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TOTAL QUALITY MANAGEMENT (TQM) PRACTICES AND PERFORMANCE OF BREWERY FIRM IN RIVERS STATE

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ABSTRACT

This study investigated the relationship between Total Quality Management (TQM) practices and organizational performance in a Nigerian brewery firm located in Port Harcourt. Specifically, it examined the relationship between leadership commitment and organizational productivity, employee involvement and engagement, and continuous improvement and innovation performance. A descriptive survey design was employed, with structured questionnaires administered to a stratified random sample of 216 employees drawn from a staff population of 470. Out of these, 200 valid responses were obtained, representing a 92.6% response rate. Instrument validity was ensured through expert review, and reliability was confirmed with Cronbach's Alpha coefficients above 0.70. Data were analyzed using descriptive statistics and the Pearson Product Moment Correlation Coefficient (PPMCC) at a 0.05 significance level. Findings revealed significant positive relationships between leadership commitment and productivity ($r = 0.624$, $p <$

Introduction

Background of the Study

Global standards, technology advancements, and customer expectations have made it necessary for organizations to function in increasingly dynamic and competitive contexts that demand greater levels of efficiency, quality, and creativity. Businesses must use management strategies that increase output, reduce waste, and boost customer satisfaction if they want to stay sustainable and competitive. Total Quality Management (TQM) is one such strategic management style that stresses employee involvement, teamwork, customer focus, and continuous improvement in all organizational activities (Sadikoglu & Olcay, 2024).

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0.05), employee involvement and engagement ($r = 0.591$, $p < 0.05$), and continuous improvement and innovation performance ($r = 0.608$, $p < 0.05$). The study concludes that TQM practices positively influence organizational performance by fostering productivity, employee engagement, and innovation. It recommends strengthening leadership commitment, encouraging participative employee involvement, and institutionalizing continuous improvement through training and modern technological adoption to sustain competitiveness and long-term growth.

Keywords: Total Quality Management, organizational performance, leadership commitment, employee involvement, continuous improvement, Nigeria

Deming, Joseph Juran, and Philip Crosby promoted Total Quality Management (TQM) in the years following World War II. They emphasized the importance of process control, quality assurance, and changing organizational culture (Deming, 1986; Juran, 1988; Crosby, 1979). TQM was first used in manufacturing, but it has since developed and is currently used in a variety of areas, such as public service, banking, healthcare, education, and hospitality (Goetsch & Davis, 2024). In order to guarantee that goods and services meet or surpass client expectations and increase operational efficiency, the philosophy aims to incorporate quality into every aspect of the business (Zehir et al., 2022).

Market share, customer happiness, employee engagement, productivity, profitability, and innovation are just a few of the many metrics that make up an organization's performance, because TQM reduces errors, streamlines operations, and increases customer loyalty, it has been associated with improved performance results (Sila, 2007; Prajogo & Sohal, 2023). Businesses that successfully apply TQM techniques frequently report increased employee morale, a greater competitive edge, and better flexibility in response to market fluctuations (Kaynak, 2023).

As businesses look to overcome obstacles including subpar service delivery, low productivity, fierce rivalry, and pressures from globalization, TQM implementation has accelerated in developing nations like Nigeria (Adeleke et al., 2020). It is still up for dispute, nevertheless, how much TQM influences performance outcomes in these kinds of businesses. According to some research, TQM implementation enhances both financial and non-financial performance; nevertheless, other studies point out that obstacles to its effectiveness include resource limitations, resistance to change, a lack of commitment from senior management, and inadequate training (Ogbari et al., 2018).

Therefore, in order to comprehend how businesses may successfully use quality management techniques to generate sustainable growth, competitiveness, and customer

satisfaction, it is imperative to examine the relationship between Total Quality Management and Organizational Performance. This study offers insightful information about how TQM can be used as a strategic tool to enhance corporate results and promote long-term success.

Statement of the Problem

Total Quality Management (TQM) is being used by businesses all over the world in an effort to increase productivity, boost customer happiness, and gain a competitive edge. In developed economies, empirical research has demonstrated that TQM improves organizational performance. For example, Kaynak (2023) discovered that businesses who adopted TQM procedures had notable gains in financial performance, productivity, and creativity. According to Prajogo and Sohal (2023), TQM has a favorable impact on both quality and innovation performance, hence reaffirming its strategic importance in the development of organizations.

Evidence from developing nations like Nigeria, however, paints a more nuanced picture. Positive results are shown in some research. For instance, TQM techniques improved quality performance and innovation in Nigerian manufacturing enterprises, according to Ogbari et al. (2018). Additionally, TQM deployment increased customer satisfaction and organizational efficiency in a subset of service organizations, according to Adeleke et al. (2020). However, because of contextual limitations, other research show limited or inconsistent outcomes. For example, TQM's effectiveness in Nigerian firms was hampered by poor leadership commitment, insufficient training, and reluctance to change, according to Adeoti and Lawal (2022). According to Oke, Ogundele, and Ogunnaike (2023), many Nigerian businesses continue to struggle with inefficiencies, subpar customer service, and dwindling competitiveness even after implementing TQM. This discrepancy in results points to a knowledge gap: whereas TQM's advantages are widely known in developed nations, its efficacy in Nigeria is still up for debate. The majority of the literature currently in publication focuses on either success stories or difficulties, but only a small number of studies combine the two viewpoints to evaluate how much TQM influences organizational performance in Nigeria. Furthermore, there is little data on cross-sectoral effects because the majority of Nigerian studies have only looked at the manufacturing or service sectors.

Thus, the dearth of reliable empirical data regarding the connection between TQM and organizational performance in Nigeria is the issue this study attempts to solve. In particular, it is yet unknown if implementing TQM principles regularly improves competitive advantage, employee engagement, productivity, and customer happiness or if management, cultural, and structural obstacles limit its potential effects. In order to

give context-specific insights that will help businesses and policymakers use TQM for long-term performance improvement, this gap must be filled.

Research Objectives

The main objective of this study is to examine the relationship between Total Quality Management (TQM) practices and Performance in Nigerian organizations. The specific objectives are to:

1. Determine the relationship between leadership commitment and organizational productivity;
2. Examine the relationship between employee involvement and employee engagement.
3. Assess the relationship between continuous improvement and innovation performance.

Research Questions

Based on the objectives, the study seeks to answer the following questions:

1. What is the relationship between leadership commitment and organizational productivity?
2. How does employee involvement relate to employee engagement in Nigerian organizations?
3. What is the relationship between continuous improvement practices and innovation performance?

Research Hypotheses

For clarity and statistical testing, the following hypotheses were formulated in null form (H_0):

H_{01}: There is no significant relationship between leadership commitment and organizational productivity.

H_{02}: There is no significant relationship between employee involvement and employee engagement.

H_{03}: There is no significant relationship between continuous improvement practices and innovation performance.

Scope of the Study

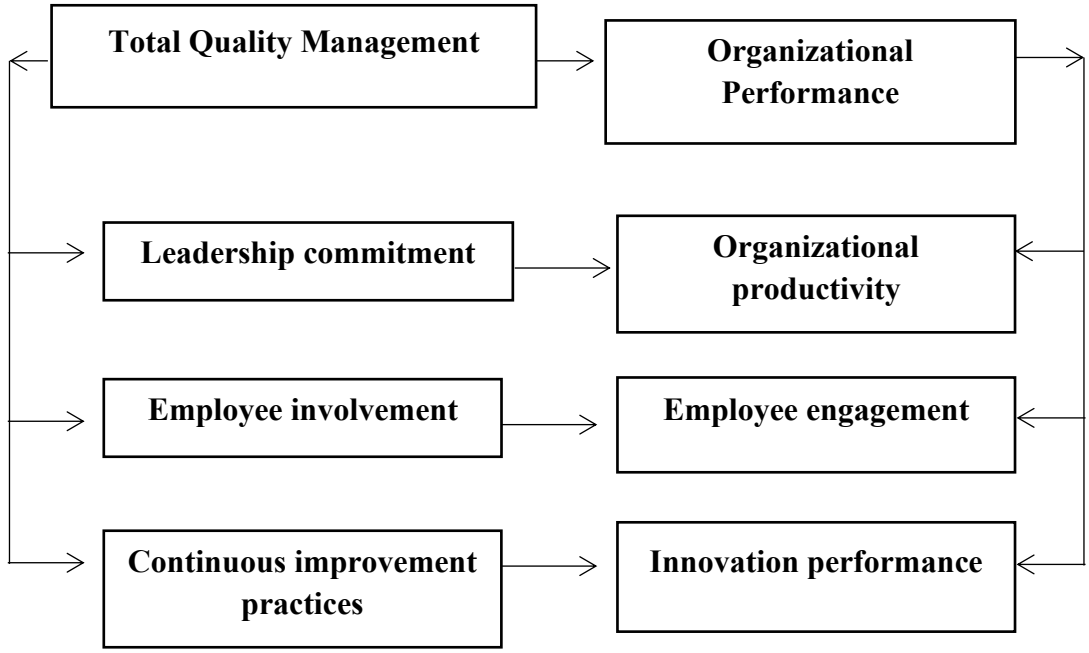
This study is delimited to the following scopes:

Content Scope: The study focuses on examining the relationship between **Total Quality Management (TQM) practices** and**Organizational Performance**. Specifically, the TQM practices investigated include **leadership commitment, employee involvement, and**

continuous improvement. On the other hand, organizational performance is assessed using measures such as **organizational productivity, employee engagement, and innovation performance**.

Unit Scope: The study targets **management staff and employees** of selected organizations who are directly involved in the design, implementation, or experience of TQM practices within their workplaces. These include managers, supervisors, and operational staff whose roles directly influence organizational processes and performance outcomes.

Operational Conceptual framework



Source: Researchers Desk 2025

Conceptual Review

Concept of Total Quality Management (TQM)

The management concept known as Total Quality Management (TQM) places a strong emphasis on incorporating quality into every organizational procedure. It is a comprehensive approach to business management that incorporates all employees and functions in the pursuit of ongoing development, rather than merely a collection of tools and processes (Goetsch & Davis, 2024). The works of Deming, Juran, and Crosby, who highlighted methodical approaches to quality improvement, were especially influential in the development of TQM following World War II.

Deming (1986) maintained that lowering process variances, enhancing systems, and enlisting leadership in ongoing development all contribute to quality. Crosby (1979)

emphasized the concept of "zero defects" and that quality is free if companies prevent issues rather than solve them. Juran (1988) proposed the "Quality Trilogy," which consists of quality planning, quality control, and quality improvement.

Since then, TQM has spread from manufacturing to the government, education, and service sectors. Today's businesses view it as a strategic asset that boosts staff morale, boosts customer loyalty, lowers waste, and raises competitiveness (Sadikoglu & Olcay, 2024)..

Dimensions of Total Quality Management

Different scholars have highlighted various dimensions of TQM, but the following are consistently emphasized:

1. Leadership Commitment: According to Deming (1986), top management is essential in establishing the quality goal, assigning funds, and inspiring staff. Quality programs frequently fail in the absence of leadership backing.
2. Customer Focus: A key component of TQM is meeting and beyond customer expectations. This entails getting input, keeping an eye on satisfaction, and structuring procedures to meet the needs of the client (Crosby, 1979).
3. Involvement of Workers: Workers are seen as collaborators in quality. Their involvement in decision-making and problem-solving improves performance and ownership (Juran, 1988).

Concept of Organizational Performance

How well an organization accomplishes its goals is reflected in its performance. Both non-financial metrics (consumer satisfaction, innovation, staff engagement, and adaptability) and financial metrics (profitability, market share, and revenue growth) can be used to assess it (Kaplan & Norton, 1996). Performance is now evaluated not only by financial returns in dynamic and competitive contexts, but also by how successfully businesses innovate, satisfy customers, and maintain sustainable operations (Prajogo & Sohal, 2023). Performance is therefore multifaceted.

Linking TQM to Organizational Performance

Through defect reduction, cost reduction, efficiency improvement, and improved customer interactions, TQM boosts performance. Businesses that use Total Quality Management (TQM) frequently report:

- Increased customer satisfaction due to high-quality goods and services.
- Increased employee engagement due to active participation in decision-making.

- More creativity via collaboration and ongoing development;
- Enhanced flexibility and durability in cutthroat marketplaces (Kaynak, 2023).

However, TQM might not yield the intended performance outcomes in the absence of leadership backing, sufficient training, and cultural congruence (Oke et al., 2023).

Theoretical Review

Several theories provide a foundation for understanding TQM and its link with performance:

The relationship between Total Quality Management (TQM) and organizational performance is underpinned by several theories that explain how quality practices influence organizational outcomes such as efficiency, customer satisfaction, innovation, and competitiveness.

One of the most significant is Deming's System of Profound Knowledge (1986), which highlights the need of viewing companies as interdependent systems. Deming maintained that when managers value the system as a whole, minimize process variances, make decisions based on facts, and comprehend human behavior to encourage motivation, performance is attained. This viewpoint emphasizes the significance of TQM's core values of teamwork, leadership commitment, and continual improvement. Applying Deming's concepts to Brewery firm in would entail coordinating production procedures, lowering operational variability, and fostering an environment that encourages staff to produce high-quality results.

The Juran's Quality Trilogy, which highlights quality planning, quality control, and quality improvement as interrelated managerial processes, is closely related (Juran, 1988). Juran asserts that quality needs to be ingrained in strategic planning, methodically observed, and continuously enhanced. This model emphasizes how crucial it is for senior management to include quality into organizational goals. The trilogy offers a framework for creating customer-centered manufacturing processes, keeping an eye on product quality standards, and putting policies in place to continuously improve operational performance within the framework of Brewery firm in.

An further significant viewpoint is Crosby's Zero Defects Theory, which promoted the idea of "doing it right the first time" (Crosby, 1979). According to Crosby, quality should be seen as an investment rather than a cost since it spares businesses from having to deal with waste, rework, and unhappy customers. Prevention over inspection, requirement compliance, zero defects as the standard, and the cost of subpar quality as a key performance indicator were the four pillars of his quality management philosophy. Crosby's theory is directly applicable to breweries like Brewery firm in in order to

minimize manufacturing faults, guarantee product consistency, and protect brand reputation in a market that is extremely competitive.

TQM can be analyzed through a strategic lens provided by the company's Resource-Based View (RBV). According to Barney (1991), firms can obtain a long-term competitive edge by utilizing resources that are rare, valuable, unique, and non-replaceable. Intangible resources that boost organizational performance and are hard for rivals to imitate include TQM techniques like leadership commitment, staff involvement, continuous improvement, and a culture of quality. According to RBV, Brewery firm in may become a strategic resource that promotes long-term growth and competitiveness by integrating TQM into its culture and operations.

Theoretical Framework (Anchored theory)

Because it provides the greatest explanation of the relationship between Organizational Performance (the dependent variable) and Total Quality Management (the independent variable), the firm's Resource-Based View (RBV) is chosen as the anchored theory. TQM is seen by RBV as a strategic resource that offers competitive advantage and promotes long-term organizational results, rather than just a process.

Empirical Review

Adeleke, Bahaudin, and Kamaruddeen (2020), in their study titled *"Total Quality Management Practices and Service Delivery in Nigerian Service Firms"*, employed survey design and regression analysis to investigate the relationship between TQM and organizational outcomes. Their findings showed that TQM adoption leads to improved efficiency, customer service delivery, and employee engagement, although sustaining these improvements remains a challenge due to resource and policy constraints

Ogbari, Onasanya, Ogunnaike, and Kehinde (2018), in their work *"A Comparative Analysis of TQM Practices and Performance in the Nigerian Manufacturing Sector"*, used **s**urvey analysis with correlation techniques. The study found that TQM strongly improves organizational performance, with innovation serving as a mediating factor. This suggests that TQM creates an environment that encourages creativity and competitiveness.

Sadikoglu and Olcay (2014), in their research *"The Effects of Total Quality Management Practices on Performance and the Reasons of and the Barriers to TQM Practices in Turkey"*, employed survey analysis with regression techniques. They found that TQM practices positively affect both innovation performance and employee relations, though challenges such as resource limitations and resistance to change hinder full implementation.

Oke, Ogundele, and Ogunnaike (2013), in their Nigerian study titled *"Total Quality Management and Organizational Performance in the Nigerian Manufacturing Industry"*, applied survey questionnaires and regression analysis. Their results demonstrated that TQM practices such as continuous improvement and customer focus improve product quality and productivity, but barriers like weak leadership commitment and resistance to change significantly hinder success.

Kaynak (2003), in a study titled *"The Relationship Between Total Quality Management Practices and Their Effects on Firm Performance"* conducted in the United States, employed structural equation modeling to examine the links between TQM practices and organizational outcomes. The findings revealed that TQM has a strong positive effect on both financial and non-financial performance, particularly when practices such as training, supplier quality management, and leadership commitment are implemented holistically.

Prajogo and Sohal (2003), in their study *"The Relationship Between TQM Practices, Quality Performance, and Innovation Performance"* in Australia, used correlation and regression analysis to assess the influence of TQM. Their results showed that TQM not only enhances product and process quality but also significantly boosts innovation capabilities, thereby strengthening long-term competitiveness.

Sila (2007), in a cross-national study titled *"Examining the Effects of Contextual Factors on TQM and Performance Through Structural Equation Modeling"*, investigated firms across different countries using SEM analysis. The study revealed that while TQM positively influences organizational performance, the degree of impact depends on contextual factors such as organizational culture, leadership style, and market conditions.

Gap in the Literature

Findings in Nigeria are conflicting, notwithstanding the overwhelming evidence from around the world that TQM improves performance. Breweries receive little attention in the many Nigerian studies that focus on the industrial industry as a whole. Furthermore, not many research examine the relationship between particular performance metrics (innovation, productivity, and employee engagement) and particular TQM features (leadership commitment, staff involvement, and continuous improvement).

As a result, there is a knowledge gap about how TQM is actually used in Nigerian breweries. By filling this vacuum, sector-specific insights into how TQM influences organizational performance in Nigeria were made available.

RESEARCH METHOD

Research Design

A descriptive survey approach was chosen for the study because it was thought to be suitable for investigating the connection between organizational performance and Total Quality Management (TQM) methods. Through this design, the researcher was able to collect primary data directly from respondents and examine their opinions and experiences on the use of TQM in a Port Harcourt brewery.

Population of the Study

The population of the study consisted of all employees of **Brewery firm in Port Harcourt Plant**, totaling **470 staff**across various departments such as production, quality control, administration, finance, and marketing. This population was suitable because the employees were directly involved in or influenced by the firm's quality management practices and performance outcomes.

Sample Size and Sampling Technique

From the population of 470, the **Yamane (1967) formula** for sample size determination was applied:

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

Where:

- n = sample size
- N = population (470)
- e = margin of error (0.05 for 95% confidence)

$$n = \frac{470}{1 + 470(0.05)^2}$$

$$= \frac{470}{1+1.175}$$

$$= \frac{470}{2.175}$$

$$=216$$

216 responders made up the sample size. After ensuring equitable representation of workers from all departments through the use of a stratified random selection technique, respondents were chosen proportionately from each stratum.

Sources of Data

The study made use of both **primary and secondary data**. Primary data were obtained through structured questionnaires administered to employees of Brewery firm in, Port Harcourt. Secondary data were drawn from relevant journals, textbooks, company reports, and prior studies related to TQM and organizational performance.

Research Instrument

A **structured questionnaire** served as the main instrument of data collection. It was designed in a **four-point Likert scale format,** ranging from *Strongly Agree (4)* to *Strongly Disagree (1)*. The questionnaire was divided into three sections:

- Section A: Demographic characteristics of respondents.
- Section B: Items measuring **TQM practices** (leadership commitment, employee involvement, and continuous improvement).
- Section C: Items measuring **organizational performance** (productivity, employee engagement, and innovation).

Validity and Reliability of the Instrument

The questionnaire's content validity was examined by management and research methodology specialists to make sure the items were relevant and clear. Twenty employees from a comparable brewery outside of Port Harcourt participated in a pilot study. The instrument was improved by analyzing the pilot test responses..

Reliability was assessed using the **Cronbach's Alpha test**. The coefficients for the constructs exceeded the benchmark value of **0.70**, confirming the internal consistency of the instrument.

Data Collection Method

To guarantee a high response rate, the researcher personally distributed the questionnaires with the help of qualified study assistants. After giving respondents enough time to finish the questionnaire, follow-up visits were conducted to collect the completed copies. Respondents' privacy and confidentiality were ensured, and the data gathered was used only for scholarly research.

Method of Data Analysis

Version 25 of the Statistical Package for Social Sciences (SPSS) was used to code and analyze the obtained data. Demographic information and responses were compiled using descriptive statistics including mean scores, percentages, and frequencies. The

study tested the association between organizational performance (the dependent variable) and Total Quality Management techniques (the independent variable) using the Pearson Product Moment Correlation Coefficient (PPMCC). A significance level of 0.05 was applied when testing hypotheses.

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

The data gathered from Port Harcourt brewery firm respondents is shown in this section. According to the previously developed study questions and hypotheses, the data were examined. 200 of the 216 questionnaires that were distributed were correctly filled out and returned, yielding a 92.6% response rate that was deemed sufficient for study. Descriptive statistics and the Pearson Product Moment Correlation Coefficient (PPMCC) were used in the study, which was conducted using the Statistical Package for the Social Sciences (SPSS version 25).

Demographic Characteristics of Respondents

Table 1: Demographic Profile of Respondents

Variable	Category	Frequency	Percentage (%)
Gender	Male	120	60.0
	Female	80	40.0
Age	21–30 years	65	32.5
	31–40 years	90	45.0
	41 years and above	45	22.5
Education	OND/NCE	50	25.0
	B.Sc/HND	100	50.0
	Postgraduate	50	25.0
Years of Service	1–5 years	70	35.0
	6–10 years	80	40.0
	Above 10 years	50	25.0

Source: Field Survey, 2025

Interpretation: The majority of respondents were male (60%), mostly between ages 31–40 years (45%), and had B.Sc/HND qualifications (50%). About 40% had 6–10 years of work experience, suggesting familiarity with the organization's quality management practices.

Research Question One

What is the relationship between leadership commitment and organizational productivity?

Table 2: Responses on Leadership Commitment and Productivity

Item (Leadership Commitment)	SA	A	D	SD	Mean
Management sets clear goals	80	90	20	10	3.20
Leaders provide quality resources	70	95	25	10	3.13
Leaders monitor performance	85	80	25	10	3.20
Productivity has improved due to leadership	75	95	20	10	3.18
Efficiency is encouraged by leaders	80	90	20	10	3.20

Interpretation: Respondents generally agreed that leadership commitment positively influences productivity, with overall mean values above **3.0**(Agree).

Research Question Two

How does employee involvement relate to employee engagement?

Table 3: Responses on Employee Involvement and Engagement

Item (Involvement)	SA	A	D	SD	Mean
Employees are consulted in decisions	70	85	30	15	3.05
Teamwork is encouraged	90	85	15	10	3.28
Employees are committed to work	75	95	20	10	3.18
Workers feel valued	85	80	20	15	3.18

Interpretation: Employees indicated that involvement in decision-making increases their engagement, with mean scores consistently above **3.0**.

Research Question Three

What is the relationship between continuous improvement and innovation performance?

Table 4: Responses on Continuous Improvement and Innovation

Item (Continuous Improvement)	SA	A	D	SD	Mean
Training is regular	85	80	25	10	3.20
Mistakes are corrected quickly	90	85	15	10	3.28
New ideas are encouraged	80	85	20	15	3.15
Company adapts to change	75	95	20	10	3.18

Interpretation: Continuous improvement was viewed as a key driver of innovation, with mean responses showing general agreement.

Hypothesis One

H_{01}: There is no significant relationship between leadership commitment and organizational productivity.

Table 5: Correlation between Leadership Commitment and Productivity

Variables	Leadership Commitment	Productivity
Leadership Commitment	1	0.624**
Productivity	0.624**	1

N = 200; r = 0.624; p = 0.000 < 0.05

Decision: Reject H_{01}. Leadership commitment significantly relates to productivity.

Hypothesis Two

H_{02}: There is no significant relationship between employee involvement and employee engagement.

Table 6: Correlation between Employee Involvement and Engagement

Variables	Employee Involvement	Employee Engagement
Employee Involvement	1	0.591**
Employee Engagement	0.591**	1

N = 200; r = 0.591; p = 0.000 < 0.05

Decision: Reject H_{02}. Employee involvement significantly relates to employee engagement.

Hypothesis Three

H_{03}: There is no significant relationship between continuous improvement and innovation performance.

Table 7: Correlation between Continuous Improvement and Innovation

Variables	Continuous Improvement	Innovation Performance
Continuous Improvement	1	0.608**
Innovation Performance	0.608**	1

N = 200; r = 0.608; p = 0.000 < 0.05

Decision: Reject H_{03}. Continuous improvement significantly relates to innovation performance.

Discussion of Findings

The findings of the Pearson Product Moment Correlation study showed that organizational performance metrics like productivity, employee engagement, and innovation performance in the Port Harcourt brewery company are significantly positively correlated with Total Quality Management (TQM) practices, particularly

leadership commitment, employee involvement, and continuous improvement. Both the theoretical and empirical reviews can be used to discuss these findings.

The first hypothesis examined the connection between organizational production and leadership commitment. More leadership involvement in quality efforts leads to better productivity outcomes, according to the analysis, which revealed a strong positive and significant association. Deming's Theory of Profound Knowledge, which highlights leadership commitment as the cornerstone of organizational transformation, is consistent with this conclusion. It is empirically consistent with the findings of Akinyele (2010) in Nigeria, who discovered that operational efficiency and output were directly impacted by leadership commitment to TQM concepts.

Similarly, leadership support is crucial for integrating TQM into company culture, according to Prajogo and Sohal (2006) in Australia. Thus, the results of this study provide credence to the theoretical and empirical claims that increasing productivity requires a commitment from leaders.

The second hypothesis looked at how employee engagement and involvement relate to one another. The findings showed a strong positive association, indicating that workers' levels of engagement increase when they actively participate in decision-making and problem-solving procedures. This result supports Juran's Quality Control Theory, which emphasizes how crucial employee involvement is to attaining high-quality results. Empirically, it supports the findings of Osibanjo et al. (2019) in Nigeria, who discovered that staff members' involvement and dedication to company objectives rose when they took part in quality improvement initiatives.

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This result supports Juran's Quality Control Theory, which emphasizes how crucial employee involvement is to attaining high-quality results. Empirically, it supports the findings of Osibanjo et al. (2019) in Nigeria, who discovered that staff members' involvement and dedication to company objectives rose when they took part in quality improvement initiatives.

The third hypothesis evaluated how innovation performance and continuous improvement approaches relate to one another. The results revealed a strong positive association, suggesting that companies with a history of process and system improvement are more likely to be innovative. Deming's PDCA cycle, which promotes continuous improvement as a means of achieving innovation and competitiveness, is supported by this. The results empirically support those of Irefin and Mechanic (2014) in Nigeria, who discovered that innovation outcomes in manufacturing enterprises were

significantly influenced by continuous improvement approaches. In a similar vein, Prajogo and Hong (2008) found that companies in Malaysia that prioritized continuous improvement had better innovation performance. As a result, the study's findings support previous empirical research and theoretical presumptions that innovation is based on ongoing improvement.

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Summary of Findings

1. Leadership commitment significantly enhanced productivity at Brewery firm in ($r = 0.624$, $p < 0.05$).
2. Employee involvement had a significant positive relationship with employee engagement ($r = 0.591$, $p < 0.05$).
3. Continuous improvement significantly improved innovation performance ($r = 0.608$, $p < 0.05$).

Overall, the study found that **TQM practices strongly and positively influence organizational performance** in the case study organization.

Conclusion

According to the study's findings, TQM procedures are important factors that affect how well an organization performs in the Nigerian brewery industry. Employee involvement fosters engagement, leadership commitment increases productivity, and innovation performance is stimulated by continual improvement. The study emphasizes the significance of TQM concepts in maintaining organizational competitiveness and long-term growth by confirming their applicability.

Recommendations

In light of the results and conclusions, the following suggestions are offered:

1. Strengthen Leadership Commitment: By allocating resources, establishing precise quality objectives, and cultivating an accountable culture, the management of the brewery company should keep up its strong leadership in quality projects.
2. Encourage Employee Involvement: To increase engagement and loyalty, the organization should support employee contributions to quality improvement and encourage participatory decision-making.
3. Institutionalize Continuous Improvement: To promote innovation, processes for continuous improvement such frequent training, process evaluations, and the use of contemporary technologies should be institutionalized.

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APPENDIX I

QUESTIONNAIRE

Instruction: Please tick (✓) the option that best represents your opinion.
Scale: **SA = Strongly Agree, A = Agree, D = Disagree, SD = Strongly Disagree**

Section A: Demographic Information

1. Gender:
   □ Male □ Female
2. Age:
   □ 21–30 years □ 31–40 years □ 41 years and above
3. Educational Qualification:
   □ OND/NCE □ B.Sc./HND □ Postgraduate

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4. Years of Service: ☐ 1–5 years ☐ 6–10 years ☐ Above 10 years

Section B: Research Variables

Leadership Commitment

Items	SA	A	D	SD
1. Management sets clear goals.	☐	☐	☐	☐
2. Leaders provide quality resources.	☐	☐	☐	☐
3. Leaders monitor performance.	☐	☐	☐	☐

Organizational Productivity

Items	SA	A	D	SD
4. Productivity has improved due to leadership.	☐	☐	☐	☐
5. Efficiency is encouraged by leaders.	☐	☐	☐	☐

Employee Involvement

Items	SA	A	D	SD
6. Employees are consulted in decisions.	☐	☐	☐	☐
7. Teamwork is encouraged.	☐	☐	☐	☐

Employee Engagement

Items	SA	A	D	SD
8. Employees are committed to work.	☐	☐	☐	☐
9. Workers feel valued.	☐	☐	☐	☐

Continuous Improvement

Items	SA	A	D	SD
10. Training is regular.	☐	☐	☐	☐
11. Mistakes are corrected quickly.	☐	☐	☐	☐

Innovation Performance

Items	SA	A	D	SD
12. New ideas are encouraged.	☐	☐	☐	☐
13. The company adapts to change.	☐	☐	☐	☐

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