



ANALYSING STUDENTS PERCEPTION: TOTAL QUALITY MANAGEMENT IN EDUCATIONAL INSTITUTIONS IN PUNJAB

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Abstract:

The purpose of this study is to determine, on the basis of the students' perceptions, the level of Total Quality Management (TQM) that is applied by educational institutions in the province of Punjab in India. In addition to this, the purpose of the article is to explore the connection between the degree of TQM and the location of the students as well as their gender. In order to accomplish these goals, the researchers carried out a survey study project with a total of hundred students enrolled in educational institutions. The results of this research indicate that students assess the amount of TQM as being somewhere in the middle; nevertheless, there are statistically significant differences in the level of

TQM depending on students' gender and region. The purpose of this article is to provide principals and teachers with proof of the benefits of using TQM concepts in Institutions to boost student happiness.

Keywords: Gender, management in education; students; students satisfaction; total quality management.

Introduction:

It is impossible to underestimate the significance of education when it comes to the cultivation of superiority, expertise, and knowledge, all of which are necessary for the general growth of the economy. Because of this, nearly every nation in the globe has had to devise an effective plan for the expansion of its higher education systems. Single when we have a matured system of higher education in which efficiency continues to serve as the only criterion to evaluate success will it be feasible for us to assume a position of leadership on a global scale. It has been

observed that the system of higher education is effective in providing society with a team of human resources that is committed, focused, and devoted as well as professionally sound, which is necessary for determining the destiny of any nation. This will only be achievable after the tenets of quality management have been ingrained in the educational system at the higher education level. Total Quality Management (TQM) is an unavoidable component that will play a significant role in determining the techniques that higher educational institutions employ in their efforts to appease a wide range of stakeholders, such as students, parents, the business community, and society as a whole. This study makes an attempt, although a theoretical one, to explain how TQM may be applied in the field of education. It begins by discussing problems that apply to the quality of higher education and then continues on to determining the factors that influence the quality of higher education. The new theories of economic growth have placed an increased emphasis on the importance of human capital as the driving force behind economic expansion and development. A recent study conducted by the World Bank in 190 countries demonstrates that higher education is one factor that contributes to improving the overall quality of the workforce. Therefore, obtaining a higher education is an essential investment that is required to boost one's overall quality of life. There has never been a time when the strong connection that exists between the economy and education has been more readily apparent than it is right now.

The vast majority of businesses are of the opinion that in order to be successful in the face of ever-increasing levels of competition, a culture that promotes a total dedication to providing utmost pleasure to customers by way of ongoing development and innovation is an absolute must.

Total quality management, often known as TQM, is a culture that promotes an unwavering dedication to the goal of achieving complete and utter customer fulfilment by way of ongoing business operations excellence. In order for academic institutions to make continuous improvements, they must first determine the requirements and requirements of the institution's clients. According to the research of Raouf (2004), at an academic institution, "suppliers" transform into "customers," and "customers" take on the role of "suppliers." TQM is utilised in commercial and industrial settings, but it has only just been brought into the realm of higher education and is now being tested there. Total Quality Management is used by a number of educational institutions, including universities and colleges, as a method to improve the standard of higher education. Everyone understands the importance of quality, and there is a plethora of TQM material available in educational institutions of a higher level. Because "quality" means "conformance to criteria" of the customer, the student is regarded to be a client. Numerous educational institutions in India and elsewhere in the globe have adopted TQM as an educational philosophy in response to the ever-increasing levels of global competitiveness, privatisation, and internationalisation of education. Along with globalisation, the internationalisation of higher education is now a well-established phenomenon. Internationalization is not something that should be pursued only for its own sake but rather as a method of improving overall quality. The capacity of the organisation to perform the duty assigned to it and to realise its objectives defines quality. Improving the quality of courses, the input instructional process, resource management procedures and structures, student support service output, and links with the world of work and other organisations are all part of

what is meant by Total Quality Management in higher education (Tulsi, 2001). Because it is a comprehensive strategy, having the support and participation of both the teaching staff and administrative personnel is necessary for quality development. TQM is a practise that places a significant emphasis on the participation of all individuals within an organization's teams.

Total quality is total in three senses —

1. Customer focus
2. Involvement of staff members
3. Continuous Quality Improvement (CQI).

The client is the arbiter of the product's quality. The student is a customer because the student is purchasing the Professor's course, and the student has the unequivocal right to expect certain things in exchange for his or her money, including content that is pertinent to the course, fairness, access, expertise, and a learning environment that is reasonable (Sytsma 1996). The student is both the client and the co-producer of their own education since learning is a collaborative effort on the part of the student and the professor. Learning is the end result of a collaborative effort on the part of the instructor and the student. In a general sense, it is the result of a collaborative effort on the part of students, parents, alumni, community members, and professors. The kids are not the only people who have a stake in this endeavour; everyone does. In the context of education, the phrases customers, public goods, and non-merit products are not acceptable to a civilised class since they indicate a commercial conditioning of pay and usage concern. This is due to the fact that education is considered to be a philanthropic endeavour. But there is also the issue of whether or not all parties involved, including the student, have

the legal right to insist on a certain level of quality or excellence in education.

LITERATURE REVIEW:

Michael(2017) TQM is becoming increasingly popular as a management paradigm among businesses all over the world. The beginning of any quality movement anywhere in the world is the implementation of a quality improvement project at a manufacturing company. But in subsequent years, it extended to other service institutions, such as banks, insurance companies, non-profit organisations, healthcare facilities, government agencies, and educational establishments. TQM models, which are often based on the teachings of quality gurus, generally incorporate a number of "principles" or "important aspects," such as collaboration, top management leadership, customer focus, staff engagement, continuous improvement tool, training, etc. Awards like as the Deming award in Japan, the Malcolm Balridge award in the United States, and the European Quality award, among others, are an indication of the expanding awareness in this field. TQM refers to the process of altering the basic culture of an organisation in order to reorient it toward the production of superior goods. **Gaither, (2016)** TQM can be defined as a general management philosophy and a set of tools that allow an institution to pursue a definition of quality and a means for attaining quality, with quality being a continuous improvement that is ascertained by customers' contentment with the services they have received. TQM can also be defined as a method for achieving quality in a product or service. TQM can be defined as a method for achieving quality in a process. According to **Witcher (2010)**, the Total Quality Management framework is comprised of the following terms: Total: signifying that every

individual, including customers and vendors, is engaged in the process. Both "Quality" and "Management" indicate that all of the customer's criteria are satisfied in full, while "Management" suggests that senior executives are fully invested. TQM may alternatively be characterised as "doing things correctly the first time," "striving for continuous improvement," "meeting the needs of consumers," and "making quality the responsibility of every employee," among other possible definitions. The majority of the labour that goes into quality and TQM can be traced back to teachings and statistics that were developed in Japan during the 1950s, and the revolution that followed in the 1980s in the United States, with the goal of meeting or, ideally, exceeding the expectations of the customer. Consistency, excellence, the elimination of waste, increased delivery speed, and providing excellent service to customers are common themes in quality management. The goal of total quality management (TQM) is to develop an organisation capable of producing goods or providing services that are judged to be of high quality by the people who make use of them. The degree to which a product or service satisfies the needs and requirements of a client is what is meant to be referred to as the quality of that product or service. **Harris(2014)**It is estimated that the social return of basic education is 25% while that of higher education is just 1%. According to the estimates of UNESCO and the World Bank, the social and private returns of higher education are smaller than those of primary and secondary education. Because of this, many people believe that the benefits of higher education are mostly of a personal or private nature, and that as a result, public funding for higher education should be decreased. TQM in higher education can be approached from one of three different perspectives To begin, there is

an emphasis on the client, in which the concept of providing service to students is encouraged via staff training and development, which in turn supports the independence and choice of students. The second approach has a focus on the staff and is concerned with valuing and enhancing the contribution of all members of an institution's personnel to the efficiency with which an institution operates, as well as to the process of determining policies and priorities. This necessitates the adoption of a more horizontal management structure as well as the acceptance of action responsibility by distinct working groups. The third method places an emphasis on service agreements and works to verify adherence to specifications at specified key measurable points throughout the educational procedures. One example of this would be the evaluation of assignments by the faculty within the allotted amount of time. **Lawrence and Mc.Collough (2011)** suggested a system of promises that is intended to accommodate different stakeholders as well as the varied and ever-evolving responsibilities that students play in the process of education. Students, teachers of advanced courses that build on preparatory courses, and thirdly businesses that hire graduates of the institution are the primary targets of their system of assurances. Students make up the majority of their clientele. An educational institution gains a competitive advantage by being able to demonstrate either its tangible or its intangible educational excellence to prospective students and their parents via the use of a system of guarantees. According to **Durlabhji and Fusilier (2019)**, customer empowerment in education necessitates increased input from students as well as from the business community that will eventually employ them. This, in turn, will streamline education and eliminate any remnants of the esoteric academic

"ivory tower" that are present in business Institution coursework. The benefits of student empowerment in the classroom need to be compared against the need for control to meet minimal educational goals and proper and fair evaluation. This may be done by using a matrix. According to **Sangeeta et al. (2014)**, the education system may be seen as a transformation process that receives its inputs from students, instructors, administrative personnel, physical facilities, and the educational process itself. Instruction, comprehension, and management are all components of the processes. The examination scores, employment, money, and overall pleasure are all examples of outputs. According to **Roffe (2018)**, open competition is causing students to become more customers in addition to being consumers, and they are expected to pay an increasing part of the expenses associated with receiving an education. This results in competitive dynamics, which provide unique programming for the various student groups. The conceptual problems include whether total quality management in higher education should be problem-oriented or people-oriented, the difficulty in introducing the application and acceptance of TQM in higher education institutions that have not embraced the tenets of TQM, the team orientation versus the individual orientation towards TQM, and maintaining the rate of innovation, amongst others.

Objective of the study

1. To study the opinion of students on the TQM procedures carried out at their educational establishment.
2. To Identify the factors and rank them properly to enhance the quality of technical education.

METHODOLOGY:

Students from educational institutes in Punjab receive a copy of quality management as a complete measure of TQM implementation. The data collection was done by selecting students at random from each of the Institutions. The data that was obtained was evaluated using statistical methods. The scores were totalled together and then the total was divided by the number of observations for each component in order to establish the mean score for each factor. The higher the score, the more important the factor was considered to be. An institution needs to operate in a way that is both efficient and successful if it is to realise its lauded objective of churning out technocrats who are highly qualified and well trained. Every institution of technical education seeks to bestow upon its students the ability to perform competently in their chosen fields of study by providing them with a positive atmosphere in which to cultivate their personalities and, ultimately, by assisting them in obtaining higher grades. Seven of the most important aspects that either directly or indirectly have a role in determining the efficacy (quality) of technical institutions are outlined

Data analysis and interpretation

The efficacy (quality) of educational institutions is affected either directly or indirectly by the seven key elements that are taken into consideration in Table No. 1. These aspects are essential for the successful adoption of TQM.

Table No. 1 seven critical factors

Factors	Mean	S.D	Rank
Administration	52.58	9.99	I
Infrastructure	50.77	8.31	3
Extra Curricular	48.90	7.90	7
Interaction with	49.60	9.05	6

Training &	50.07	5.36	4
Teaching	51.33	9.48	
Student's Awareness and	49.78	6.94	5

The data presented in table no. 1 reveals that the weighted mean for the adaptation of standard measures for students is 53.67, while the weighted mean for clear Vision and policies related to quality education is 52.67, and the weighted mean for the implementation of ISO, SixSigma, and other TQM techniques is 51.4.

Table no: 2 shows the weighted mean for adaptation

Administration			
Factors	Measures for	Clear	Implementation
Weighted	53.67	52.67	51.40

Table No. 2 displays, relevant to this aspect, the weighted mean of the numerous amenities that the institution offers to its patrons. According to the table, the Institutions have insufficient laboratory and library facilities, as well as a canteen. The table presents the weighted mean of the numerous amenities that are made available by the establishment.

Table No. 3 shows the weighted mean of various facilities

Infrastructure				
Factors	Lab &	Internet &	Canteen	Sports
Weighted	49.60	50.47	49.97	53.53

The degree of total quality management (TQM) in institutions was characterised using the mean score as well as the standard deviation (SD). The means were

graded from most significant to least significant. The researchers used a one-way analysis of variance and an independent sample t-test so that they could answer the second and third study questions.

Table 4 shows that 60 of the participants are female students, which accounts for 60% of the total, while 40 of the participants are male students, which accounts for 40% of the total.

Table 4 Distribution of gender and location of students

City	female	Male	Total
Ludhiana	25	10	35
khanna	10	10	20
jalandhar	15	10	25
chandigarh	10	10	20
total	60(60%)	40(40%)	100(100%)

Where does the student body place TQM in terms of its importance? The findings that were obtained from the mean distribution of the degree of TQM based on the students' perceptions. It is clear from looking at Table that all eight of the aforementioned products have a rating of medium. The first principle is "teachers attending in-service courses" (mean = 2.88; SD = 1.06), and it has a mean of 2.88 and a standard deviation of 1.06. The last item is "student representatives are taught for good leadership" with a mean score of 2.14 and a standard deviation of 1.18.

According to these findings, the degree of TQM concepts taught in jalandhar institutions is at a medium level, as judged by the pupils who attend such institutions. The students' perspectives on the degree of TQM in several cities across the province of punjab are shown in Table 3. The findings are summarised in Table 5, which reveals that all of the cities scored in the medium range. The highest is in

ludhiana, with a mean of 2.83 and a standard deviation of 1.04, followed by khanna, with a mean of 2.59 and a standard deviation of 1.14, jalandhar, with a mean of 2.45 and a standard deviation of 1.09, and Chandigarh, with a mean of 2.37 and a standard deviation of 1.04.

Table 5 Students' opinions regarding level of TQM

Items	Mean	SD	Level	Rank
Teachers attending in-	2.28	1.06	Medium	1
Our Institution is always striving for	2.70	1.05	Medium	2
There is mutual relationship among the	2.60	1.09	Medium	
The principal establishes unity and	2.59	1.10	Medium	4
There is no fear towards continuous	2.55	1.08	Medium	5
Institution adapt to new	2.53	1.11	Medium	6
Services rendered are	2.50	1.04	Medium	7
Student representatives are trained for good	2.14	1.1 S	Medium	8
Overall	2.56	1.08	Medium	

Notes: Low ($1.00 < M \leq 2.00$), Medium ($2.01 < M \leq 3.00$), High ($3.01 < M \leq 4.00$).

Table 6 Mean distribution of students' opinion on TQM's level

City	mean	Sd	Level	Rank
Ludhiana	2.83	1.04	Medium	1
khanna	2.59	1.14	Medium	2
jalandhar	2.45	1.09	Medium	3
chandigarh	2.37	1.04	Medium	4
overall	2.56	1.08	Medium	

A one-way analysis of variance (ANOVA) is carried out in order to answer the second research question posed in this study. The purpose of this analysis is to evaluate if the group means on degree of TQM and location differ substantially from one another.

There was a statistically significant difference in the mean score of the TQM level between the cities, as determined by the responses of the students ($F(3, 396) = 6.181, p = .000$). These analysis did not identify any one city as being distinct from the others.

Table 7 One-way ANOVA test of the mean score of TQM level between different cities

	df	Mean square	f	Sig.
Between group	3	3.775	6.181	.000
Within group	396	.611		
Total	399			

The findings that are shown in demonstrate that the students' perception is that the level of TQM in the city of Ludhiana is substantially greater as compared to the levels in jalandhar and chandigarh($p = .000$ and .016).

The degree of TQM and the location of the pupils is significantly different from one another. According to the opinions of the students, the total quality management (TQM) level in the city of Ludhiana is noticeably greater when compared to both jalandhar and khanna. 3 Is there a discernible gap in performance based on a person's gender in terms of TQM? Table 8 displays the mean distribution of TQM scores, broken down by gender of the student population.

Table 8 Distribution of mean of TQM level based on gender

Gender	Mean
Male	2.93
Female	2.55

A t-test on independent samples was carried out in order to investigate the existence of a statistically significant gap in the TQM scores of male and female students.

The findings are shown in Table 7, and they indicate that there is a statistically significant gap in the levels of TQM exhibited by male and female students ($t(398) = -4.837$, $p = .000 < .05$). In addition to this, male students had a higher opinion of the level of TQM application in their Institutions than female students ($M = 2.93$) ($M = 2.55$).

Discussion

Level of TQM

The results of this survey indicate that students assess the level of TQM as being at a medium level (the mean score was 2.56). There are a lot of reasons that have contributed to the pupils' having a TQM level that is somewhere in the middle (Alobiedat, 2011). The medium level of TQM for students found that students are either less happy or more critical with the current implementation of TQM. This is despite the fact that TQM focuses on customer satisfaction (Kristianto et al., 2012). As a result, it is not entirely clear whether or not the pupils are satisfied (a need of the TQM customer satisfaction concept).

There are a number of different hypotheses that might account for this outcome. It was probably due to the absence of a mutual relationship between role players (principal, teachers, and parents) and students in

Institution (teamwork principle of TQM), the absence of student involvement in Institution decision-making (teamwork principle of TQM), and the absence of success in adopting new changes (continuous improvement principles of TQM) in Institution. The degree of TQM implementation must be improved or upgraded in order to raise the level of satisfaction felt by students, and policymakers and educational administrators need to direct more attention in this area. They have a responsibility to pay attention to impacts such as in-service training, continual improvement, communication, establishing unity and interaction, adapting to new changes, and concentrating on the pupils.

Conclusion:

The purpose of this study work is to determine, from the students' points of view, the degree to which TQM is being implemented in secondary Institutions. The researchers are also interested in determining the influence that gender and geography play in determining the overall degree of total quality management (TQM) in Institutions. The general public is keenly aware of the significance of obtaining a technical education. As a result, educational institutions have been given the enormous task of developing young people into highly intellectual people who are experts in their chosen subjects by providing education that is focused on quality. The pupils get the impression that each of the seven important variables is given the same amount of emphasis. On the other hand, they have the impression that the institutions do not make any effort to facilitate extracurricular activities or engagement with the business community. However, despite the fact that the other key factors—such as an excellent infrastructure, an attitude taken by management, and effective teaching practices—are

now being put into reality, they still require additional particular attention in execution. In addition to providing staff members with training and educational opportunities, institutions have a significant impact on whether or not total quality management is implemented successfully in the educational system. Continuous monitoring of its development and the challenges it encounters should be carried out because these might impede its implementation if they are not monitored. For the Total Quality Management implementation to be effective, commitment must come from all levels of the business. In conclusion, but certainly not least, the involvement and participation of students is equally vital since it gives measures of the real performance, which finishes off the feedback loop in the process of strategic management.

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