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An Empirical Study On Critical Factors Affecting Quality Management And Organisational Performance

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Abstract

The ISO 9001 Quality Management System (QMS) is the most widely adopted international quality standard, implemented by more than one million organisations worldwide. Despite its popularity, the impact of ISO 9001 on organisational performance remains debated, with scholars reporting both positive and mixed results. This study empirically investigates the critical factors influencing the relationship between ISO 9001 QMS implementation and organisational performance in Sri Lanka, where limited research has been conducted. Using a structured questionnaire distributed across 83 ISO 9001-certified organisations, the study examined five independent variables leadership, resource availability, operational efficiency, performance evaluation, and improvement and their effect on organisational performance. Data analysis using regression and decision tree models revealed that performance evaluation was the strongest predictor of organisational performance, followed by improvement, operational efficiency, and resource availability. Leadership showed only a weak relationship in the Sri Lankan context. While respondents acknowledged improved product and service quality and customer satisfaction after certification, issues such as excessive documentation and rigid formats were noted as challenges. The findings contribute to the ongoing debate on ISO 9001 effectiveness and provide practical implications for managers to focus on robust evaluation systems and continuous improvement mechanisms rather than mere compliance.

Keywords: ISO 9001, Quality Management System, organizational performance, quality management, operational efficiency, Sri Lanka, continuous improvement, leadership, Organisational performance, Business Performance.

1. **Introduction**

Quality is increasingly recognised as a strategic driver of organisational competitiveness and long-term sustainability. Organisations that fail to meet customer and regulatory quality expectations risk reputational damage and performance decline, as illustrated by the Samsung Galaxy Note 7 crisis (Yun et al., 2018). In contrast, companies such as Toyota have demonstrated how a strong quality focus contributes to global success (Toma & Naruo, 2017).

To achieve and maintain consistent quality, many organisations adopt the ISO 9001 Quality Management System (QMS), which provides a structured framework for process improvement, customer focus, and continual development. ISO 9001 has been implemented in over 170 countries, making it the most widely adopted management standard worldwide (Priede, 2012). Certification is often associated with benefits such as improved efficiency, defect reduction, and enhanced customer satisfaction (Fonseca et al., 2019; Psomas et al., 2013).

However, the sustainable implementation and long-term effectiveness of ISO 9001 remain controversial. While some studies report substantial performance improvements among certified firms (Aba, Badar, & Hayden, 2016; Dick, 2000), others highlight limited or negligible benefits (Feng, Terziovski, & Samson, 2007; Sitki Ilkay & Aslan, 2012). These contrasting findings suggest that certification alone does not guarantee lasting performance gains. Instead, outcomes often depend on factors such as leadership commitment, resource availability, organisational culture, and the depth of QMS integration into core business processes (Bakator & Ćoćkalo, 2018; Terziovski, 2003).

In Sri Lanka, ISO 9001 certification is now common across manufacturing, service, and public-sector organisations. Yet there is limited empirical evidence on how effectively it drives sustained performance improvements. For example, Senaweera, Dhammika, and Dayarathna (2020) found that top-management commitment strongly influences business performance in certified firms. However, broader studies that examine how critical QMS factors such as leadership, resource availability, operational efficiency, performance evaluation, and continuous improvement interact to support sustainable performance outcomes remain scarce.

This research addresses this gap by empirically analysing the critical factors affecting the sustainable implementation of ISO 9001 QMS and its impact on organisational performance in Sri Lanka. The study aims to provide evidence-based insights to help organisations move beyond certification as a compliance exercise and towards embedding ISO 9001 as a strategic driver of continuous improvement and long-term competitiveness.

2. **Literature Review**

ISO 9001 QMS has been associated with several benefits, including improved product quality, increased customer satisfaction, and enhanced financial performance (Fonseca et al., 2019; Bakator & Ćočkalo, 2018). However, challenges such as documentation overload, rigidity in processes, and high compliance costs have been noted (Poksinska et al., 2006; Dick, 2000). The effectiveness of ISO 9001 is influenced by leadership commitment, resource allocation, and continuous improvement initiatives (Kafetzopoulos & Gotzamani, 2014). In addition, organizations that integrate ISO 9001 within their strategic planning processes tend to benefit more compared to those that view certification as a mere compliance requirement. This section delves into both the theoretical framework and past empirical studies, highlighting key insights that shape the research methodology.

ISO 9001 Quality Management Systems (QMS) have been widely adopted across industries, with extensive research exploring their impact on organizational performance. Key findings highlight that ISO 9001 certification positively influences operational efficiency, customer satisfaction, and financial performance, albeit with notable implementation challenges.

Several studies confirm the operational benefits of ISO 9001, including improved process efficiency, defect reduction, and enhanced quality control mechanisms (Aba, Badar, & Hayden, 2016; Bakator & Ćoćkalo, 2018). Ahmed et al. (2019) further emphasize that structured quality management practices lead to streamlined operations, ultimately fostering continuous improvement. These findings align with the resource-based view (RBV), which suggests that effective quality management contributes to a firm's competitive advantage (Fonseca & Domingues, 2018).

Customer satisfaction is another critical outcome of ISO 9001 certification. Research indicates that standardized processes enhance product quality and service delivery, leading to increased customer loyalty (Tarí et al., 2012; Poksinska, Eklund, & Dahlgaard, 2006). The integration of customer feedback mechanisms within QMS ensures that organizations remain responsive to market demands, thereby strengthening their market position (Fonseca et al., 2019).

From a financial perspective, empirical studies present mixed findings. While some researchers report positive correlations between ISO 9001 certification and profitability due to improved efficiency and brand credibility (Feng, Terziovski, & Samson, 2008), others argue that financial gains depend on firm size, industry, and the depth of QMS implementation (Rusev & Salonitis, 2016). Notably, Sfreddo et al. (2018) highlight that short-term financial benefits may be marginal, but long-term gains are significant when ISO 9001 is integrated into strategic decision-making.

Despite these benefits, challenges associated with ISO 9001 adoption persist. Bureaucratic procedures, excessive documentation, and resource constraints are commonly cited as barriers to successful implementation (Wilkinson & Dale, 2002; Dick, 2000). Additionally, leadership commitment plays a crucial role in overcoming these obstacles, as top management engagement is vital for fostering a quality-driven culture (Anttila & Jussila, 2017).

Leadership and Top Management Commitment in ISO 9001 QMS Implementation

Leadership and top management commitment are crucial for the successful implementation of ISO 9001 Quality Management Systems (QMS). Strong leadership fosters an environment that supports continuous improvement, aligning quality objectives with organizational goals (Alic & Rusjan, 2011). Research indicates that ISO 9001 certification enhances operational performance, customer satisfaction, and financial outcomes, but the extent of these benefits depends on management commitment and internal motivation (Bakator & Ćoćkalo, 2018).

Top management commitment involves active participation in quality initiatives, ensuring adequate resources and strategic direction (Ahmed et al., 2019). Empirical evidence highlights that leadership significantly influences workforce management and quality outcomes. For example, Malaysian private hospitals with stronger leadership commitment achieved superior quality performance compared to public hospitals (Ahmed et al., 2019). Similarly, Wolniak (2019) emphasizes that organizations with committed leadership face fewer challenges and derive greater benefits from ISO 9001 implementation.

Additionally, leadership plays a vital role in fostering an organizational culture that integrates soft Total Quality Management (TQM) elements, such as human resource development and customer focus, which have a more significant impact on internal performance than hard, technology-based elements (Kafetzopoulos & Gotzamani, 2014). A strong leadership commitment ensures alignment with enterprise goals, driving process

improvements and enhancing organizational excellence (Rusev & Salonitis, 2016). Effective QMS implementation requires a leadership-driven approach to quality, reinforcing employee commitment and continuous improvement.

Resource Availability for Effective ISO 9001 QMS Implementation

The successful implementation of ISO 9001 Quality Management Systems (QMS) is highly dependent on resource availability, including financial, human, and infrastructural support. Organizations with sufficient resources achieve better operational performance, product quality, and customer satisfaction (Bakator & Ćoćkalo, 2018).

Financial investment is crucial for covering certification costs, training, and continuous improvement initiatives. Adequate funding enables organizations to sustain QMS through audits and quality enhancement projects, yielding long-term benefits such as efficiency gains and waste reduction (Kafetzopoulos & Gotzamani, 2014). Employee training and involvement further enhance QMS effectiveness, ensuring staff understand quality objectives and contribute to ongoing improvements (Bakator & Ćoćkalo, 2018).

Additionally, modern infrastructure and technology play a pivotal role in maintaining high-quality standards. Advanced digital tools facilitate data management, process control, and real-time quality monitoring, enabling organizations to promptly address quality-related issues (Allur et al., 2014). A well-resourced organization is better positioned to implement and sustain ISO 9001 standards, leading to continuous quality improvement and competitive advantage.

ISO 9001 QMS and Operational Efficiency

Operational efficiency is a key driver of organizational performance and competitiveness, with ISO 9001 Quality Management Systems (QMS) playing a significant role in enhancing process efficiency, waste reduction, and productivity. Research indicates that ISO 9001 implementation leads to improved operational performance, which subsequently enhances financial performance through cost savings and defect reduction (Psomas et al., 2014).

Organizations that integrate Lean principles and Total Quality Management (TQM) with ISO 9001 achieve greater efficiency by fostering continuous improvement and systematic process enhancements (Bakator & Ćoćkalo, 2018). Furthermore, companies internally motivated to adopt ISO 9001, focusing on genuine process improvements rather than external pressures, tend to experience more substantial gains in operational efficiency (Kafetzopoulos & Gotzamani, 2014). A mature quality culture and strong internal commitment further amplify the benefits of ISO 9001, leading to sustainable performance improvements.

ISO 9001 QMS and Performance Evaluation

Performance evaluation is a critical element of ISO 9001 Quality Management Systems (QMS), providing the basis for assessing effectiveness and driving continuous improvement. Organisations typically employ key performance indicators (KPIs) such as customer satisfaction, defect rates, process efficiency, and financial performance to evaluate the impact of their QMS (Kafetzopoulos & Gotzamani, 2014). When properly designed, performance evaluation frameworks ensure that KPIs are aligned with organisational strategies, thereby generating insights that support evidence-based decision-making (Natarajan, 2017).

A systematic approach to monitoring and measurement is essential for reliable evaluation. This involves structured data collection, rigorous analysis, and timely assessment of results (Wolniak, 2021). Rusev and

Salonitis (2016) proposed an operational excellence framework that integrates cultural alignment, process improvement, and enterprise-wide coordination to strengthen continuous evaluation practices. Internal audits also enhance performance assessment by fostering employee involvement, identifying non-conformities, and ensuring that evaluations are accurate and credible (Alic & Rusjan, 2011).

Despite these advantages, performance evaluation faces several challenges. Continuous monitoring demands significant effort and resources, data analysis can be complex, and aligning evaluation metrics with strategic objectives is often difficult. Small and medium-sized enterprises (SMEs), in particular, encounter resource constraints that limit their ability to conduct comprehensive assessments (Poksinska et al., 2006). To address these challenges, many organisations adopt the Plan-Do-Check-Act (PDCA) cycle, which supports systematic monitoring and fosters stability, consistency, and efficiency in QMS implementation (Sreeram & Thondiyath, 2015).

ISO 9001 QMS and Continuous Improvement

Continuous improvement (CI) is a core principle of ISO 9001, fostering sustained enhancements in quality management systems and overall organizational performance. It follows an iterative cycle of planning, executing, evaluating, and refining processes, ensuring that quality systems remain adaptable to changing business environments (Kafetzopoulos & Gotzamani, 2014). Implementing continuous improvement within ISO 9001 leads to measurable operational benefits, including increased productivity, waste reduction, and better resource utilization (Psomas et al., 2013). Leadership engagement plays a crucial role in sustaining these improvements by setting the vision, providing strategic direction, and eliminating barriers to progress (Rusev & Salonitis, 2016). Organizations with strong training programs experience higher employee engagement in CI initiatives, fostering innovation and sustainable quality improvements (Alic & Rusjan, 2011). Effective CI practices involve cross-functional teams, structured methodologies like Six Sigma and Lean Management, and feedback loops for systematically addressing non-conformities (Bakator & Ćoćkalo, 2018; Psomas et al., 2014).By integrating continuous improvement into their ISO 9001 framework, organizations not only maintain compliance with quality standards but also enhance competitiveness by consistently optimizing processes to meet customer and regulatory requirements.

In conclusion, the literature underscores the multifaceted impact of ISO 9001 QMS on organizational performance. While operational efficiency and customer satisfaction improvements are well-documented, financial outcomes remain context-dependent. Future research should explore the long-term strategic implications of ISO 9001 certification, particularly in developing economies where quality management practices are still evolving.

3. **Methodology**

The study adopted a quantitative empirical design. A structured questionnaire was distributed to ISO 9001:2015 certified organisations in Sri Lanka. From 120 organisations approached, 92 valid responses were obtained, covering 83 firms across manufacturing and service sectors. The study assessed five independent variables: leadership, resource availability, operational efficiency, performance evaluation, and improvement. Organizational performance was the dependent variable. The questionnaire measured perceptions of ISO 9001 practices and organisational performance using a five-point Likert scale. Variables were operationalized following prior studies (Aba et al., 2016; Psomas et al., 2014). Regression analysis was used to determine the strength of relationships between these variables.. Data collection included responses from quality managers, senior executives, and operational staff, providing a comprehensive view of ISO 9001's organizational impact. Data were analysed using regression analysis, correlation, and decision tree modelling in Minitab and R Studio. Reliability was confirmed through Cronbach's alpha, and validity was ensured via factor analysis.

Figure 3.1:

Conceptual Framework of the Study shows the relationships between variables

3.1 Reliability of Results

Variable	Cronbach's Coefficient	Alpha Interpretation	Overall Mean Value
Leadership	0.8105	Reliable: indicating good internal consistency	4.247
Resource Availability	0.8445	Reliable: indicating good internal consistency	4.018
Operational Efficiency	0.7674	Reliable: indicating good internal consistency	4.089
Performance Evaluation	0.8843	Reliable: indicating good internal consistency	4.091
Improvement	0.7903	Reliable: indicating good internal consistency	4.118
Organisational Performance	0.7576	Reliable: indicating good internal consistency	3.884

All variables demonstrated coefficients above the acceptable threshold of 0.70, indicating good internal reliability. All constructs demonstrated satisfactory reliability, with performance evaluation showing the highest Cronbach's alpha (0.8843), followed closely by resource availability (0.8445). Mean values above 4.0 across all variables reflect favourable organisational perceptions of ISO 9001 practices.

Table 3.2- Level of consideration given for Leadership

Variable	Description	Mean	Standard Deviation
Leadership	Top management provides necessary resources and support to maintain the Quality Management system	4.280	0.551
	Top Management assigns roles and responsibilities to overlook the quality management system	4.293	0.657
	Top management of the organization continuously improves the quality management system.	4.220	0.567
	Top Management of the organization review and revise the Quality Policy, when it is necessary.	4.195	0.617

The mean value of Leadership varied within (4.195 - 4.293) when compared with the overall mean value of 4.247. As per the analysis the highest mean value was 4.293 for the statement "Top Management assigns roles and responsibilities to overlook the quality management system" of its employees.." with a standard deviation of 0.738.

Table 3.3- Level of consideration given for Resource Availability

Variable	Description	Mean	Standard Deviation
Resource Availability	Organization provides necessary human resources to maintain its quality management system.	3.768	0.893
	Organization provides necessary equipment and facilities to maintain its quality management system.	3.963	0.728
	Organization take actions to enhance competences (Skills, Knowledge, experience etc.) of its employees.	4.073	0.813
	organisation has a proper documentation system which aid in effectively implementing the quality management system	4.268	0.738

The mean value of Resource Availability varied within (3.768 - 4.268) when compared with the overall mean value of 4.018. As per the analysis the highest mean value was 4..268 for the statement "Organization take actions to enhance competences (Skills, Knowledge, experience etc.) of its employees.." with a standard deviation of 0.738. that these firms ensure they take actions to enhance competences (Skills, Knowledge, experience etc.) of its employees.

Table 3.4- Level of consideration given for Operational Efficiency

Variable	Description	Mean	Standard Deviation
Operational Efficiency	Organization always meets the specified requirements for its products and services.	4.171	0.699
	Organization always ensure that externally provided processes, products, and services always conform to specified requirements	4.049	0.768
	Organization has a good mechanism to control nonconformities (Note: Examples for non-conformities may include defects, deficiencies etc.)	4.049	0.627

The mean value of Operational Efficiency varied within (4.049 -4.171) when compared with the overall mean value of 3.76. As per the analysis the highest mean value was 4.171 for the statement "Organization always meets the specified requirements for its products and services." with a standard deviation of 0.699 indicates that these manufacturing firms ensure they comply with the product and service requirements. However, in general, it appears that Performance is at higher level of consideration within these firms.

Table 3.5- Level of consideration given for Performance Evaluation

Variable	Description	Mean	Standard Deviation
Performance Evaluation	Customer satisfaction is measured by the organization periodically.	3.988	0.809
	Organization evaluates the performance of its external providers (Suppliers, outsourced parties) periodically.	4.085	0.724
	Organization conducts internal audits at planned intervals.	4.256	0.699
	Organization measures and monitors the performance of its critical processes	4.146	0.818
	Organization measures and monitors its quality objectives.	4.049	0.800

The mean value of Performance evaluation varied within (3.988 -4.256) when compared with the overall mean value of 3.76. As per the analysis the highest mean value was 4.256 for the statement "Organization conducts internal audits at planned intervals" with a standard deviation of 0.699 indicates that these manufacturing firms ensure they comply with the appropriate internal audit plan. However, in general, it appears that Performance is at the highest level of consideration within these firms.

Table 3.6- Level of consideration given for Improvement

Variable	Description	Mean	Standard Deviation
Improvement	Organization continuously improve its processes to improve its quality of products, services and processes.	4.1707	0.6993
	Organization always execute corrective actions, when there is nonconformity or any kind of failure.	4.1341	0.7160
	Organization consider future desired needs of its customers when planning for improvements.	4.0488	0.7841

The mean value of Improvement varied between (4.0488 - 4.1341) when compared with the overall mean value of 4.118. As per the analysis the highest mean value was 4.1707 for the statement "Organization conducts internal audits at planned intervals" with a standard deviation of 0.699 indicates that these manufacturing firms ensure they comply with the appropriate internal audit plan. However, in general, it appears that Performance is at the highest level of consideration within these firms.

Table 3.7- Level of consideration given for Organisational Performance

Variable	Description	Mean	Standard Deviation
Organisational Performance	Organisation makes profit	3.7561	0.7296
	Organisation continuously satisfy its customers	3.756	1.00
	Organization deliver quality products and services	4.024	0.6845

The mean value of Organisational Performance varied between (3.756 - 4.024) when compared with the overall mean value of 3.884. As per the analysis the highest mean value was 4.024 for the statement "Organization deliver quality products and services " with a standard deviation of 0.6845 indicates that these manufacturing firms ensure they deliver quality products.

4. Results

Demographics of the study

The study obtained 100 valid responses representing 83 ISO 9001:2015-certified organisations in Sri Lanka. Respondents came from a diverse mix of sectors, with the majority (about 60%) from manufacturing industries, followed by service-sector organisations (approximately 30%) and a smaller proportion from public-sector agencies (around 10%).

Most participating organisations were large enterprises: about two-thirds employed more than 250 staff, while the remainder were small- to medium-sized firms. With respect to ISO 9001 experience, over half (around 55–60%) had maintained certification for more than five years, while the rest had been certified within the past five years.

The respondents themselves were primarily senior managers or quality-management professionals directly involved in ISO 9001 implementation accounting for roughly 70% of the sample.The remainder comprised middle-level managers, supervisors, or technical staff engaged in quality-related functions.

This demographic profile reflects the diversity of Sri Lankan ISO-certified organisations while ensuring that insights were captured from individuals with substantial experience in quality-management practices and decision-making roles.

Testing of Hypotheses

Test of Hypothesis H1

Regression Analysis: Organizational Performance versus Leadership
The regression equation is Organizational Performance = 2.246 + 0.3857 Leadership

Table 4.1
Analysis of variance of the Variable: Leadership

Source	**DF**	**SS**	**MS**	**F**	**P**
Regression	1	2.7608	2.76077	8.61	0.004
Error	80	25.6386	0.32048		
Total	81	28.3994			

Null Hypothesis (H_0): There is a relationship between leadership and organisational performance
Alternative Hypothesis (H_1): There is a relationship between leadership and organisational performance

Results indicates a moderately positive relationship between Leadership and Organisational Performance (Pearson correlation = 0.312). As per the results obtained P-value is less than 0.05 (P-value <0.05), the above relationship is significant. Therefore, the alternate hypothesis is accepted and the null hypothesis is rejected.

Test of Hypothesis of H2

Pearson correlation of Organisational Performance and Resource Availability = 0.436, P-Value = 0.000. The regression equation is Organisational Performance = 2.306 + 0.3928 Resource Availability

Table 4.2
Analysis of variance of the Variable: Resource Availability

Source	DF	SS	MS	F	P
Regression	1	2.7608	2.76077	8.61	0.004
Error	80	25.6386	0.32048		
Total	81	28.3994			

Alternative Hypothesis (H_1): There is a relationship between resource availability and organisational performance
Null Hypothesis (H_0): There is a relationship between resource availability and organisational performance

Results indicates moderately positive relationship between Leadership and organizational performance (Pearson correlation = 0.436). As per the results obtained P-value is less than 0.005. hence, above relationship is significant. Therefore, the alternate hypothesis is accepted and the null hypothesis is rejected.

Test of Hypothesis of H3

Pearson correlation of Organisational Performance and Operational Efficiency = 0.436, P-Value = 0.000
The regression equation is Organizational Performance = 2.060 + 0.4461 Operational Efficiency

Table 4.3
Analysis of variance of the Variable: Operational Efficiency

Source	DF	SS	MS	F	P
Regression	1	5.3978	5.39785	18.77	0.000
Error	80	23.0015	0.28752		
Total	81	28.3994			

Alternative Hypothesis (H_1): There is a relationship between operational efficiency and organisational performance
Null Hypothesis (H_0): There is a relationship between operational efficiency and organisational performance

The results indicates a moderately positive relationship between Operational Efficiency and organizational performance (Pearson correlation = 0.436). As per the results obtained P-value is less than 0.05. Hence the above relationship is significant. Therefore, the alternate hypothesis is accepted and the null hypothesis is rejected.

Test of Hypothesis of H4

Figure 4.5
Regression Analysis: Organizational Performance versus Performance Evaluation

Pearson correlation of Organisational Performance and Performance Evaluation = 0.484; P-Value = 0.000.
The regression equation is Organizational Performance = 2.060 + 0.4461 Performance Evaluation

Table 4.4
Analysis of variance of the Variable: Performance Evaluation

Source	DF	SS	MS	F	P
Regression	1	6.6408	6.64084	24.42	0.000
Error	80	21.7586	0.27198		
Total	81	28.3994			

Alternative Hypothesis (H_1): There is a relationship between Performance Evaluation and Organizational performance.
Null Hypothesis (H_0): There is no relationship between Performance Evaluation and Organizational performance.

There is a moderately positive relationship between Operational Efficiency and organizational performance (Pearson correlation = 0.484). As per the results obtained (P-value <0.05), the above relationship is significant. Therefore, the alternate hypothesis is accepted and the null hypothesis is rejected.

Test of Hypothesis of H4

Pearson correlation of Organisational Performance and Performance Evaluation = 0.484 , P-Value = 0.000 ,
The regression equation is Organizational Performance = 2.060 + 0.4461 Performance Evaluation

Table 4.5
Analysis of variance of the Variable: Performance Evaluation

Source	**DF**	**SS**	**MS**	**F**	**P**
Regression	1	6.6408	6.64084	24.42	0.000
Error	80	21.7586	0.27198		
Total	81	28.3994			

Alternative Hypothesis (H_1): There is a relationship between Performance Evaluation and Organizational performance.
Null Hypothesis (H_0): There is no relationship between Performance Evaluation and Organizational performance.
There is a moderately positive relationship between Operational Efficiency and organizational performance (Pearson correlation = 0.484). As per the results obtained (P-value <0.05), the above relationship is significant. Therefore, the alternate hypothesis is accepted and the null hypothesis is rejected.

Test of Hypothesis of H5

Pearson correlation of Organisational Performance and Improvement= 0.472
P-Value = 0.000
The regression equation is Organizational Performance = 2.016 + 0.4538 Improvement

Table 4.6
Analysis of variance of the Variable: Performance Evaluation

Source		**DF**	**SS**	**MS**	**F**	**P**
Regression		1	6.6408	6.64084	24.42	0.000
Error		80	21.7586	0.27198		
Total		81	28.3994			

Null Hypothesis (H_0): There is no relationship between Performance Evaluation and Organisational Performance
Alternative Hypothesis (H_1): There is a relationship between Performance Evaluation and Organisational Performance

There is a moderately positive relationship between Operational Efficiency and organizational performance (Pearson correlation = 0.472). As per the results obtained (P-value <0.05), the above relationship is significant. Therefore, the alternate hypothesis is accepted and the null hypothesis is rejected.

Multiple Regression Model Table:

Analysis of variance of the Variables

Source	DF	Adj.SS	Adj.MS	F-Value	P-Value
Regression	5	7.2563	1.45126	5.22	0.000
Resource Availability	1	0.0240	0.02399	0.09	0.770
Leadership	1	0.0010	0.00100	0.00	0.952
Performance Evaluation	1	0.2783	0.27830	1.00	0.320
Operational Efficiency	1	0.0494	0.04938	0.18	0.675
Improvement	1	0.0494	0.31829	1.14	0.288

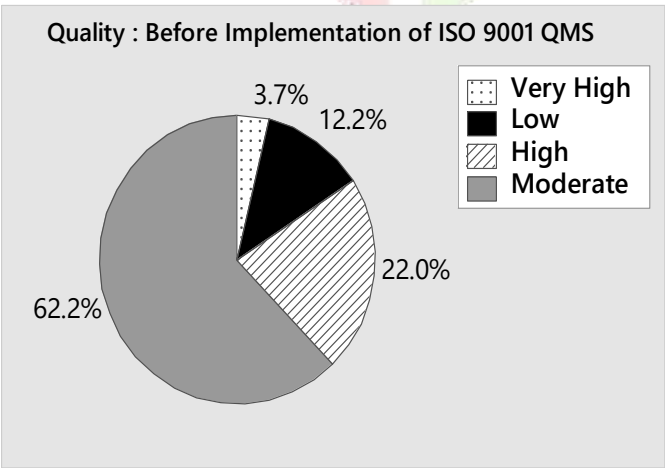
Multiple Regression Model can be figured as follows:

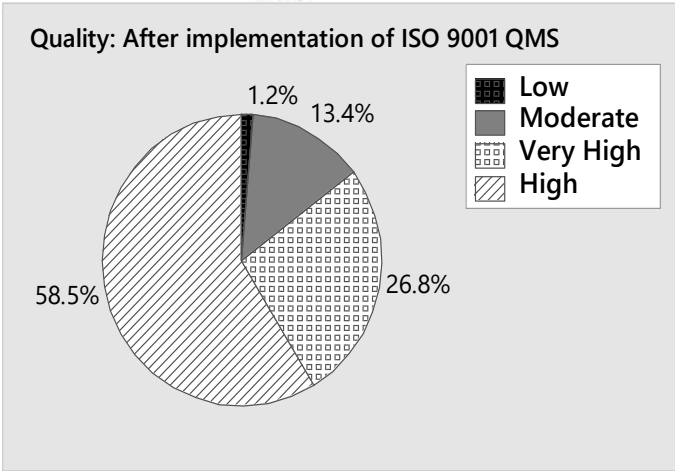
Org. Performance = 1.709 + 0.048 Resource Availability + 0.009 Leadership
+ 0.206 Performance Evaluation + 0.078 Operational Efficiency
+ 0.189 Improvement

The Multiple Regression Analysis was based on the data collected from the survey. The Organizational Performance was taken as the dependent variable (response). The overall regression model is statistically significant at the 0.05 level (F-value = 5.22 P-value = 0.000). This means that, taken together, the independent variables (Resource Availability, Leadership, Performance Evaluation, Operational Efficiency, and Improvement) significantly predict Organizational Performance.

Figures 4.1 and 4.2

Comparison of Quality of Products and Services before and after implementation of ISO 9001 Quality Management System.





According to Figures 4.1 and 4.2, 58.2% of respondents reported that the quality of products and services in their organisations was “high” following the implementation of the ISO 9001 Quality Management System (QMS). This indicates a notable improvement in quality performance attributable to the adoption of ISO

9001. Furthermore, 25% of respondents rated the quality level as “very high” after certification, reinforcing the perception that the QMS has driven substantial enhancements in quality standards.

In comparison, the pre-implementation pie chart shows that a much smaller proportion of respondents had previously rated their organisations’ quality levels as high or very high. The shift in responses between the two charts demonstrates that many participants perceive clear quality improvements resulting from ISO 9001 certification, underscoring the system’s positive impact on organisational quality performance.

5. Discussion

The findings align with previous research highlighting the importance of systematic performance evaluation and continuous improvement in achieving ISO 9001 benefits (Psomas & Kafetzopoulos, 2014). The study also supports the argument that excessive documentation and rigid compliance requirements may hinder efficiency (Anttila & Jussila, 2017). Organizations that integrate ISO 9001 principles into their strategic management frameworks tend to achieve better outcomes.

Findings align with studies emphasising the role of evaluation and improvement in driving performance (Psomas et al., 2014; Natarajan, 2017) and with Sri Lankan evidence from Senaweera et al. (2020). However, the limited role of leadership contrasts with research highlighting top management commitment as crucial (Ahmed et al., 2019; Wolniak, 2019). Contextual cultural or structural factors in Sri Lankan organisations may explain this divergence.

A major insight from this research is the necessity for firms to move beyond certification as a formality and actively embed quality management into daily operations. Additionally, fostering a culture of continuous improvement and ensuring stakeholder engagement at all levels can significantly enhance ISO 9001’s effectiveness.

6. Conclusion

ISO 9001 certification positively impacts organizational performance, particularly through performance evaluation and continuous improvement. Further the study finds that ISO 9001 certification improves quality, customer satisfaction, and operational performance in Sri Lanka, with performance evaluation and continuous improvement emerging as the strongest drivers of organisational performance. Leadership, however, shows a weaker influence in this context.In practice, managers should focus on strengthening evaluation systems, aligning KPIs with strategy, and embedding continuous improvement into daily operations, while streamlining documentation to avoid inefficiencies. Theoretically, the research adds to ISO 9001 literature by offering evidence from a developing country and highlighting the varying influence of different QMS factors.

However, this study is limited to ISO 9001-certified firms in Sri Lanka, and future research may consider cross-country comparisons, sector-specific analyses, and qualitative investigations into leadership and culture.

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