Operations Strategy*, 5(1), 44–60.

Zeithaml, V. A., Parasuraman, A., & Berry, L. L. (1990).*Delivering quality service: Balancing customer perceptions and expectations*. Free Press.