

Quality Management Practices and Competitiveness of Manufacturing Industries in Uganda: A Case Study of Mukwano Industries (U) Limited

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ABSTRACT

This study investigated the interconnections between quality management practices and competitiveness in manufacturing industries with particular reference to Mukwano Industries Uganda Limited. The study is grounded in the Total Quality Management (TQM) Theory, with it being established that continuous improvement, customer focus, and systematic process control are the key enablers of sustainable competitive advantage. The study was inspired by rising competitive forces from dominant companies in the East and Central African Common Market. The research has, in particular, been motivated to establish the correlation between quality planning and competitiveness, analyse the relevance of quality control to competitiveness, and analyse the contribution of quality improvement to organizational competitiveness. To ensure a holistic analysis, the case study research design was used in combination with a mixed-methods design. Data was collected from 66 respondents randomly selected from a target population of 80 employees. Quantitative data were analyzed using SPSS version 26, with descriptive statistics (frequencies, percentages, means, and standard deviations) and inferential statistics, particularly Pearson correlation analysis, used for determining the strength and significance of relationships among variables. Qualitative data included semi-structured interviews and open-ended questionnaire responses that were analyzed for thematic content using systematic coding, categorization, and the interpretation of emerging themes. Quality planning and quality improvement have statistically significant and positive relationships with organizational competitiveness, whilst quality control exhibited a positive but weak relationship with organizational competitiveness. It aligns with the TQM and shows the major aspects of proactive planning and continual improvement to improve firm performance. As per the research study, the successful implementation of quality management practices, and in particular quality planning and continuous improvement, is key to competitiveness and sustainability among the manufacturing firms. It is recommended that management institutionalize strategic quality planning, enhance its internal quality control system with effective monitoring and timely enforcement of corrective actions, and always improve quality improvement initiatives in order to reduce waste, reduce risks, and ensure long-term competitive advantage.

Keywords: *Quality Management Practices, Organizational Competitiveness, Manufacturing Industry, Mukwano Industries, Uganda.*

INTRODUCTION

Global Perspective

Quality management dates back to the mid-20th century and has developed extensively during the years since, largely influenced by world-famous investigators like W. Edwards Deming, Joseph M. Juran, Philip B. Crosby, and Kaoru Ishikawa. These scholars founded core philosophies such as Deming's continual improvement model, Juran's Quality Trilogy, and Crosby's Zero Defects concept, which together defined the Total Quality Management (TQM) Theory. Theory of Quality Management (TQM) focuses on continual improvement (Deming, 1986; Juran, 1964), ensuring customer focus over time, and taking accountability for quality at an organizational level. Modern empirical studies still emphasize that quality management practices (QMPs) are an important part of organisational competitiveness, operational efficiency, financial performance, etc. Research

indicates that TQM greatly improves productivity, customer satisfaction, and competitive edge and is well represented in organizations of diverse industries (Talib et al., 2013; Psomas & Antony, 2017). Likewise, Sadikoglu and Olcay (2014) report positive effects of quality management practices on the dimensions of innovation and operational performance, important determinants of companies' competitiveness. Consistent with Deming's Chain Reaction Theory, the quality improvement leads to cost reduction by reworking, waste, and inefficiency, which in turn increases the productivity and market share (Deming, 1986). According to more recent evidence, firms with structured quality systems like ISO 9001 do better due to improving operational performance and being globally competitive (Fonseca & Domingues, 2017).

It can also be seen by an overview of the region and the developing economy, where quality and control management have become more prevalent as globalization and trade liberalization have affected the competitive landscape in emerging and developing economies. Empirical research data from areas including Asia, Latin America, and Africa show significant effects of adopting quality management systems on enhancing export competitiveness, cost efficiencies, and product standardization (Sahoo & Yadav, 2018; Abbas, 2020). In contrast, however, evidence from Sub-Saharan Africa remains limited. Although firms are increasingly implementing quality management practices, the full gains from competitiveness have continued to be inhibited by limited technological capacity, weak quality culture, and inadequate regulatory enforcement (Mokhtar & Muda, 2019; Adeleke et al., 2021). In addition, the literature suggests that companies operating in developing countries may give priority to the quality improvement activities and tend to downplay the equally important facets, such as quality planning and quality control, as the quality management initiatives mentioned in Juran's Quality Trilogy (Juran, 1964) have also highlighted. This siloed effort impairs quality management systems from being beneficial for competitiveness.

African and Ugandan Background

In the African continent, and in Uganda, particularly, the manufacturing industry competes under the weight of its expanding regional integration frameworks, notably the East African Community Common Market Protocol. Under liberalization, there is rising competition of imported goods forcing local firms to improve product quality, operating effectiveness, and cost control to remain competitive (Nabukeera, 2020; Kato & Mulyungi, 2021). One concrete example of this fierce competitive scene is Uganda's detergent industry. In 2009, Procter & Gamble launched "Ariel detergent" in the Ugandan market, advertising strong messaging about better cleaning. It disrupted a market that used to be overwhelmingly controlled by Unilever's OMO and Mukwano Industries Uganda Limited's Nomi, and the likes of Radiant, Comfort, and Sunlight. Eventually, through the years, Ariel became the market leader and proved that reprice marketing strategies and better quality can create new competitive forces (Qualityze, 2020). Recently, Bidco Uganda Limited launched White Star Magic detergent with heavy capital investment, which fueled the competitive situation by providing superior quality for a low price. The progression of this evolution reflects how continuous quality improvement and innovation drive consumer tastes, market share, and competitiveness, aligning with TQM concepts (Talib et al., 2013). The continuous emergence of higher-quality products has intensified competition in Uganda's manufacturing sector, resulting in varied firm performance. Some of the firms have improved profit, consumer loyalty, and market share of the products, which follow a good management process, while others are experiencing falling sales, low returns, and have even quit the market as a result of poor product quality and inefficiencies (Wruck & Jensen, 1994). This discrepancy shows how quality management is critical in terms of competitiveness.

Organizational Context

At an organizational level, Mukwano Industries Uganda Limited is a suitable case of an organization in the midst of intense competitive pressure. The company has faced performance fluctuations, though, even with a well-established market presence and diversified product portfolio, due to increased competition, higher operational costs, and inefficiencies in its quality and production systems (Kato & Mulyungi, 2021). This relates to the challenges of firms in the manufacturing environment in Uganda, where improving the quality of products, operational efficiency, and cost management to remain in competition has been more challenging. The performance gaps seen indicate deficiencies in the translation of overall quality management practices, including quality planning, quality control, and continuous improvement.

Research Gap

Quality management is a big deal for businesses these days, and researchers have been studying it a lot in different countries. They've found that using something called Total Quality Management (TQM) can really help companies do better in terms of how they operate, make customers happy, and be more productive. Consequently, organizations that effectively implement quality management practices are better positioned to attain a sustainable competitive advantage. Previous studies, like the ones done by Psomas and Antony (2017) and Abbas in 2020, have reported a positive association between TQM and organizational outcomes. Nevertheless, notwithstanding the growing number of empirical studies, several gaps remain concerning the mechanisms by which quality management practices affect organizational competitiveness and performance in the long run.

Justification of the study

First, most research has looked at quality management practices one by one, rather than as a complete system that includes planning, control, and improvement, as Juran's Quality Trilogy suggests. As a result, there isn't much evidence about how these different parts work together to affect how well an organization competes. This is a problem because understanding how quality management practices interact is important for businesses that want to stay competitive. By looking at quality planning, quality control, and quality improvement together, companies can get a better sense of what they need to do to improve their overall performance and competitiveness. Second, most research on this topic has been done in wealthy countries with advanced technology. But these findings might not apply to countries like Uganda, where companies face different challenges and have less access to technology and good infrastructure. This means we need to be careful when trying to use what we've learned from one place in another. The conditions are just too different. For example, in Uganda, manufacturers have to deal with unique institutional, technological, and infrastructural issues that can affect how they operate. So, we can't just assume that what works in a developed country will work there too. Thirdly, contemporary manufacturing systems are increasingly being shaped by Quality 4.0 and Industry 4.0 technologies, including artificial intelligence, predictive analytics, industrial internet of things (IIoT), real-time monitoring systems, and digital quality management platforms (Liu et al., 2023; Aichouni et al., 2024).

Nevertheless, empirical studies examining how traditional quality management practices interact with emerging digital quality systems in African manufacturing contexts remain scarce. So, even though we know that how well a company operates is a key way that quality management affects its ability to compete, not many studies have looked at this relationship in detail. By not exploring this middle step, we don't fully understand how quality management practices actually lead to better competitive results. This gap in our knowledge makes it harder to see the exact paths that quality management takes to produce these outcomes. This research looks at how quality planning, quality control, and quality improvement all work together to affect a company's ability to compete in the market, specifically in Uganda's manufacturing sector. It also considers how a company's operational performance plays a role in connecting quality management practices to its overall competitiveness. By studying this, we can better understand how quality management practices impact a company's success. The goal is to find out how these practices can be used to improve a company's competitiveness in the market.

Statement of the Research Problem

Despite the rapid adoption of quality management systems and international certifications, numerous Ugandan manufacturing companies still experience low productivity, variable product quality, high operational costs, and declining competitiveness, implying a lack of proper quality management practices (Nabukeera, 2020; Kato & Mulyungi, 2021). While significant investment has been made in quality programs and the development of its employees, Mukwano Industries Uganda Limited is facing the competitive pressures of the regional Fast Moving Consumer Goods (FMCG) market, reflecting significant ISO-based standards that may not be ideal. The implication is the question of an integrated and strategically effective implementation of quality management techniques. While there has been a strong worldwide association between quality management and improved organizational performance, few empirical studies of the role of quality planning, quality control, and quality improvement in the context of competitive advantage within manufacturing firms exist in the Ugandan context.

Thus, this study investigated the issue of quality management practices and competitiveness by Mukwano Industries Uganda Limited.

General objective of the study

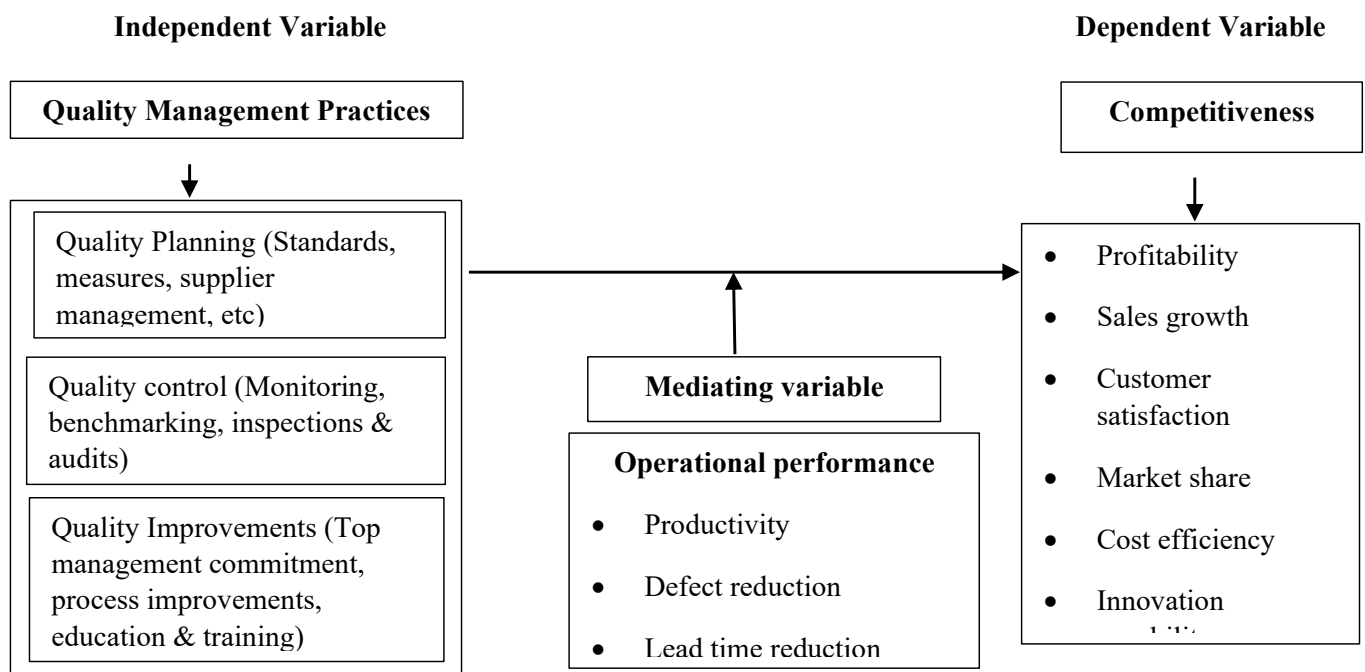
To establish the relationship between quality management practices and the competitiveness of the manufacturing industry in Uganda

Specific Objectives of the study

The following were the specific objectives of the study:

- To establish the relationship between quality planning and the competitiveness of Mukwano Industries (U) Ltd.
- To find out the relationship between quality control and the competitiveness of Mukwano Industries (U) Ltd.
- To determine the relationship between quality improvement and the competitiveness of Mukwano Industries (U) Ltd.

Conceptual Framework of Quality Management Practices (QM) and Competitiveness



Source: Adapted from Juran (1964) and Deming (1986); modified by the researcher (2026)

The idea behind this framework is based on some important theories. It uses Total Quality Management Theory, Deming's idea of always trying to improve, and Juran's Quality Trilogy. Basically, it says that when companies focus on managing quality, it can affect how well they compete in their market. This happens in two ways: directly and indirectly. Directly, quality management practices like planning, control, and improvement can make a company more competitive. Indirectly, these practices can improve how the company operates, which then makes it more competitive. Quality planning establishes standards, performance targets, supplier quality requirements, and product specifications. Quality control ensures adherence to established standards through monitoring, inspections, benchmarking, and audits. Quality improvement focuses on continuous enhancement of processes, employee capability development, and management commitment to quality excellence. When a company focuses on quality management, it can lead to better operational performance, which is like a bridge that connects these efforts to actual results. This means that by doing things like reducing defects, improving

productivity, minimizing waste, and making processes more efficient, a company can achieve real outcomes that benefit the business. As operational performance gets better, it can also make the company more competitive in the market. This can be seen in things like higher profits, happier customers, more market share, the ability to innovate, better product quality, and lower costs. Essentially, quality management initiatives can be translated into tangible results through improved operational performance, which in turn drives business success. The framework, therefore, assumes that firms that effectively integrate quality planning, quality control, and quality improvement are more likely to achieve superior operational performance, which ultimately strengthens competitiveness.

METHODOLOGY

Correlation and cross-sectional survey research designs were employed by the researcher, which are quantitative and qualitative. The researcher subsequently sampled eighty (80) Mukwano Industries' employees in key departments from which a sample size of 66 was reached. Respondents were divided into top-level managers, middle-level managers, low-level managers, clients (channel members), and key suppliers. The researcher utilized Krejcie and Morgan's framework (Sarandakos, 1993, p.149) and utilized a multistage stratified sampling approach to identify elements from respondents. This was true for managers, department personnel, and vendors. Purposive and stratified sampling were used together to obtain an adequate sample size. The obtained data came from questionnaires, in-person interview schedules, and documentary evaluation.

Validity and Reliability of Instruments

To make sure the study was measuring what it was supposed to, experts in quality management and research methodology took a close look. They found that the Content Validity Index, or CVI, was higher than the recommended 0.70, which meant the study was accurately representing the ideas it was trying to measure. Any questions that didn't seem to fit well were taken out before the final version was used. This helped ensure that the study was reliable and effective in measuring what it was supposed to. The experts' evaluation was a crucial step in making sure the study was valid and trustworthy. To figure out how reliable our study is, we did a test run with a group of people from a manufacturing company that wasn't part of our main study. We also checked how consistent our measurement tool was by using something called Cronbach's Alpha coefficient. It would be great if future studies could share more specific details about how reliable their methods are, so we can all be more open and transparent about how we do things.

Regression Assumptions

Before conducting inferential analysis, assumptions underlying Pearson correlation and multiple regression analysis were considered. This included linearity, normality, homoscedasticity, independence of errors, and absence of multicollinearity. The study assumed that the data satisfied these conditions sufficiently for statistical analysis.

Data Analysis

To get a better understanding of how quality management practices affect a company's ability to compete, the researcher used a mixed-methods approach to analyze the data. First, the researcher cleaned up and organized the quantitative data, and then used the Statistical Package for the Social Sciences (SPSS) to look at it. The researcher used basic statistics like frequencies, percentages, means, and standard deviations to summarize what the respondents thought about planning, controlling, and improving quality, as well as how competitive they thought their organizations were. This helped the researcher to understand the relationships between these different aspects of quality management and how they impact a company's competitiveness.

Inferential statistical techniques were later employed to examine relationships among study variables. Specifically, Pearson's Product-Moment Correlation Coefficient was used to determine the direction, strength, and significance of the relationships between quality management practices and competitiveness. Multiple regression analysis was subsequently conducted to assess the predictive influence of quality planning, quality

control, and quality improvement on organizational competitiveness. Statistical significance was evaluated at the 5 percent level ($p < 0.05$).

The researcher looked at the answers from interviews and open-ended questionnaires to understand respondents' perception about quality management practices, and how it affects a company's ability to compete. The researcher used a method called thematic analysis, which involves carefully coding and categorizing the responses to find patterns and themes. This process helped identify common ideas related to quality management and competitiveness. By interpreting these themes, the researcher could provide a clearer picture of why certain things happened, based on what the participants said. This also helped capture the personal experiences and opinions of the people involved, giving a more detailed understanding of the situation.

To make the results more reliable, the researcher combined both qualitative and quantitative findings using a method called methodological triangulation. This approach allowed for a comparison of evidence from different sources, making the results more convincing and providing a better understanding of how quality management practices affect a company's ability to compete in the manufacturing industry. By combining the findings, the study became more credible and easier to understand, giving a clearer picture of the research problem. This helped to strengthen the results and made them more trustworthy.

PRESENTATION AND ANALYSIS OF EMPIRICAL FINDINGS

Findings on Quality Planning and Competitiveness

Descriptive statistics have indicated that quality planning practices are widespread in Mukwano Industries, with a mean score between 3.426 and 4.525. The quality standards ($M=4.525$, $SD=0.59$), quality designs ($M=4.148$, $SD=0.65$), and quality measures ($M=4.131$, $SD=0.50$) have relatively high ratings, indicating strong institutional preference for structured quality structures. Supplier management was found to be implemented moderately ($M=3.426$, $SD=0.64$), as the standard.

Table 1: Pearson Correlation between Quality Planning and Competitiveness (N = 61)

Competitiveness Indicator	Pearson Correlation (r)	Sig. (2-tailed)	N
Sales Volume	-0.138	0.288	61
Customer Satisfaction	0.384**	0.002	61
Cost Reduction	-0.159	0.222	61
Widens Market Share	-0.134	0.303	61
Growth Potential	-0.122	0.347	61

Source: Field Data (2026)

Note: Correlation is significant at the 0.01 level (2-tailed).

At a Pearson correlation level, a moderate, statistically significant positive relationship for quality in planning vs customer satisfaction was reported between the two (Pearson correlation $r=0.384$, $p<0.01$). Nevertheless, the associations with other competitiveness indicators, including sales volume ($r=-0.138$, $p>0.01$), cost reduction ($r=-0.159$, $p>0.01$), market share ($r=-0.134$, $p>0.01$), and growth potential ($r=-0.122$, $p>0.01$), were weak and statistically insignificant.

Regression results further demonstrated that quality planning had positive and statistically significant effects on competitiveness outcomes, including sales volume ($\beta=0.043$, $p>0.05$), customer satisfaction ($\beta=0.161$, $p>0.05$), and market share ($\beta=0.239$, $p>0.05$). Quality design effect on sales volume seemed a stronger predictor ($\beta=0.217$), though also not significant. Thus, whereas QA planning is firmly embedded into the organization, its influence on competitiveness is selective instead of a global phenomenon.

The large correlation with customer satisfaction suggests that quality planning leads to a better customer-oriented output than to financial performance measures. The pattern can largely be attributed to the fact that quality planning targets process standardization, product design, and compliance, which ultimately affects how products are perceived and how well a customer has a good experience of the product. But realizing these internal efficiencies into quantitative monetary results, such as sales growth or market share, often needs other complementary factors like marketing, pricing, and distribution efficiency. The weak and insignificant association with financial indicators also suggests a lag effect, whereby the benefits of quality planning may not yet be observable in competitiveness measures. Furthermore, the low focus on supplier management could potentially hinder the overall efficiency of quality planning since supply chain integration is increasingly critical for the competitiveness of current manufacturing supply chains. In the aggregate, the results indicate that such quality planning can do little unless it is coordinated with broader market-oriented and operational capabilities.

Results on Quality Control and Competitiveness

Findings demonstrate that quality control practices are practiced extensively, with mean scores of 3.672–4.492. The most emphasized practices used were benchmarking ($M=4.492$, $SD=0.622$), continuous inspection ($M=4.328$, $SD=0.651$), followed closely by general quality control ($M=4.115$, $SD=0.686$). Quality monitoring ($M=3.770$, $SD=0.739$) and quality audits ($M=3.672$, $SD=0.701$) were relatively less stressed.

Table 2: Pearson Correlation between Quality Control and Competitiveness (N = 61)

Competitiveness Indicator	Pearson Correlation (r) with Quality Control	Sig. (2-tailed)	N
Sales Revenue	-0.086	0.508	61
Customer Satisfaction	-0.061	0.642	61
Cost Reduction	0.181	0.162	61
Market Share	0.140	0.280	61
Growth Potential	-0.066	0.612	61
Sample Size (N)	61		

Source: Field data (2026)

The Pearson correlation coefficients indicated weak and insignificant relationships between quality control and the 5 other competitiveness indicators, including sales volume ($r=-0.086$, $p>0.01$), customer satisfaction ($r=-0.061$, $p>0.01$), cost reduction ($r=-0.181$, $p>0.01$), market share ($r=0.140$, $p>0.01$), and growth potential ($r=-0.066$, $p>0.01$).

Similarly, the regression analysis revealed that the quality control aspects had a positive but statistically insignificant impact on competitiveness for all dimensions similarly measured. For example, such factors as benchmarking ($\beta=0.058$), quality audits ($\beta=0.292$), and continuous inspection ($\beta=0.315$) both possessed positive coefficients, yet no significant positive associations arose ($p>0.05$).

With a great disconnect between quality control practices, the results show that the current level of competitiveness is not being achieved. The organization is not bad, though, even if its quality control processes (at least in theory) appear fairly coherent. One explanation is that the organization's quality control approach is reactive and very compliance-based, and it only includes inspection and error detection, with little emphasis on quality assurance and continuous improvement. It constrains its value in strategic competitiveness. Moreover, the weak relationships might suggest that quality-control practices do not fully align with the firm's value creation processes (e.g., product innovation), responsiveness, and cost leadership. For example, benchmarking and inspection are certainly valuable, but may not yield a competitive edge when they do not translate into strategic decisions and into process redesign. In addition, the results indicate that quality control may be functioning alone in isolation from other quality management dimensions, mitigating its relative effect. This

underscores the need for more integrated, holistic quality management, in which control aspects are reconciled with planning and improvement strategies.

RESULTS ON QUALITY IMPROVEMENTS AND COMPETITIVENESS

Overall, strong concordance among respondents was identified about the contribution of quality improvement to improving a firm's competitiveness. A substantial number of respondents claimed that quality enhancement boosts sales revenue (88.5%), cuts costs (83.6%), increases customer satisfaction (80.3%), accelerates potential for growth (72.1%), and contributes to increasing market share (68.9%). These findings show that improvement of quality is often considered one of the most important drivers of the financial and non-financial performance impacts of an organization.

Table 3: Pearson Correlation between Quality Improvements and Competitiveness (N = 61)

Competitiveness Indicator	Pearson Correlation (r)	Sig. (2-tailed)	N
Sales Revenue	-0.055	0.788	61
Customer Satisfaction	0.411**	0.001	61
Cost Reduction	0.023	0.862	61
Market Share	0.337**	0.006	61
Growth Potential	0.378**	0.004	61
Sample Size (N)	61		

Source: Field Data (2026)

Note: ** indicates significance at the 0.01 level (2-tailed).

The Pearson correlation analysis revealed that quality improvement is significantly and positively associated with customer satisfaction ($r = 0.411$, $p < 0.01$), market share ($r = 0.337$, $p < 0.01$), and growth potential ($r = 0.378$, $p < 0.01$). However, no significant relationships were found between quality improvement and sales revenue ($r = -0.055$, $p > 0.05$) or between cost reduction and sales revenue ($r = 0.023$, $p > 0.05$). The results suggest that quality improvement enhances competitiveness primarily through improving customer satisfaction, increasing market share, and supporting organizational growth potential.

Quality improvement is significantly associated with customer satisfaction ($r = 0.411$, $p = 0.001$). Quality improvement is significantly associated with market share ($r = 0.337$, $p = 0.006$). Quality improvement is significantly associated with growth potential ($r = 0.378$, $p = 0.004$). Process improvement across departments significantly predicts cost reduction ($\beta = 0.361$, $p = 0.007$). The findings provide partial support for the proposition that quality improvement enhances competitiveness. Furthermore, regression analysis demonstrated that process improvement significantly contributes to cost reduction. These results suggest that quality improvement strengthens competitiveness primarily through operational efficiency, customer-related outcomes, and organizational growth prospects.

This means, therefore, that quality improvement stands out as the primary dimension of quality management for competitiveness, contrary to quality planning and control. Its approach to streamlining processes, innovating, and adapting to changing customer needs is why. Process optimization and product enhancement initiatives are not only key performance indicators of operations, but also contribute to cost-cutting, revenue growth, and market expansion because of direct impacts on customer value. The high positive perceptions observed in the study suggest that the industry benefits from a learning-oriented and adaptive approach to quality management. This conclusion supports modern quality management theory, which focuses on a continuous improvement approach (e.g., Kaizen and Total Quality Management) as the key ingredient to sustain competitive advantage. Firms are well-positioned to adapt to market dynamics and keep customers content by constantly improving processes and products. Yet the use of perceptual data alone indicates that more empirical validation is warranted

with objective performance benchmarks. However, the reality is that high-quality improvement is widely recognized as a strategic priority when it comes to increasing competitiveness.

DISCUSSIONS OF RESEARCH FINDINGS

It is indicated from the findings that the relationship between quality management practices and competitiveness is not homogeneous and evenly spread among the dimensions of quality management practices. Though quality planning, quality control, and quality improvement are three interrelated and important activities involved in a total quality management system, the effects they have on competitiveness are rather different. It is evident that quality planning is only the foundation of organizational operations; it sets the structures and the strategic direction, defines the standards, the processes, and the quality objectives. Though the statistical significance of its contribution to competitiveness seems rather weak, planning creates a proper framework that will eventually lead to quality practices being executed with precision and strategy. Therefore, a competitive edge can hardly be created from planning activities alone unless quality planning is directly linked with and is executed through planning of practical and tactical issues.

Quality control, being a fundamental part of manufacturing practice, was found to influence competitiveness more than quality improvement, though its statistical significance is stronger than quality planning. The analysis also shows that quality control in manufacturing firms is rather compliance-based and is carried out as part of an inspect and verify function rather than as a value-generating process. Although quality control serves the purpose of maintaining conformance with product specification and minimizing production variability, it failed to show a statistically significant effect on competition indicators. This may be attributed to the often- reactive nature of the existing quality control practice, focusing only on detecting errors that had already occurred rather than the potential it might bring to organizational capability and market positioning.

By contrast, quality improvement emerges as a key driver of competitiveness. It is a significant contributor to the competitive performance of the organizations in terms of product enhancement, process optimization, innovation and learning, development of personnel, and capabilities of the organizations. It extends beyond the day-to-day quality activities to a level where it acts as a tool for gaining a competitive advantage. It shows that organizations that strive to improve processes continuously with innovation and employee empowerment will compete better in the market, as customer need satisfaction is the ultimate goal. The research, therefore, suggests that competitiveness is not something that is maintained, but rather enhanced through quality improvement efforts. The positive impact of quality improvement on competition is significant and positive, hence suggesting that it acts as a tool for continuous renewal and long-term survival.

The qualitative results supported the results from quantitative analysis, providing a more in-depth interpretation of why these factors affect competitiveness. All the interviewees mentioned continuous improvement programs, training activities for employees, process improvement strategies, and management's commitment to quality management as strong success factors in achieving high competitiveness performance; they agreed with the quantitative analysis and confirmed that the quality improvement has the highest significant effect on competitiveness. Furthermore, the interviewees mentioned that organizations that invest in skill improvement for employees are able to cope with competition successfully.

The majority of interviewees believe that quality planning indirectly affects competitiveness through ensuring the consistency of products and increasing customer confidence in the organization, as standards were set and followed correctly. This finding supports the argument that quality planning has a significant positive relation to customer satisfaction. Even though quality planning is unable to directly improve competitiveness, it helps in attaining a good standard of quality, which can indirectly influence competitiveness by building the organization's reputation. Based on respondents' feedback, the control process is mainly a compliance-oriented quality management activity in manufacturing firms, as most of the time it is implemented as per company regulations or legal compliance requirements, rather than to improve or enhance quality management in general. This finding could explain why control has a weaker relationship with competitive factors and may suggest that organizations have not used quality control as a continuous learning and improvement tool.

Both qualitative and quantitative results confirm that no single quality management practice is fully capable of guaranteeing organizational competitiveness, and effective competition can only be achieved through the integrated application of quality planning, quality control, and quality improvement in a strategic quality management system approach. Quality planning provides the structural basis and directions; quality control ensures consistency and adherence to standards; and quality improvement makes organizations' quality management activities proactive and progressive toward continuous improvement and thus enables organizations to acquire a competitive advantage. It is therefore advised for manufacturing firms to pay more attention to continuous improvement in order to attain the ultimate goal of competitiveness, and organizations are advised to link planning and control activities with the strategies and competitive objectives. This argument corresponds to current trends in quality management, which regard the concept of continuous improvement as a fundamental tool for gaining sustainable competitive advantage and achieving excellence.

CONCLUSIONS AND RECOMMENDATIONS

The study recommends that management of such an industry should institutionalize strategic quality planning, enhance its internal quality control system with effective monitoring and timely enforcement of corrective actions, and always improve quality improvement initiatives in order to minimize inefficiencies, reduce risks, and develop sustainable competitive advantages.

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