

# Assessing Faculty Perception Towards Total Quality Management of Education Sector in Punjab

Sonpreet Kaur, Roopali Batra



**Abstract:** *Quality education plays an important role in number of organizations across this competitive world. In the present scenario, the success of management institutions depends upon the quality education provided to the students. Educationalists, policy makers, and researchers are now showing their sincere efforts towards Total quality management (TQM) as it acts as a de facto management philosophy to create Academic excellence which can provide customer satisfaction.*

*The service industries are changing rapidly and this change offers to lead or gain competitiveness in the market. As education industry is also a part of service industry, thus, it becomes very important for education industry to provide better- and high-quality service. Since this concept was originate in manufacturing sector but nowadays, in the education sector acquisition of total quality management is common one.*

*In this connection, this paper aims to investigate how faculties of management institutions perceive the quality offered at management education in Punjab. An evaluation study using questionnaire survey was employed to measure the faculties' perception towards 7 quality dimensions.*

*Total 65 questionnaires were distributed randomly. After data collection, we performed statistical tests by using SPSS software. It is found that still in some areas lack of total quality management is affected.*

**Keywords:** *Education Sector, Faculty perception, Management Education, Total Quality Management (TQM)*

## I. INTRODUCTION

In today's knowledge economy, human capital is considered to be the most important asset for the overall development and prosperity of enterprises and countries. It serves as a differentiation factor for market competitors. Higher education and management education develop human capital, especially by increasing corporate acumen in a controlled environment. Companies use these skills at business schools to sharpen and increase their experience to shape future managers. Developing excellence and quality of application in higher education presents a number of challenges.

The current situation and an economic slowdown have raised serious questions about the quality of higher education in India, especially at the crossroads. Management education is involving two more different areas of knowledge or study so it becomes a popular choice for everyone and could be open to graduates of all categories.

More and more business schools are located throughout the country, providing management education to all who aspire to achieve this goal. This growth has, in fact, far exceeded the demand of the industry in the past few years, thereby making Management Education; especially Master of Business Administration (MBA) is considered as the most preferred PG degree attracting thousands of students every year till the end of the decade. The present scenario is pretty demanding as the business schools are facing severe challenges that questions their survival and future growth (Samad & Thiyagarajan, 2015) [30].

It is very important to improve the education in management because it increases the technical manpower in our country. There are number of institutions SO and NBA certified but the lack quality education is still a big issue for these institutions. For example, lack of qualified faculty, students' attitude towards their studies, bad infrastructure, lack of placement facility for the students etc. So, these all are the alarming factors that can lead to bad quality education in the institution. It is the high time to give more importance to better quality education. In management institutions, the implementation of total quality management will certainly help the students to get the quality education.

There are economics and upgraded management techniques which can bring drastic change in the whole situation under which today's libraries need to operate. Technology is increasing day by day so the combination of information technology and quality management has converted today's management libraries to fulfill the hopes of new generation. "Implementation of Total Quality Management in the library and information service environment poses interesting challenges on the road to potentially significant benefits".

A preliminary step in TQM implementation is always needed to assess the organization's current reality. For the betterment of the quality education it is very important to start practicing TQM in every institution. It can also help in improvement of quality of working life of existing with due consideration of requirement and applications. Employee Relevant preconditions to deal with the present TQM needs, which are to do with the organization's history and its participation for betterment, precipitating events leading to TQM, and the existing employee quality of working life are all to be considered with due consideration to the present applications and requirements.

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If the current reality does not include important preconditions, TQM implementation should be delayed until the organization is in a state in which TQM is likely to succeed.

Nowadays, quality education is decreasing and everyone is concerned about it. There is no proper support of the faculty, lack of infrastructure is decreasing the interest of students for studies and go to college and even contribute to the nation in long run. Thus, it is necessary to implementation quality in every institute which will further help them to strengthen the overall brand of the management institutions. It is evident now that we need to improve the quality of all dimensions of the institution to completely overhaul the system. This will help in providing better educational quality for students and at the same time attract more students from home and abroad. The study uses analytical descriptive approach which is based on analysis of the literature and administrative thought in the area of TQM for management education institutions and supports the implementation of TQM concepts as well. This research tries to focus to know about the implementing Total Quality Management in the business management institute which can make it competitive in the long run.

## II. BACKGROUND AND LITERATURE REVIEW

In today's knowledge economy, human capital is recognized as the most important asset of business and nation as a whole to develop and prosper. It acts as a differentiator with the competitors in the market. Higher Education and Management Education in particular is about developing the human capital by sharpening their business acumen under the controlled environment. Corporates capitalize on these skill sets that are honed in a business school and add their experiences to shape the future managers.

Fostering excellence and applying quality in higher education presents a range of challenges. The present scenario and the economic slowdown have posted serious questions on the quality of higher education in India, especially management education that stands at the crossroad. Management education was a popular choice because of its interdisciplinary nature and with admission to the course open to all categories of graduates. The growing number of Business schools in every corner of the country has made Management Education available to everyone who aspires for it. This growth has, in fact, far exceeded the demand of the industry in the last few years, thereby making Management Education, especially, Master of Business Administration (MBA) as the most preferred PG degree attracting thousands of students every year till the end of the decade. The present scenario is pretty demanding as the business schools are facing severe challenges that questions their survival and future growth.

In today's industry, TQM is important process which is proven to a successful key for all the institutions. It has been applied in every organization, firm etc. Institutions of higher learning now began examine the education process in academic performance of students. In management education course (MBA), where many concepts like management, leadership, TQM are taught to the students, the possibility of knowing how to apply the concepts is less in many institutions. It is very unfortunate that the place where TQM is taught it is not practiced.

When it is not practiced, the learning, process is at stake. TQM in higher education is a process that is important to provide better result and involvement of TQM in higher education. All the students serve better with the great facility provided by every institution. They can also take feedback, to know the quality of continuous improvement in each institution. Satisfaction in the entire stakeholders is required to serve better to the nation. In this fast-changing era technology plays an important part. This world of increasing competition, falling in quality, globalization, privatization, changes in technology and up gradation, can lead to use of TQM strategy in education industry.

In the last few years, the quality management takes serious by various institutions and also public concerns over the higher education in institutions. Also, in the last few decades; several factors have contributed to raising public concerns over higher education institution's quality management and improvement devices. For its continuous improvement in education sector, they also applied various methodology, principles, and tools by the institutions.

Even though, education policy is good in a way that it aims at providing opportunity to every individual to learn. But, the basic concept of quality education has been defeated due to the mushroom growth of institutions by private managements who consider that running an institution provides them an opportunity to make money rather than imparting good education among students.

To measure the quality of education, there should be some tools and modules to be incorporated for institutions. The concept of TQM comes in this context as a reliable tool to measure the quality of education. Some of the global management concepts are vogue to measure the quality, i.e. ISO9001:2000, Quality Management System, Knowledge Management, Lean Thinking, Six-Sigma and TQM.

Presently, there is a cry among intellectuals for the quality education in every quarter. Therefore, this is the right time to meet out stakeholders need through imparting quality education in the Management educational. The researcher, being a post graduate both in the management and professional education, has attempted to investigate the quality in higher education particularly the management education at present and to find different strategy to improve the education among students. In view of the above facts, the investigator, all along in the process of research, has proposed the new model of TQM to be implemented in the management institutions.

According to Thapa (2011) [33] emphasized in his research on integrated quality control in education that integrated quality control should improve the overall quality of education in Nepal. It is noted that comprehensive quality control (TQM) is the latest in the model: recipes, plans, frameworks and slogans to guide scholarly reform. Hajraf and Sharhan (2012) [15] explained a new integrated model and framework for total quality management of hybrid e-learning systems is studied. With the development of the system education component, the quality assurance of the education system is a real challenge, such as courses, teaching methods and educational techniques. The study proposes a new framework for successful learning implementation.

Introduces new concepts related to traditional and technology-based education systems, i.e., quality assurance strategies for blended learning. This work focuses on key quality assurance factors that influence the teaching and learning of mixed learning systems. Oluseye et al. (2014) [25] assessed the quality management practices of educational institutions in Nigeria, with particular emphasis on the areas of input quality, quality process management and quality results management. Alghamdi (2013) [6] emphasizes organizational roles and employee support to achieve the maximum level of TQM. We will also introduce some Asian TQM case studies to summarize the most important factors for effective execution of TQM. According to a study by Mondal and Mete (2013) [22], the increase in the number of higher education institutions and their consumption ability do not at the same time guarantee the maintenance of quality, and there is a serious shortage of qualified teachers and educational opportunities and proper infrastructure. Therefore, quality parameters related to education and research should be the subject of sustained attention by governments and politicians. Veeranna (2013) [34] developed a detailed format for assessing quality and quality of implementation and evaluation. The way in which these activities are carried out in universities is also developed and discussed here. The format may change with the academic and social environment. Therefore, it may be necessary to modify the format to a specific university, and the positive impact of implementing TQM implementation may only be achieved in a year or two, which is a long period of time for research projects like this time limit. Glushak et al. (2015) [14] refer to the key factors of the quality management of education in any educational institution or university, which is an economic factor, as the expansion of higher education and ensuring its quality are related to significant expenditures in the national education system. Basu and Bhola (2015) [10] studied important quality management research by large organizations, which carried out extensive research on manufacturing organizations and explicit research on SMEs in the service sector. The contribution of service sector in Indian economy has grown faster than in any other sector. The analysis also reflects the strengths of SME services in terms of customer focus, leadership and customer feedback. Pushpa (2015)[26] analyzes Total quality management in higher education must be implemented to satisfy the stakeholder's requirements. There are various government strategies in which higher education is analyzed and classified to the various institutions. Thus, this study proves that there is big impact on organizations to achieve their mission, goals, vision, and also improving the quality and development. Although the starting of TQM has brought about bid changes in HEI, many organizations have yet not started the TQM. Calvo-Mora et al. (2005) [11] examined the relationship between total and indirect quality management factors and key business outcomes. The work has empirically identified three dimensions (human resource management, strategic partnership management and resource and process management) that correspond to total quality management factors and strict management. It also shows how these ratios form a management system that has a significant impact on key business outcomes. According to Ravindran and Kamaravel (2016) [28], the quality of education is becoming increasingly important for those who are directly or indirectly affected and who use their services. Access to

education and quality education must be seen as independent and inseparable needs and rights. Jayaraman (2017) [20] used a qualitative research methodology, highlights the key practices adopted and the frameworks used to introduce and administer TQM/BE. Sunderlal Surendran (2018) [31] highlighted the necessary measures to implement TQM in Oman colleges and universities, and lawmakers must invent viable education in Oman. This study uses descriptive research design to help understand which variables are keys to the success of TQM implementation in instructional learning. The final conclusion is that, the opinion of teachers on the successful implementation of the general principles of quality management in educational institutions is mainly due to the provision of sufficient resources to progress the excellence of teaching and encourage development of courses, value-added courses and teaching methods and techniques. Dewi (2018) [12] showed that the total management Education Quality significant direct effect on Knowledge management, Knowledge management while direct and significant impact on performance Prodi. An interesting finding of the study is that total quality management has no significant impact on Prodi's performance. The Role of Knowledge Management mediates perfectly between Total Quality management influences on performance Prodi. This suggests that total quality management is not direct determinant of Prodi performance, but its existence is important to the increased input of knowledge management in an effort to improve performance. Sharma et al. (2016) [27] evaluated the quality of teacher education and the implementation of full quality management in teacher education institutions. The relevant literature on international politics and total quality management concepts has been extensively reviewed to achieve the research objectives. Mehta & Degi (2019) [23] elaborated on the modern era paradigm's thinking on entire excellence management and its application in education. This study begins with a background theory/document review and then summarizes the findings, conducted by students to obtain different perspectives on overall quality management of education. Therefore, this study proposes a theory derived from TQM, such as institutional change environment, sustainable success and innovation, expressing the relationship between educational institutions and the role of total quality management.

In the field of management education, although there are some interesting studies in this area, the problems that constitute quality have not been completely solved. Early research has identified the limited use and fragmentation of TQM in management education. Therefore, the problem stems from the lack of appropriate and existing integrated quality management models in management education. It could be an experimental opportunity to improve a complex prototypical by relating a TQM model for a regulatory agency.

Various studies have shown that existing models of general higher education are better suited to the education system of developed countries such as the United States and the United Kingdom. As a result, this study seeks to develop a comprehensive quality management (TQM) model that requires senior managers to provide quality education to Indian regulatory agencies.

### III. METHODOLOGY

The study is mainly conducted by using a descriptive method of research. The approach majorly focused on describing the present situation, analyzing the evidence, investigating them and interpreting results. The study is being conducted to identify the exact condition of the various factors that are involved.

A total of 260 faculties from private and government management institutions have been surveyed in Punjab. The survey was conducted from Jan 2019 till July 2019. Data has been gathered from 55 management institutions in Punjab. Total 65 questionnaires were distributed randomly. The Cronbach alpha score for each of the individual constructs as well as the overall scale for measuring the faculty's perspective on TQM implementation was above 0.91. This measure of internal consistency reliability of scale with value above 0.6 indicates a fairly reliable scale; hence in the present case also it confirms the reliability of the study instrument EFA (Exploratory Factor Analysis) was conducted to identify the dimensions that approximately explain each identified variable. The Total seven factors were extracted which were as top management, a system approach to management, customer satisfaction, employee involvement, training, team work, continuous improvement towards TQM in education sector of Punjab. The Faculty perception questionnaire regarding total quality management in management institutes of Punjab was developed which included the following components.

**Table-I: TQM Components**

Components of TQM	No. of questions
Top Management	12
Systems Approach to Management	7
Customer Satisfaction	10
Employee Involvement	14
Training	6
Team Work	5
Continuous Improvement	11
<b>Total</b>	<b>65</b>

The items were measured on a 5-point likert scale that varied from 1= strongly agree to 5= Strongly Disagree. Out of 260 respondents there are 149 (57.3 percent) between 25- 35 age groups and the respondents between 36-45 age groups are 100 (38.5 percent) and 11 (4.2 percent) are above the age group of 46 years and above. A total of 100 (38.5 percent) respondents belongs to the male category, the female respondents are 160 (61.5 percentage). Most of respondents 182 (70 percent) having qualification of post-graduation, the respondents of post-graduation and above is 78 (30percent).The Majority of the respondents, 236 (90.8 percent) are assistant professor, 21 (8.1 percent) are associate professor, 3 (1.2 percent) are professor.

### IV. RESULTS AND DISCUSSION

#### A. Reliability Test

Reliability refers to the extent to which a scale produces consistent results. Reliability analysis is determined by obtaining the proportion of systematic variation of a scale, which can be done by determining the association between the scores obtained from different administrations of the scale. Thus, if the association in reliability analysis is high, the scale yields consistent results and is therefore reliable.

In this study coefficient alpha or Cronbach's alpha is used in reliability analysis. The values of coefficient alpha or Cronbach's alpha for all the seven scales are shown in Table 2. All the values meet the required prerequisite; hence all seven constructs are internally consistent and have satisfactory reliability values.

**Table-II: Reliabilities in terms of Cronbach's alpha**

Dimension	Cronbach's Alpha
Top Management	0.955
Systems Approach to Management	0.911
Customer Satisfaction	0.951
Employee Involvement	0.958
Training	0.922
Team Work	0.918
Continuous Improvement	0.962

#### B. Factor Analysis

Factor analysis was used in this study to identify the dimensional structure of quality within management institution. According to Hair et. al., 1995 the data matrix has sufficient correlations to justify its applications. In the first step it is observed that all correlations are significant at  $P=0.01$ , which results an Excellency of factor analysis.

The next step involves assessing the overall significance of the correlation matrix with Bartlett test of sphericity, which provides the statistical probability that the correlation matrix has significant correlations among at least some of the variables. The results of Kaiser-Meyer-Olkin (KMO) are shown in Table 3.

**Table-III: KMO And Bartlett's Test**

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.976
Bartlett's Test of Sphericity	Approx. Chi-Square	17910.410
	df	2080
	Sig.	.000

The KMO statistics varies between 0 and 1, and it measures the sample adequacy. The acceptable sample value according to Kaiser (1974) is 0.5. In the current test, the value of KMO (Kaiser – Meyer- Olkin) measure is 0.976 which is a sufficient measure that the sample is adequate.

In order to gain a better understanding of the factor structure, all the 65 items from the questionnaire were subjected to a factor analysis utilizing the exploratory factor analysis. The decision to include a variable in a factor was based on factor loadings greater than  $\pm 0.3$  (Hair et al., 1995)[18], and all factors whose Eigenvalues was greater than 1.0 were retained in the factor solution (Tabachnick and Fidell, 1989)[32]. The choice regarding factor loadings greater than  $\pm 0.3$  was not based on any mathematical proposition, but relates more to practical significance. Table 4 shows the results of the factor analysis in terms of factor name, the variables loading on each factor and the variance explained by each factor. The seven factors identified in Table 1 can be described as follows:

- Factor 1: Top Management. This factor is concerned with the role of management and responsibilities to develop strategies, policies and direction.

- Factor 2: systems approach to management. The items under this category are related to Identifying, understanding and managing an interrelated process as a system contributes to the institution's effectiveness.
- Factor 3: Customer satisfaction. This factor is concerned with customer satisfaction and valuable creation.
- Factor 4: Employee involvement. This factor is concerned with involvement of employees at all level in the organization.
- Factor 5: Training. This factor is concerned with training of employees.
- Factor 6: Team work. This factor is concerned with team work of employees towards the goal of institution.
- Factor 7: Continuous improvement. This factor is concerned with up gradation of strategies and policies.

The results presented in table 4 reveals the valuable information which is as follows:

The perception of the different age group of the members of the faculty has rated high in the variables like "The effort of top management in ensuring everyone in the organization has a customer focus and clear performance measures", "Institution has clear vision, mission and policy statements related to quality", and the "Top management has clear objectives with respect to quality performance. At the same time they differ significantly on the following variables namely "There is an effective human resources plan in respective of reward and recognition", "Comprehensive goal setting process for quality is within the institution and the top management has clear objectives with regard to quality performance". Hence it is found that these three variables are not at all practiced even though it is considered to be important. Members of the faculty having different years of experience have also given the above same opinion what the different age group of faculty members revealed about the dimension "Top Management Commitment".

In regard to the critical factor "System Approach to Management", the members of the faculty belonging to different age groups have rated five variables moderately. The following three variables namely, "Institution has Academic Performance Analysis Cell (APAC) for maintaining quality in Education" (V7), "Six-Sigma (DMAIC) Methodology / TQM is practiced in the institutions" (V6), and "There is no documentary practice of ISO 9001:2000 quality management system in the institution" (V4) are significantly differed in their perception. This clearly shows, most of the Management Institutions are not practicing the above quality measuring process.

The faculty members having different years of experience significantly differ only on variable, namely "Six-Sigma or TQM is practiced in the institutions". So in general, they have also agreed that, in most of the Management institutions, this quality measuring process is not practiced, though it is considered to be an important aspect. With regard to the critical factor "Customer Satisfaction" the members of the faculty in different age groups have perceived that, in most of the Management

Institutions, industry-institution interaction programmes are not at all conducted periodically and there is no bench marking practice followed in those institutions. But the institutions are conducting customer orientation programmes to involve everyone and to prove that the institutions are committed to the process of customer satisfaction.

The faculty members having various years of experience have more uniform perception of the seven variables. However, members having 0-10 years, opined that, the benchmarking practice is not practiced and the other two groups, namely 11-20 years and 21 years and above who are experienced members have felt the need and importance of the placement programmes for preparing the students during campus recruitment.

With regard to the critical factor "Employee Involvement", the different age group of faculty members perceived that, Management institutions are not conducting seminars, workshops and conferences regularly. Also, they have perceived that most of Management institutions are not practicing the six-sigma concept. But all the groups are satisfied with the salary and the compensation. The faculty members, having different years of experience, have perceived the absence of quality circles and irregularity in conducting training programmes in management institutions. But they also accept that the employees are free to voice their views openly in the institution.

With regard to the critical factor "Training", the different age group of faculty members perceived that, no training is given to the faculty members in the implementation of ISO 9001:2000 or Six-Sigma or TQM concepts in most of management institutions, which are considered to be more important in imparting the quality of education, whereas they have accepted the existence of interdepartmental coordination in institutions. Also, they have accepted the fact that the Indian Society for Technical Education (ISTE) short term training programme, Faculty Development Programme (FDP), refresher course and workshops are conducted adequately. The faculty members having different years of experience have rated moderately the five variables out of six, except the one about the conducting of internal audit of ISO 9001:2000, to which they have given a low rate in score.

With regard to the critical factor "Team Work", both the faculty members, belonging to different age groups and having different years of experience have perceived that the institutions are not using the experts to solve the quality related problems. Both the groups are identical in their opinion about the useful efforts taken by the faculties for improving the results of the institutions.

With regard to the critical factor "Continuous Improvement", the different age group of faculty members perceived that, there is no mechanism in the institution to implement the suggestions obtained in the form of feedback or audit with regard to academic affairs.

The faculty members having different years of experience concluded with the opinion of the different age groups on using ISO / Six-Sigma and TQM to reduce academic problems and improve the performance.

Table-IV: Results of factor analysis

Factor number	Name of dimension	Item description	Communalities	
			Initial	Factor Loadings
Factor 1	Top Management	The top management ensures everyone in the Institution has a, student focused and clear performance measures	1	0.748
		There is top management's recognition to the contribution of faculty with respect to development, improvement and maintenance of quality	1	0.736
		Institution has clear vision, mission and policy statements related to quality	1	0.725
		Quality circle or employee involvement programmes are implemented in the departments	1	0.742
		The institution effectively implements the human resources plan with respect to reward & recognition	1	0.746
		Comprehensive goal-setting process for quality is within the institution.	1	0.757
		The top management has clear objectives with respect to quality performance	1	0.726
		Employee is given opportunity to avail work experience in all the areas of institution by routine transfer	1	0.579
		The top management committed to implement ISO 9001:2000 QMS / six sigma / TQM in the institution.	1	0.736
		Management representative (MR) / Principal coordinate the Quality system activity	1	0.71
Factor 2	Systems Approach to Management	ISO 9001:2000 / SIX SIGMA/ TQM awareness programs are conducted to communicate the faculty regarding Quality work in the institution	1	0.725
		Team building and group dynamics training for employees are conducted in the departments	1	0.694
		To review the quality education regular meetings are conducted.	1	0.728
		Resources are allocation for individual faculty development program.	1	0.713
		A separate coordinator is to look after quality improvement system.	1	0.717
		Quality improvement team plays crucial role with respect to quality policy, new curriculum development, etc.	1	0.662
		There is documentary practice of ISO 9001: 2000 in the institution.	1	0.614
		Six Sigma (DMAIC)/ TQM is Practiced in the institution.	1	0.775
		Institution has academic performance analysis cell (APAC) for maintaining quality in educational process.	1	0.666
		Institutions fostering Parent's involvement in the educating the students.	1	0.636
Factor 3	Customer Satisfaction	The Industry-Institution interaction programmes conducted periodically.	1	0.729
		Rewards are given recognizing good Performance of faculty.	1	0.831
		Rewards are given recognizing good Performance of students	1	0.781
		The benchmarking practice is being followed in the institution.	1	0.698
		Better placement programmes for student placement is being provided through campus recruitment.	1	0.773
		Customer (Student) orientations are being conducted in such a way that everyone in the institution are involved and committed to the process of customer satisfaction.	1	0.683
		Staff are involved and committed towards the common goal of the institution	1	0.712

		The goal of the institution is to Provide quality education within congenial environment	1	0.737
		There is continuous improvement of all process and activity, leading to total Customer satisfaction and competitive advantages.	1	0.733
		The staff have good attitude towards improvement of quality in the institution	1	0.776
		Problems are solved through quality circle programmes	1	0.759
		The institution conducts seminars/ workshops conferences regularly.	1	0.797
		The employees are motivated with non-financial incentives.	1	0.635
		The efficiency and involvement of employee is Evaluated regularly.	1	0.767
		Academic decisions are made by Consulting senior faculty members	1	0.734
		Training programmes are often conducted	1	0.77
<b>Factor 4</b>	<b>Employee Involvement</b>	There is a good effect & improvement in quality through the Six-Sigma (DMAIC) team in the departments	1	0.781
		Salary and compensation are attractive and satisfactory	1	0.714
		There is support and co-operation of the employees in implementing integrated Total Quality Management	1	0.733
		There is trust and openness between employer and employees	1	0.729
		Employees are committed to high quality work	1	0.756
		Employees are free to voice their views openly	1	0.802
		Employees express their problems freely to supervisors	1	0.748
		Training programmes are conducted in the advanced statistical techniques at the level of principal and faculties	1	0.752
		Management provides effective leadership for developing the skills of the group members and allocating tasks for realizing quality objectives in a smooth manner	1	0.744
<b>Factor 5</b>	<b>Training</b>	There is coordination between the departments with respect to development and improvement of quality of students	1	0.747
		Training is given regarding ISO 9001 /Six-Sigma / TQM concepts in the institution	1	0.755
		Internal audit of ISO 9001:2000 programme is conducted in the institution with trained faculty	1	0.711
		Adequate training is given to the staff through UGC/ AICTE/ ISTE short term programme / FDP/ Refresher course / Workshops etc.	1	0.715
		The ISO coordinator performs efficiently in solving problems or issues related to quality	1	0.746
		High Degree of participation in quality related decisions by management and faculty	1	0.745
<b>Factor 6</b>	<b>Team Work</b>	Experts are used in solving quality related problems in the institution	1	0.716
		The individuals are Contributing their best to achieve excellence in the institution	1	0.689
		The management takes useful efforts for contribution of faculty skill in improving results of the institution	1	0.724
		Institution has Academic performance analysis cell or quality assurance cell for quality improvement in the institution	1	0.753
		Policies and Practices are modified based on feedback/audits related to academic affairs	1	0.755
<b>Factor 7</b>	<b>Continuous Improvement</b>	Management encourages the staff for improvement of skills and creativity	1	0.776
		Expectations of stakeholders are met with the effective implementation of integrated TQM	1	0.721
		Management uses the ISO/SIX-SIGMA/TQM to reduce the problems concerning academic performance improvement	1	0.748

The suggestions from stakeholders are usually carried out in the institution	1	0.694
Continuous improvement strategies are adopted in the institution	1	0.754
There are more learning opportunities are provided in the institutions	1	0.767
There is elimination of non-value adding activities in the institution	1	0.694
The institution is strived to maintain high standards of quality in education through effective utilization of resources	1	0.788
The complaints from staff students and stakeholders are immediately looked or rectified	1	0.766
Extraction Method: Principal Component Analysis.		

### C. Regression Analysis

In this study, Regression analysis was used to know the perception of faculty regarding TQM implementation in their respective institutions as per their demographic data (age, gender, qualification, salary, designation and experience).

It is observed that model is significant as F-ratio 9.879 has  $p$ -value  $0.000 < 0.05$  implying that there is significant impact of age, gender, qualification, salary, designation and experience on faculties' overall perspective score on TQM implementation. The examination of the coefficient shows that only the regression coefficients of both, age, qualification and salary are statistically significant. The value of R-square is 0.190 which is very low. It indicates that the current model only explains 19 % of the total variance in the faculties' perception scores.

### V. CONCLUSION AND SUGGESTIONS FOR FUTURE RESEARCH

Education is a lifelong process. Managing quality is one of the greatest challenges that educational institutions face in today environment. Most of the institutions understand the importance of quality education and they have been initiating a lot of measures to enhance the quality of education.

The need for the skilled and knowledgeable professionals, particularly in technical profession is felt at present as an urgent to meet the global challenges facing the industrial sectors which in turn contribute more to the economic development of any country. The important role of Management institutions is to supply efficient and quality manpower to the corporate. Hence educational service is no longer construed as mere imparting of knowledge, technical or otherwise, but embraces a broad spectrum of services contributing to overall educational excellence. The transformation of a young enthusiastic intelligent youth into responsible citizen with professional expertise may help and ensure the holistic development of the nation in the core areas like economics, management and science and technology.

The study clearly depicts that quality management in management institutions in Punjab, India is currently achieved in a desultory way instead of a scientific and well-integrated fashion. This study almost proposed a blue print for flourishing emergence of our nation as a skilled superpower, by adopting TQM in the most self-asserting sector, to wit, Management education. Substantially, excellence in Management education will be the logical and productive zenith of Total Quality Management. Thus,

researcher has studied the performance level of quality in management institution through the TQM model.

From the faculty perspective, it has been found, that top management has droop to manage their available human resource as valuable asset in the institutions. Many institutions do not have clear objectives in respect of quality performance.

A few Management institutions share close extended relationships with their external stakeholders like parents / industry owners and they regularly inform them about their quality performance.

Improvements are continuously controlled and documented, but the significant steps are required to pursue continuous improvement such as bench marking practice which is not practically followed in most of the management institutions. Most of the Institutions make attempt to satisfy their stakeholders by enriching quality level of education as much as possible with available resources by regularly analyzing the complaints and suggestions systematically of their internal interest groups. The documentary practice of ISO 9001:2000 Quality Management System is not in practiced in most of the technical institutions and also well-known quality management systems such as Six-Sigma (DMAIC methodology) and TQM concepts are not at all implemented. Most of the management institutions have failed to adopt an Academic Performance Analysis Cell (APAC) for maintaining quality in educational process.

As perceived by students, all seven factors are considered as equivalently significant. However, they apprehend that the "Top Management Commitment" and "Team Work" are not at all taken into account by most of the management institutions. Even though the other critical factors "System Approach to Management", "Customer Satisfaction", "Employee Involvement", "Training", and "Continuous Improvement" are now in trend, they need further cognizance in implementation of TQM.

Now is the high time to practice integrated TQM for the improvement in level of quality in the academic activities for achieving quality assurance in Management institutions. There is not an iota of doubt that if integrated TQM model is implemented, the management institutions could ensure quality in education to produce better managers and entrepreneurs.

The findings of the study may be applied by educational authorities to enhance the service quality provided by their institutions of higher management learning and also understanding the prospective of their internal stakeholders in terms of their anticipations on the basis of their experience.



In case, the effective measures are not taken to fulfill the quality gaps in Management education sector, the present scenario, may cause prolonged crisis of instability in managerial skills of our youth.

Instead of selecting different model of quality management, the TQM model comprising of all the evaluative factors of the other models may help the institutions to emulate the comprehensive quality education.

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