

A Study on Total Quality Management in Selected Ethiopian Higher Education Institutions of Ethiopia

Asalf Habtegeorgis^{*1}, G.C Maheshwari², Rajan Yadav³

¹Ph. D. Research Scholar in Management, Delhi School of Management, Delhi Technological University, India

Email ID: asalf2002@gmail.com

²Professor in Finance, School of Management, Delhi Technological University, India

Email ID: gcmaheshwari2004@yahoo.com

³Professor in Marketing, School of Management, Delhi Technological University, India

Email ID: rajen.yadav@gmail.com

Abstract

This study investigates quality management in Ethiopian higher education institutions (HEIs), focusing on the perceptions and practices within the academic community. The first objective assesses the community's awareness and understanding of quality management, revealing a positive inclination towards its role in education quality enhancement. The second objective delves into the diagnosis and prognosis of quality management practices, identifying both positive contributors and challenges within organizational structures and the Quality Management System (QMS). Regression analyses highlight specific practices and QMS components with significant impacts on organizational quality. While certain practices positively influence quality, others exhibit adverse effects, emphasizing the need for targeted improvements. These findings provide valuable insights for stakeholders seeking to improve the overall quality of education in Ethiopian HEIs. This study adopts a mixed-methods approach, incorporating qualitative content analysis and quantitative regression analyses. The conceptual framework encompasses various quality management practices, including subject and program evaluations, institutional and program accreditation, contributing to a holistic assessment. The results underscore the intricate dynamics shaping quality management in Ethiopian HEIs, offering a nuanced perspective for policymakers, institutional leaders, and practitioners. This research provides support to the existing literature and provides empirical evidence on quality management perceptions and practices within Ethiopian HEIs. The positive community awareness suggests a foundation for constructive engagement in quality enhancement initiatives. However, challenges identified in specific practices and QMS components highlight areas for strategic intervention. The study's recommendations aim to guide stakeholders in refining and strengthening quality management strategies, fostering a culture of continuous improvement in alignment with international standards. Future research endeavors can build upon these findings, exploring the implementation and long-term efficacy of the proposed recommendations to sustainably enhance the quality of higher education in Ethiopia.

Keywords: Ethiopian higher education, quality management, academic community perception, continuous improvement, standardized practices.

Introduction

In higher education, quality management is critical to assure the delivery of successful and meaningful educational experiences. Because of the dynamic character of modern academics, a significant focus on continuous improvement is required, and Total Quality Management (TQM) emerges as a vital paradigm for achieving excellence in this environment. Understanding academic community perspectives and diagnosing existing quality management procedures becomes critical for informed decision-making and advancement as Ethiopian higher education institutions (HEIs) try to satisfy global standards and local demands (Abdi & Singh, 2021). The opinions and attitudes of the academic community, including professors, staff, and students, are inextricably linked to the success of any quality management project. The dedication and participation of these stakeholders, according to (Adamu & Addamu, 2012), have a substantial impact on the efficacy of quality management in higher education. The purpose of this study is to analyze the perception of the academic community in selected Ethiopian HEIs, with the goal of learning more about their awareness, comprehension, and satisfaction with existing quality management procedures. This research will perform a detailed evaluation of the existing quality management environment in selected Ethiopian institutions, building on the work of (Addis, 2019), who

highlights the necessity of diagnosing and improving quality management methods in higher education. The research gives a complete diagnostic of present practices by analyzing rules, methods, and compliance with set standards. In addition, the research provides a prognosis by giving practical suggestions for improving or restructuring quality management, therefore establishing a roadmap for long-term progress.

Literature Review

Total Quality Management (TQM) has gained prominence as a comprehensive framework for enhancing the quality and effectiveness of higher education institutions (HEIs) globally. According to Abdi and Singh (2021), TQM in education involves a systematic approach to continuous improvement, emphasizing stakeholder involvement and a culture of excellence. In the context of Ethiopian HEIs, the application of TQM principles becomes crucial for addressing the diverse challenges and opportunities facing the education sector. The academic community's perception of quality management plays a pivotal role in its successful implementation. Research by Kebede Adem and Virdi (2020) underscores the significance of understanding and addressing the attitudes and perspectives of faculty, staff, and students. The success of TQM initiatives depends on the commitment and engagement of these stakeholders, as highlighted by (Mohammed et al., 2019). Hence, assessing the perception of the academic community in Ethiopian HEIs is integral to understanding the readiness and potential barriers to effective TQM implementation. Diagnosing and improving existing quality management practices is a fundamental step in the TQM process. Adamu and Addamu (2012) emphasizes the importance of aligning institutional policies and procedures with established quality standards. In Ethiopian higher education, where unique contextual factors come into play, this diagnosis is particularly relevant. A comprehensive review of quality management practices in selected Ethiopian universities will provide insights into the current state of affairs and inform future improvements. Furthermore, the prognosis of quality management practices is crucial for offering actionable recommendations, as suggested by (Ergado et al., 2021). The research aims to go beyond identification and provide a roadmap for enhancing or restructuring existing practices, aligning with the principles of continuous improvement inherent in TQM. In conclusion, the literature supports the notion that TQM is not only a global best practice but also a necessity for the evolving landscape of Ethiopian higher education (Olkaba & Tamene, 2019). By addressing the perception of the academic community and diagnosing and prognosing existing quality management practices, this study seeks to contribute practical insights for fostering a value of continuous enhancement in Ethiopian HEIs.

Objective

- To assess the perception of the academic community towards quality management in HEIs.
- Diagnosis and Prognosis of quality management practices applied in selected Ethiopian universities.

Hypothesis

H01: Adoption of quality management system does not impact the quality assurance and management of the educational institutions.

Ha1: Adoption of quality management system does have impact on the quality assurance and management of the educational institutions.

Research Methodology

The research methodology for this study involves a pragmatist research philosophy, combining elements of positivism and realism to comprehensively assess quality management in Ethiopian higher education institutions (HEIs). Following a deductive research paradigm, the study evaluates existing models and theories related to quality management in service organizations, employing a research design that includes quantitative methods. The sample size of 500 participants is determined using Yamane's formula and selected through purposive and random sampling techniques. Data is collected through survey questionnaires and interviews, and the analysis incorporates both qualitative content analysis and quantitative techniques. The test used in the study is regression analysis, facilitated by the use of SPSS software. Ethical considerations include informed consent, confidentiality, and rigorous validity and reliability assessments to uphold the ethical standards of academic research.

Analysis

Objective 1: To assess the perception of the academic community towards quality management in HEIs.

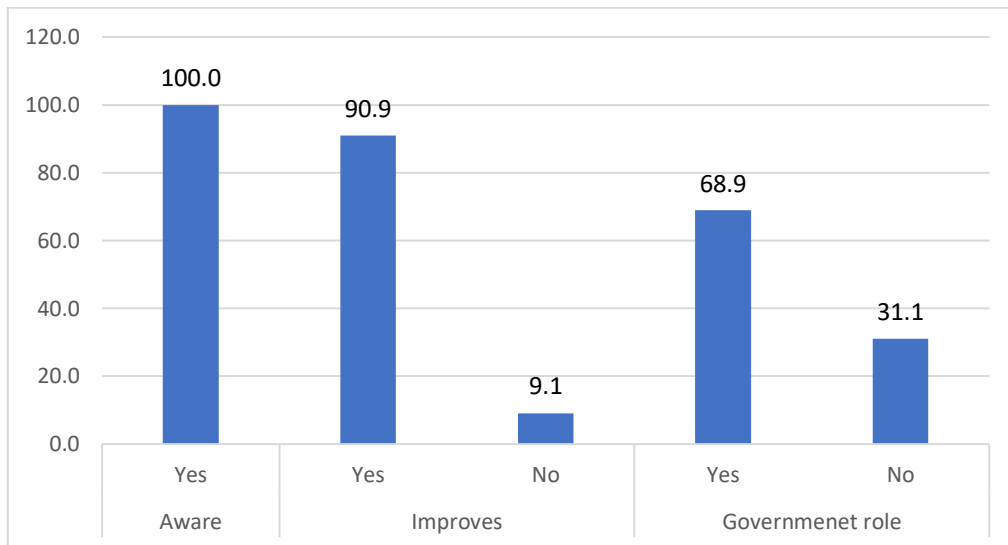


Figure 1: Conceptual Information based background analysis

The conceptual information-based background analysis, illustrated in Figure 1, depicts the participants' awareness and understanding of quality management in Ethiopian HEIs. The study found that 90.9% of participants, comprising students and faculty, acknowledge the crucial role of quality management in ensuring better-quality assurance and educational standards. While a minority (9.1%) may not fully support this viewpoint, the majority believes that implementing quality management practices can enhance the overall quality of education provided by the institutions. Additionally, 68.9% of participants express the belief that government participation in monitoring and managing activities is essential for ensuring higher education standards. This analysis suggests a generally positive awareness and understanding among students and faculty regarding the concept of quality management, with a focus on its role in educational quality assurance and the potential benefits of government involvement in the process.

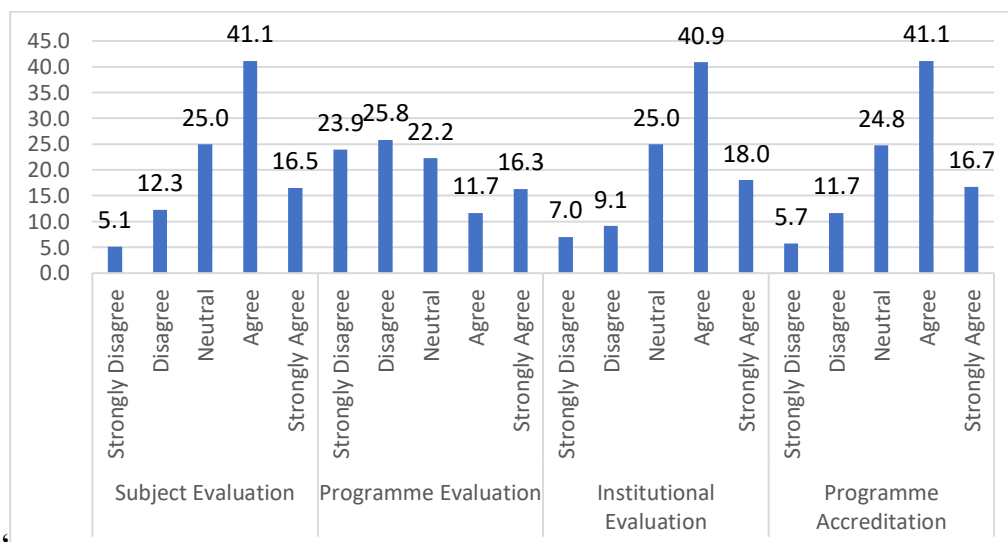


Figure 2: Quality management efforts and strategies-based background

The analysis presented in Figure 2 focuses on the evaluation of quality management efforts and strategies within the academic community. Regarding subject evaluation—verification of quality, methods, and practices specific to each program—57.6% of participants support its implementation, while 17.4% mention its absence for enhancing education quality. Concerning program evaluation—examining course outcomes against standards—49.7% express disagreement with its usage, while 28% acknowledge its implementation for regular quality checks. Institutional evaluation—examining organizational potential and structure—engages 58.9% of participants, emphasizing its role in enhancing institutional goodwill, though 16.1% note its absence. Program accreditation—assessment of education quality by an association—is acknowledged by 57.8%, while 17.4% deny its practice in their institutions. This comprehensive analysis illustrates varying perceptions within the academic community regarding the adoption of quality management practices, shedding light on areas of consensus and divergence.

The analysis demonstrates a significant difference in the perception of the academic community towards quality management in Ethiopian HEIs. This suggests that various stakeholders within the academic community hold diverse views and attitudes regarding the effectiveness and relevance of quality management practices. The findings highlight the importance of considering and addressing these varying perspectives in the implementation of quality management initiatives.

Objective 2: Diagnosis and Prognosis of quality management practices applied in selected Ethiopian universities

H01: Adoption of quality management system does not impact the quality assurance and management of the educational institutions.

Ha1: Adoption of quality management system does have impact on the quality assurance and management of the educational institutions.

Table 1: Organizational quality regression analysis

Quality	Coefficient	T-statistic	p-value	R ²	Adjusted R ²	F ratio
Constant	-0.138	-1.197	0.232	0.695	0.689	105.149
oq1	0.058	1.250	0.212			
oq9	0.065	1.230	0.219			
oq11	-0.019	-0.296	0.767			
oq12	0.249	3.828	0.000			
oq13	-0.029	-0.572	0.568			
oq15	0.025	0.456	0.648			
oq16	0.039	0.819	0.413			
oq17	0.048	1.160	0.246			
oq19	0.388	10.922	0.000			
oq21	0.200	5.877	0.000			

The constant term indicates an intercept of -0.138 with a T-statistic of -1.197 and a p-value of 0.232. The R² value of 0.695 suggests that approximately 69.5% of the variability in organizational quality is described by the independent variables in the model. The adjusted R² of 0.689 adjusts for the number of predictors. The F ratio of 105.149 is statistically significant, indicating that at least one of the predictors significantly influences organizational quality. Examining individual coefficients, oq12 (Coefficient: 0.249, T-statistic: 3.828, p-value: 0.000), oq19 (Coefficient: 0.388, T-statistic: 10.922, p-value: 0.000), and oq21 (Coefficient: 0.200, T-statistic: 5.877, p-value: 0.000) show significant positive impacts on organizational quality. This implies that practices represented by these variables positively contribute to the overall quality of the educational institutions. Conversely, oq11 and oq13 exhibit non-significant negative impacts, suggesting that these specific practices do not significantly influence organizational quality.

Table 2: Quality Management system Regression analysis

Quality Management system	Coefficient	T-statistic	p-value	R ²	Adjusted R ²	F ratio
Constant	.017	.144	.885	0.684	0.676	82.414
qms1	.079	2.163	.031			
qms2	.219	5.238	.000			
qms5	.243	6.365	.000			
qms8	.160	3.378	.001			
qms9	-.021	-.496	.620			
qms13	.101	2.167	.031			
qms14	-.102	-2.257	.025			
qms15	.085	1.716	.087			
qms17	.182	4.616	.000			
qms21	.058	1.275	.203			
qms22	-.149	-2.822	.005			
qms24	.138	3.000	.003			

In Table 2, constant term, with a coefficient of 0.017, a T-statistic of 0.144, and a p-value of 0.885, represents the intercept. The R² value of 0.684 indicates that approximately 68.4% of the variability in the quality management system is explained by the independent variables, and the adjusted R² of 0.676 adjusts for the number of predictors. The F ratio of 82.414 is statistically significant, suggesting that at least one of the predictors significantly influences the quality management system. Examining individual coefficients, qms2 (Coefficient: 0.219, T-statistic: 5.238, p-value: 0.000), qms5 (Coefficient: 0.243, T-statistic: 6.365, p-value: 0.000), and qms17 (Coefficient: 0.182, T-statistic: 4.616, p-value: 0.000) show significant positive impacts on the quality management system. This indicates that these specific QMS components positively contribute to the overall quality management of educational institutions. On the other hand, qms14 (Coefficient: -0.102, T-statistic: -2.257, p-value: 0.025) and qms22 (Coefficient: -0.149, T-statistic: -2.822, p-value: 0.005) exhibit significant negative impacts, suggesting that these QMS components have adverse effects on the overall quality management system. It's noteworthy that while qms9 and qms15 have non-significant impacts, with p-values of 0.620 and 0.087, respectively.

Discussion

The regression analyses shed light on the nuanced dynamics of quality management within the educational institutions studied. For organizational quality, practices represented by variables oq12, oq19, and oq21 positively influence the overall quality, while oq11 and oq13 show no significant impact. In the case of the Quality Management System (QMS), components such as qms2, qms5, and qms17 positively contribute, while qms14 and qms22 have adverse effects. These findings underscore the importance of specific quality management practices and system components in shaping the overall quality of educational institutions, providing valuable insights for strategic improvements and effective quality assurance measures.

Conclusion

This study has provided a comprehensive investigation of quality management practices in Ethiopian higher education institutions (HEIs), addressing two primary objectives. Firstly, the assessment of the academic community's perception revealed a generally positive awareness and understanding of quality management concepts, with an emphasis on its role in enhancing education quality and the potential benefits of government participation. Secondly, the diagnosis and prognosis of quality management practices uncovered significant positive contributors and challenges within the organizational structure and Quality Management System (QMS). While specific practices demonstrated positive impacts on overall organizational quality, certain QMS components exhibited adverse effects. These findings highlight the complex

interplay of various factors influencing quality management in Ethiopian HEIs. The results suggest that targeted improvements in specific practices and QMS components can enhance the overall quality of education provided by these institutions. The study supports the existing body of knowledge by provides empirical insights into the perceptions and practices of quality management in the context of Ethiopian HEIs. Additionally, the findings offer actionable recommendations for institutional stakeholders, policymakers, and practitioners to refine and strengthen existing quality management strategies. Future research endeavors could further explore the implementation of these recommendations and assess their efficacy over time. Ultimately, fostering a culture of continuous improvement and adaptability in line with international quality standards is imperative for the sustained enhancement of educational quality in Ethiopian HEIs, aligning with the global pursuit of excellence in higher education.

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