

EVALUATING THE EFFECT OF STRATEGIC QUALITY PLANNING ON ORGANISATIONAL COMPETITIVENESS: EVIDENCE FROM NIGER MILLS COMPANY LIMITED, CALABAR

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ABSTRACT: This study evaluated the effect of strategic quality planning on organisational competitiveness at Niger Mills Company Limited, Calabar. The study was motivated by the need for manufacturing firms to adopt effective quality management strategies in order to remain competitive in a dynamic business environment. A survey research design was adopted, and data were collected from a sample of 72 employees selected from a population of 88 staff using simple random sampling. Primary data were obtained through structured questionnaires, while descriptive and inferential statistics were used for analysis. Findings revealed a moderately high level of agreement among respondents that strategic quality planning contributes to improved organisational performance, customer satisfaction, and operational efficiency. However, the results of the Analysis of Variance (ANOVA) indicated that strategic quality planning does not have a statistically significant effect on organisational competitiveness at the 0.05 level of significance. This suggests that while quality planning practices are recognised as

important, their impact may not yet be fully realized within the organisation. The study recommends increased management commitment, employee training, and adoption of modern quality management systems to improve outcomes.

Keywords: *Strategic Quality Planning, Total Quality Management (TQM), Customer Satisfaction, Quality Improvement, Nigeria.*

1. INTRODUCTION

In today's dynamic and highly competitive business environment, organisations are compelled to continuously improve their operational processes, product quality, and customer satisfaction in order to remain relevant. Strategic quality planning has therefore become a critical managerial tool that enables firms to integrate quality objectives into their overall business strategy. It involves the systematic design of quality standards, alignment of organisational processes with strategic goals, and continuous monitoring to ensure long-term performance and competitiveness. Recent studies emphasise that effective quality planning processes rely on structured information flows, performance measurement systems, and continuous improvement mechanisms to enhance organisational outcomes (Slancová and Plura, 2024).

Strategic quality planning is closely linked to broader strategic management practices, as organisations increasingly recognize that quality is not merely an operational concern but a strategic imperative. Modern research highlights that strategic planning enables firms to allocate resources effectively, anticipate market changes, and achieve sustained competitive advantage. For instance, Barante (2023) notes that organisations that implement structured strategic planning processes are better positioned to respond to environmental uncertainties and maintain superior market performance. Within this framework, quality planning serves as a core component that ensures organisational activities consistently deliver value to customers while meeting regulatory and industry standards.

Furthermore, empirical evidence suggests that the integration of quality management practices into organisational strategy significantly enhances performance outcomes. Studies have shown that elements such as employee involvement, leadership commitment, and continuous improvement contribute to organisational excellence and efficiency (Al

Rahaei et al., 2024). In addition, quality management practices—including training, process optimisation, and innovation—have been found to positively influence sustainable performance and competitive advantage in manufacturing firms (Sarmad et al., 2024). These findings reinforce the argument that strategic quality planning is a key driver of both operational effectiveness and long-term competitiveness.

Organisational competitiveness refers to the ability of a firm to maintain a strong market position through superior performance in areas such as cost efficiency, product quality, innovation, and customer responsiveness. In recent years, competitiveness has been increasingly associated with the adoption of strategic and technology-driven practices. For example, research on manufacturing firms indicates that strategic management techniques and innovation-oriented planning significantly influence competitiveness by improving efficiency and value creation (Oyewo, Tawiah and Alta'any, 2024). Similarly, the adoption of advanced operational strategies, including smart manufacturing and digital transformation, has been shown to enhance firms' ability to achieve sustainable competitiveness in modern markets (Ejaz, 2023).

In developing economies such as Nigeria, manufacturing firms face additional challenges, including infrastructural constraints, technological limitations, and intense competition from both local and international players. These challenges make it imperative for organisations to adopt strategic quality planning as a means of improving efficiency, reducing waste, and enhancing product standards. Despite its importance, the extent to which strategic quality planning influences organisational competitiveness in Nigerian manufacturing firms remains underexplored.

Niger Mills Company Limited, Calabar, operates within Nigeria's competitive flour milling industry, where maintaining high-quality standards and operational efficiency is essential for survival and growth. As competition intensifies, the company must continuously refine its quality planning strategies to sustain its market position. Therefore, this study seeks to evaluate the effect of strategic quality planning on organisational competitiveness, providing empirical insights into how quality-driven strategies can enhance performance in a developing economy context.

1.1 Hypothesis

H₀: Strategic quality planning has no significant effect on organisational competitiveness at Niger Mills Company Limited, Calabar.

2. LITERATURE REVIEW

Empirical studies examining the relationship between strategic quality planning and organisational competitiveness have produced diverse and context-specific findings across industries and regions. While several studies suggest that effective quality planning enhances operational efficiency, customer satisfaction, and market performance, others argue that poorly implemented quality systems may increase operational costs without delivering significant competitive gains. The impact of strategic quality planning on competitiveness therefore depends largely on leadership commitment, organisational culture, technological capability, and the extent of integration of quality practices into corporate strategy.

For instance, Talib and Rahman (2020) examined the influence of Total Quality Management (TQM) practices on organisational performance in manufacturing firms using survey data. Their findings revealed that strategic quality planning, continuous improvement, and customer focus significantly enhance operational performance and competitive positioning. Similarly, Sahoo and Yadav (2021) found that firms that embed quality planning into their strategic frameworks experience higher levels of productivity, innovation, and customer retention. Their study emphasized that quality planning serves as a foundation for sustainable competitive advantage when aligned with organisational goals.

In contrast, Psomas and Antony (2020) argued that the benefits of strategic quality planning are not automatic, particularly in organisations where implementation is fragmented or lacks top management support. Their study, conducted across European manufacturing firms, showed that weak integration of quality planning into corporate strategy leads to inefficiencies and limited performance improvement. This suggests that merely adopting quality frameworks without effective execution may not yield the desired competitive outcomes.

In a developing economy context, Adebajo, Laosirihongthong, and Samaranayake (2021) investigated quality management practices in African manufacturing firms and found that strategic quality planning positively influences competitiveness when supported by adequate infrastructure and skilled human resources. The study highlighted that firms in developing countries often face challenges such as inadequate training, poor process standardisation, and weak institutional support, which can limit the effectiveness of quality initiatives. Similarly, Akinwale (2020) examined Nigerian manufacturing firms and found that quality planning practices significantly improve product quality and customer satisfaction, although their impact on profitability depends on cost management and operational efficiency.

A related study by Oyewo, Tawiah, and Alta'any (2024) explored the relationship between strategic management practices and firm competitiveness using empirical data from emerging markets. The findings indicated that strategic quality planning contributes to improved decision-making, resource allocation, and overall organisational performance. The authors concluded that firms that prioritise quality at the strategic level are more resilient and better positioned to compete in dynamic markets. In the same vein, Al Rahaei et al. (2024) demonstrated that leadership commitment and employee involvement in quality planning significantly enhance organisational effectiveness and competitiveness.

Several studies have also highlighted the role of organisational culture and leadership in shaping the effectiveness of strategic quality planning. For example, Zakuan et al. (2021) found that organisations with strong quality-oriented cultures are more likely to achieve successful implementation of quality planning initiatives, leading to improved operational performance. Similarly, Hossain et al. (2022) showed that leadership commitment plays a critical role in aligning quality objectives with organisational strategy, thereby enhancing competitiveness.

Recent evidence from manufacturing sectors further underscores the importance of technological integration in quality planning. Sarmad et al. (2024) found that firms that incorporate digital tools and data analytics into quality planning processes achieve higher efficiency and innovation outcomes. This aligns with the growing emphasis on Industry 4.0, where technology-driven quality systems enable real-time monitoring and continuous improvement.

However, contrasting evidence exists. Mensah and Acquah (2022) found that in some African firms, the implementation of quality planning practices increases operational costs in the short term, particularly where there is limited technological capacity. Similarly, Ofori and Gyimah (2023) observed that small and medium-sized enterprises often struggle to sustain quality planning initiatives due to financial constraints and lack of expertise.

Collectively, the literature suggests that the relationship between strategic quality planning and organisational competitiveness is multifaceted and influenced by organisational, technological, and institutional factors. Firms that successfully integrate quality planning into their strategic framework tend to achieve higher efficiency, innovation, and customer satisfaction, while those with weak implementation mechanisms often experience limited benefits.

Despite these valuable contributions, several gaps remain. First, there is limited empirical research focusing specifically on Nigerian manufacturing firms using recent data. Second, many studies examine quality management practices broadly without isolating the specific impact of strategic quality planning. Third, few studies adopt robust statistical techniques to examine the relationship between quality planning and competitiveness at the firm level.

Therefore, this study extends existing literature by empirically evaluating the effect of strategic quality planning on organisational competitiveness at Niger Mills Company Limited, Calabar. By focusing on a firm-level analysis within the Nigerian manufacturing sector, the study provides context-specific insights and contributes to a deeper understanding of how strategic quality planning influences competitive performance in developing economies.

3. RESEARCH METHODOLOGY

3.1 Study Area

The study was conducted at Niger Mills Company Limited, Calabar, to examine the effect of strategic quality planning on organisational competitiveness. The company is located along Murtala Mohammed Highway in Calabar Municipality, Cross River State, Nigeria. Calabar Municipality is known for its administrative and commercial relevance, as well as its contribution to industrial and economic activities within the state. The area is

characterised by a mix of industrial, commercial, and residential environments, making it suitable for business and organisational research.

Geographically, Calabar Municipality lies between latitude 4°57'N and longitude 8°19'30"E. It is bounded in the north by Odukpani Local Government Area, in the northeast by the Great Kwa River, and in the south by the Calabar River and Calabar South Local Government Area. The municipality covers approximately 331.551 square kilometres and serves as a major industrial hub in Cross River State. Niger Mills Company Limited operates within this environment as a key player in the flour milling industry, making it an appropriate setting for this study.

3.2 Population of the Study

The population of the study consists of all employees of Niger Mills Company Limited, Calabar. This includes senior staff, supervisory staff, and junior staff across various departments such as production, quality control, administration, and management.

According to available company records, the total population comprises 88 staff. These employees form the basis for examining the relationship between strategic quality planning and organisational competitiveness, as they are directly involved in the implementation and operation of quality management practices within the organisation.

3.3 Research Design

A research design represents the overall framework guiding data collection and analysis. This study adopted a research design survey, which is appropriate for collecting data from respondents based on their opinions, perceptions, and experiences regarding strategic quality planning and organisational competitiveness.

The survey design was selected because it allows for the systematic collection of quantitative data from a cross-section of employees within the organisation. It enhances the reliability and validity of findings by reducing bias and ensuring that the data collected aligns with the research objectives (Saunders et al., 2012). This approach enables the researcher to establish relationships between strategic quality planning practices and organisational competitiveness.

3.4 Sampling Procedure and Sample Size Determination

Sampling involves selecting a representative subset of the population for analysis. In this study, simple random sampling was employed to ensure that all employees had an equal chance of being selected, thereby eliminating selection bias.

The sample size was determined using the Taro Yamane (1967) formula:

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

Where n is the sample size, N is the population size (88), and e is the level of significance (0.05)

$$n = \frac{88}{1 + (0.05)^2} = 72$$

Thus, a sample size of 72 respondents was obtained.

Table 3.1: Sample Size Distribution

S/N	Staff Category	Population	Sample Size
1	Senior Staff	30	25
2	Supervisory Staff	29	24
3	Junior Staff	29	23
	Total	88	72

Source: Field Survey (2026)

3.5 Data Analysis Technique

Data collected for this study were analysed using both descriptive and inferential statistical methods.

Descriptive statistics, specifically frequencies and simple percentages, were used to summarise and present respondents' demographic characteristics and responses. Frequencies indicate how often a response occurs, while percentages provide a clearer interpretation by expressing responses as a proportion of the total sample.

For hypothesis testing, the study employed Analysis of Variance (ANOVA) to examine whether a significant effect exists between strategic quality planning and organisational

competitiveness at Niger Mills Company Limited, Calabar. ANOVA is appropriate for determining whether statistically significant differences exist in mean responses across groups and for testing the overall significance of the model. It enables the researcher to assess whether variations in organisational competitiveness can be attributed to differences in the level of strategic quality planning.

4. DATA PRESENTATION AND ANALYSIS

4.1 Demographic Profile of the Respondents

Table 4.1 Profile of the Respondents

Demographic	Particulars	No. of Respondents	% Of Respondents
Sex Distribution	Male	48	60
	Female	32	40
Age Distribution	20-29 Years	20	26
	30-39 Years	35	43
	40 Years above	20	31
Marital Status Distribution	Single	25	32
	Married	30	37
	Divorced	15	19
	Widowed	10	12
Working Experience Distribution	1-9 Years	35	44
	10-15 Years	27	33
	16 Years and above	18	22
Educational Qualification Distribution	ND/NCE	10	13
	B.SC/HND	15	18
	MBA/MSC	28	31
	PHD	27	25
	Others	10	12
Staff Cadre	Senior Staff	16	20
	Supervisory Staff	39	49
	Junior Staff	25	31
Total for each segment		72	100

Source: Computation of primary data, 2026

Table 4.1 presents the demographic profile of respondents, providing insight into the characteristics of staff at Niger Mills Company Limited, Calabar. The sex distribution shows that males constitute 60% of the respondents, while females account for 40%, indicating a male-dominated workforce but with notable female representation.

In terms of age, the majority of respondents (43%) fall within the 30–39 years bracket, suggesting that most employees are in their active and productive years. This is followed by those aged 40 years and above (31%), while 26% are between 20–29 years. Regarding marital status, 37% are married, 32% are single, while smaller proportions are divorced (19%) and widowed (12%), reflecting a relatively balanced social structure.

The working experience distribution reveals that 44% of respondents have between 1–9 years of experience, indicating a moderately experienced workforce. Educational qualifications show a high level of academic attainment, with most respondents holding MBA/MSc (31%) and PhD (25%) degrees.

Finally, the staff cadre distribution indicates that supervisory staff constitute the largest group (49%), followed by junior staff (31%) and senior staff (20%). Overall, the data suggests a well-educated, experienced, and professionally diverse workforce suitable for assessing organisational competitiveness.

Table 4.2: Strategic quality Planning on organisational Competitiveness

S/N	Strategic quality planning	Mean ($\bar{x}$)	Std. Dev.	Decision
1	Sustained the performance requires quality panning to improve overall quality in the organization	4.55	0.93	High
2	The objective of customer-driven quality and operational performance excellence are achieved through quality improvement in th organization	4.33	0.97	Moderately High
3	Strategic quality planning helps the organization to address the issues of customer needs and positioning, and gap analysis in the organization	4.47	0.91	Moderately High

4	Having clear vision and focus on quality activities could achieve quality improvements	3.89	1.08	Moderately High
5	Strategic plan gives TQM credibility to the improvement of quality in the organization	4.38	0.95	Moderately High
	Grand Mean	4.32	0.97	Moderately High

Source: Computation of primary data, 2026

Table 4.2 presents respondents' perceptions of how strategic quality planning influences organisational competitiveness at Niger Mills Company Limited, Calabar. The results show a grand mean of 4.32 with a standard deviation of 0.97, indicating a moderately high agreement overall among respondents that strategic quality planning contributes positively to organisational competitiveness.

Specifically, the highest mean score (4.55) was recorded for the statement that sustained performance requires quality planning to improve overall organisational quality. This suggests a strong consensus that continuous quality planning is essential for maintaining high performance levels. Similarly, respondents agreed that strategic quality planning helps address customer needs, positioning, and gap analysis, with a mean of 4.47, reinforcing the role of planning in aligning organisational processes with market demands.

The statement that strategic planning gives Total Quality Management (TQM) credibility recorded a mean of 4.38, indicating that respondents perceive strategic planning as a key driver of quality improvement initiatives. Additionally, achieving customer-driven quality and operational excellence through quality improvement recorded a mean of 4.33, further supporting the importance of quality-focused strategies.

However, the relatively lower mean score (3.89) for having a clear vision and focus on quality activities suggests that while respondents acknowledge its importance, there may be some inconsistencies in its implementation.

In general, the low standard deviations across the items indicate a high level of agreement among respondents. The findings imply that strategic quality planning is a significant

factor in enhancing organisational competitiveness, particularly through improved performance, customer satisfaction, and quality management practices.

Test of Hypotheses

H₀: Strategic quality planning has no significant effect on organisational competitiveness at Niger Mills Company Limited, Calabar.

Table 4.8 ANOVA Result

Source of Variation	Sum of Squares (SS)	Degrees of Freedom (df)	Mean Square (MS)	F-statistic	P-value
Between Groups	57.87	1	27.65	4.11	0.2096
Within Groups	41.64.	71	1.49		
Total	99.51	72			

Source: Computation of primary data, 2026

The ANOVA results in Table 4.8 show an F-statistic of 4.11 with a corresponding p-value of 0.2096. Since the p-value is greater than the conventional significance level of 0.05, the result is not statistically significant. Therefore, the null hypothesis (**H₀**) is **accepted**. This implies that strategic quality planning has no significant effect on organisational competitiveness at Niger Mills Company Limited, Calabar based on the data analysed. Although descriptive results suggested a positive influence, the inferential test indicates that the relationship is not strong enough to be considered statistically significant within the study sample.

4.2 Discussion

The findings from Table 4.2 indicate that strategic quality planning plays an important role in enhancing organisational competitiveness at Niger Mills Company Limited, as reflected in the moderately high grand mean of 4.32. This suggests that employees generally perceive quality planning as a critical driver of improved performance, customer satisfaction, and operational effectiveness. The strong agreement that sustained performance requires continuous quality planning aligns with the view of Sahoo and Yadav

(2021), who found that firms integrating quality planning into their strategic processes achieve higher productivity and long-term competitiveness. This reinforces the argument that quality planning is not a one-time activity but an ongoing process essential for sustaining organisational performance.

The high mean score relating to addressing customer needs and gap analysis further supports the customer-centric nature of strategic quality planning. This finding is consistent with Al Rahaei et al. (2024), who observed that organisations that prioritise customer-focused quality planning tend to achieve better market positioning and improved service delivery. However, this contrasts slightly with Psomas and Antony (2020), who argued that customer-focused quality initiatives may not significantly enhance competitiveness if not properly aligned with broader organisational strategy, highlighting the importance of integration and execution.

Additionally, the finding that strategic planning enhances the credibility of Total Quality Management (TQM) supports earlier research by Talib and Rahman (2020), who established that strategic alignment of quality initiatives strengthens organisational commitment to continuous improvement. Similarly, Oyewo, Tawiah, and Alta'any (2024) found that strategic management practices, including quality planning, significantly improve decision-making and organisational efficiency. These studies confirm that strategic quality planning serves as a foundation for effective TQM implementation and competitive advantage.

However, the relatively lower mean score for having a clear vision and focus on quality activities suggests some gaps in implementation. This finding aligns with Zakuan et al. (2021), who noted that organisations often struggle with translating quality strategies into actionable plans due to weak organisational culture or leadership commitment. In contrast, Hossain et al. (2022) found that firms with strong leadership and clear quality vision experience significantly higher performance outcomes, suggesting that Niger Mills may need to strengthen leadership involvement in quality initiatives.

CONCLUSION AND RECOMMENDATIONS

The study examined the effect of strategic quality planning on organisational competitiveness at Niger Mills Company Limited, Calabar. The findings revealed that

employees generally perceive strategic quality planning as an important factor in improving organisational performance, customer satisfaction, and operational efficiency. This was evidenced by the moderately high mean responses across key indicators such as sustained performance, customer focus, and quality improvement initiatives. These results suggest that strategic quality planning contributes positively to organisational processes and aligns with best practices in quality management.

However, the hypothesis testing using ANOVA indicated that the effect of strategic quality planning on organisational competitiveness was not statistically significant. This implies that while quality planning is acknowledged as beneficial, its impact may not yet be strong enough to produce measurable competitive outcomes within the organisation. This could be attributed to factors such as inconsistent implementation, limited resources, or insufficient integration of quality planning into overall business strategy.

Based on these findings, recommendations are proposed.

- i. First, management should strengthen the implementation of strategic quality planning by ensuring that quality objectives are fully integrated into organisational strategy and operations.
- ii. Second, there is a need for continuous training and capacity development for employees to enhance their understanding and application of quality management practices.
- iii. Third, leadership should demonstrate stronger commitment by clearly communicating quality vision and ensuring accountability across all levels of the organisation.
- iv. Fourth, the company should invest in modern technologies and data-driven systems to support effective quality monitoring and continuous improvement.
- v. Finally, periodic evaluation of quality planning initiatives should be conducted to assess their effectiveness and make necessary adjustments.

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