



Original Article

The Role of TQM in Educational Excellence: A Study on Implementation and Effectiveness

Jagruti Naukudkar¹ Glorita Pereira² Delcy Lopes³

^{1,3} BBI – Commerce Assistant Professor, VIVA College of Arts, Commerce & Science

²Economics – Assistant Professor, VIVA College of Arts, Commerce & Science

Manuscript ID:

IBMIIRJ -2025-020636

Submitted: 20 May 2025

Revised: 30 May 2025

Accepted: 20 June 2025

Published: 30 June 2025

ISSN: 3065-7857

Volume-2

Issue-6

Pp 151-157

June 2025

Correspondence Address:

Jagruti Naukudkar

BBI – Commerce Assistant Professor,
VIVA College of Arts, Commerce &
Science

Email:

jagruti.naukudkar@vivacollege.org



Quick Response Code:



Web: <https://ibrj.us>



DOI: 10.5281/zenodo.17083313

DOI Link:

<https://doi.org/10.5281/zenodo.17083313>



Creative Commons

Abstract

This study explores the role of Total Quality Management (TQM) in enhancing educational excellence, focusing on two critical principles—customer focus and employee commitment—in higher education institutions. Using data collected from 183 respondents across NAAC-accredited colleges in Maharashtra, the research examines the relationship between TQM practices and institutional effectiveness. The findings reveal that student-centric activities, such as industry collaborations, placement support, and counseling services, significantly improve educational outcomes. Likewise, faculty engagement, supported through training, incentives, and participatory decision-making, fosters a more committed and effective teaching environment. Statistical analysis confirms a strong positive correlation between the methods implemented and the benefits observed in both areas. The study also highlights challenges such as resistance to change, leadership gaps, and resource constraints that hinder effective TQM implementation. It concludes that a well-structured TQM framework can enhance both student learning experiences and faculty satisfaction, contributing to long-term educational quality improvement. Similarly, faculty development, incentives, and participatory decision-making were found to enhance employee commitment and teaching performance. Despite these benefits, challenges such as resistance to change, limited leadership support, and resource constraints hinder implementation.

Keywords: Total Quality Management (TQM), Customer focus, Employee commitment, Higher education, educational excellence, Institutional effectiveness, NAAC accreditation

Introduction

Education is a basic human right and plays a big role in improving lives. It helps reduce poverty, improves health, supports gender equality, and brings peace and progress. Higher education, in particular, helps people grow personally and drives change in society, science, and the economy.

Over the years, higher education has changed a lot. More students are enrolling, moving between countries to study, and using new methods and technology in learning and research. In India too, since independence, the education system has expanded quickly. Today, India has the second-largest education system in the world after the USA.

According to the All-India Survey of Higher Education (2019-20), India has over 1,000 universities and more than 42,000 colleges. Out of all colleges, around 86% are run privately, and most of these are unaided. Around 3.85 crore students are enrolled in higher education, and the Gross Enrolment Ratio (GER) is 27.1%, which shows how many young people are attending college.

But while the number of institutions has increased, the **quality** of education remains a big issue. Many colleges and universities still use outdated teaching methods and curriculum, don't offer enough support to students, and do very little research. The competition for admissions also leads to students with lower preparation levels. Because of all this, students often struggle to find good jobs after graduation, and there's a lack of creativity and innovation in the education sector.

The below table shows the top 10 universities in India according to the NIRF ranking and the QS Rank of the universities.

Creative Commons (CC BY-NC-SA 4.0)

This is an open access journal, and articles are distributed under the terms of the [Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International](https://creativecommons.org/licenses/by-nc-sa/4.0/) Public License, which allows others to remix, tweak, and build upon the work noncommercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

How to cite this article:

Naukudkar, J., Pereira, G., & Lopes, D. (2025). The Role of TQM in Educational Excellence: A Study on Implementation and Effectiveness. *Insight Bulletin: A Multidisciplinary Interlink International Research Journal*, 2(6), 151–157. <https://doi.org/10.5281/zenodo.17083313>

Sr. No	University	NIRF Rank (National) 2024	QS Rank (2024)
1	Indian Institute of Science, Bengaluru	1	211
2	Jawaharlal Nehru University	2	580
3	Jamia Millia Islamia	3	851-900
4	Manipal Academy of Higher Education, Manipal	4	901-950
5	Banaras Hindu University	5	1001-1200
6	University of Delhi	6	328
7	Amrita Vishwa Vidyapeetham	7	1001-1200
8	Aligarh Muslim University	8	1001-1200
9	Jadavpur University	9	721-730
10	Vellore Institute of Technology	10	791-800

Source : <https://www.nirfindia.org/Rankings/2024/UniversityRanking.html>

<https://www.topuniversities.com/world-university-rankings?search=Vellore%20Institute%20of%20Technology>

The data clearly shows that not a single Indian university is ranked among the top 100 universities in the world. A study by Maurya and Chaoudhary (2021) compared the top 5 global universities, leading Asian universities, and Indian universities. The results showed that Indian universities are performing far below international standards. This shows that there is an urgent need for strong and clear policies to improve the quality of education in Indian universities and institutions.

Total Quality Management

Total Quality Management, or TQM, started in 1949 when a group in Japan made up of scientists, engineers, and government officials worked together to boost the country's productivity and improve people's lives after World War II. Cascio (1995) describes TQM as a way of managing where the main goal is to keep customers happy by always working to improve how things are done in the organization. Many studies have shown that TQM brings good results when it's properly put into practice.

Principles of Total Quality Management

- Customer Focus
- Total Employee Commitment
- Process approach
- Integrated system
- Strategic and systematic approach
- Continual improvement
- Fact-based decision-making
- Communications
- Futuristic Approach
- Backup Plan
- Team Management

Review of Literature

A study by Amalia Venera Todorut (2012) highlights how TQM can help colleges and universities improve quality over time by making yearly improvement plans. TQM is seen as a powerful approach that helps institutions meet the needs of students, parents, industries, and society. Whereas a study by Ali Mahmoud Ali Alsanousi (2017) focuses on Libya. It finds a clear link between the quality of higher education and economic growth. The study stresses that having qualified and experienced teachers is important for both education and the country's development. A study, K. Nagraj Dharwadkar et al. (2017) explore the concept of Student Quality Circles in engineering colleges. These are small student groups who work on projects like hackathons and skill-based activities to build technical knowledge, teamwork, leadership, and communication skills needed in the job market. Shrikant N Dhage (2019) explains how Quality Circles can be used as a management tool to solve problems in education. It talks about the importance of setting up internal quality systems to produce graduates ready for global challenges. A study by Ola A.M. Ibrahim (2013) focuses on E-Learning. It shows how a well-organized and student-friendly online education system can benefit everyone—students, teachers, and support staff. The study uses the example of Egypt's E-Learning University to show how Quality Circles can help maintain high standards in online education. Together, these studies show that tools like TQM and Quality Circles can make a big difference in improving the quality of higher education.

Objectives of the Study

- To explore the application of TQM in the education sector on the basis of NAAC
- To analyze its impact on institutional effectiveness and student outcomes
- To identify challenges in implementing TQM in education

Hypothesis

H₀ (Null Hypothesis): The implementation of Total Quality Management (TQM) does not significantly impact the quality of education in educational institutions.

H₁ (Alternative Hypothesis): The implementation of Total Quality Management (TQM) significantly improves the quality of education in educational institutions.

Sub Hypothesis

- Customer focus has a significant association with Total Quality Management in Educational Institutions.
- Employee commitment has a significant association with Total Quality Management in Educational Institutions.

Research Methodology

The study gathered information from 183 people studying or working in different higher education institutions in Maharashtra, like regular degree colleges, engineering colleges, law colleges, and management institutes. The data was collected using a set questionnaire, and the institutions were chosen on purpose (not randomly), especially those that have been graded by NAAC for quality.

The main focus of the study is on two key ideas of Total Quality Management (TQM): putting students (customers) first and ensuring staff (employees) are committed to their work. To analyze the data and reach conclusions, the Chi-square test—a statistical method—was used.

Sub Indicators

Customer Focus

- Regular Evaluation
- College-Industry linkage
- Awards and Recognition
- Drop-out rate
- Parents engagement
- Placement services and training
- Counseling services
- Alumni associations

Employee Commitment

- Continuous improvement of staff members
- Financial and non-financial incentives
- Regular evaluation of employees
- Training programmes for teachers
- Problem solving approach
- Regular seminar/workshops/conferences are organized

Indicators used to observe benefits of TQM

Customer Focus

- Student Teacher Rapport
- Reduced Dropout rate
- Alumni Guidance
- Placement Cell
- Counselling Facility

Employee Commitment

- Accountability
- Enthusiasm
- Active participation
- Innovative & creative
- Problem solving approach
- Team spirit
- Improvement

Results and Discussions

Demographic Findings

a) Qualification of Employees

Educational Institutions – Qualification of Employees

Qualification	Frequency	%
Graduate	22	12
Post Graduate	84	46
Professional Qualification	77	42
Total Responses	183	100

a) Designation of Employees

Qualification	Frequency	%
Head of the Department	6	04
Senior Teaching Staff/Coordinator	39	21
Junior Teaching Staff	138	75
Total Responses	183	100

b) Experience of the Employees

Experience	Educational Institutions	
Number of Years	Frequency	%
Less than 2 years	31	17
2 – 5 years	40	22
6 – 10 years	44	24
More than 10 years	68	37
Total Responses	183	100

Customer Focus Methods & Measures

A	Student Centric Activities	Frequency				
	Methods	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	college is actively promoting parental involvement in students' education	38	47	48	-	50
2	Industry-college interaction programs are organized on a regular basis.	17	75	41	-	50
3	Students' performance is evaluated on a regular basis.	29	102	10	29	13
4	Students are rewarded in recognition of their outstanding performance.	-	61	40	-	82
5	The institution follows the practice of benchmarking.	26	03	63	41	50
6	An effective placement program is implemented for students through campus recruitment.	07	107	41	27	01
7	Industry-oriented training is provided to students who are actively committed to the placement process.	10	48	46	13	66
8	All activities are continuously improved, providing students with a competitive advantage.	7	56	41	29	50
9	Alumni feedback is taken into account when planning activities, contributing to competitive advantages for current students.	10	54	60	54	5
	Mean	16	63	41	18	45
	Percent	9	34	23	09	25
	Percent Total	43		23	34	

A	Student Centric Activities	Frequency				
	Benefits	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	Students feel free to share their concerns with the staff and supervisors	15	33	46	10	79
2	Departments implement programs that encourage active involvement of both teachers and students.	13	57	32	11	70
3	Teachers and students are provided with opportunities to gain experience in all	16	60	30	6	71

	college activities.					
4	The drop-out rate has been reduced	9	55	42	9	68
5	Sufficient placement services are provided.	11	43	14	41	74
6	Counseling services.	17	37	40	15	74
7	Adequate student welfare measures like scholarships, free ships, etc.	50	49	56	01	27
8	An Alumni Guidance Meet is organized to explore the opportunities and challenges within the industry.	18	46	50	22	47
	Mean	19	48	39	14	63
	Percent	10	26	21	08	35
	Percent Total	36		21	43	

- Implementing certain techniques, there are some benefits observed. 36% of the respondents agree that alumni meet have benefitted the students to crack campus placement interviews, teachers and students are provided opportunities to gain experience in college activities like cultural events, intercollege activities, etc. Respondents do agree that student welfare activities like scholarship, free ship has been provided.
- 21% of the respondents are neutral for the same.
- In total, 43% respondents disagree with the benefits observed in the institution. They express a strong disagreement for teacher student rapport, adequate placement services and counselling services.

Employee Commitment

The given data is collected from the Head of the Department and senior staff. Around 45 responses were recorded to get the insights on employee commitment.

B	Total Employee Commitment	Frequency				
	Methods	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
3	The College regularly conducts seminars / workshops / Conferences.	06	18	21	-	-
4	Faculty members are motivated with non-financial incentives.	07	01	08	08	21
5	Faculty are motivated with financial incentives.	06	05	14	6	14
6	The efficiency and engagement of teachers are assessed regularly.	07	12	06	08	12
7	Academic decisions are made in consultation with senior faculty members.	15	06	08	03	13
8	Training programmes conducted regularly are beneficial.	08	14	03	20	-
9	Salary and compensation is attractive and satisfactory.	07	06	15	02	15
10	Teachers provide support and cooperation in implementing integrated Total Quality Management	12	08	15	02	08
11	Team building and group dynamics training for teachers is allowed in the departments.	08	07	13	03	14
	Mean	09	12	10	05	09
	Percent	18	26	24	11	21
	Percent Total	44		24	32	

Benefits

B	Employee Commitment	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
	Committed employee showcases the following					
1	Accountability	40	02	02	-	01
2	Enthusiasm	15	26	02	01	01
3	Active participation	20	23	-	01	01

4	Innovative & creative	24	18	-	01	02
5	Improvement	15	24	04	01	01
6	Problem solving approach	21	19	02	01	02
7	Team spirit	20	20	02	02	01
	Mean	20	21	02	01	01
	Percent	43	47	04	02	04
	Percent Total	90		04	06	

- 90% of the respondents agree to that committed employees are accountable, enthusiastic, active, innovative, creative, etc.
- 4% of respondents hold no opinion on the same.
- Whereas 6% of the respondents disagree towards problem solving approach, team spirit and innovation.

Hypothesis

- H1 : Customer focus has a significant association with Total Quality Management in Educational Institutions.

Test	Test Value	Remark
Chi sq Test	P = 0.00194898981738555	Null hypothesis rejected
Karl Pearson Correlation	0.742317571	Strong Correlation between Methods Implemented and Benefits observed

p = 0.001948, which is less than 0.05%. The null hypothesis is rejected, and the alternate hypothesis is accepted at a 5% level of significance. Hence, it concludes that the Student Centric Activities significantly helps to improve the quality.

- H1 : Employee commitment has a significant association with Total Quality Management in Educational Institutions.

Test	Test Value	Remark
Chi sq Test	P = 8.23253283030403E-09	Null hypothesis rejected
Karl Pearson Correlation	0.567097729	Moderate Correlation between Methods Implemented and Benefits observed

p=8.23253283030403E-09, which is less than 0.05%. The null hypothesis is rejected, and the alternate hypothesis is accepted at a 5% level of significance. Hence, we conclude that employee commitment has a proactive effect on TQM.

Challenges in implementing TQM

TQM undoubtedly is beneficial in the field of education but not free from challenges. According to Venkatraman(2007), faculties, administrators may resist adopting the TQM practices due to fear of additional workload and unfamiliar practices. Sallis, (2014) stated that for effective implementation having a strong leadership is a prerequisite. Lack of commitment from the top management can make implementation difficult. Resource constraints are also the major challenge in the implementation of TQM. Many institutions have limited financial resources which makes it difficult to invest in the faculty development and student progression. Badri et al., (2006) has rightfully mentioned that many institutions focus on short term goals such as exam results rather than improving quality of education which is a long term process. According to Kanji et al. (1999), compared to manufacturing where defects can be easily identified, measuring educational quality and students' outcome is a complex process.

Conclusion:

This study highlights the importance of two key TQM principles—customer focus and employee engagement—in the education sector. In educational institutions, students and faculty are the primary stakeholders, and their needs must be prioritized for quality enhancement.

The findings suggest that a student-centric approach, including industry collaborations, job-oriented training, and career counseling, plays a crucial role in improving educational outcomes. Providing effective placement services further supports students' professional growth. Additionally, recognizing student achievements through awards and incentives fosters motivation and a sense of responsibility.

For faculty, both monetary and non-monetary incentives are essential to maintaining engagement and enhancing teaching quality. Institutions that invest in faculty development, acknowledge their contributions, and create a supportive work environment are more likely to achieve educational excellence.

By implementing a well-structured TQM framework, institutions can improve both student learning experiences and faculty satisfaction, ultimately leading to overall institutional effectiveness.

Acknowledgment

The authors express their sincere gratitude to the management and faculty of VIVA College of Arts, Commerce & Science for their constant encouragement and academic support during the course of this research. We are thankful to our colleagues and peers for their valuable feedback, constructive suggestions, and motivation, which significantly enriched this study. We also acknowledge the contributions of researchers, institutions, and organizations whose works provided a strong foundation for our analysis. Lastly, we extend heartfelt appreciation to our families and friends for their patience, understanding, and unwavering moral support throughout the preparation of this paper.

Financial support and sponsorship

Nil.

Conflicts of interest

The authors declare that there are no conflicts of interest regarding the publication of this paper.

References

1. Singh, Vedant & Kumar, Akshay & Singh, Tej. (2018). Impact of TQM on organizational performance: The case of Indian manufacturing and service industry. *Operations Research Perspectives*. 5. 10.1016/j.orp.2018.07.004.
2. Egwunatum, Samuel & Anthony, Anumudu & Eze, Emmanuel & Ayodele, Imoleayo. (2021). Total quality management (TQM) implementation in the Nigerian construction industry. *Engineering, Construction and Architectural Management*. ahead-of-print. 10.1108/ECAM-08-2020-0639.
3. Madani, Rehaf. (2019). Analysis of Educational Quality, a Goal of Education for All Policy. *Higher Education Studies*. 9. 100. 10.5539/hes.v9n1p100.
4. Bari, Muhammad Waseem & Fanchen, Meng & Baloch, Muhammad Awais. (2016). TQM Soft Practices and Job Satisfaction; Mediating Role of Relational Psychological Contract. *Procedia - Social and Behavioral Sciences*. 235. 453-462. 10.1016/j.sbspro.2016.11.056.
5. Ainun, Nurul & Ahdan, Ahdan & Idris, Muhammad. (2022). The Effectiveness Of Organizational Communication In The Implementation Of The PR Function At The Office Of The DPRD Province Of South Sulawesi. *RESPON JURNAL ILMIAH MAHASISWA ILMU KOMUNIKASI*. 3. 10.33096/respon.v3i1.62.
6. Talib, Faisal & Rahman, Zillur. (2013). An empirical investigation of relationship between total quality management practices and quality performance in Indian service companies. *International Journal of Quality & Reliability Management*. 30. 280-318.
7. Sharjabi, Abdulrahman & Alshihab, Ameen & Al-Matari, Sameera. (2022). Requirements for Developing the Technical Education and Vocational Training System in the Republic of Yemen. *Journal of the Arabian Peninsula Center for Educational and Humanity Researches*. 02. 01-27. 10.56793/pcra221361.
8. Talib, Faisal & Rahman, Zillur & Qureshi, Mohamed Rafik. (2011). Analysis of Total Quality Management Practices in Manufacturing and Service Sectors. 57-1. Tiwari, Professor & Tiwari, Professor & Wal, Pranay & Wal, Ankita. (2018). "Total Quality Management: A Requisite Approach to Improve Research & Pharma Times. 50. 25-29. 10.31031/MAPP.2018.02.000527.
9. Erena, Obsa Teferi & Kalko, Mesfin & Debele, Sara. (2022). Organizational factors, knowledge management and innovation: empirical evidence from medium- and large- scale manufacturing firms in Ethiopia. *Journal of Knowledge Management*. 27. 10.1108/JKM-11-2021-0861.
10. Ravindran, N., & Kamaravel, R. K. (2016). Total quality management in education: Prospects, issues and challenges. *Shanlax International Journal of Education*, 2(4), 58- 65.
11. Rahman, Mustafizur & Haque, Sifat & Trianni, Andrea. (2023). Barriers to TQM implementation in SMEs in Bangladesh: an interpretive
https://www.timeshighereducation.com/world-university-rankings/latest/world-ranking#!/length/25/locations/IND/sort_by/rank/sort_order/asc/cols/stats
<https://www.nirfindia.org/Rankings/2024/UniversityRanking.html>
https://www.researchgate.net/publication/349648095_RANKING_OF_INSTITUTIONS_O_HIGHER_EDUCATION_-INDIAN_PERSPECTIVE_---Critical_Analysis
<https://www.open.uwi.edu/sites/default/files/bnccde/belize/conference/papers2010/almendarez.html>
https://ebrary.net/3027/management/basic_concepts_tqm
<https://m.theindependentbd.com/printversion/details/213436>
<https://www.accountingtools.com/articles/what-are-the-benefits-of-total-quality-Management-tqm.html>
<https://www.linkedin.com/pulse/importance-total-quality-management-manufacturing-arjun-n->