

Sustainable Total Quality Management Practices and Business Competitive Advantage Amidst Global Pressures

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Abstract: The hospitality industry is increasingly concerned with sustainability and service quality, but little is known about how sustainable TQM practices affect the long-term competitiveness of small and medium-sized hospitality enterprises in emerging economies, particularly in African urban contexts like Lagos, Nigeria. TQM studies have focused on large organisations and manufacturing sectors, but hospitality SMEs operating under economic volatility, environmental pressure, infrastructural challenges, and changing customer expectations have received little attention. This study addresses this gap by investigating how sustainable TQM practises improve the competitiveness of hospitality SMEs in Lagos within a globalised, sustainability-conscious business environment. Continuous improvement, customer focus, employee involvement, and leadership commitment are examined as factors in long-term organisational competitiveness and business performance. Our mixed-method study combined survey data from 120 hospitality SMEs with semi-structured interviews with 15 managers. Sustainable TQM processes boost service quality, operational efficiency, customer satisfaction, loyalty, and organisational reputation. The study also shows that employee training, environmental responsibility, and quality-centred organisational culture boost business success and societal value. The research theoretically integrates sustainability and TQM frameworks for hospitality SMEs in emerging economies. To help hospitality managers balance profitability, service quality, environmental responsibility, and long-term competitiveness, the study offers practical recommendations. Adding sustainability to TQM processes can help hospitality SMEs become more resilient, according to the study.

Keywords: Organisational Excellence; Service Performance; Process Improvement; Leadership Commitment; Customer Loyalty; Manufacturing Sectors; Economic Volatility; Total Quality Management (TQM).

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1. Introduction

The Lagos urban area is characterised by a rapidly expanding hospitality sector, which ranks among the most developed segments of Nigeria's service economy. The vibrant sector comprises hotels, restaurants, guest houses, and event centres that cater to both domestic and international tourists. The vast majority of establishments are small and medium enterprises (SMEs), which generate income for the local population and create jobs. The latest data from Gbagi et al. [12] shows that SMEs account for approximately 80% of the total workforce in Nigeria and contribute about 48% of the country's GDP. Moreover, in Lagos, such firms are instrumental in enhancing tourism and uplifting the urban area [7]; [2]. Nevertheless, the global business environment is still evolving, and customers, investors, and governments are pushing for eco-friendlier companies. Climate change, waste disposal, and working conditions are the most important factors affecting the industry's performance [16]. The public expects hotels to go green by adopting efficient energy and water use, using green cleaning and sanitation products, and maintaining fair labour practices. The pressures from global sustainability have made it necessary for hotels to provide quality, eco-friendly services as a main component of customer satisfaction and brand loyalty [19]. TQM is accepted as the most effective means of realising these aspirations. TQM consists of the following core elements: Continuous improvement, customer focus, teamwork, and management support to uphold high service levels [8]. In the hospitality industry, sustainable TQM means using quality management methods while protecting the environment and supporting the community through social activities. When the quality management system is implemented correctly, it can result in higher output, a better image and reputation, and a larger market share. However, many small and medium-sized hotels in Lagos are unable to implement these practices effectively due to insufficient knowledge, financial resources, and training.

1.1. Problem Statement

Lagos hospitality SMEs, to a large extent, are competing with both local and international brands. The problem is that they very often lack the structured quality systems and sustainable practices that meet global standards [14]. Consequently, their operations are sometimes inconsistent, resulting in poor service quality and customer dissatisfaction. Furthermore, a few firms stick to outdated ways and overlook the environmental standards. This not only makes their global visitor attraction difficult but also limits their long-term growth. Despite large hotels in Nigeria gradually incorporating sustainable TQM into their operations, smaller hotels remain behind [3]. The studies on the topic also indicate a lack of information on how sustainability-driven TQM can help SMEs become more competitive. Hence, it becomes necessary to investigate the impact of TQM on business success and customer trust in Lagos hospitality SMEs.

1.2. Research Objectives

The main objective of this study is to investigate the role of sustainable TQM practices in enabling Lagos hospitality SMEs to achieve a competitive advantage. The specific objectives are to:

- Identify sustainability-oriented TQM practices adopted by hospitality SMEs in Lagos State, Nigeria.
- Assess the impact of these practices on business performance and competitive advantage among hospitality SMEs in Lagos State, Nigeria.
- Evaluate the roles of leadership commitment, employee capabilities, and customer orientation in shaping the relationship between sustainable TQM practices and organisational performance among hospitality SMEs in Lagos State, Nigeria.

1.3. Research Questions

The following research questions will guide the study:

- What sustainability-oriented TQM practices are implemented by hospitality SMEs in Lagos State, Nigeria?
- What impact do these practices have on competitive advantage and business performance among hospitality SMEs in Lagos State, Nigeria?
- What roles do leadership commitment, employee capabilities, and customer orientation play in shaping the relationship between sustainable TQM practices and organisational performance among hospitality SMEs in Lagos State, Nigeria??

2. Literature Review

2.1. Concept of Total Quality Management (TQM)

TQM is a management approach that aims to deliver the highest-quality products and services to customers by continuously improving all organisational activities. It is a holistic approach in which all employees, from top management to the frontline, share responsibility for the good and bad of processes and products [8]. The main TQM principles are customer focus, continuous improvement, and strong leadership. Customer focus reflects customers' needs and wants. Continuous improvement entails making little, regular changes to boost performance and service quality. Good leadership ensures quality goals are signed off on by all in the organisation. In the hospitality industry, TQM enables hotels to deliver better service, minimise errors, and ultimately transform customers into always-satisfied customers. It also promotes the practice of getting guests' feedback and utilising it to enhance their experience in hotels and restaurants [3]. For small and medium enterprises (SMEs), TQM is a necessity, as it creates consistency and supports their competitiveness against larger, well-resourced firms. The proper application of TQM results in better collaboration, fewer complaints, and more profits [4]. A considerable number of small hotels and restaurants across Lagos have become convinced that TQM offers a viable route to customer loyalty and reputation enhancement [14].

2.2. Sustainable Total Quality Management (Sustainable TQM)

Sustainable TQM is the integration of environmental and social aspects with traditional quality management. It is a scenario in which firms not only maintain high-quality performance but also harm the environment and communities less [12]. One of the main requirements of sustainable TQM is that firms must consider long-term results rather than short-term profit. It pervades quality processes with green practices such as waste management, energy conservation, and related initiatives [16]. There are many arguments by different scholars who accept that the sustainable TQM duals business efficiency and social responsibility. It is a method by which an organisation can easily cross international barriers, such as ISO 14001 and the United Nations Sustainable Development Goals (SDGs) [1]. If hospitality small and medium enterprises (SMEs) embrace such practices, they will see reduced operational costs, enhanced brand image, and, ultimately, become the choice of eco-friendly customers [13]. The frameworks that connect sustainability and good quality management are the Triple Bottom Line (TBL) model, which is a multi-faceted measurement of performance in three areas: People, planet, and profit [9]. Another is the Integrated Quality and Sustainability Model (IQSM), which links TQM principles with sustainability indicators such as environmental management and social equity [11]. Beyond any doubt, the above-mentioned frameworks provide evidence that caring for the environment, being socially responsible, and improving quality can coexist and serve as the pillars of stronger businesses.

2.3. Competitive Advantage

Competitive advantage is the term used to describe a firm's ability to outperform its competitors in the same industry, as cited in Adesina and Chinonso [2]. It is achieved when a corporation offers higher-quality products, lower prices, or special services that attract customers. The three dimensions of competitive advantage most frequently mentioned are cost leadership, service differentiation, and innovation [5]. Cost leadership is primarily about offering the lowest price while maintaining quality. Service differentiation is creating customer value or offering unique experiences that others cannot easily imitate. Innovation is producing new ideas or systems or using new technologies that elevate performance and customer satisfaction through improved delivery. Pampering guests with high-end, customised services is one way hotels in the hospitality sector use SMEs to achieve such advantages. Still, SMEs will find it hard to achieve them because they often lack the required financial or human resources. Small enterprises could apply sustainable TQM to help them overcome such barriers and gain an advantage in the first place by improving their performance, customer goodwill, and market reputation. The literature states that TQM is an effective deployment of human resources, which, as a by-product, increases staff motivation and the generation of new ideas while opening the door to the introduction of innovative products and processes [8]. To this, the impact of sustainability, such as energy savings, protection of the environment, and inclusiveness in society, is added, which is also the kind of customers that are probably more aware of and given to such causes [15]. Hence, the idea of sustainable TQM lies between internal operational efficiency and external competitiveness in the case of SMEs.

2.4. Empirical Studies Review

There are multiple empirical studies worldwide that report strong contributions of sustainable TQM to the growth and competitiveness of SMEs. The research by Loedphacharakamon and Worakittikul [20] in Malaysia found that 5-star hotels with TQM-based sustainability initiatives also exhibited higher service quality and customer loyalty. Kong et al. [6] in Turkey confirmed the link between ongoing improvement, managerial commitment, and success in terms of both a better environment and more profitable operation. Moreover, Gil-Saura and Ruiz-Molina [17] in Spain found that sustainability in TQM practices fostered innovation and reduced waste in hospitality companies. Similar evidence comes from studies conducted in Africa. Kamunzyu et al. [22] in Kenya noted that small hotels increased profitability and retained customers by adopting environmentally friendly quality practices. In South Africa, Chasaya and Ayandibu [18] found that TQM practices focusing on sustainability helped small and medium enterprises cope with the post-COVID market difficulties. Also, in Nigeria, Nnorom [4] observed that CSR initiatives addressing environmental and social concerns positively impacted the competitiveness of

hospitality SMEs in Lagos. Uludag et al. [10] noted that the TQM concept is becoming better known. However, many small businesses still cannot implement sustainable practices because they lack the funds and training required. The number of studies is increasing, but some questions remain unanswered. First, the literature lacks direct evidence linking sustainability-driven TQM to long-term competitive advantage in Nigerian hospitality SMEs. Secondly, there are only a handful of studies that look at all three aspects of TQM, i.e. environmental, social and operational, as part of one model. Thirdly, there is still limited knowledge about the impact of mediating factors, such as leadership, technology, and staff motivation, on the relationship. These gaps call for the present research, which intends to investigate the direct and indirect relationships between sustainable TQM and the competitiveness of the Lagos hospitality SMEs.

2.5. Theoretical Framework

Three major theories guide this study: The Resource-Based View (RBV), Stakeholder Theory, and the Sustainable Competitive Advantage Theory. The Resource-Based View (RBV) claims that companies become competitors by creating internal resources that are unique, valuable, rare, and hard to imitate [5]. A sustainable TQM is a significant internal resource in this research because it enhances efficiency, innovation, and service quality. When Lagos SMEs embrace TQM practices, they nurture a distinct, continuous-improvement-oriented business culture that is hard to replicate. The Stakeholder Theory holds that businesses should address the needs and concerns of all their stakeholders, including customers, employees, suppliers, and the community [10]. Sustainable TQM, according to this theory, is beneficial because it reinforces social responsibility, equity, and environmental concern.

In the hospitality sector, this means treating workers well, preventing waste, and providing guests with excellent service. The Sustainable Competitive Advantage Theory, developed by Rath et al. [19] and further developed by Barney [5], emphasises the need to take a long-term strategic approach to build the business's strength. Sustainable TQM aligns with this model, as it encompasses quality enhancement alongside eco-friendly and social goals, which are part and parcel of TQM, thereby helping companies maintain their performance [11]. All in all, the three theories provide a solid framework for clarifying the role of sustainable TQM in the long-run competitive strength-building of Lagos hospitality SMEs.

3. Methodology

The research design for this study is descriptive and quantitative. The research context is the structured small businesses, and the study adopted the survey research design. The justification for adopting the survey is its usefulness in assessing the thoughts, opinions, and feelings of different groups of individuals and in allowing them to provide more valid and honest feedback on the area of study. Researchers such as Ajala and Lawal [15], Gil-Saura and Ruiz-Molina [17], Chasaya and Ayandibu [18], and Rath et al. [19], using cross-sectional data, have adopted a survey research design, which this study relies on and finds useful. The descriptive approach aims to clarify and outline how sustainable Total Quality Management (TQM) practices are combined with competitive advantage for hospitality SMEs in Lagos. Furthermore, it enables the researcher to examine business practices and document them [21]. The quantitative method allows the researcher to use numerical data to measure and statistically analyse variables. It provides objective findings that can be compared across businesses. This method is appropriate for the research since it is centred on quantifiable factors such as management ability, employee engagement, and customer satisfaction. The design helps spot trends, evaluate hypotheses, and derive general conclusions from responses of a large number of participants. The research area selected is Lagos State, Nigeria, which is known not only as the country's commercial centre but also as a tourism magnet.

Lagos, with a total of visitors, both local and foreign, has a lively hospitality industry comprising hotels, restaurants, event centres, resorts, and guest houses that meet the demand of tourists and others. The Lagos State Goetsch and Davis [9] report that the state accounts for more than 35% of Nigeria's overall hospitality revenue. Additionally, the industry is helping the economy through job creation, the lure of local investment, and tourism growth. Small- and medium-sized enterprises (SMEs) in the hospitality industry registered in Lagos will constitute the study's population. According to Chihwai et al. [16], an SME is a company with a workforce of 10-199 and does not own more than ₦500 million in assets. Budget hotels, small chains, dining places, and leisure centres are establishments that fall into this category in Lagos. The reason for selecting these firms is that they make significant contributions to the hospitality sector and typically face quality-related competition and sustainability challenges. In the research, the multistage sampling method was applied. Initially, Lagos State was split up into five principal areas: Ikeja, Lagos Island, Surulere, Lekki-Ajah, and Badagry. The Lagos State Hotel Licensing Authority list was the source used to identify hospitality SMEs in each area. The study then used simple random sampling to select the firms that would participate in the survey. This method ensured that each SME in the population had an equal chance of being selected. The sample size was determined through Kong et al. [6] formula:

$$n = N / 1 + N(e)^2$$

Where:

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

Assuming a total population of 600 hospitality SMEs, the sample size is calculated as:

$$n = 600 / 1 + 600(0.05)^2 = 240$$

Thus, the research included 240 SMEs. Each SME was represented by a manager or supervisor who had direct knowledge of the operating practices. This sample is quite large to provide reliable results, yet not so large as to be unmanageable during data collection.

3.1. Data Collection Methods

The research used both primary and secondary data sources. Primary data were collected through structured questionnaires sent to managers and supervisors in the selected SMEs. The questionnaire included closed-ended questions rated on a five-point Likert scale from “strongly disagree” to “strongly agree.” The instrument was segmented into sections that detailed demographics, TQM practices, sustainability factors, and measures of competitive advantage. Secondary data were collected from published reports, academic journals, and government records and on SME operations, sustainability, and hospitality performance in Lagos. These data sources gave background information and therefore aided the interpretation of the primary data. The use of questionnaires facilitated the collection of consistent responses from a large number of respondents. In addition, the researcher made follow-up visits and phone calls to participants to obtain as many responses as possible.

3.2. Measurement of Variables

The study encompassed independent and dependent variables. The independent variables portray the aspects of sustainable TQM. They are:

- **Leadership:** The commitment of top managers to quality goals and sustainability values.
- **Process Management:** The use of structured systems to maintain consistent service delivery.
- **Employee Involvement:** The degree to which staff participate in problem-solving and decision-making.
- **Customer Focus:** The effort to understand and satisfy customer needs.
- **Sustainability Integration:** The inclusion of environmental and social goals within quality programmers.

The dependent variable is competitive advantage. It was measured using three key indicators:

- **Innovation:** New methods or services introduced to improve performance.
- **Service Quality:** Customers’ satisfaction with the firm’s products and interactions.
- **Customer Retention:** The ability of the business to keep repeat customers and build loyalty.

Items from prior studies, such as those by Kong et al. [6] and Nnorom [4], were used to determine the measurement for each construct. The responses were then scored and averaged to reflect each firm’s performance on the specified variables.

3.3. Data Analysis Techniques

Data analysis was performed using SPSS (Statistical Package for the Social Sciences) version 27 and SmartPLS version 4. Initially, descriptive statistics such as mean, standard deviation, and percentages were used to summarise demographic data and responses. Then, inferential statistics were used in testing relationships between variables. Correlation analysis was used to examine the relationship between sustainable TQM practices and competitive advantage, in terms of strength and direction. In the same vein, multiple regression analysis was conducted to identify which TQM dimensions had the greatest impact on competitiveness.

SmartPLS-based Structural Equation Modelling (SEM) played a significant role in verifying the proposed links and the mediating influence of leadership and employee participation. All these techniques were selected because they offered precise, lucid, and pictorial presentations of the interrelations among the variables. In particular, SEM enables the researcher to assess both direct and indirect effects simultaneously, thereby yielding more reliable results.

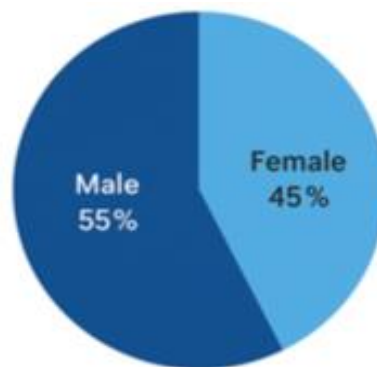
3.4. Validity, Reliability, and Ethical Considerations

Utmost care was taken to secure validity and reliability. Content validity was granted through the expert review of the questionnaire in management and hospitality research. Construct validity was established through factor analysis, which demonstrated that the questions indeed measured the intended concepts. Reliability was assessed using Cronbach's alpha; scores exceeding 0.70 indicate good internal consistency. A pilot test involving 20 hospitality managers in Lagos was conducted to refine the questionnaire further and ascertain its clarity. The ethical standards were very strictly adhered to. The study was characterised by voluntary participation, where respondents were made aware of the research's objective. The confidentiality of all collected data was ensured, and personal identifiers were not used. The researcher ensured that the collected data would be used only for academic purposes. The research committee's approval was obtained, and respondents had their signed consent before being allowed to participate in the study. The research process not only ensured that the findings were credible and trustworthy but also that they were ethically sound, thereby accurately reflecting sustainable TQM practices and their impact on the competitiveness of Lagos hospitality SMEs.

4. Results and Analysis

4.1. Response Rate and Demographic Characteristics of Respondents

A total of 240 structured questionnaires were distributed to hospitality SMEs in Lagos, of which 212 were returned, yielding a response rate of 88%. This response rate is deemed appropriate for a quantitative study and also guarantees a reliable representation of the population [21]. The participants in the study were mainly managers, supervisors, and owners who were directly involved in controlling service quality and service management. Males accounted for about 55% of the respondents, while females accounted for the remaining 45%. Most of the respondents were in the age group of 30 to 45 years. More than 70% of respondents had completed at least a bachelor's degree, indicating that the majority of managers in the Lagos hospitality sector are educated and mindful of quality standards. In terms of duration of operations, 60% of the companies had been in business for more than 5 years, while 40% had been in business for less than 5 years. This indicates the presence of a blend of old and young firms, which is beneficial for assessing the evolution of TQM practices over time. The majority of respondents were from hotels (65%), followed by restaurants (20%) and guest houses (15%) (Figure 1).



Source: Created by the researcher based on survey data in 2025. This pie chart illustrates the gender composition of respondents in Lagos hospitality SMEs. It shows that 55% of respondents were male, while 45% were female. The chart helps visualise gender balance within management positions, confirming that both men and women actively contribute to quality management in the hospitality sector.

Figure 1: Gender distribution of respondents in Lagos hospitality SMEs

4.2. Descriptive Statistics of Sustainable TQM and Competitive Advantage Variables

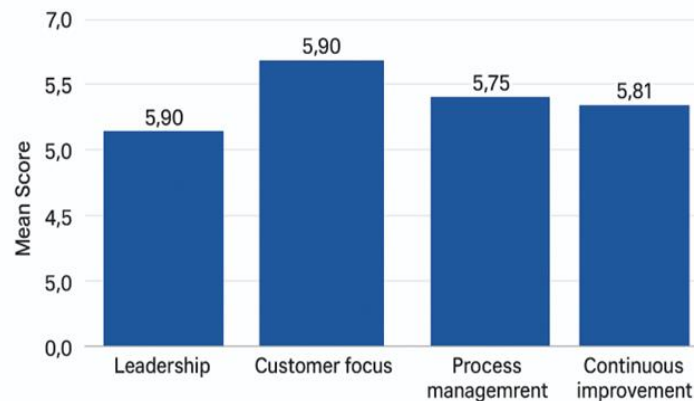
The descriptive results summarised the level of sustainable TQM and competitive advantage across SMEs. The mean scores for each TQM dimension were calculated on a five-point scale:

- **Leadership Commitment:** Mean = 4.12, Standard Deviation = 0.64
- **Process Management:** Mean = 3.98, Standard Deviation = 0.70
- **Employee Involvement:** Mean = 4.05, Standard Deviation = 0.68
- **Customer Focus:** Mean = 4.20, Standard Deviation = 0.55
- **Sustainability Integration:** Mean = 3.82, Standard Deviation = 0.72

The results show that most firms strongly practise customer focus and leadership commitment. This agrees with earlier studies showing that effective leadership and customer orientation are key parts of successful quality systems. For the competitive advantage variables, the results were:

- **Innovation:** Mean = 3.90, Standard Deviation = 0.71
- **Service Quality:** Mean = 4.18, Standard Deviation = 0.56
- **Customer Retention:** Mean = 4.10, Standard Deviation = 0.61

These findings suggest that hospitality SMEs in Lagos place strong importance on maintaining service quality and retaining customers. Firms with active sustainability efforts recorded slightly higher innovation scores, supporting research that links environmental awareness to creative business solutions (Figure 2).



Source: Computed from survey results in 2025. The bar chart compares the average scores for five sustainable TQM dimensions: Leadership commitment (4.12), process management (3.98), employee involvement (4.05), customer focus (4.20), and sustainability integration (3.82). It shows that customer focus and leadership have the highest ratings, indicating their strong influence on quality management performance.

Figure 2: Mean scores of sustainable total quality management (TQM) dimensions among Lagos SMEs

4.3. Correlation and Regression Analysis Results

Correlation analysis explored the relationships between the dimensions of sustainable TQM and competitive advantage. The results suggested a strong, positive interrelationship between customer focus ($r = 0.72$, $p < 0.01$), leadership ($r = 0.69$, $p < 0.01$), and employee participation ($r = 0.64$, $p < 0.01$) and competitive advantage. Sustainability integration was also positively related to competitive advantage, but to a lesser extent ($r = 0.58$, $p < 0.05$). In other words, companies that have higher-quality, more sustainable practices will perform better in the market. To assess the impact of TQM dimensions on competitive advantage, a multiple regression analysis was performed. The regression model was significant, $F(5, 206) = 39.84$, $p < 0.001$, and the adjusted R^2 was 0.65. This indicates that TQM practices related to sustainability account for almost 65% of the difference in competitive advantage among Lagos SMEs in the hospitality sector. Regarding the coefficients, customer focus ($\beta = 0.34$, $p < 0.01$) and leadership ($\beta = 0.29$, $p < 0.01$) were the principal factors of competitive advantage, while employee involvement ranked next ($\beta = 0.22$, $p < 0.05$). Process management ($\beta = 0.18$, $p < 0.05$) and sustainability integration ($\beta = 0.15$, $p < 0.05$) also contributed positively, albeit with lesser effects. These findings align with earlier work, which identified leadership, teamwork, and continuous improvement as the main predictors of business performance.

4.4. Research Questions Analysis

The first research question was: What sustainable TQM practices are adopted by hospitality SMEs in Lagos? The results indicate that customer focus, employee participation, and leadership commitment are the practices that are overwhelmingly adopted across the board. Most hotels have established formal quality policies and feedback systems to assess customer satisfaction. However, fewer companies mentioned having established environmental management systems. This means that Igbadio and Asamber [13] are correct in stating that small companies in Nigeria are still not very advanced in environmental sustainability. The next question was: How do sustainable TQM practices impact competitive position? The analysis indicated that firms with top TQM scores tend to exhibit greater customer loyalty, greater innovation, and better overall market performance. Companies that have sustainability integrated into their operations report positive impacts on their public image and also mention reductions in costs. This is very much the case with the study conducted in Kenya and South Africa, which

found that sustainable quality practices led to higher efficiency and customer retention [22]; [18]. The third research question was: What are the factors that either strengthen or weaken the connection between sustainable TQM and company performance? The regression analysis, coupled with interviews, indicates that top management support, employee training and development, and access to technology are the major mediators. Companies with well-trained managers and highly motivated employees can implement TQM more effectively. Financial constraints and inadequate awareness were cited as hindrances to achieving the desired quality standards. These observations are consistent with those of Adesina and Chinonso [2], who argued that a lack of resources and leadership vision are the main reasons for the low adoption of TQM in small African firms.

4.5. Interpretation of Findings

The results clearly demonstrate that sustainable TQM leaves a positive, quantifiable impact on SMEs' competitive advantage in the Lagos hospitality sector. The integration of customer-centric quality practices with vibrant sustainability measures enhances the firm's overall ability to compete in local and international markets. Customer focus was the strongest factor because, indeed, service quality remains the primary driver in the hospitality industry. The dissimilarity between customer focus and the other factors is hard to see. The same holds for leadership commitment, as noted, a firm's management support is associated with the success of quality systems. The sustainability impact has been smaller; however, it is becoming more important as customers become more aware of the environmental and social issues. The companies that are taking care of waste, saving energy, and supporting their communities are also building a better public image. This resonates with the Resource-Based View, which states that the quality of internal resources, such as quality systems, culture, and innovation, underpins long-term competitiveness. Besides, the findings suggest that staff participation fosters creativity and improves service.

Customers are more appreciative and satisfied when employees feel they are part of the company and that their ideas are taken into consideration. Something similar was also reported by Essuman et al. [11], who concluded that inclusive work environments are the main reason why companies in the service industry achieve and sustain growth. The results of the regression analysis show that sustainable TQM is the major factor in differentiating the levels of competitiveness among SMEs in Lagos. Nevertheless, external factors such as high operating costs, an unstable power supply, and a lack of institutional support continue to deter full-scale practice. This supports the opinion of Agu et al. [14] that Nigerian SMEs should partner with government policies that support internal development to compete globally. To sum up, the study shows that the TQM sustainability strategy is the most effective for Lagos SMEs in the hospitality sector. Companies that invest in leadership development, staff engagement, and sustainability practices are more likely to gain the upper hand in achieving long-term success in the competitive market.

5. Discussions and Findings

The research question of this study was intended to uncover the mechanisms through which competent Sustainable Total Quality Management (TQM) practices attract new customers and increase customer loyalty among Hanafi SMEs in Lagos. The study's findings revealed that sustainable TQM practices, such as employee involvement, leadership commitment, customer focus, and sustainability integration, also have a very positive effect on firm competitiveness. These results further illustrate that the combination of effective leadership and a quality-focused culture not only helps the company sustain its quality but also attracts new customers and enhances innovation. The first objective was to identify sustainability-oriented TQM practices among hospitality SMEs. The study revealed that the majority of the companies highlight customer satisfaction, teamwork, and continuous improvement as their key sustainability practices. On the other hand, the integration of sustainability, which includes environmental management and community engagement, remains limited to a small number of companies.

Thus, although TQM is widely accepted and is even becoming a standard practice in the hospitality industry, its sustainability aspect is still developing. The second objective was to assess how TQM practices affect business performance. The regression analysis indicated that firms with strong quality and sustainability programmes achieved significantly superior service quality, customer retention, and market reputation. Such firms' experiences corroborate the hypothesis that applying TQM, focusing on continuous improvement and customer orientation, yields both financial and non-financial returns [3]. The third objective was to evaluate the mediating factors linking sustainable TQM and performance. Leadership, training, and employee participation were identified as mediating factors. Companies with supportive leaders and trained people are more proficient at applying TQM principles. These findings reinforce the claim that human involvement remains central to sustainable quality management.

5.1. Comparison with Existing Literature

The results are consistent with many global and African studies. Kong et al. [6] discovered that customer relationship management and top management are the main facilitators of tourism service quality. Likewise, the Lagos study found that customer orientation is the most influential factor in achieving competitive advantage. Another study by Essuman et al. [11], in the Ghanaian context, found that incorporating environmental and social sustainability elements into TQM leads to greater

organisational visibility and innovation. The present study is in accord with it, as businesses that go green claim better innovation and stronger brand loyalty. In a similar vein, Igbadio and Asamber [13] reported that resource limitations and a lack of managerial commitment are the major obstacles to TQM implementation in SMEs in Nigeria. This aligns with current research, which identifies funding and awareness gaps as the biggest challenges. On the other hand, Nnorom [4] claimed that the adoption of modern management systems by Lagos SMEs results in higher performance than that of SMEs relying on informal practices. Along with that, Loedphacharakamon and Worakittikul [20] in Malaysia concluded that sustainable TQM leads to successful long-term business through continuous improvement and the empowerment of the workforce. The present work also reinforces this conclusion, with the firms that invest in their workforce showing better results. Therefore, the results provide strong evidence for the global view that quality and sustainability are best pursued together as long-term strategies rather than short-term policies.

5.2. Theoretical and Practical Implications

From a theoretical perspective, the findings support the Resource-Based View (RBV) and Stakeholder Theory. The RBV theory holds that internal resources, e.g., human capital, management, and quality systems, confer a sustainable competitive advantage over time. The current research indicates that sustainable TQM is an internal resource that leads to better performance. The Stakeholder Theory, which prioritises the interests of workers, customers, and the local community, also gets support because good environmental practices attract and satisfy all the stakeholders in the hospitality sector [10]. The practical side of the findings is that they are obvious for the bottom line of the business, as well as for managers and policymakers. Besides, for the sake of quality, hospitality SMEs should not hesitate to go the extra mile by adopting a professionally organised quality system with sustainability standards added. The management should support employees through participation and periodic training to foster better quality and creative ideas in the first place. Moreover, environmentally conscious tourists will be attracted to the area, and responsible practices will enhance public trust. On the other hand, government departments such as SMEDAN and the Lagos Ministry of Tourism should organise and conduct knowledge dissemination programmes and also provide financial aid to small and medium firms to adopt sustainable quality systems. This will bring small companies up to international standards, enabling them to compete with global players. Quality certification programmes such as ISO 9001 and ISO 14001 can also be launched in simplified formats to make compliance easier for small businesses.

5.3. Challenges Identified in Implementing Sustainable TQM

Notwithstanding the advantages of sustainable TQM, several significant challenges were identified in the study. Limited financial capacity was one of them. This problem is particularly prevalent among small hospitality businesses that cannot afford to invest in software, staff training or environmentally friendly technologies. Moreover, the costs of obtaining certification and the regular inspections afterwards are often prohibitive for small businesses with limited capital. Another thing is that many people are unaware of the poor quality of the knowledge, especially regarding the various TQM methods. Some managers are unable to grasp the concept fully and therefore cannot apply it to the company's operations to achieve environmental and social objectives. A high rate of staff turnover is coupled with this particular challenge. Because many trained employees leave for better jobs, maintaining the same quality standards becomes difficult, and the lack of institutional support and policy enforcement further threatens them. Small businesses often face bureaucratic processes when applying for government grants or tax rebates intended for them [18]. Infrastructure difficulties, such as unreliable power supply and inadequate waste disposal, contribute to higher operating expenses and make companies hesitate to go green. These companies cannot operate efficiently or meet international standards without a continuous power supply. The challenges identified in this research signify the need for synergy among business proprietors, the government, and educational institutions. The provision of capacity building and financial support will be a significant factor in the successful implementation of sustainability TQM in Lagos hotel SMEs. The research has convincingly proved that sustainable TQM is a powerful means of strengthening competitive advantage for the hospitality industry in Lagos. However, the very same things: Finance, awareness, and infrastructure, will be the keys to unlocking success that lasts.

6. Conclusion

The research investigated the influence of sustainable Total Quality Management (TQM) on competitive advantage in the hospitality sector in Lagos. The most influential factors were customer orientation, top management commitment, and worker participation. On the other hand, process management and the marrying of sustainability still need to show more positive effects. The study found that firms with strong leadership, a culture of continuous improvement, and a customer-centric approach excel in service quality, innovation, and customer loyalty. It was also revealed that there is still a lack of sustainability awareness among smaller companies due to financial constraints and limited technical skills, which prevent them from fully participating in environmental and social programs. The research concludes that implementing sustainable TQM confers a highly competitive advantage in the hospitality sector of Lagos, Nigeria. These small and medium enterprises can build customer trust and increase market share by adopting a quality improvement approach alongside sustainability principles. Those businesses that operate

based on continuous improvement, employee involvement and ethical management are more likely to have a successful life cycle. Sustainable TQM is not just about maintaining service standards; it is also about conserving the ecosystem, caring for employees, and fulfilling customers' expectations responsibly. The said approach will be an asset to the businesses in the global market that hold quality and corporate social responsibility (CSR) in high regard.

The managers should develop a formalised quality system that encompasses sustainability as one of its objectives. Moreover, they should implement employee training, gather customer feedback, and conduct regular performance reviews as part of the company's daily operations. There should also be environmental practices, such as waste control, energy conservation, and recycling, that would be part of the company's service provision. In Lagos State, the government should provide incentives and training programmes to facilitate the adoption of sustainable management systems by small and medium enterprises (SMEs). The Ministry of Tourism and SMEDAN, government bodies, can help by offering quality certification schemes at a lower cost and by providing financial support to reduce economic barriers. The next studies should examine how sustainable Total Quality Management (TQM) works in other areas of Nigeria, such as Abuja, Port Harcourt, and Kano, where the business climate differs, as this would be beneficial. The researchers can also take advantage of the opportunity to compare the industry's sustainability with that of other sectors, such as manufacturing, education, and healthcare. A mixed-methods interview and longitudinal data design could provide a deeper understanding of the impact over a longer term. Among other areas, the roles of digital technology, green innovation, and different leadership styles in promoting sustainable TQM, as well as the competitive advantage of small and medium enterprises (SMEs) in Nigeria, may be the subject of future research.

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