

# Total Quality Management in Education

**Uzma Rasool Khan, Samreen Khan, Sania M. Aslam, Sana Mateen & Nawal Punhal**

## **Abstract:**

The main purpose of this paper is to analyze the thoughts of the modern era paradigm on Total quality management "TQM" and its application in the field of education. This research also explores the adoption of total quality management in the field of education. Our research starts with the background theory/ literature review and then outline the result of the study, conducted by the students to obtain the different perspective on Total quality management in education. We applied survey methodology and selected questionnaire as an instrument. We used Multiple Regression to analyze the effect of TQM in education. By testing the hypothesis we have found out that the two sectors (government and educational institutions) agreed to adopt the concept of TQM except for the parental sector. This sector needs improvement. In our research F- statistics indicate positive results. It means that adoption of TQM in education gives you an excellent result in the overall system. As we can say that adoption of total quality management in education can ascertain more effective institutional change with success. As a result, this research proposed a theory which is obtained from TQM i.e. institutional change environment, sustainable success, and innovation which express the relationship between the educational institutions and the role of total quality management.

**Key words:** Total quality management, education, government sector, educational sector, parental role

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**Uzma Rasool Khan**, Assistant Professor, Department of Business Administration, Jinnah University for Women, Karachi, Sindh, Pakistan.

**Samreen Khan**, (Corresponding author), Student of MBA, Jinnah University for Women, Karachi, Sindh, Pakistan.

**Sania M. Aslam**, Student of MBA, Jinnah University for Women, Karachi, Sindh, Pakistan.

**Sana Mateen**, Student of MBA, Jinnah University for Women, Karachi, Sindh, Pakistan.

**Nawal Punhal**, Student of MBA, Jinnah University for Women, Karachi, Sindh, Pakistan.

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## **Introduction**

One of the greatest troubles of Pakistani people is the issue of educational system's quality and standard. Due to the quality of education, many nations have been developed so, for achieving enlargement in the country everyone must do the deliberate effort to ensure the quality at every step in the educational system. An educated person not only provide benefit to the nation but also it himself enjoy advantages from this. Education is a key which establishes consciousness, forbearance, trust, belief, and guidelines to choose right way at the right time. Education is the best cure for all the diseases of society. (Quddus et al.). School plays a very important role in preparing the children from nothing to future successful person. Due to school education, students can able to learn base foundation which they need to learn higher education from colleges and universities because the higher education depends on school education. Only quality of education can formulate the students so that they can easily face the global market challenges.

Education system of Pakistan contains 260,903 institutions which facilitates 41,018,384 students by 1,535,461 teachers. There are 180,846 public educational institutes while 80,057 private institutes which means that 69% education given by Private institutes in Pakistan. Total quality management is examined as a thinking of modern management which is the relay on various modern ideas and techniques which improve the continuous performance of the educational system.

## **Statement of the Problem**

According to Economic Survey of Pakistan, 2017, the literacy rate has been declined by 2%, Due to the poverty in our country people are not interested in go to educational institutes and those students who are going schools are receiving the education according to their fees. It means that the standard and quality of education now has been according to the fee structure. More you pay more you get standard this slogan has become for educational institutes. One more problem of education is a low budget set by the government on education, so that needy people didn't attract to it. Teachers face too much burden from the administration besides the teaching work so that the standard of education is not same all the time. Lack of planning and management inefficiency, suddenly change the pattern of papers, change the policies and criteria of education is also the drawback of nonstandard education.

### **Research objectives**

The primary objective of this research is about an assessment of the quality work of the Educational sectors. Another objective is to verify how quality is recognized and accepted by various levels of people (parental level, educational level, and governmental level) concerning the value of Total Quality Management in education. To construct the environment in which all resources are used effectively and efficiently through which staff and management trust will be established and to conclude the way in which the standard of education will be enhanced and literacy rate will be increased in Pakistan.

### **Significance of the study**

From the academic researchers Total quality management has received great attention. Implementation of TQM in education, gives worth to every student so that they can achieve best possible opportunity in life. TQM focuses continuous improvement in all the systems, procedures and through this students are delight. Through implementing TQM in educational sector universities can achieve competitive advantage at global level not only this TQM also decrease the gap between administrator and employees to work together effectively and efficiently.

### **Literature Review**

Quality means the level of brilliance. It means the unique and fundamental character that creates something exclusive and the most excellent of its kind. Khadijah Mohammed Alzhrani et al., (2016) were examine TQM has been implemented in most of the Saudi universities, but only certain of them act excellence in the acceptance and application procedure. The purpose of this research is to emphasize some Saudi universities that effectively implementing the TQM model and increase a competitive gain over their domestic as well by way of worldwide contestants. The study was based on previous explorations & results came from the practice of TQM in native universities as well as suggestions to guide the successful quality management adoption. Pushpa L (2015) explored the investigation that application of total quality management in advanced teaching institutions. Total quality management is an impression rather than a practice by itself. Therefore, the higher education

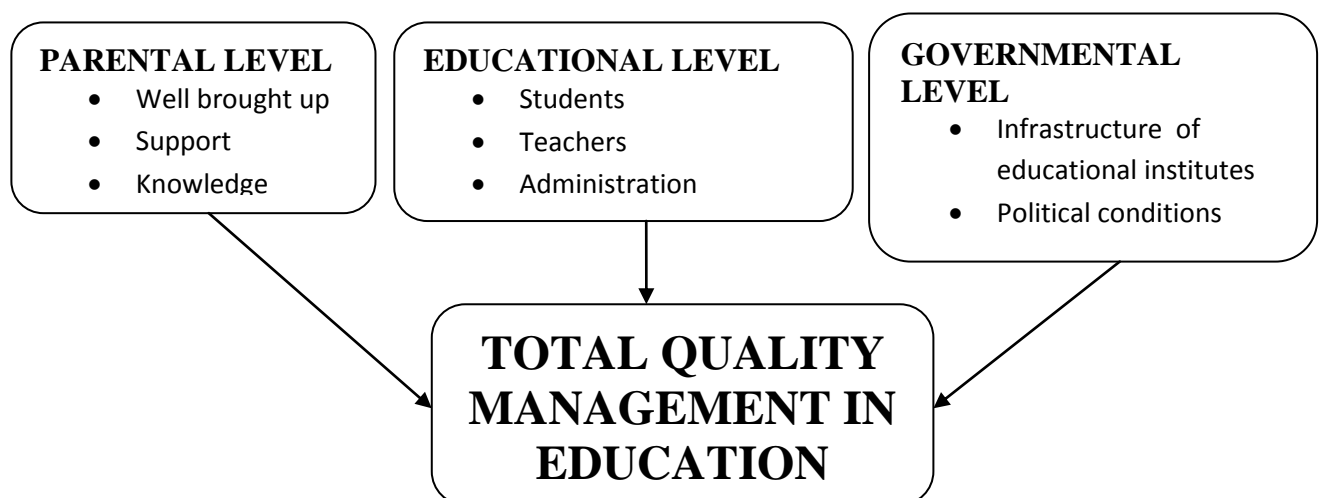
institutions must scrutinize numerous hurdles sensibly for the effective execution of TQM for attaining continuous perfection and sustainability. This investigation attempt exertions to examine TQM in higher education and structure the literature on Application of TQM in HEI make sure that the requirements of the participants are encountered. Iftikhar Ahmad Wani & Hakim Khalid Mehraj (2014) explores the research by using different essential viewpoints to maintain the quality of education. The purpose of this research to examine the total quality management in education: an analysis. The result shows that advanced infrastructure should be provided to all the educational institutions, well-skilled management, and the well-trained teaching staff to make total quality management execution success. Not best government assisted institutions, but privately managed academic establishments should be insisted to undertake the philosophy of Total quality management.

Sajjad Ahmad Baig et al., (2013) were investigating that how the application of TQM on higher education in Pakistan. Total quality management has been ensured by distinctive steps & tools such as 5S analysis & SWOT analysis, institutional and learners' requirement analysis, the introduction of top management and leadership, proper communication channel, providing proper training, encouraging teamwork & provision for incessant assessment and feedback mechanism. The results show that in education sector we should employ the proactive approach. Hani Samimi Sabet et al., (2010) were examined the study that how to funding, training, reward, commitment, teamwork & involvement affect the total quality restraint operates in the economic field and clarifies how the philosophy of total quality management can be translated into the educational area in Malaysia; and discuss how academics of universities implement overall exceptional management techniques and concepts in their classrooms and spotlight the relationship between those elements. The sample size was 112. For assessing & comparing data was used SPSS software. Sarrico et al., (2010) there are previously some examples in literature that explanation for the deployment educational institutional Quality valuation models that make available combined assessment on Higher Education Quality, providing outlines for better institutional management directing to incessant Quality perfection. Entirely these models suggest evaluating Education institutions, including not only its coaching and investigation models, but also other activities, and drastically, education institutional management. Suzana Vlašić et al., (2009)

were exploring the quality management in education. That what tactics use to improve the quality of education. After evaluation, the result shows the continued improvement in education by the social amendment, institutional amendment, scientific & technological development as well.

M.S. Farooq et al., (2007) were investigating the advance management standards in education infrastructure for the purpose of application of total quality management in education In this study examine with the help of evaluating fresh literature from the internet and other resources, analyzing the fourteen principles of W. Edward Deming's for quality assurance, scrutinizing fourteen principles for the zero-idea defect and for quality management and discussed quality making plan, quality improvement & quality control. Kanji, G. K., Malek, A., & Tambi, B. A. (1999) explored the research total quality management in UK higher education institutions. They examine through the evaluating the quality of educational institutions on several sides of their internal processes. The finding shows that the capacities of TQM norms and essential notions, which are precarious achievement aspects, reflect the performance of education institutions. Black and Porter (1996) place importance on Baldrige Award standards, see-through ten significant components for the effective execution of TQM, and these components are: People and customer management, customer satisfaction orientation, supplier partnership, external interface management, communication Improvement, strategic quality management, operational quality planning, quality perfection measurement systems, collaboration structure for improvement, and corporate quality values.

### Conceptual Framework



### **Total Quality Management in Education**

The TQM in education is most important for the prosperity of families and country as well. The education division might not keep on isolated from the altering community division environment and it is also embarking to accept quality management practices. Total quality management is an impression rather than a practice by itself. Therefore, the education institutions must scrutinize numerous hurdles sensibly for the effective execution of TQM for attaining continuous perfection and sustainability.

### **Parental Role in Education**

Parental encouragement and take care of for learning tricks at home related with parental immersion in teaching is essential to children's schooling. A research indicates that making effective valuable associations among parents, relations and schools to sustenance children's learning information to better-quality learning consequences. Parents are the primary and enduring teachers of their children. Exploration also indicates that instructor excellence, as well as norms and working out in parental engagement, is significant for helping effectual parental involvement. Investigation has indicated that parental involvement of different type has a positive face on several signs for the student success. Higher positions and examination marks, registration in advanced level curricula and progressive programs & advanced graduation levels. Out their educational success, parental involvement is related with innumerable guides of student growth. These involved well societal skills, Improved adaptation to school & a stronger trust in the significance of education.

### **Educational Sector Role**

The innovative viewpoint of management emphasizes on the 14 points put direct by W. Edwards Deming, the world's foremost expert on total quality management. Totally of these excellence characteristics anxiety that instructors are normally extremely trained and capable, and that the difficulty in education lie mainly on the technique the association is organized and run. What we need to do is to behave towards teachers as authorities, pay attention to their recommendations and urge them to involve in continuous self- enlargement. By this innovative attitude and the additional fundamentals of the new management thinking, it will be doable to break down the obstacles within school establishments so that all personnel will

be role of the group, enthusiastic to the endless detection of educational quality. “The leading purpose of education is not to fill people’s brains with realities but to impart them how to think & how to use.” (A.E. Wiggam)

### **Government Role**

The part of government is too vital to exceed the geographical inequalities & its responsibility to make available equivalent opportunities to all its nations. The indication from some of the alliances which are well-thought-out highly decentralized like Germany, Canada & USA shows that all of them sustain positive mechanisms for national organization for education. There is the following role that Government should make proper infrastructure of education where they feel there is a need to rectify the infrastructure then government should make polices. Federal government must make an organizing mechanism for execution its role. If the political feasibility requires of the federal ministry, an intricate element needs to be enhanced within the directive of the Federal Ministry of Interprovincial direction for execution the much-required purpose of educational development & organization. According to the article 25-A compels the government to confirm free & obligatory excellence education.

### **Methodology**

Research methodology aims to show the approaches and methods of collecting the data. Basically it provides a guideline to a research.

### **Research design and method**

Our research is based on deductive and quantitative in nature. We used survey method, and in survey we selected questionnaire as a instrument for the data collection. As we know that survey strategy is usually linked with deductive approach. In our research, we used deductive approach that means we focus on testing the theory rather than generate a theory.

### **Source of data**

For this research we used primary and secondary data, as the source of data collection. Secondary Data was used to review the literature. In our research we reviewed almost 15 article, journal or published papers which were about the concept and the role of TQM in education.

### **Respondent of the study**

Data was derived from questionnaire and the questionnaire was filled form the sample of the 50 students of Jinnah University for women. Through the sample, we check the stability of the Total quality management in education.

### **Research instrument**

As we used questionnaire, to support our research we consider exploratory study as our research design.

### **Data analysis**

Correlation and multiple regression analysis were used to analyze the data or to obtain the impact of the TQM in the education (performance).

This application will not only give the best result in education as well as the other Fields of the process of the education. This technique proved that the management gives the excellent result in overall system as well as students, teachers and management will give an extraordinary performance.



## Findings

**Variables Entered/Removed**

Model	Variables Entered	Variables Removed	Method
1	Governmental Level Total, Educational Level Total, Parental Level Total <sup>b</sup>		Enter

a. Dependent Variable: Total Quality Management Total

b. All requested variables entered.

Table. 4.1

The above table represent the model no 1 as Governmental level followed by the one the model no 2 as Educational level and in last model no 3 as Parental level signify the total as Total Quality Management. As noted that all models 1, 2, 3 are associated with the independent variables and Total Quality Management denotes as Dependent Variable.

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.940 <sup>a</sup>	.883	.876	.23500

a. Predictors: (Constant), Governmental Level Total, Educational Level Total, Parental Level Total

Table. 4.2

Multiple Regressions that denotes by "R" estimate the true variable and forecast values by applying linear function. The value of R Square is 0.88 that means the independent variables of model can predict 88% of the variance in dependent variable.

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	19.237	3	6.412	116.117	.000 <sup>b</sup>
	Residual	2.540	46	.055		
	Total	21.778	49			

a. Dependent Variable: Total Quality Management Total

b. Predictors: (Constant), Governmental Level Total, Educational Level Total, Parental Level Total

Table. 4.3

The above ANOVA table presents F-statistics which is 116.117. According to many scholars the F-statistics value should be greater than 3.5 then it would be consider as model is significant at the level 0.05 significance level. So, the above F-statistics of this table is 116.117 which is greater than 3.5 therefore, this model for this research is statistically consequential as less than 0.05 like as  $P(0.000) < (0.05)$ .

**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.020	.402		2.536	.015
Parental Level Total	-.022	.082	-.014	-.264	.793
Educational Level Total	-.207	.077	-.148	-2.698	.010
Governmental Level Total	1.019	.056	.972	18.215	.000

a. Dependent Variable: Total Quality Management Total

Table. 4.4

The above table gives the regression constant and coefficient and their significance. Now by testing hypothesis we figure out that the P-value for regression coefficient of Educational level and Governmental level is less than 0.05 while the p-value of Parental level is more than 0.05 which is 0.793. Therefore, the hypothesis of Educational level and Governmental level is accepted while hypothesis of Parental level is not accepted.

**Reliability Statistics**

Cronbach's Alpha	N of Items
.708	4

Table. 4.5

In this table we can see that Cronbach's alpha is 0.708, which indicates a high level of internal consistency for our scale. The value associated with Alpha in this set of reliability statistics is said to be accepted and the conclusion draw from this data is reliable to understand and forecast. And the model is referring to be considered as good.

## Graphical Representation of Statistical Data

### Gender Graph

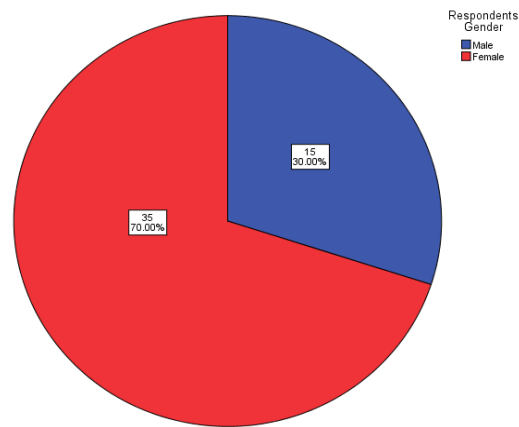


Figure 4.1

In this Pie chart we have shown that there are 70% female and 30% male respondents in this research. As the sample size of this research is 50 respondents, so 35 questionnaires filled by female while 15 questionnaires are filled by male.

### Age Graph

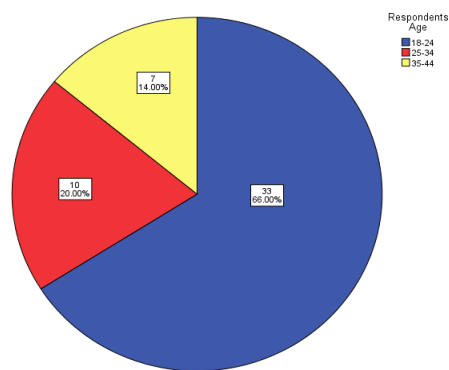


Figure 4.2

In this pie chart the age of respondents under 18-24 age filled 66% questionnaires, respondents under 25-34 age filled 20% questionnaires and 35-44 age filled 14% questionnaire.

### Graph of Monthly Income

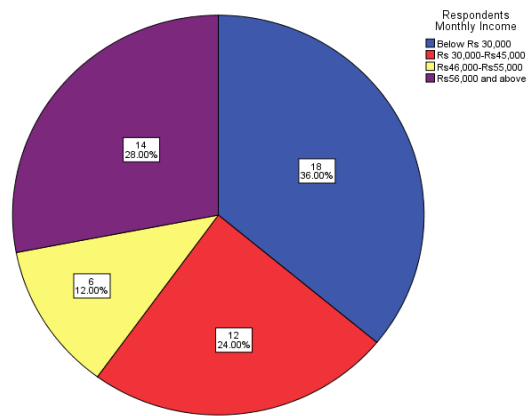


Figure 4.3

In this pie chart respondents having monthly income below Rs 30,000 filled 36% questionnaires, respondents having Rs 30,000- Rs 45,000 filled 24% questionnaire, Rs 46,000-Rs 55,000 filled 12% and Rs 56,000 and above filled 28%.

### Graph of Job Level

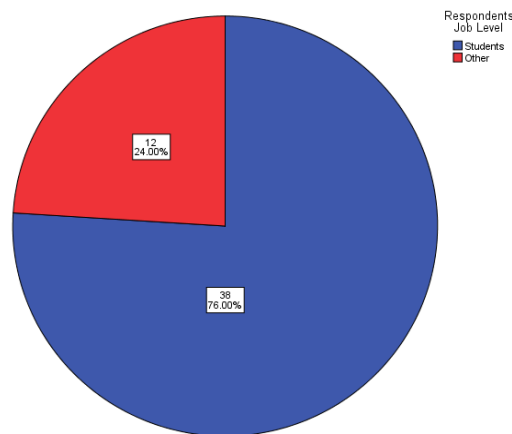


Figure 4.4

In this Pie chart respondents who are doing jobs or employed somewhere have filled 24% questionnaire and respondents who are students have filled 76% of questionnaire.

### The role of Parents in TQM in education

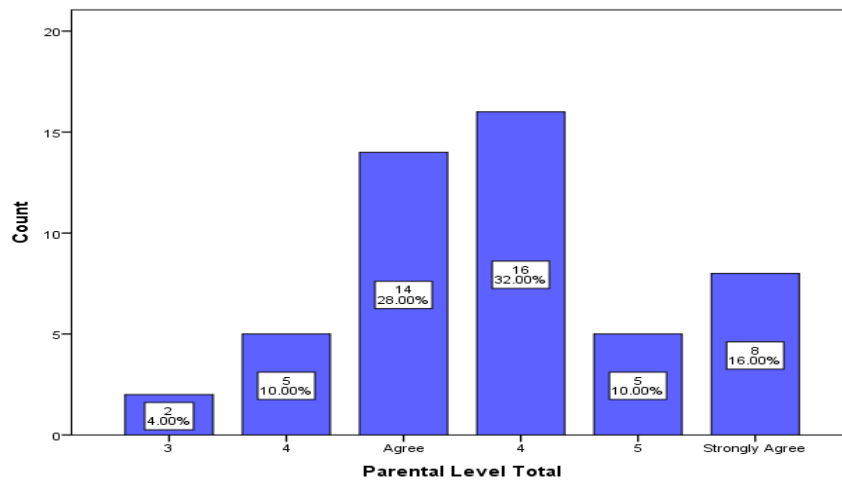


Figure 4.2.1

16% respondents are strongly agreed with the role of Parents in Total Quality Management in education and 28% are agreed with the role of Parents in TQM. It indicates that respondents want parents support and well brought up of child which are very helpful in TQM in education.

### The role of Educational Sector in TQM in Education

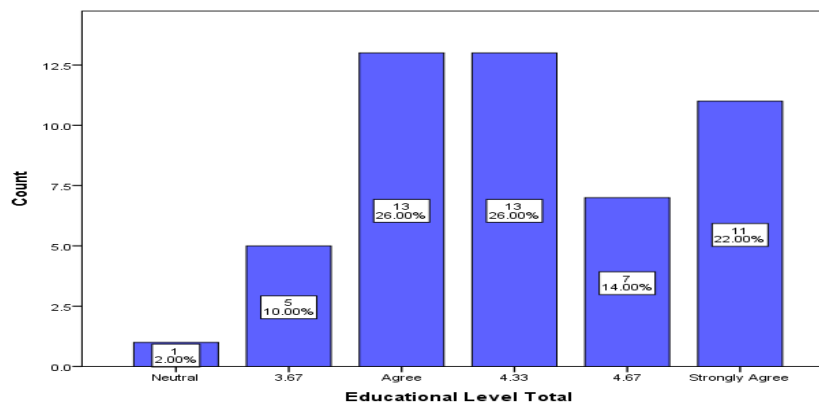


Figure 4.3.1

In this chart only 2% of respondents were neither agreed nor disagreed with the role of Educational Sectors in Total Quality Management in education while 22% are strongly agreed and 26% are agreed with the role of Educational Sectors in education. This indicates that educational sectors can play a vital role in the provision of quality education.

### The role of Government Sectors in TQM in education

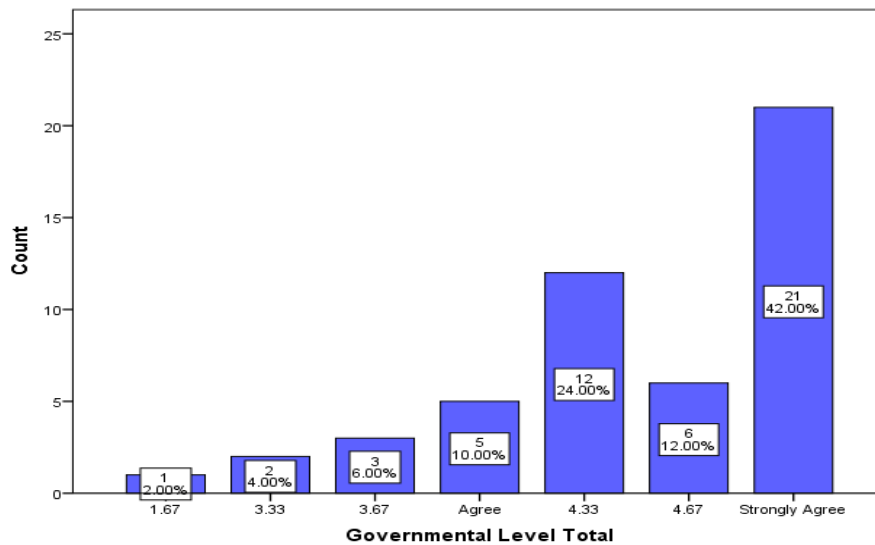


Figure 4.4.1

In this chart 42% are strongly agreed and 10% are agreed with the role of Governmental sector in Total Quality Management in education. This indicates that Government can play vital role for the quality of education by implementing different policies and strategies.

### Total Quality Management in education

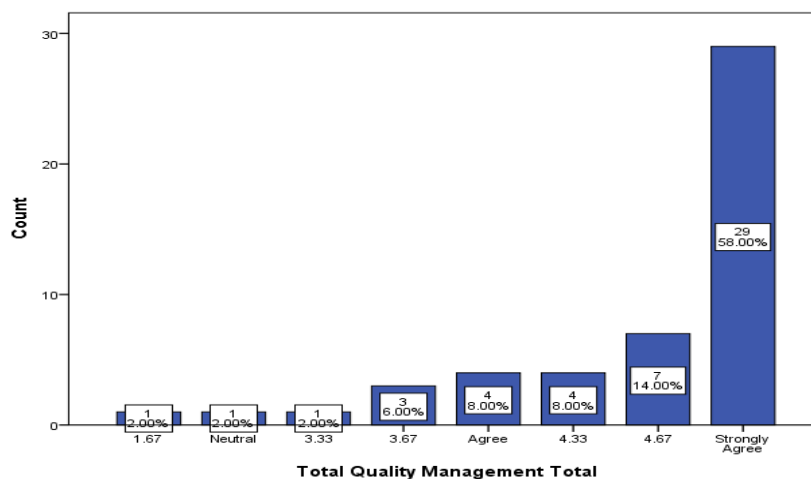


Figure 4.5.1

In this chart 58% of respondents are strongly agreed with the quality education in Pakistan because it increases the worth of education in the country.

## **Conclusion and Recommendations**

The main purpose of education is not to pour truths and reality in the people's brains, but to make them learn the process of thinking and utilization of what they have learned. Total quality management is allowing and adjusting the world of education with its long-established emphasize on the people who are having rights and different needs of getting an education. As the definition of total quality management is that doing right things from the very beginning, we have developed the model of our research paper from the birth of a child to his/her entire life till he/she gets education and uses his/her skills further on the basis of the education he/she has gained. So, in our model, we have shown relationships and effects of the role of parents, education sectors and government on total quality management in education. According to the hypothesis testing, the role of education sectors and government sectors affect highly on the total quality management in education. According the hypothesis testing the role of parents does not affect highly on the total quality management in education which shows that parental role has minor impact on total quality management in education as they can't play important role in education sectors and government sectors do because these sectors have to implement policies, make strategies and bring changes, but all the parents have to do is just look after their child properly, to give him/her support and have some knowledge which is not that much effective. In the end we would like to recommend that education sector should hire teachers that are exceptionally good at teaching and handling students, introduce the latest technology, updated libraries, proper pleasant atmosphere for students, teaching and non-teaching staff, proper response should be taken and interest should be shown in fulfilling needs of students, teaching, and non-teaching staff, the most suitable, updated and stable curriculum should be implemented to provide total quality management in education. The government should ensure peace in the country so that students and teaching and non-teaching staff don't face difficulties to go to the educational institutes. The government should increase the budget for education so that more facilities can be introduced regarding education. The government should also provide free primary education to the

citizen so that even a poor can get somehow education like at least he/she can learn how to read and write to promote total quality management in education and remove illiteracy rate in the country.

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