



The impact of management strategy by objectives on total quality management among private universities

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ABSTRACT

Introduction. The Problem & Aim. Studies lack evidence about the connections between TQM implementation and MBO utilization at private universities along with digital-transformation and sustainability programs to determine their impact on institutional performance and student satisfaction. The investigation assesses to what extent different Management-by-Objectives measures correlate with Total Quality Management implementation effectiveness within Jordanian private universities.

Methods. Staff members in 258 private universities across Jordan rated four MBO factors (strategic planning, quality focus, communication, teamwork) and four TQM elements (leadership commitment, employee involvement, process improvement, customer focus). Reliability was high (Cronbach's $\alpha > 0.70$). The analysis consisted of multiple regression and Pearson correlations for conducting relationship tests.

Results. Statistics from the survey indicated widespread agreement with the practice of MBO and TQM approaches because the descriptives measured between 4.05 to 4.21 on a scale of 5.

The research data showed that MBO dimensions demonstrated positive relations with each of the TQM dimensions at statistically significant levels ($r = 0.47 - 0.72$, $p < 0.01$). A relationship of $r = 0.72$ existed between communication and leadership commitment.

The MBO variables accounted for 67% of the TQM overall score variability ($R^2 = 0.67$, $F(4,253) = 127.6$, $p < 0.001$).

Studies showed that communication had the highest standardized effect ($\beta = 0.41$, $p < 0.001$) which exceeded strategic planning ($\beta = 0.32$), teamwork ($\beta = 0.29$), and quality focus ($\beta = 0.28$). All four components demonstrated statistical significance at $p < 0.001$.

Conclusion. Two-way communication and target-driven strategic planning that form the basis of MBO explain 67 percent of effective TQM assessment by lecturers in Jordan's private institutions. The success of TQM depends heavily on effective MBO execution which represents two-thirds of total TQM performance gains since it integrates directly with digital-transformation and sustainability programs. Higher education institutions should implement standard communication frameworks to establish performance objectives which will increase the results of quality-management practices delivering better student satisfaction outcomes.

KEYWORDS

higher education, total quality management, management by objectives, digital transformation, student satisfaction, sustainability, quality management, institutional performance

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INTRODUCTION

Higher education institutions implement systematic management systems because they wish to improve academic quality and operational performance and student experience results. The fundamental techniques for upgrading organizational performance in higher education establishments include utilizing Total Quality Management and Management by Objectives approaches together. The alignment of institutional goals through management by objectives and total quality management depends on stakeholder-based quality improvement approaches as studied by Ngoc et al. in their examination [1] of university accreditation policies and Al-Saffar and Obeidat in their research on the effects of TQM on employee performance when knowledge sharing exists [2].

Institutions require these methodologies to fulfill both accreditation standards and digital change demands and their accountability requirements. Fundin et al. investigated quality management adaptation requirements for upcoming demands especially utilizing digital instruments [6] and Ngoc and Tien studied the impact of research publications on global university rankings to emphasize digital strategy importance [12].

Sustainability together with digitalization approaches increase their importance in university quality management systems. The integration of sustainability principles into quality assurance frameworks enables institutions to achieve superior performance thus meeting their long-term stakeholder requirements based on research publications. Research by Martin et al. presents an extensive definition of quality that enables sustainable academic operations [7].

The implementation of digital transformation in university governance enables better data analysis that improves both resource rehabilitation and education delivery quality for students. Fundin et al. reiterated the necessity of digital quality systems for educational models that prepare for the future [6].

This research combines Total Quality Management and Management by Objectives to study their institutional performance impact on student satisfaction which contributes to higher education success measures. The research explores academic results associated with standardized quality management systems to establish better understanding about operational improvements that support students. This research examines the way digital advancement optimizes quality management systems through technological implementations which allow universities to better their decision-making along with administration simplification and educational delivery enhancement. The research shows how sustainability-oriented policies generate quality management results which add to extended institutional achievements. The research expands current quality management understanding in higher education through specific aims that guide decision making for administrators administrators and educational workers who need effective continuous improvement methods for higher institutional quality. The research by Zaid et al. examined TQM and service quality factors influencing satisfaction levels and behavioral intentions [3] but Sciarelli et al. examined how soft and hard quality practices affect university innovation alongside performance results [9]. The study by Jamalludin et al [5] reviewed TQM implementation at the institutional level in higher education while discussing associated difficulties and advantages.

The implementation of quality management methods has failed to eliminate universities' difficulties in establishing performance standards with measurements and quality control systems. The combination of accreditation standards with international university rankings has made it necessary to develop demonstrated approaches for enhancing institutional operational outcomes. Ngoc and Tien [12] examined the role of scientific research quality in global university rankings and Umair and Dilanchiev [19] studied how strategic business development along with organizational culture affects performance during competitive periods.

The corporate world extensively implements TQM while education faces unique barriers for its implementation because academic operations contain complex structures and various groups prioritize differently. Research documents the impact of TQM on enhancing service quality and student engagement along with better institutional reputation yet strategical studies linking TQM to digitalization and sustainability aspects remain limited. Abbas [4] demonstrated environmental performance enhancement through TQM applications with corporate social responsibility while Sciarelli et al. [9] evaluated innovative practices and quality tools for higher education outcomes and Papp [16] explained quality management techniques in imaging sciences environments.

MBOs provide institutions with a system to create goals and corresponding execution approaches. Academics within universities traditionally face difficulties matching their educational plans to administrative processes which creates performance problems with resource effectiveness. A review by Jamalludin et al. [5] investigated barriers in Higher Education TQM and MBO framework applications and Yanamandra and Alzoubi [11] demonstrated why Six Sigma services work to optimize organization efficiency which aligns with university operational needs.

The evaluation of TQM and MBO integration in higher education institutions alongside their resulting effects on institutional outputs forms the core objective of this research.

Hypotheses and Key Variables

The subsequent section of research implements these proposed hypotheses.

Total Quality Management implementation results in better institutional performance as well as higher student satisfaction throughout education institutions.

Through the implementation of MBO strategies in university management systems institutions achieve both strategic coordination as well as operational effectiveness.

The digital transformation variable enhances the relationship strength between quality management practices and institutional effectiveness.

Methods of quality management that prioritize sustainability bring about extended successful achievement across the entire organization.

The analyzed variables during this research include key components.

- Independent Variables: TQM, MBOs, digital transformation, and sustainability initiatives.
- Dependent Variables: Institutional performance, student satisfaction, and operational efficiency.
- Moderating Variable: Digital transformation.

The need for higher education quality assurance in institutions requires them to implement appropriate management systems. The research analyzes TQM and MBOs alongside digital transformation as organizational drivers that enhance institutional effectiveness in order to benefit academic leadership and policy development. The paper demonstrates research through an example where Martin et al. [7] examined quality definition adjustments that support institutional sustainability and Fuadi et al. [13] analyzed governance techniques for enhancing university global position and Rana et al. [25] studied methodological frameworks for examining administrative policy effectiveness.

Theoretical Background

Several research investigations focus on examining how the connection of Total Quality Management with Management by Objectives can enhance performance quality assurance aspects in higher education institutions. Business execution through MBOs forms goal-setting systems according to Peter Drucker by organizing institutional objectives through faculty and administrative team efforts. The TQM method improves quality continuously because it involves all stakeholders at their respective organizational levels. Evaluation policy effects on organizational quality initiatives were investigated by Ngoc et al. [1] and Al-Saffar and Obeidat [2] explored how knowledge sharing drives TQM-based enhanced employee performance.

Management by Objectives (MBOs) in Higher Education

Through its strategic planning approach MBO provides organizations with better performance results by implementing quantifiable and measurable objectives. Mathematical administrative frameworks leveraging accreditation policies as well as quality assurance systems guide universities to improve their operational effectiveness and this has been validated by Ngoc et al. [1] and Ngoc & Tien [12] through their studies on academic ranking impacts.

The combination of MBOs with balanced scorecards as performance management tools enhances decision intelligence together with accountability measures according to Papp's imaging sciences

research [16] and Deleryd and Fundin's sustainability quality model [18]. The researchers from Alayoubi et al. [17] demonstrated the key leadership function in enhancing educational service quality while Umair and Dilanchiev [19] demonstrated how strategic leadership influences institutional outcomes through organizational culture.

Technology development supports the superior functioning of MBOs. The digital transformation strategies supported by big data analytics and artificial intelligence help universities optimize their performance measurement tracking and strategic planning process according to Fundin et al. [6]. Vinni [10] presented ideas about how design thinking operates with TQM systems to generate better public value. The current research from Cudney et al. [8] and Yanamandra & Alzoubi [11] demonstrates that Lean, Six Sigma together with Six Sigma-based cost rationalization frameworks generate enhanced performance results in higher education by using MBO systems.

A college setting experiences positive effects when Total Quality Management (TQM) becomes part of its operations.

Organized quality enhancement systems in TQM help strengthen service operations while developing academic frameworks together with enhancing student satisfaction. Studies indicate that TQM-based institutional practices boost educational service quality through demonstrated research evidence which validates strong leadership together with stakeholder involvement as primary drivers and this evidence is supported by Zaid et al. [3] during their investigation of service quality influences on satisfaction along with Jamalludin et al. [5] who analyzed institutional TQM usage in higher education.

Student evaluations regarding educational service quality create the foundation for both institutional reputation and student admission rates per SERVPERF quality assessment procedures as reported by Akdere et al. in their study of higher education and healthcare institutions [14].

Higher education organizations draw lasting success by linking TQM systems to sustainability programs. TQM methods based on sustainability principles adhere to current academic administrative and institutional responsibility patterns according to Martin et al.'s [7] investigation into sustainable quality definitions and Deleryd and Fundin's [18] model of sustainability for societal satisfaction.

Research by Cudney et al. [8] in higher education established that TQM frameworks acquire operational efficiency and resource utilization through lean and Six Sigma methodologies according to Yanamandra and Alzoubi [11] who evaluated Six Sigma's cost rationalization benefits.

Organizations benefit from MBOs alongside TQM systems because these two components serve as essential organizational building blocks to enhance quality standards of higher education leading to better institutional performance. Strategic planning measures connected to performance examination systems with continuous improvement practices enable educational institutions to remain socially flexible and market competitive. Sciarelli et al. [9] documented that organizational performance achievements happen through quality practice integration combined with innovative methods along with Mizuno [15] illustrating specialized QC methodology for educational continuous development.

MATERIALS AND METHODS

Methodology

A detailed description of the research methodology exists in this part including the investigation of Management by Objectives' (MBOs) influence on Total Quality Management (TQM) practices among lecturers based in Jordanian private universities.

Research Design

A structured questionnaire survey serves as the research method for this study which adopts a quantitative approach. The study gathers information through a cross-sectional methodology at one point to examine MBOs and TQM dimension relationships. Structured surveys provide standardized response methodologies which result in easier statistical analysis regarding response patterns.

Population and Sample

Lecturers who work in private universities throughout Jordan compose the target population of this study. To achieve a 5% margin of error at a 95% confidence interval the calculated sample size required 274 participants among the lecturing population.

Sampling Method

A random sampling technique was employed to make the sample representative of the larger population-private university lecturers in Jordan. Moreover this will further reduce bias and also improve the generalizing of the findings.

Data Collection Procedures

Data were collected using an online survey, which was distributed by Google Forms. The questionnaire consisted of items measuring:

1. The research gathers demographic data such as participants' age along with gender identification and academic position and length of practice experience.
2. MBOs dimensions:
 - Strategic planning
 - Quality focus
 - Communication
 - Teamwork
3. TQM dimensions:
 - Leadership commitment
 - Employee involvement
 - Process improvement
 - Customer focus

Among the 274 distributed surveys 263 participants chose to respond for a successful response rate of 96%. Out of the initial 258 validated surveys after validation checks only 258 met the required criteria for analysis.

Data Analysis Techniques

Descriptive Statistics

Frequencies together with percentages enabled researchers to present information about respondent demographic aspects including gender distribution and experience length and age groups.

The center point and distribution of MBOs and TQM responses were evaluated through measures of mean value along with standard deviation calculation.

Inferential Statistics

The research established a relationship between MBOs and TQM through these analytical procedures:

1. Correlation Analysis

The research employed Pearson correlation to determine both the linear association and direction between MBOs and TQM dimensions.

2. Regression Analysis

Multiple regression analysis evaluated MBOs (independent variable) as it affected TQM (dependent variable) performance.

The regression model measured which MBO dimensions (strategic planning, communication, teamwork, quality focus) contributed to explaining the total TQM scores.

Data Validation and Reliability

After validating the data it proceeded through several tests before analysis.

1. The verification process validated that participants filled out every survey question.
2. The analysis identified and corrected measurements which fell far from the typical range to prevent their distortion of statistical findings.
3. The K-S and S-W tests confirmed that data points followed normal distributions during the normality check.
4. A reliability check revealed survey item consistency through Cronbach's alpha measurement which accepted values above 0.7.

Ethical Considerations

- The participants were informed of confidentiality and anonymity.
- Informed consent was obtained from the participants before taking part in the survey.
- The study adhered to the ethical research standards of the Jordanian universities.

This unique methodology assures the results of the research are reliable, valid, and generalizable; thus, giving insights into the relationship between MBOs and TQM concerning private universities.

RESULTS

The study has the findings in this section that include descriptive statistics, correlation analysis, and regression analysis to examine the impact of Management by Objectives (MBOs) on Total Quality Management (TQM) among lecturers in private universities in Jordan.

1. Descriptive Statistics

As figure 1, a total of 258 valid responses were analyzed. The demographic characteristics of the participants are summarized in table 1 below.

Table 1

Descriptive Statistics

Variable	Category	Frequency (N = 258)	Percentage (%)
Gender	Male	142	55.0%
	Female	116	45.0%
Age Group	25–34 years	74	28.7%
	35–44 years	92	35.7%
	45–54 years	56	21.7%
	55+ years	36	13.9%
Academic Rank	Assistant Prof.	115	44.6%
	Associate Prof.	89	34.5%
	Full Professor	54	20.9%
Years of Experience	Less than 5 years	52	20.2%
	5–10 years	89	34.5%
	More than 10 years	117	45.3%

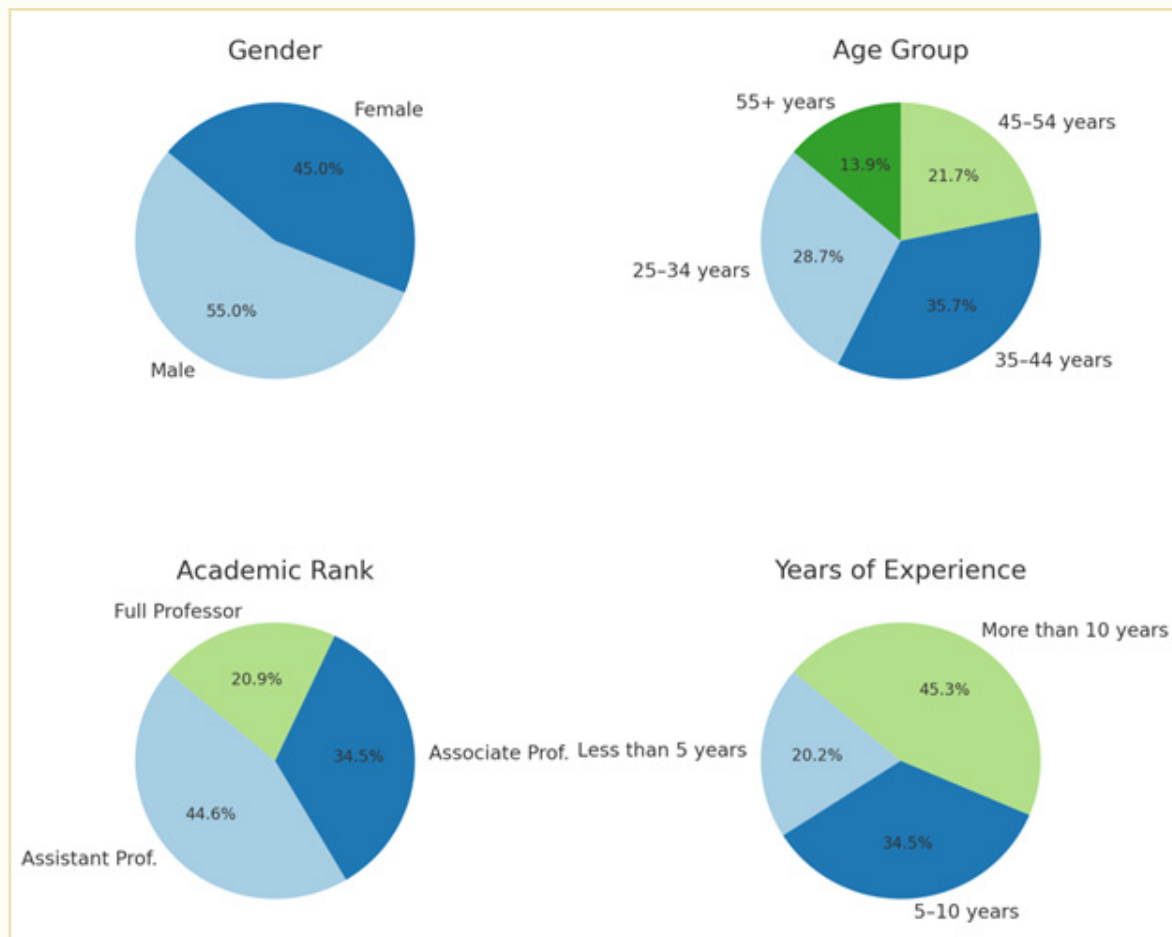


Figure 1 Demographic Characteristics

2. MBO and TQM Dimension: Means and Standard Deviation

The following table 2 provides information on the mean and standard deviation:

Table 2

Mean and Standard Deviation of MBOs and TQM Dimensions

Dimension	Mean (M)	Standard Deviation (SD)
MBOs - Strategic Planning	4.12	0.68
MBOs - Quality Focus	4.05	0.72
MBOs – Communication	4.18	0.65
MBOs – Teamwork	4.09	0.70
TQM - Leadership Commitment	4.21	0.67
TQM - Employee Involvement	4.16	0.69
TQM - Process Improvement	4.10	0.72
TQM - Customer Focus	4.07	0.74

With a range of one to five on this scale, with one being strongly disagree and five being strongly agree, Leadership Commitment was scored highest of all dimensions with 4.21. The standard deviation here is .67, showing that lecturers agree strongly that leadership plays a vital role in the implementation of TQM.

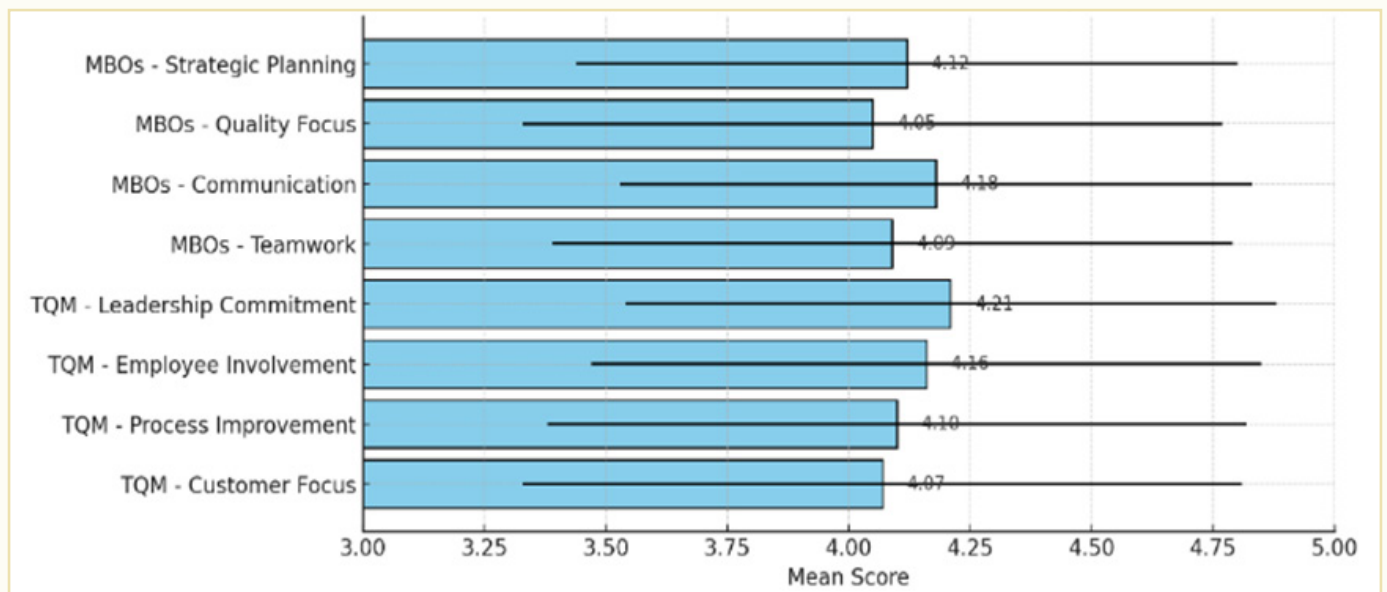


Figure 2 Mean and Standart Deviation

Figure 2 show Mean and Standard Deviation of MBOs and TQM Dimensions

3. Correlation Analysis

Study presents a theory of operations management, and the study of operational activities and operations strategy of business organizations.

Table 3

Correlation Analysis

MBOs Dimensions	TQM Leadership	TQM Employee Involvement	TQM Process Improvement	TQM Customer Focus
Strategic Planning	0.68 ($p < 0.01$)	0.59 ($p < 0.01$)	0.52 ($p < 0.01$)	0.47 ($p < 0.01$)
Quality Focus	0.61 ($p < 0.01$)	0.56 ($p < 0.01$)	0.55 ($p < 0.01$)	0.49 ($p < 0.01$)
Communication	0.72 ($p < 0.01$)	0.66 ($p < 0.01$)	0.60 ($p < 0.01$)	0.58 ($p < 0.01$)
Teamwork	0.63 ($p < 0.01$)	0.57 ($p < 0.01$)	0.54 ($p < 0.01$)	0.62 ($p < 0.01$)

Findings of importance from correlation analysis reveal that, with respect to correlation on TQM Leadership, Communication-MBO has the highest outside rating ($r=0.72$, $p<0.01$). The implication is that effective communication greatly influences leadership commitment to TQM implementation. Teamwork-MBO had the highest correlation with TQM Customer Focus (0.62, $p < 0.01$). The implication is that teamwork furthers customer-focused quality management in universities.

4. Regression analysis

Multiple regression analysis was applied to assess the impact of dimensions of MBOs on TQM implementation.

Regression Model Summary

- $R^2 = 0.67$, which indicates that 67% of the variance in TQM scores can be explained using MBOs.
- $F(4, 253) = 127.6$, $p < 0.001$: the overall model was statistically significant.

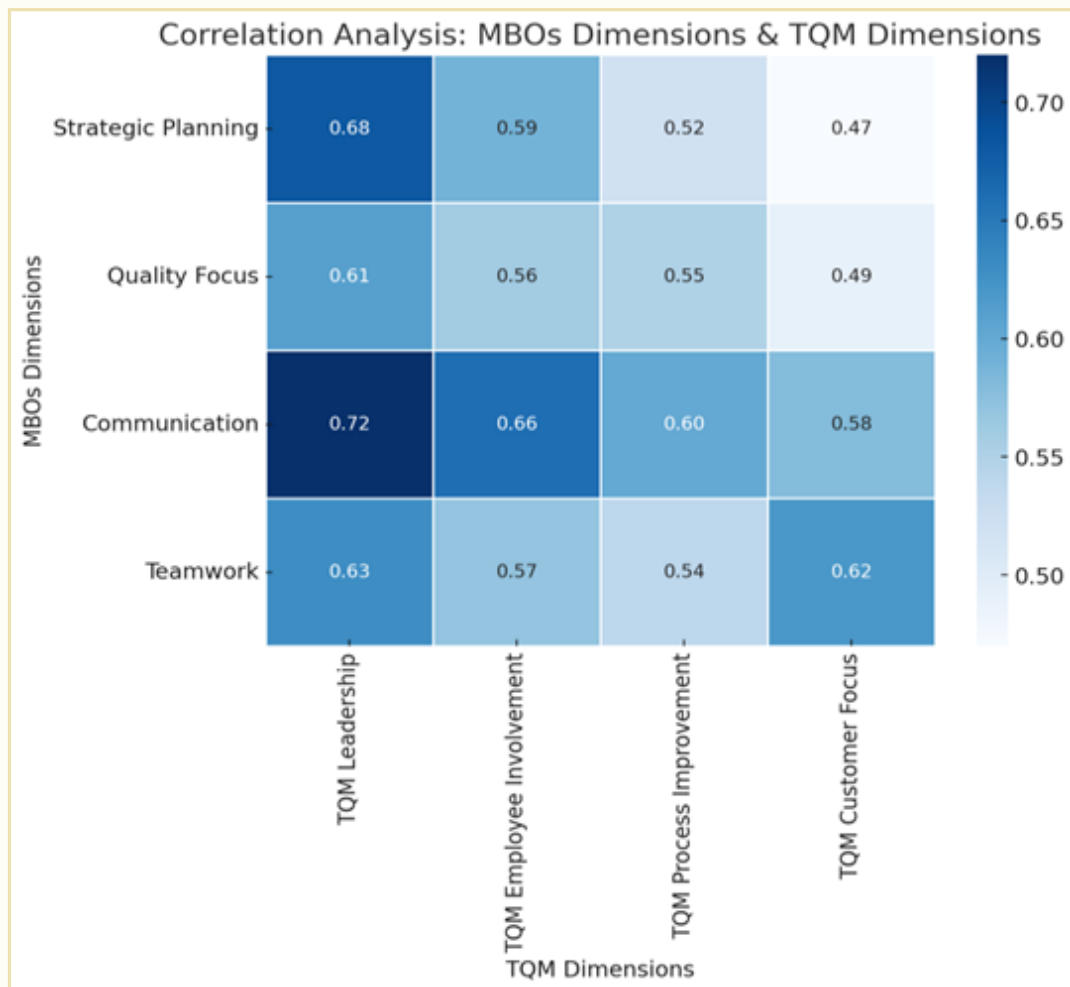


Figure 3 Correlation Analysis

Regression Coefficients

Table 4

Regression Analysis

Predictor (MBOs Dimensions)	Beta (β)	t-value	p-value
Strategic Planning	0.32	5.64	<0.001
Quality Focus	0.28	4.91	<0.001
Communication	0.41	7.23	<0.001
Teamwork	0.29	5.12	<0.001

Interpret Key Findings from the Regression Analysis:

- Communication ($\beta=0.41$, $p<0.001$) had the most impact on TQM as it contributed well towards TQM practices in the sense that it there could be effective communication between the lecturers and the administration.
- Of the remaining Strategic Planning ($\beta=0.32$, $p<0.001$), it was shown that clear goal setting tends to positively influence TQM.
- All MBO's dimensions for TQM have been statistically significant predictors of improvement in TQM ($p<0.001$ for all).

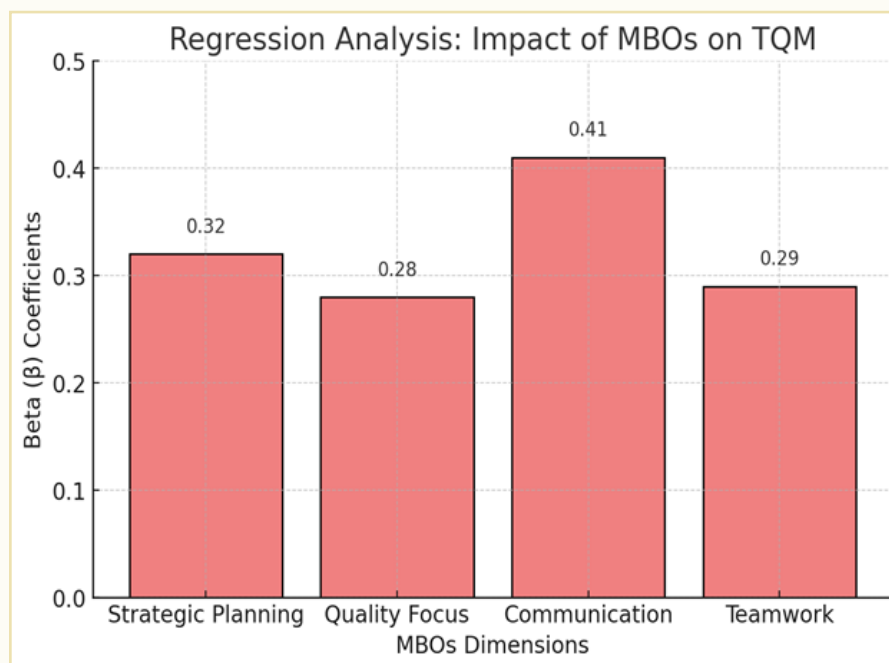


Figure 4 Regression Analysis

DISCUSSION

Research findings show Management by Objectives (MBOs) play a substantial role in enhancing Total Quality Management (TQM) throughout private universities across Jordan according to existing studies on strategic planning effects on institutional outcomes. The research shows that sustainability and digitalization integration in planning structures matters as Carnerud et al. [20] demonstrated and Alosani et al. [26] discussed their impact on organizational performance. Total Quality Management boosts corporate environmental performance according to Abbas [4] with the help of Corporate Social Responsibility ensuring superior sustainability management in private institutions.

Digital transformation has recently emerged as a core strategic focus for higher education institutions. The analysis by Mohamed Hashim et al. [23] showed digitization supports educational institutions in their process of modernization alongside Anthonysamy et al. [28] who studied digital literacy and self-regulated learning for sustainable end results. User experiences together with the institutional image in digital learning platforms are determined by the perceived quality of e-services according to Demir et al. [30].

Academic decision-makers need to embrace technological innovations and e-learning systems because these tools help improve service quality along with performance assessment. Strategic human resources and knowledge management practices create positive impacts on sustainable competitiveness as Alfawaire and Atan [21] discover while Makki et al. [24] presented a quality standards evaluation model specific to university colleges.

Higher education institutions increasingly use balanced scorecard platforms as alignment frameworks because they create operational outcome connections from strategic objectives. The research by Camilleri [29] demonstrates how this tool enhances performance management and accountability procedures in academic institutions.

Service quality functions as an essential indicator which determines student satisfaction levels together with institutional achievement. According to Abbas [4], social responsibility serves as a connection point between TQM and green performance for the educational setting where sustainable impact takes priority. Education quality implementation methods were outlined by Arcaro [22] and Palah et al. [27] described how strategic management under principal leadership leads to educational quality development.

The adoption of Quality 4.0 principles by higher education institutions leads to greater institutional dependence on big data analysis with the assistance of AI and advanced analytics for better performance results. New technologies often hold transformative power in education according to the research findings presented by Mohamed Hashim et al. [23] and Demir et al. [30]. Data analysis provides universities with the capability to track their performance and locate developmental opportunities as reported by Palah et al. [27].

MBOs and TQM guided through digital interventions and sustainability strategies provide higher education institutions with an effective framework to reach their best potential.

CONCLUSION

The authors demonstrate that Total Quality Management (TQM) together with Management by Objectives (MBOs) and digital transformation initiatives and sustainability strategies define how higher education institutions deliver quality. Total Quality Management demonstrates strong power to boost institutional performance and Management by Objectives proves essential for enhancing student satisfaction. Universities benefit from digital transformation by using it to improve administrative operations as well as academic excellence which allows better data-based decision-making. Sustainability initiatives function as essential components for institutional success because they drive extended expansion and better relationships with stakeholders.

Higher education institutions which implement a total approach to these elements can improve their quality management structures while enhancing operational performance and institutional success. The study presents important knowledge that enables policymakers along with administrators and educators to see the necessity of ongoing innovative approaches to quality management strategies. Future academic research should focus on studying the developing effects digitalization together with sustainability have on higher education institutes to enhance both their performance and student success metrics.

REFERENCES

1. Ngoc, N. M., Hieu, V. M., & Tien, N. H. (2023). Impact of accreditation policy on quality assurance activities of public and private universities in Vietnam. *International journal of public sector performance management*, 10, 1-15.
2. Al-Saffar, N. G., & Obeidat, A. M. (2020). The effect of total quality management practices on employee performance: The moderating role of knowledge sharing. *Management science letters*, 10(1), 77-90.
3. Zaid, A. A., Arqawi, S. M., Mwais, R. M. A., Al Shobaki, M. J., & Abu-Naser, S. S. (2020). The impact of Total quality management and perceived service quality on patient satisfaction and behavior intention in Palestinian healthcare organizations. *Technology Reports of Kansai University*, 62(03), 221-232.
4. Abbas, J. (2020). Impact of total quality management on corporate green performance through the mediating role of corporate social responsibility. *Journal of cleaner production*, 242, 118458. <https://doi.org/10.1016/j.jclepro.2019.118458>
5. Jamalludin, J. I., Aziz, S. A. A., & Sarip, S. (2021). A TQM Implementation in Higher Education Institutions: A Review. *International Journal of Advanced Research in Future Ready Learning and Education*, 25(1), 30-48.
6. Fundin, A., Lilja, J., Lagrosen, Y., & Bergquist, B. (2025). Quality 2030: Quality management for the future. *Total Quality Management & Business Excellence*, 36(3-4), 264-280.
7. Martin, J., Elg, M., & Gremyr, I. (2025). The many meanings of quality: towards a definition in support of sustainable operations. *Total quality management & business excellence*, 36(3-4), 185-198.
8. Cudney, E. A., Venuthurumilli, S. S. J., Materla, T., & Antony, J. (2020). Systematic review of Lean and Six Sigma approaches in higher education. *Total Quality Management & Business Excellence*, 31(3-4), 231-244. <https://doi.org/10.1080/14783363.2018.1429259>
9. Sciarelli, M., Gheith, M. H., & Tani, M. (2020). The relationship between soft and hard quality management practices, innovation and organizational performance in higher education. *The TQM Journal*, 32(6), 1349-1372. <https://doi.org/10.1108/TQM-01-2020-0017>
10. Vinni, R. (2021). The potential of design thinking and total quality management in creating public value. Network of Institutes and Schools of Public Administration in Central and Eastern Europe. *The NISPAcee Journal of Public Administration and Policy*, 14(1), 285-309.
11. Yanamandra, R., & Alzoubi, H. M. (2022). Empirical investigation of mediating role of six sigma approach in rationalizing the COQ in service organizations. *Operations and Supply Chain Management: An International Journal*, 15(1), 122-135. <https://doi.org/10.31387/oscm0460317>

12. Ngoc, N. M., & Tien, N. H. (2023). Quality of scientific research and world ranking of public and private universities in Vietnam. *International journal of public sector performance management*, 10(1), 1-15.
13. Fuadi, D., Harsono, H., Syah, M. F. J., Susilo, A., Suhaili, S., & Wahyono, B. (2025). Self-Governance: Internationalization management of distinctive higher education towards the world class university. *Indonesian Journal on Learning and Advanced Education (IJOLAE)*, 96-113.
14. Akdere, M., Top, M., & Tekingündüz, S. (2020). Examining patient perceptions of service quality in Turkish hospitals: The SERVPERF model. *Total quality management & business excellence*, 31(3-4), 342-352. <https://doi.org/10.1080/14783363.2018.1427501>
15. Mizuno, S. (2020). Management for quality improvement: the 7 new QC tools. Productivity press.
16. Papp, J. (2023). Quality Management in the Imaging Sciences-E-Book: Quality Management in the Imaging Sciences-E-Book. Elsevier Health Sciences.
17. Alayoubi, M. M., Al Shobaki, M. J., & Abu-Naser, S. S. (2020). Strategic leadership practices and their relationship to improving the quality of educational service in Palestinian Universities. *International Journal of Business Marketing and Management (IJBMM)*, 5(3), 11-26.
18. Deleryd, M., & Fundin, A. (2025). Towards societal satisfaction in a fifth generation of quality-the sustainability model. *Total Quality Management & Business Excellence*, 36(3-4), 292-308.
19. Umair, M., & Dilanchiev, A. (2022). Economic recovery by developing business strategies: mediating role of financing and organizational culture in small and medium businesses. Proceedings book, 683.
20. Carnerud, D., Mårtensson, A., Ahlin, K., & Slumpi, T. P. (2025). On the inclusion of sustainability and digitalisation in quality management-an overview from past to present. *Total Quality Management & Business Excellence*, 36(3-4), 199-221.
21. Alfawaire, F., & Atan, T. (2021). The effect of strategic human resource and knowledge management on sustainable competitive advantages at Jordanian universities: The mediating role of organizational innovation. *Sustainability*, 13(15), 8445. <https://doi.org/10.3390/su13158445>
22. Arcaro, J. (2024). Quality in education: An implementation handbook. Taylor & Francis. <https://doi.org/10.4324/9781003580140>
23. Mohamed Hashim, M. A., Tlemsani, I., & Matthews, R. (2022). Higher education strategy in digital transformation. *Education and Information Technologies*, 27(3), 3171-3195. <https://doi.org/10.1007/s10639-021-10739-1>
24. Makki, A. A., Alqahtani, A. Y., Abdulaal, R. M., & Madbouly, A. I. (2023). A novel strategic approach to evaluating higher education quality standards in university colleges using multi-criteria decision-making. *Education Sciences*, 13(6), 577. <https://doi.org/10.3390/educsci13060577>
25. Rana, J., Gutierrez, P. L., & Oldroyd, J. C. (2023). Quantitative methods. In Global encyclopedia of public administration, public policy, and governance (pp. 11202-11207). Cham: Springer International Publishing. https://doi.org/10.1007/978-3-319-31816-5_1127-1
26. Alosani, M. S., Yusoff, R., & Al-Dhaafri, H. (2020). The effect of innovation and strategic planning on enhancing organizational performance of Dubai Police. *Innovation & Management Review*, 17(1), 2-24. <https://doi.org/10.1108/INMR-06-2019-0082>
27. Palah, S., Wasliman, I., Sauri, S., & Gaffar, M. A. (2022). Principal strategic management in improving the quality of education. *International Journal of Educational Research & Social Sciences*, 3(5), 2041-2051.
28. Anthonysamy, L., Koo, A. C., & Hew, S. H. (2020). Self-regulated learning strategies in higher education: Fostering digital literacy for sustainable lifelong learning. *Education and Information Technologies*, 25(4), 2393-2414. <https://doi.org/10.1007/s10639-020-10201-8>
29. Camilleri, M. A. (2021). Using the balanced scorecard as a performance management tool in higher education. *Management in Education*, 35(1), 10-21. <https://doi.org/10.1177/0892020620921412>
30. Demir, A., Maroof, L., Sabbah Khan, N. U., & Ali, B. J. (2021). The role of E-service quality in shaping online meeting platforms: a case study from higher education sector. *Journal of Applied Research in Higher Education*, 13(5), 1436-1463. <https://doi.org/10.1108/JARHE-08-2020-0253>

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