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Influence of TQM Practices on Job Satisfaction at Bost Private University, Southwestern Afghanistan

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Abstract: This study examined the impacts of Key Total Quality Management (TQM) practices on employee job satisfaction at Bost private university, a leading higher education institution in Southwestern Afghanistan. The Primary objective of the study was to show the effects of (TQM) practices on job satisfaction. Based on Deming's TQM philosophy, employing a cross-sectional research design and quantitative research method, data were collected from 120 academic and non-academic staff. The study examined five key TQM dimensions: top management commitment, education and training, customer focus, organisational culture, and teamwork. Structural Equation Modelling Partial Least Squares (SEM-PLS) was applied to assess the data. The findings showed that education and training, top management commitment, and teamwork contributed significantly to employee job satisfaction, with education and training as the best predictor. Customer focus and organisational culture, however, did not have any statistically significant impact, and these (TQM) Practices explained 43% variance in job satisfaction. These conclusions emphasise the importance of leadership involvement, continuous employee improvement, and group-oriented working cultures in developing a contented and engaged workforce. The study has implications for practice in university administration and policymaking, especially in limited-resource settings, in that it identifies which TQM practices most contribute to job satisfaction. Suggestions for future study are to increase across several institutions, involve longitudinal and qualitative methods, and examine additional aspects of TQM. Collectively, the study contributes to the emerging body of literature studying quality management in higher education and provides practical suggestions for institutional growth and employee engagement.

Keywords: Total Quality Management (TQM) Practices, Job Satisfaction, SEM-PLS, Bost University, Afghanistan.

Introduction

Total Quality Management (TQM) has long been regarded as a strategic management approach aimed at embedding quality principles throughout all levels of an organisation. It focuses on continuous improvement, customer satisfaction, and employee involvement to foster organisational excellence. In both private and public institutions, including the higher education sector, TQM provides a structured framework to enhance institutional performance and service delivery (Aminuddin et al., 2022). In academic settings, employee satisfaction is increasingly recognised as a critical element for sustaining quality education. Satisfied academic and administrative staff are more likely to engage positively with their work, contribute innovative ideas, and align with institutional objectives (Ming, 2023). Studies have confirmed that TQM practices such as top management commitment, employee empowerment, continuous training, and performance-based recognition play a substantial role in shaping employees' job satisfaction (Alsaad, Mansor, & Ghazali, 2023). However, while the benefits of TQM have been widely documented in the corporate and industrial sectors, its effectiveness in higher education institutions within developing countries remains underexplored. In Afghanistan, where universities are navigating challenges related to infrastructure, governance, and capacity development, understanding the link between quality practices and employee satisfaction becomes essential. Bost University, as a growing academic institution in southern Afghanistan, serves as a meaningful case to examine how TQM initiatives can enhance employee engagement and institutional efficiency. Accordingly, this study aims to investigate the impact of TQM practices on job satisfaction among academic and administrative staff at Bost University. Specifically, the research seeks to:

1. Identify which TQM components, namely top management commitment, training and education, student (customer) focus, teamwork and empowerment, and reward and recognition, significantly influence job satisfaction; and
2. Analyse the strength of these relationships using Structural Equation Modelling Partial Least Squares (SEM-PLS).

The findings are expected to inform university leadership and policymakers in adopting evidence-based quality strategies that contribute to employee motivation and organisational success.

Research Problem

Total Quality Management (TQM) has proved to be a successful strategy to boost not only staff satisfaction but also the performance of higher education institutions in most parts of the

world. Support from leadership, ongoing employee development, teamwork, and a focus on students have been linked with positive outcomes in Malaysia, Iraq, and Pakistan (Aminuddin et al., 2022; Iqbal et al., 2024; Sandel & Kulualp, 2024). These strategies have facilitated the creation of more supportive work environments in universities and improved the motivation of employees (Al Refaei et al., 2024; Zangar et al., 2019). While evidence of the success of TQM in other countries grows, no study has yet examined whether the implementation of TQM practices influences job satisfaction among Afghan universities. This is an important gap in the literature, especially now that Afghan universities are finally being urged to adopt more institutionalised quality improvement plans, but without relevant context-based evidence to guide them. Bost University, a high-ranking private institution in southern Afghanistan, has just achieved the milestone of successfully passing the third stage of the national quality assurance process and receiving full accreditation. This success is a milestone in the establishment of the university and shows a clear commitment to quality. The larger the university expands, the more necessary it is to find out whether or not TQM practices are having an impact on those who work within it. The purpose of this study is to examine the effects of five fundamental elements of TQM: top management commitment, training and education, teamwork, focus on students, and organisational culture on job satisfaction among academic and non-academic faculty members of Bost University. Through this under-explored area of research, the study aims to generate actionable findings that may influence future growth, not only in Bost University but also in other universities in Afghanistan working towards quality and excellence.

Research Objectives

1. To examine the impacts of top management commitment on employees' job satisfaction.
2. To show the effects of education and training on employees' job satisfaction.
3. To investigate the effects of customer focus on employees' job satisfaction.
4. To assess how organisational culture contributes to employees' job satisfaction.
5. To evaluate the influence of teamwork on employees' job satisfaction.

Research Questions

1. How does top management commitment impact the employee's job satisfaction?
2. What are the effects of education and training on employees' job satisfaction?
3. How does customer focus affect employees' job satisfaction?
4. What is the effect of organisational culture on employees' job satisfaction?
5. In what ways does teamwork affect the employee's job satisfaction?

Literature review

Total Quality Management in HEIs

Total Quality Management (TQM), which started earlier in the world of business, has also made a profound impact within education. TQM is a holistic, structured strategy that positions itself

for ongoing improvement. It can be termed as a management philosophy that emphasises management accountability for overseeing the whole institution. The words "total" refer to the entire system, "quality" refers to the extent to which something satisfies standards or requirements, and "management" encompasses planning, organising, directing, and controlling educational resources to achieve educational goals by making everything go as planned (Mahmood, 2020). In higher education, TQM requires leadership commitment, continuous improvement, employee participation, prioritising customer requirements, and providing education and training (Mahmood et al., 2023). TQM has become a strategic model to improve administrative and scholarly performance in higher education by utilising leadership, capacity building, governance, quality assurance, and data-driven decision-making (Jasti et al., 2022). Studies show TQM bridging the gap between institutional objectives and academic staff requirements, encouraging responsibility and ownership; most critical under scarce resource conditions (Jasti et al., 2022; Al-Refaei et al., 2024).

Job Satisfaction Among Academic & Non-Academic Staff

Job satisfaction among staff is universally recognised as an essential part of Total Quality Management (TQM), and is often viewed to be one of its key quality objectives. Happy workers have higher chances of being productive, dedicated, and engaged, and this significantly contributes to organisational performance (Al-Refaei et al., 2024). Job satisfaction is typically quantified as the judgment of a person's job experience, particularly the degree to which they like what they do or find it satisfying. According to Ahmed and Idris (2020), employees are internal customers of an organisation, and organisational quality is unattainable without pleasing them. Creating an effective TQM practice is imperative to increasing employees' job satisfaction. Oluwafemi and Okon (2018) stated that involving workers in decision-making, constant training, and appreciation for their work are all linked to increased levels of satisfaction. Follow-up studies by Zanqar et al. (2019) again confirm that the degree to which employees perceive a productive TQM climate in terms of teamwork, management support, and quality focus is highly correlated with job satisfaction. In this regard, Sandel and Kulualp (2024) have established that leadership commitment based on TQM is a significant predictor for employees' perception of the work environment and overall job satisfaction. Employee satisfaction in HEIs encompasses recognition of multidimensional features, autonomy, leadership support, collegiality, and performance appraisal with direct effects on employee retention, productivity, and teaching effectiveness (Al Refaei et al., 2024). For instance, open systems of evaluation and participative decision-making, pillars of TQM, are linked to employee satisfaction in Pakistani universities (Al Refaei et al., 2024). Further, employee satisfaction encompasses the satisfaction and motivation of the employee in the work environment. Job satisfaction refers to the feelings of employees regarding their work and towards their employing organisation (Mahmood, Kanwal, & Pervez, 2023).

Empirical Evidence by TQM Practice

TQM Practices in Educational Institutions

In the context of education, a recent empirical work by Mahmood et al. (2024), conducted in Pakistani secondary schools, examined the predictive role of Total Quality Management (TQM) practices on job satisfaction. Supported by 346 teachers in the sample using multiple regression analysis within the framework of Deming's Total Quality Management (TQM) philosophy, it was established that TQM practices such as top management commitment, employee participation, training, and customer focus significantly contributed to job satisfaction, explaining nearly 40% of its variance. The findings indicated that schools with higher practice of TQM practices had more satisfied employees as well as better performance. This study verifies the premise that traditional implementation of TQM can directly and positively impact workers' lives, with due analogies applied in the context of Afghan higher education, especially for organisations like Bost University aiming at enhancing service quality through empowerment of employees.

Similarly, El-Kassem (2024) studied 359 school teachers in Qatar and developed a causal path model to assess the effects of TQM constructs such as information sharing, teamwork, professional development, and decision-making involvement on job satisfaction. The study was grounded in a conceptual TQM framework, highlighting the interconnectedness of quality management practices in educational institutions. Four out of five TQM constructs were found to significantly predict job satisfaction, suggesting that a collaborative and informed environment is essential for enhancing staff morale in educational settings. The study also revealed that some constructs acted as mediators, indicating the interconnectedness of TQM components in shaping job satisfaction.

The influence of TQM is not confined to the education or public sectors. In Egypt, Mostafa and Bisheer (2023) conducted a study among 350 employees in the petroleum sector to evaluate the combined impact of Human Resource Management (HRM) and TQM practices on job satisfaction, employing multiple regression analysis and using an integrated HRM-TQM theoretical model. The results showed that TQM dimensions—especially employee empowerment—had a strong correlation ($r = 0.82$) with job satisfaction. Collectively, HRM and TQM practices explained 79% of the variance in employee satisfaction, underscoring the synergistic power of integrating quality and people management practices.

In a separate manufacturing context, Ming (2023) emphasized the importance of TQM in the Chinese industrial sector. Using Deming's TQM philosophy and employing Structural Equation Modeling (SEM), The study identified employee involvement, training, supportive leadership, empowerment, and communication as key factors driving job satisfaction. The research affirmed that these soft elements of TQM focused on human resource development are central to nurturing job satisfaction in performance-driven environments.

Aminuddin et al. (2022) conducted a cross-sectional study among 261 employees of a Malaysian municipal council to investigate how TQM dimensions affect job satisfaction—using PLS-

SEM, based on a TQM conceptual framework used in continuous improvement and employee recognition theory. The study showed that top management commitment, reward, and recognition were the most significant predictors of employee satisfaction. Other factors, such as continuous improvement and customer focus, had moderate effects. This study highlights that when employees perceive strong leadership support and receive recognition for their contributions, their satisfaction levels tend to rise significantly.

Khan et al. (2023) examined the impact of Total Quality Management (TQM) practices on job satisfaction and motivation at different organisational levels. Employed a quantitative research method, where data were analysed using multiple regression analysis to determine the influence of Total Quality Management (TQM) practices on job satisfaction and motivation at different organisational levels. This was a proper statistical procedure as it allowed the authors to measure the direction and magnitude of the interdependence between various independent variables (TQM dimensions) and the dependent variables (job satisfaction and motivation). The theoretical underpinning for the research was Deming's Total Quality Management philosophy, established on leadership commitment, ongoing improvement, and employee involvement. The authors also extended Herzberg's Two-Factor Theory of Motivation to explain how TQM practices such as recognition, training, and participative management result in intrinsic motivation and job satisfaction. Combining the two theoretical frameworks provided a solid foundation for understanding how quality management systems affect human resource outcomes.

Another recent empirical study published in 2025 investigates the relationship between Total Quality Management (TQM) practices and job satisfaction among employees in higher education institutions. Conducted by Nur Azureen binti Azha and Mohamad Yusuf bin Mislam, the research focuses on Technical and Vocational Education and Training (TVET) institutions in Malaysia. The study employs a systematic literature review methodology to analyse existing research on the implementation of TQM in enhancing leadership effectiveness within TVET institutions (Bin Mislam & Binti Azha, 2025). The findings suggest that TQM practices positively influence job satisfaction among employees in these institutions. The authors recommend that TVET institutions integrate TQM practices to improve organisational effectiveness and employee well-being.

Top Management Commitment

Sandel and Kulualp (2024) showed a meaningful positive relationship between leadership commitment and staff performance in Iraqi HEIs, highlighting leadership's critical role in supporting TQM. Likewise, Mahmood, Ismail, and Omar (2024) reported that teacher satisfaction mediated the effect of TQM through supportive leadership in Pakistani schools 2024.

Training and Education

Ongoing professional development significantly improves job satisfaction and organisational productivity. Cobelli et al. (2022) found through meta-analysis that education and training are potent predictors of personnel satisfaction, mediated by meta-perceptions of support and

competence. Alsawi and Farea (2022) demonstrated that training and continuous improvement positively influenced HE staff performance in Yemen (Alsawi & Farea, 2022). Iqbal et al. (2024) emphasised that ISO 9001-aligned training boosts job satisfaction and university productivity in Pakistan.

Customer (Student) Focus

TQM literature highlights the internal customer: students and faculty. Al Refaei et al. (2024) discovered that faculty job satisfaction has significant effects on students' perceptions of service quality. Zangar et al. (2019) implemented TQM in UAE HEIs and demonstrated that student-focused approaches enhance staff morale and institutional efficiency. Student-centricity under TQM not only enhances staff satisfaction but also defines roles and results. This was revealed through systematic TQM reviews by Alsaad, Mansor and Ghazali (2023).

Teamwork

Teamwork or collaborative workplaces are associated positively with job satisfaction. Sandel and Kulualp (2024) emphasised that employee participation (teamwork) enhances performance. Alsawi and Farea (2022) also reported that teamwork, in conjunction with training, improved HE performance. Jasti et al. (2022) view "connection and cooperation" as indicative of teamwork as one of the most important TQM practices that boosts employee satisfaction. Similarly, Sandel and Kulualp (2024) refer to employee participation as enhancing performance.

Organizational Culture

A culture that emphasises continuous improvement and quality systems significantly influences staff satisfaction. Zangar et al. (2019) adopted a quantitative research design and employed Structural Equation Modelling (SEM) using AMOS to analyse the relationships between TQM practices, quality culture, service quality, and employee morale. SEM was an appropriate method for examining intricate, multivariate relationships among latent variables and evaluating overall model fit. Deming's Total Quality Management theory theoretically guided the study. It relied on organisational culture theory to guide how quality-oriented values and practices influence job satisfaction and service delivery. Given the aim of the study to explore direct and indirect effects on various constructs in UAE universities, the theoretical framework and analysis method selected were stringent and most suitable for the research objective. TQM practices that embed quality culture correlate strongly with service quality and employee morale in UAE universities. A quality-focused culture underpins TQM's impact on job satisfaction. Aminuddin et al. (2022) used PLS-SEM, based on a TQM conceptual framework used in continuous improvement and employee recognition theory. Found that organisational culture significantly influenced employee satisfaction in the Malaysian public sector (2022).

Research Gaps and Relevance to Afghanistan

Although such studies provide strong evidence on the job satisfaction linkages in various industries and nations, they differ in terms of theoretical background, research models, and analysis methodology. However, none of the studies systematically investigates the effect of a combination of dimensions of TQM, such as commitment by top management, training, teamwork, customer focus, and organisational culture, on job satisfaction as an aggregate impact in an unstable, resource-constrained learning environment like Afghanistan. Therefore, this study not only bridges a contextual deficit, but also a conceptual and methodological deficit by employing a composite TQM model and SEM methods in examining these associations in a higher education institution of a post-conflict environment.

Research Methodology

This study employed a cross-sectional research design and was conducted at Bost University, a leading private higher education institution in southern Afghanistan. The target population consisted of both academic and non-academic staff working across various departments. Based on the total number of employees at the university (130 staff members), a sample size of 120 respondents was determined using Krejcie and Morgan's (1970) sample size determination table, ensuring the inclusion of a representative subset for statistical analysis. In order to enhance representativeness by categories of employees, a stratified sampling design was employed. The population was divided into two subgroups, namely academic and non-academic employees, and proportionate samples were drawn from each of these groups according to their proportion in the overall workforce. This helped ensure the two groups were represented adequately in the final sample and therefore helped reduce sampling bias and enhance the generalizability of the findings. Data were collected using a standardised questionnaire adapted from previous research. More specifically, Agus and Rabiatal (2012) offered the constructs of Top Management Commitment, Education and Training, Customer Focus, and Employee Job Satisfaction, which were adopted, while Nor Anuar (2016) offered the constructs of Organisational Culture and Teamwork, which were utilised. The instrument consisted of three sections, namely demographic information, Total Quality Management (TQM) practices, and job satisfaction. Minor modifications were made to ensure contextual suitability to Bost University's institutional and cultural environment. Questionnaires were distributed personally, and institutional email was used to reach employees in other departments. Participants were asked to return the questionnaire within one week, with reminders by phone calls and departmental representatives to ensure completeness and timely submission. For data analysis, the study employed the Structural Equation Modelling-Partial Least Squares (SEM-PLS) technique using SmartPLS software. This method was selected due to its suitability for evaluating complex models involving multiple constructs and its effectiveness with smaller sample sizes. The analysis was conducted in two main phases: the measurement model evaluation, which assessed the reliability and validity of the constructs: top management commitment, education and training, customer focus, organizational culture and teamwork, where

Convergent validity was quantified by Average Variance Extracted (AVE) with values > 0.50 for adequacy, Composite Reliability (CR) and Cronbach's Alpha were utilized to examine internal consistency using acceptable cutoffs of 0.70 or higher, Discriminant validity was verified through the Fornell-Larcker criterion, ensuring the square root of AVE of every construct greater than its inter-construct correlations and the structural model evaluation, which tested the research hypotheses and examined the relationships between TQM practices and job satisfaction. The findings from the SEM-PLS analysis provided valuable insights into the strength and significance of each hypothesised path, offering empirical evidence on which TQM dimensions most significantly influence employee job satisfaction in a resource-constrained higher education setting like Bost University. These are now being explained in the methodology section, and real test results are being presented in the results section. This study used a cross-sectional design in a single institution (Bost University) with a small sample ($n = 120$), limiting generalizability and causality. The data were self-reported, which may be subject to response bias. The study considered only five TQM dimensions, excluding other potential factors such as continuous improvement or resource constraints.

Research hypothesis:

1. H_{11} : Top management commitment has a significant positive effect on job satisfaction.
2. H_{11} : Education & training has a significant positive effect on job satisfaction.
3. H_{11} : Customer focus has a significant positive effect on job satisfaction.
4. H_{11} : Organisation culture has a significant positive effect on job satisfaction.
5. Teamwork has a significant positive effect on job satisfaction.

Results

Respondents Profile

Based on analysis using SPSS, the demographic profile of the respondents in this study has been divided into four main categories: gender, age group, highest educational qualification, and length of work experience. The analysis was based on a total of 120 valid responses. In terms of gender, all of the respondents were male (120, 100%), and no female respondents participated in the study. Regarding age distribution, the majority of the respondents were between 18 and 28 years old, with 60 respondents (50%). This was followed by those aged 29 to 39 years, comprising 49 respondents (40.83%). A smaller portion of the respondents were in the age group of 40 to 50 years, with 7 respondents (5.83%), while only 4 respondents (3.33%) were aged above 50. As for educational level, most of the respondents held a bachelor's degree, accounting for 93 (77.5%) of the total. This was followed by 14 respondents (11.67%) who had completed a master's degree, while 9 respondents (7.5%) reported having completed only high school. A small number, 3 respondents (2.5%), held a PhD. In terms of work experience, a majority of the respondents, 72 (60%), had less than 5 years of working experience, while 48 respondents (40%) had more than 5

years of experience. Lastly, all of the respondents (120, 100%) were working in a private organisation.

Table 1

Respondents' Profile

Description	Frequency	% Percentage
Gender		
Male	120	100%
Female	0	0%
Age Group		
18 - 28	60	50%
29 - 39	49	40.83%
40 - 50	7	5.83%
Above 50	4	3.33%
Educational Level		
High School	9	7.5%
Bachelor	93	77.5%
Master	14	11.67%
PhD	3	2.5%
Work Experience		
Under 5 Years	72	60%
Above to 5 Years	48	40%
Organization		
Private	120	100%

Source: Author's development.

Measurement Model Assessment

Normality test

Skewness refers to how tilted the data is to one side of the mean, and kurtosis refers to whether the data is more peaked or flatter than a normal distribution. For data to be considered roughly normal, skewness must be 3 to +3, and kurtosis must be -5 to +5 (Hair et al., 2019; Kline, 2016; Tabachnick & Fidell, 2019). We confirmed these values for every variable here in this study. Top Management Commitment, for example, registered -0.428 skewness and -0.908 kurtosis.

Education and Training registered 0.303 skewness and -0.569 kurtosis. Customer Focus registered -0.493 skewness and -0.411 kurtosis. Organisational Culture had a skewness of -0.442 with kurtosis -0.276. Teamwork had skewness -0.511 and kurtosis -0.519, and Job Satisfaction had skewness -0.582 and kurtosis -0.509. Since all these figures fall comfortably within their acceptable ranges, we can thus conclude the data is approximately normally distributed. This renders it statistically permissible to perform statistical tests like regression and structural equation modelling. The full details are shown in Table 2.

Table 2

Testing for normality using skewness and kurtosis

Variables	Skewness		Kurtosis	
	Statistic	Standard. Error	Statistic	Standard. Error
Top management	-.428	.234	-.908	.463
Education Training	.303	.234	-.569	.463
Customer focus	-.493	.234	-.411	.463
Organizational culture	-.442	.234	-.276	.463
Team work	-.511	.234	-.519	.463
Job satisfaction	-.582	.234	-.509	.463

Source: Author's development.

Construct validity test

In determining the validity or invalidity of the measurement model, a measure should be taken to ensure that the model meets convergent and discriminant validity standards (Byrne, 2016). Results of tests of validity, like Composite Reliability (CR), Average Variance Extracted (AVE), and Discriminant Validity using the Fornell-Larcker criterion, are given in Table 3. The result indicates that convergent validity is established. All constructs indicate CR values of more than 0.84, above the threshold minimum of 0.70, which proves internal consistency. Further, all AVE values are more than 0.50, which means that most of the variance is accounted for by the latent constructs as opposed to measurement error (Hair et al., 2021). In particular, AVE values vary from 0.580 to 0.683, which proves acceptable convergent validity in all constructs.

Furthermore, discriminant validity was also verified using the Fornell-Larcker criterion. The square root of the AVE of each construct (the diagonal values) was greater than its correlations with any other construct (off-diagonal values), confirming discriminant validity. For example, the square root of AVE for Top Management Commitment was 0.786, which is greater than its correlations with other variables such as Training & Education (0.58), Customer Focus (0.49), and Job Satisfaction (0.59). Trends for all other constructs were similar.

Table 3*Result of the convergent and discriminant validity test*

Variables	CR	AVE	TMC	E&T	CF	OC	TW	JS
TMC	0.890	0.618	0.786					
E&T	0.855	0.634	0.58	0.796				
CF	0.859	0.683	0.49	0.55	0.826			
OC	0.842	0.580	0.42	0.50	0.46	0.761		
TW	0.840	0.624	0.51	0.62	0.48	0.53	0.790	
JS	0.898	0.597	0.59	0.65	0.52	0.44	0.66	0.773

Source: Author's development.

Hence, the results provide strong evidence that the measurement model is valid and reliable. All constructs met the required thresholds for both convergent and discriminant validity (Fornell & Larcker, 1981; Hair et al., 2021; Widana, 2021).

To determine the validity of the structural model, multicollinearity among the independent constructs was inspected using both the Variance Inflation Factor (VIF) and Tolerance values. While VIF quantifies the extent to which the variance of a regression coefficient is inflated by multicollinearity, Tolerance is the proportion of the variance in a predictor that the other predictors do not explain. In general, VIF values below 5.0 and Tolerance values above 0.1 are acceptable and indicate no severe multicollinearity issues to distort regression analyses (Hair et al., 2021; O'Brien, 2007).

Table 4*Collinearity Assessment of Constructs*

Construct	Tolerance	VIF
Top Management Commitment (TMC)	.568	1.760
Education & Training (ET)	.394	2.541
Customer/Students Focus (CF)	.553	1.809
Organization Culture (OC)	.424	2.359
Team Work (TW)	.436	2.293

Source: Author's own development.

In this study, all TQM-related constructs demonstrated VIF values ranging from 1.760 to 2.541 and Tolerance values from 0.394 to 0.568, both within acceptable limits. This suggests that the predictor variables are sufficiently independent, and the regression analysis results are reliable.

Structural Model Evaluation

The results of the structural model offer meaningful insights into how various Total Quality Management (TQM) practices influence job satisfaction among staff at Bost University. Among the five factors examined, three showed a clear and statistically significant relationship with employee job satisfaction. In contrast, two did not show a notable effect in this specific context. To begin with, Top Management Commitment stood out as an important factor. With a path coefficient of 0.271 and a p-value of 0.010, the data suggest that when university leadership actively supports quality initiatives and demonstrates genuine involvement in institutional improvement, staff tend to feel more appreciated and fulfilled in their work. This kind of leadership appears to boost morale and create a more motivating work environment. The most impactful factor in the study was Training and Education. It had a path coefficient of 0.502 and a p-value of 0.002, showing a strong and reliable connection with job satisfaction. This highlights how important it is for staff to have ongoing opportunities to learn, develop new skills, and grow professionally. When employees feel that their institution is investing in their development, they are more likely to enjoy their work and stay committed. Teamwork was another area that showed a meaningful effect.

With a path coefficient of 0.284 and a p-value of 0.040, the findings indicate that a supportive and cooperative work culture contributes positively to staff satisfaction. Being part of a team where collaboration is encouraged helps employees feel more connected and engaged. However, not all the TQM elements had the same impact. Customer Focus, despite being a core principle of TQM, did not show a significant influence on job satisfaction in this case ($\beta = 0.143$, $p = 0.305$). Similarly, Organisational Culture ($\beta = 0.091$, $p = 0.548$) did not demonstrate a statistically strong effect. One possible explanation is that these areas might not yet be fully developed or consistently practised at the university. While they are important in theory, staff may not yet be experiencing them in ways that noticeably affect their day-to-day job satisfaction. In short, leadership, learning opportunities, and teamwork are currently the strongest drivers of employee satisfaction at Bost University.

Table 5

Significant Testing Results of the Structural Model Path Coefficients

Structural Path	Path coefficient (β)	t - Value	P - value	Significance
Top Management Commitment (TMC) → Employee Job Satisfaction	.271	2.651	.010	Significant
Training and Education (TE) → Employee Job Satisfaction	.502	3.232	.002	Significant
Customer Focus (CF) → Employee Job Satisfaction	.143	1.033	.305	Not Significant
Organizational Culture (OC) → Employee Job Satisfaction	.091	.604	.548	Not Significant

Teamwork (TW) → Employee Job Satisfaction	.284	2.000	.040	Significant
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Source: Author's development.

The R^2 measure (coefficient of determination) shows the extent to which the exogenous variables as a whole account for the variability in the endogenous variable, namely, employee job satisfaction. Chin (1998) and Hair et al. (2010) suggest that R^2 measures of 0.19, 0.33, and 0.67 are generally seen to represent weak, moderate, and strong, respectively. As can be seen in Table 6, the R^2 value for employees' job satisfaction is 0.443. This exceeds the 0.33 threshold. This shows a moderate level of explanatory power; therefore, the combined effect of the practices of TQM (top management commitment, training and education, customer focus, organisational culture, and teamwork) accounts for approximately 44.3% of employees' job satisfaction variation. That is, in other words, this discovery tells us that nearly half of the differences in how satisfied employees are at work are explained by the quality management practices being followed in the institution, indicating a meaningful, if not complete, extent of influence.

Table 6

Determination Coefficient (R^2)

Endogenous variable	R2 value	Threshold
Employee Job Satisfaction	0.443	≥0.33 (moderate)

Source: Author's development.

Effect size (f^2) helps us to know how much contribution each factor (exogenous construct) has on the main finding we are studying (endogenous construct), which in this case is employee job satisfaction (Hair et al., 2010). According to Cohen's (1988) widely used guideline, a value of 0.02 is seen as a small effect, 0.15 as medium, and above 0.35 as large. As shown in Table 7, the results reveal some interesting differences in the extent to which each Total Quality Management (TQM) practice contributes to job satisfaction. Training and education stand out with an effect size of 0.20, which means it has a moderate influence, suggesting that when employees are better trained and educated, their job satisfaction improves noticeably. Top management commitment (0.08) and teamwork (0.09) both have minor effects, indicating that they still matter but are not as significant as training and education. On the other hand, customer focus (0.01) and organisational culture (<0.01) showed negligible effects, meaning their role in boosting job satisfaction was minimal in this study. Overall, while all five TQM practices contribute in some way, it is clear that investing in employee training and progress has the most significant positive effect on staff satisfaction.

Table 7

Effect Size (f^2) of the Latent Variable

Structural Path	Effect Size (f^2)	Effect Size
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Top Management Commitment (TMC) → Employee Job Satisfaction	0.08	Small
Training and Education (TE) → Employee Job Satisfaction	0.20	Medium
Customer Focus (CF) → Employee Job Satisfaction	0.01	Negligible
Organizational Culture (OC) → Employee Job Satisfaction	<0.01	Negligible
Teamwork (TW) → Employee Job Satisfaction	0.09	Small

Source: Author's development.

The Q^2 value (also known as Stone-Geisser's Q^2) is used to assess the predictive relevance of the model for a particular endogenous construct. A Q^2 value greater than 0 indicates that the model has predictive relevance for the dependent variable (Hair et al., 2010). In this study, the Q^2 value for job satisfaction is 0.225, which is greater than zero, supporting that the model has strong predictive capability. This means the TQM practices in the model, such as training and education, top management commitment, teamwork, and others, are not only statistically significant but also helpful in predicting future outcomes related to employee job satisfaction. This finding is consistent with recent guidelines by Sarstedt et al. (2020), who emphasised that Q^2 values above 0.15 indicate medium predictive relevance for endogenous constructs. Furthermore, Henseler et al. (2025) affirm that positive Q^2 values indicate that the model can adequately predict data points that were omitted during blindfolding procedures. In short, this value strengthens the overall model by showing that the identified factors are meaningfully contributing to forecasting employee satisfaction.

Table 8

Predictive Relevance (Q^2) of Endogenous Variable

Endogenous variable	$Q^2 > 0$
Employee Job Satisfaction	0.225

Source: Author's development.

Discussion

The study examined the influence of five total quality management (TQM) practices, including training and education, top management commitment, customer focus, organisational culture, and teamwork, on employee job satisfaction in a higher education institution. The results reveal that training and education (H2), top management commitment (H1), and teamwork (H5) have strong positive effects on employee job satisfaction. At the same time, customer focus (H3) and organisational culture (H4) do not show significant direct effects. Consistent with H2, training and education were the strongest predictors of job satisfaction ($\beta = .502$). This is evidence of how vital a role continuous professional development plays in empowering employees and enhancing their job satisfaction in the workplace (Cobelli et al., 2022; Mahmood et al., 2023). Training interventions increase the competency, skill, and confidence levels of employees, which share a direct correlation with their motivation and job satisfaction (Iqbal et al., 2024). Parallel findings between

Pakistani and Yemeni research highlight that ongoing learning and skill enhancement are necessary in resource-scarce environments to maintain favourable employee attitudes (Alselwi & Farea, 2022; Mahmood et al., 2023). The positive and significant effect of top management support ($\beta = .271$) supports H1, further highlighting the strong role of leadership in stimulating a friendly organisational environment to guarantee employee satisfaction. Leadership commitment ensures the provision of resources, dissemination of organisational objectives, and external recognition of quality efforts, motivating employees and providing them with a sense of purpose (Sandel & Kulualp, 2024). It is particularly important in higher educational institutions, as leadership commitment aligns the expectations of the faculty members with institutional goals (Jasti et al., 2022; Mahmood, 2020). Similarly, teamwork ($\beta = .284$) contributes to job satisfaction, supporting H5. Cooperation encourages collaboration, mutual trust, and helping one another. Emphasis on cooperation to solve problems and shared responsibility leads to increased morale and motivation (Alselwi & Farea, 2022; Jasti et al., 2022). This corroborates existing literature citing teamwork with cooperation as very vital in higher learning institutions to facilitate a positive work environment (Zanqar et al., 2019). In the meantime, customer focus ($\beta = .143$) and organisational culture ($\beta = .091$) did not exhibit statistically significant direct relationships with job satisfaction; hence, H3 and H4 are not substantiated in this study. This may imply that within the current institutional environment, employees do not consider customer (student) orientation or organisational culture as direct determinants of their job satisfaction. Past studies have shown that such variables can have an indirect influence on job satisfaction or require intervening variables, such as employee participation or leadership, to have an influence on job satisfaction in a quantifiable way (Al Refaei et al., 2024; Zanqar et al., 2019). Also, the effect of organisational culture might be less salient under authoritarian or resource-scarce environments such as Afghanistan, where structural impediments might not allow a quality-driven culture to manifest fully (Aminuddin et al., 2022). These findings stress the importance of emphasising people-focused TQM practices—training, leadership, and teamwork—to generate employee satisfaction, especially in less-resourced universities. Change in these aspects can generate higher employee engagement and institutional performance. However, the irrelevance of customer focus and organisational culture means that additional research must be undertaken for testing contextual moderating variables or indirect effects in Afghan higher education. The present study fills an enormous literature gap because most of the TQM and job satisfaction research has been executed in middle- and high-income countries with stable infrastructures (Aminuddin et al., 2022; Iqbal et al., 2024). Its contextual relevance to Bost University in Afghanistan offers valuable knowledge on how TQM dimensions operate in post-conflict and resource-scarce settings. These context-specific problems can affect the effectiveness of TQM practices and their impact on employees' attitudes.

Lastly, universities need to invest in employee training, model dedicated leadership, and foster teamwork to achieve improved job satisfaction outcomes. Policymakers and administrators should also consider ways to extend the influence of customer focus and organisational culture through comprehensive TQM channels that are contextually appropriate.

Conclusion

The effect of Total Quality Management (TQM) practices on employees' job satisfaction who work at Bost University, an accredited Afghan university, has been taken into account in this research. Five main dimensions of TQM, namely education and training, top management commitment, customer focus, organisational culture, and teamwork, were examined through structural equation modelling (SEM). The study found that education and training, top management commitment, and teamwork have significant effects on the job satisfaction of the employees. Of these, training and education had the most positive impact, emphasizing the key role that ongoing professional development plays in promoting and retaining academic and administrative staff. Recognition by leaders and teamwork working cultures were also strongly related to job satisfaction, suggesting that participative and facilitative management styles are effective in creating a more committed and motivated workforce.

On the other hand, organisational culture and customer focus did not weigh heavily. While they are still integral to TQM, the evidence indicates that they possibly still await full integration or systematic deployment throughout Bost University. These are possibly in need of increased stress to balance staff attitudes with institutional targets and integrate a more heightened quality-oriented culture. The inference of these results is that empirically, human-oriented TQM practices such as training, leadership, and teamwork are effective mechanisms for job satisfaction in higher education. This is particularly crucial in low, resource-constrained environments such as Afghanistan, where employee involvement and institutional capacity are significant drivers of long-term development. These results also represent a new contribution by filling a substantial knowledge gap, although TQM has been extremely fashionable across the globe in enhancing performance and employee morale in HEIs; few empirical studies have been done on these phenomena in Afghan universities. Earlier work has been undertaken in relatively stable systems in countries like Pakistan, Malaysia, the UAE, and Iraq. By situating the study in Bost University, a private HEI in the complex socio-political and institutional context of Afghanistan, this study localises and contextualises TQM theory. It is one of the first to explore empirically whether internationally validated TQM-job satisfaction relationships in post-conflict, hierarchical, and transition education systems exist, as in Afghanistan's. In reality, the study provides real-world advice to institutional leaders and policymakers by detailing which of the dimensions of TQM are most directly related to job satisfaction and thus, service quality. These are results that can be translated into the design of interventions in the building of robust leadership commitment, investment in human capability, and collaboration, all which takes to delivering resilient schools of learning in low-capacity environments. In brief, the contribution of this study is that it is the first study to examine TQM practices in Afghanistan's higher education and produce knowledge on the appropriateness of foreign quality management models in poor institutional environments. The research findings contribute to global TQM literature as well as to efforts to improve educational quality, staff morale, and institutional sustainability in Afghanistan.

Suggestions for Future Research

1. Future studies should expand to multiple institutions, including public and private universities in different provinces of Afghanistan, to increase generalizability and comparative understanding of TQM practices and their effects on job satisfaction.
2. Longitudinal designs could help to capture the dynamic processes through which the interrelationship between TQM practices and job satisfaction changes over time, facilitating stronger causal inferences and trend analysis.
3. This paper emphasised five essential TQM dimensions. Other constructs such as continuous improvement, benchmarking, employee empowerment, and process management could be explored in future studies to provide a more comprehensive assessment of the impact of TQM.
4. Using both quantitative and qualitative approaches would enable researchers to develop a more in-depth understanding of employees' attitudes and contextual barriers or facilitators of TQM deployment.
5. Subsequent research can identify potential mediators (e.g., employee engagement, motivation) and moderators (e.g., experience level, gender, institution type) of the relationship between job satisfaction and TQM practices.

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Conflict of Interest

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