



IMPLEMENTATION OF TOTAL QUALITY MANAGEMENT IN HIGHER EDUCATION: AN EVALUATION OF THE RESULTS ACHIEVED BY THE PUBLIC AND PRIVATE UNIVERSITIES

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Abstract- Total Quality Management (TQM) is a way of managing everything in an organization or institution in order to get the level of excellence. The present study is conducted to investigate the implementation of TQM elements in public and private universities, the results achieved by the universities and to compare the implementation of TQM elements and results achieved by public and private universities. Mixed methods research design was used in this study. The population of the study was directors of quality enhancement cell (QEC), teachers and students. Semi-structured interviews were conducted to collect the data from directors of QECs. Close-ended questionnaires were used to collect data from teachers and students. Quantitative data were analyzed by mean scores. Thematic analysis was used to analyze the qualitative. In order to compare the results achieved by the public and private universities, a test was applied. The findings showed that public and private universities are struggling hard to implement TQM elements, but still they are lacking behind in some aspects like quality of infrastructure and quality assurance process, it is recommended to obtain feedback from students and teachers every semester, involve teachers in quality planning process, provide reward and appreciation to teachers for their better performance which may improve students and teachers' level of satisfaction and quality of teaching learning process.

Keywords: Total Quality Management, elements, results, higher education

I. INTRODUCTION

Higher Education Institutions (HEIs) are an important aspect for improving the condition of a country. HEIs not only transfer the cultural heritage from one generation to another but also have become the main source to meet the global challenges and competitions and to develop a knowledge and economic based country (Al-Amri, 2012). In order to lead the country on the path of development, HEIs need to develop human resources and manage their system and administration using different norms and approaches to improve the quality of education effectively and efficiently (Hassan, 2016).

Educational quality is contested and needs to be tackled at large in Pakistan. The foremost contribution made by the government of Pakistan is the development of Higher Education Commission (HEC). HEC was established in 2002 as a dictatorial body with the purpose to improve the progress of HEIs (Hassan, 2016). In order to practice the program of knowledge based economy, HEC works to improve the educational quality of HEIs. For this purpose Quality Assurance Agency (QAA) and QECs have been established in different universities (Usmani, Khatoon & Shamoot, 2012).

HEC provides quality standards and the performance of universities is done based on these standards (Ahmed & Ali, 2012). The standards include customer satisfaction, committed leadership, employee's participation in HEIs, quality assurance process, evidence based decision, continuous improvement, autonomy, shared benefits and continuity with next step (Batool & Qureshi, 2010).

Public universities have better conditions regarding physical facilities but the academic progress is debatable in this sector, on the other hand private universities have a good reputation and meet the demands of stakeholders within limited resources. However, Pakistani universities from both sectors are not able to secure a place in top 100 universities of the world. So, the HEIs need to improve their quality in order to meet the national and international standards (National Educational Policy, 2017). Keeping in view the existing demands from various stakeholders that are placed in education system particularly in HEIs focused on shifting the quantitative extension to quality. Such a move and transformation from quantity to quality is the spectator in developed as well as in developing countries of the world. In order to serve the needs, interest and desires of stakeholders and for effective and continuous improvement, the education system started focusing on the importance of TQM in educational organizations (Sahney, Banwet, & Karunes, 2004).

The philosophy of TQM is focused on incessant improvement in any organization or institution with the aim to fulfill the desires and wants of customers, to identify the problems in service, products and to correct them as early as possible in order to improve the outcome. It not only provides a philosophy but a complete set of guidelines and regulation to improve the service and products (Zaman & Anjalin, 2016). In order to satisfy the stakeholders, educational organizations are utilizing the human resources and methods based on quality. It amalgamates essential practices, efforts, techniques and practical mechanism that function under a regimented approach of management. This organizational move from quantity to quality is done by the collaboration of employees from top to bottom keeping in view the long term stakeholders' benefit (Farooq, Akhtar, Zia Ullah & Memon, 2007). Reforms are implemented in HEIs in order to improve the educational system. Answerability, responsibility, student satisfaction, receptive and quality education are the major concern of HEIs (Zubair, 2013).

Literature gives passable rationalization for implementing the TQM philosophy in education. In HEIs TQM is considered one of the most influential and powerful technique for dealing and satisfying stakeholders both internally and externally (Mehta et al., 2014).

Considering the importance of TQM in HEIs the study aims to investigate the implementation of TQM elements in public and private universities and the improvements in teachers' level of satisfaction, students' level of satisfaction, teaching services, infrastructure and quality assurance in universities that are implementing TQM elements in their management process. The TQM elements including leadership, strategic quality planning, student focus, teachers' involvement, teachers' training, reward and recognition of appropriate actions were the elements focused this study. Teachers' level of satisfaction, students' level of satisfaction, teaching services, infrastructure and quality assurance were selected to identify the results achieved through the implementation of TQM elements.

Statement of the Problem

Pakistan, a developing country has faced a lot of challenges in the field of education. Quality management is yet the biggest issue, although a number of steps have been taken, including the establishment of HEC, which has established QAA, and QEC to improve the quality of education in Pakistan. With the establishment of such institutions there is a rapid change in higher education in the last decade, resulting in quality improvement. In order to achieve the quality education, HEC has developed a monitoring system for the universities, with the aim to implement different techniques like TQM, to improve quality education and quality management in higher education based on quality control standards. TQM is a significant factor that forms the approaches of HEIs for determining quality and continuous improvement. Considering TQM as an important approach in achieving a better educational system, the study aims to investigate the implementation of TQM elements in public and private universities.

Objectives

1. To identify the implementation of the elements of total quality management in the public and private universities.
2. To identify the results achieved by the public and private universities through the implementation of total quality management.
3. To compare the implementation of the elements of total quality management and results achieved by the public and private universities.

Research Questions

1. Which are the elements of total quality management are implemented in the public and private universities?
2. What are the results achieved by the universities through the implementation of the elements of total quality management?

Hypothesis

H₀₁: There is no significant difference between the mean score in the implementation of the elements of total quality management and the results in public and private universities.

Significance of the Study

Reconsidering the Motto of TQM, involve everyone in everything, the study will provide the higher educational institutions, a guide to involve everyone from top to bottom in everything. So the beneficiaries are Directors of QECs, Dean, HODs, teachers and students. The research will be helpful for higher education by exploring the implementation of the elements of TQM and comparing the results of public and private universities, in case TQM is not being used, it can be suggested as an effective tool for quality improvement in higher education. The students will also be the beneficiaries of the study as the Directors of QECs, Deans, HODs and teachers it will revise and update their plans according to the demands and satisfaction of students. The study will be helpful for the teachers as well as the top management will consider the involvement of teachers in planning and decision-making process so they may get the involvement and autonomy.

II. LITERATURE REVIEW

TQM has been defined by various scholars in different perspectives and connotations. From the perspective of educational institutions TQM is defined as providing services based on customers' needs with the aim to attain the good end results (Sahney, Banwet&Karunes, 2004). The term TQM was popularized with its implementation and success in higher education in different countries including Japan, Europe and USA with different names including, TQM, ISO9001, Six Sigma, business excellence with the focus of satisfying the stakeholders (Sahney, 2015).

Higher Education Institutions

The worth of knowledgeable and human capital is more precious than the physical capital. This acknowledgment put greater demands on the higher education to develop the human resources that could take the country to the trail of development. According to economic survey of Pakistan (2018-2019), the policy makers and experts from Pakistan also put emphasis on the importance of higher education as a tool of prosperity and development of human resources. HEIs have also become the main source to meet the global challenges and competitions and are a source of developing knowledge and economic based country (Al-Amri, 2012).

The changing demands from higher education also demand from policy makers to change their part and become facilitators in having authoritarian top-down approach. Policy makers need to concentrate on providing resources for quality culture and research with the aim of introducing change in quality of education (Hassan, Sabih ul, 2016). For developing countries, it is not an easy task to develop knowledge and economic growth without well established and well-structured higher education system (Naixia, 2011). Higher education can produce improved standard of public life, bring prosperity to common life, increase wages and output in addition to human resources, which all in turn make the conditions of country and its people better.

TQM in Higher Education

From 1950s to 1980 many American firms had lost their positions and quality which they were enjoying earlier, as compared to Japan. These experiences and competitions moved USA toward advice of Demings, Crosby, Juran and other disciple to quality management, with the establishment of new trends in technology, internal and external accountability, demands from stakeholders and increasing demands in higher educational world. TQM, in this situation is a natural phenomenon (Venkatraman, 2007).

TQM in higher education is also considered a process oriented approach of increasing productivity and decreasing cost with a focus on students' satisfactions (Venkatraman, 2007). The foundation of TQM makes up by the dimensions that HEIs needs to understand for its effective implementations (Psomas&Antony, 2017). Previous researches showed that there is disagreement for the building blocks that form the TQM. Therefore, various attributes are used to define TQM like components, elements, framework, principles, critical factors, values, dimensions etc (Garcia &Lorente, 2014). Venkatraman (2007) states that fundamental core values of TQM are committed leadership, employees' involvement and development, innovation and continuous improvement in educational process, partnership development, fast responsive and informative management and processes focusing on customer satisfaction. Svensson and Klefsjo (2006) state that TQM constructs are based on continuous improvement, leadership commitment, process and customers focus, employees' involvement and fact based decision making. Similarly, values by Mahony and Garavan (2012) include the fast responsive management, clear statement of mission, objectives and goals, knowledge of best practices, empowerment of employees, focus on process by conducting internal audit, self-assessment, continuous improvement and benchmarking and evidence based decision making approach. Ali et al., (2010) describe initiative of quality to HEIs, based on the factors including, compatible objectives, customers focus and creative thinker leadership, selection of staff based on their competencies, effective communication, promotion of teamwork, availability of training and education for the staff. The present study followed the most common elements of TQM in HEIs.

- i. Leadership and top management commitment
- ii. Employees' involvement
- iii. Training
- iv. Recognition and reward,
- v. Students focus
- vi. Strategic quality planning

Leadership and Top Management Commitment

Total quality management is known as management-led process. Therefore, the success of TQM implementation depends on the management and leadership that is committed and their process are top-down and visible (Al-amri, 2012). Knowledge of any notion, support, concept and concern of top management facilitates in implementation of any initiative in an organization (Zubair, 2013).

Commitment is willingness to invest resources now to obtain useful benefits later. Commitment to TQM means operating company's system in a culture which develops relationship among managers and subordinates for easy access and effective use of resources (Al-amri, 2012).

Strategic Quality Planning

Strategic quality planning involves analysis of the environment both internally and externally, develops clear vision, quality objective and goals of organization and check and balance of the process. By incorporating strategic quality planning, the components in the management system, can monitor the process appropriately and identify the strengths and weaknesses of the system. Monitoring progress helps the organization to change the situation in accordance to the quality objective and demands of stakeholders (Psomas& Antony, 2017).

Students' Focus

The success of organization depends on the satisfaction of customers (Al-Amri, 2012). In educational institutions, students are considered as customers (Zubair, 2013). To achieve the success organizational work force, leaders, managers and employees must be committed to fulfill demands of stakeholders. The strong commitment will increase demands from customers, increase profitability and decrease wastage of resources which in turn will provide benefits to the organization (Al-Amri, 2012).

Employees' Involvement

The employees' involvement and empowerment is important as they are the main figure for implementing policies and strategies set by policy makers and leaders (Zubair, 2013). Employees' involvement in the process develops relationship of trust among them and they become more committed to performance. It promotes team work which is the most common vehicle to success. Working in team provides employees with an opportunity to develop relationship of trust, and improve communication and share knowledge, skills and fun (Al-Amri, 2012).

Training

Training updates knowledge and skills of employees and it is essential where employees' participation in decision making and in management process is considered. Implementation of TQM successfully depends on the knowledge, skills, positive attitude of employees, employees' participation and support to work. This requires a training system to develop their skills according to the demands of customers.

Recognition and Reward

Recognition and reward is a process of appreciating of the employees' commitment toward their work. The contribution of employees in their duties cannot be ignored. Recognition, reward and promotion motivate employees to work better (Al-Amri, 2012). In TQM, it is imperative to have a transparent system of reward (Zubair, 2012).

Research Design

Mixed methods approach was used in this study that amalgamates both qualitative and quantitative techniques. Four Directors of QEC (1 from each university) 40 teachers (10 from each university) and eighty students (20 from each university) from four universities (2 public, 2 private) of Islamabad were selected as a sample of the study. Semi-structured interviews were conducted to obtain data from the directors of QECs and close ended questionnaires were used to obtain the data from teachers and students. Quantitative data were analyzed by mean score and thematic analysis was done to analyze the interview data. *t*-test, was applied to compare the implementation of the elements of TQM and results achieved by the public and private universities. Keeping in view the ethical values of the research, the researcher obtained permission from the directors of QEC to record interviews for better analysis and interpretation. The questionnaires were developed by the researcher based on the elements of TQM, validated by professionals and pilot tested.

III. RESULTS AND DISCUSSION

This section deals with analysis and interpretation of the data collected through two phases, the semi-structured interviews and close ended questionnaires. The interpretation and analysis is divided into two parts. The first part describes the qualitative data, and the later part deals with quantitative data. S

Qualitative Part

Leadership and Top Management Commitment

It is analyzed from the responses of Directors of QECs that they have knowledge about total quality management and actively participates and supports TQM practices with proactive approaches. Directors of QECs believe in long term planning with focus to involve faculty members in quality assurance process and allocate sufficient resources for their education and training in order to improve their performance. QEC empowers faculty members to solve quality problems and allows them to discuss the quality related issues in their meetings. Respondents shared their views like:

The respondents from public universities explained that the leadership and top management commitment depends on one's knowledge, abilities and skills indicating how he develops the relationship of trust with subordinates and satisfies them successfully implementing the leaders' decisions. The top management is committed to their work but in universities where the system is much expanded because of the large number of departments and faculties, it is difficult to involve everyone in the process. Involving everyone in everything produces conflict among management.

In private universities the QEC organizes different meetings with faculties to develop positive relationship with them, gives them Performa to determine their level of satisfaction to get views about top management and allows them to provide suggestions for quality improvements of the programs. Faculty members have an easy access to QEC directors for their work-related meetings.

Strategic Quality Planning

It is analyzed from the analysis of interviews that the management in public and private university focuses on strategic quality planning for the successful implementation of plans and policies. Quality plans are developed based on the vision, mission and goals of university.

In public universities the QEC has clear mission, vision, goals, and quality objectives for getting better services and quality-based output. The planning is totally based on the requirements of students and other stakeholders. The process and services are monitored by conduction of quality assurance visits from the QEC.

In private universities the QEC develops a catalog every year which includes the quality objectives and measurement criteria. The performance of faculty members, courses, facilities and infrastructure is measured by getting views from students, QEC representatives and other faculty members. The data is compared to the set criteria. The weak areas are identified and the improvement steps are taken by the QEC for better results. The strengths and weaknesses are shared with faculty deans and HODs by organizing meetings with them. One of them reported that "the university follows TQM philosophy and the steps for improvement are taken by QEC directors under the directions provided by top management".

Student focus

Students are the major concern in both the public and private universities. All the plans, policies and process are developed as per students' needs and requirements. Students' feedback is obtained about both curricular and co-curricular activities using online and manual performa. These performas are filled up every year and all the, complains and suggestion by the students are considered the key to quality. Students are provided with different activities including, sports gala, cultural weeks, fitness clubs and career counseling. The requirements, complains and suggestions are included in the next plan to overcome the shortcomings.

The respondents from public and private universities stated that QEC provides students with Performa and suggestion box about the staff and course evaluation and co-curricular activities. QEC organizes meetings with the departments to discuss the problems of students and develop further plan to meet their requirements.

Involvement of Faculty Members

QEC departmental representatives support QECs about quality assurance process representing their department. However, there is no such system to involve everyone in the planning process. The departments are responsible for the implementation and execution of the plans. Examples of responses from the participants of public universities were like;

"It is difficult to involve everyone in the planning and other processes when there is a much expanded system of institutions. It is not possible to get opinion from everyone and arrange them in the situation".

"Faculty members are responsible for the plans implementation. There is no such system to involve faculty members in QECs planning process".

In private universities the involvement of faculty members in quality assurance process is considered necessary to some extent but not all. The QEC visits the departments and highlights the deficient areas which need improvements. For the solution of problems, teams are formed and the team members from different department actively participate in quality improvements activities. QEC organizes meetings with concerned faculty members and their suggestions are always welcomed but the final decision is made by the top-management by organizing different perspectives. Students are also encouraged to give suggestions through a proper feedback and evaluation system".

Training to Faculty Members

Training to faculty members is considered important as a source of quality improvement in both public and private universities. Different events are also organized which help the faculties and the students to improve their knowledge.

In public universities faculty members are trained as per the instruction of HEC through different conferences and workshops. QECs do not have specific system to train faculty members or enough resources to send them abroad. However, conferences, seminars and workshops are arranged within the university for faculty members and students as well. In these conferences the speakers and experts are invited across the globe. Teachers and students are also welcomed to present their research papers to get exposure at an international platform and expand their knowledge”.

In private universities meetings, seminars, conferences and workshops are organized to train the faculty members. Within the university, faculty members at different levels participate in meetings and share their experiences. QECs encourage education and special training activities for faculty members in order to improve academic excellence. Financial resources are available as a part of budget to train faculty members.

Recognition and Reward

Faculty members are appreciated and awarded for better performance. Based on the nature of task, faculty members are rewarded with bonus and shields of best teachers or best organizer. This element of TQM is mostly considered in private universities as a source of motivation for faculty members towards quality improvement. The respondents reported regarding recognition and award like;

In public universities the performance of the staff are recognized and appreciated from the deans and the HODs but there is no clear procedure for awarding faculty members however any step taken for the improvement of education is appreciated by the department. They get promoted from one scale to the next based on experience and qualification”.

In private universities there are proper system to recognize the performance of the faculty members by conducting peer reviews and observations of teachers in classroom. They are appreciated with bonus, best teacher and best organizer awards in annual events. He further said that faculty members’ salary is deducted if they do not work well”.

Another participant from private university said that “the faculty members are appreciated for their better performance and they awarded with bonus and appreciation certificates. University has a transparent system to appreciate faculty members”.

Quantitative data analysis

Level of Satisfaction

N. students	Mean	t-value	Df	p-value
Public 40	23.3	3.214	78	.002
Private 40	28.4			

The results of t-value (3.214) and p-value (.002) obtained through students’ responses revealed that there is a significant difference in the level of satisfaction between the students from the public and the private universities. Mean score of students from public (23.3) and private universities (28.4) showed that students from both public and private university are satisfied and have fine facilities.

N. teachers	Mean	t-value	Df	p-value
Public 20	33.5	2.426	38	.020
Private 20	36.1			

The results of t-value (2.426) and p-value (.020) obtained through teachers’ responses showed that there is no significant difference in the level of satisfaction between the teachers from public and private universities. Mean score of teachers from public (33.5) and the private (36.1) universities showed that teachers from private university are more satisfied and have fine facilities.

Teaching services

N. students	Mean	t-value	Df	p-value
Public 40	47.9			
Private 40	50.9	2.575	78	.012

The results of t-value (2.575) and p-value (.012) obtained through students’ responses revealed that there is no significant difference in the teaching services of the public and the private universities. The results of mean score of the students of the public (47.9) and the private (50.9) showed that teaching services are good in both public and private universities.

N. teachers	Mean	t-value	Df	p-value
Public 20	79.1			
Private 20	79.3	203	38	.840

The results of t-value (203) and p-value (.840) obtain through teachers' responses showed that there is no significant difference in teaching services of public and private universities. The mean score of public (79.1) and private (79.3) showed that teaching services are good in both public and private universities.

Infrastructure

N. students	Mean	t-value	Df	p-value
Public 40	30.7			
Private 40	21.1	12.797	78	.000

The results of t-value (12.797) and p-value (.000) obtained through students' responses revealed that there is a significant difference in students' responses of public and private universities. The difference between mean score of students of public (30.7) and private (21.1) showed that students from public university were of the view that there was good infrastructure.

N. teachers	Mean	t-value	Df	p-value
Public 20	25.5			
Private 20	20.3	5.532	38	.000

The results of t-value (5.532) and p-value (.000) obtained through teachers' responses showed that there is a significant difference between teachers' responses of public and private universities. The difference between mean score of public university teachers (25.5) and private university teachers (20.3) showed that teachers from public university were of the view that there was good infrastructure.

Quality Assurance

N. students	Mean	t-value	Df	p-value
Public 40	16.0			
Private 40	20.4	8.532	78	.000

The results of t-value (8.532) and p-value (.000) obtained through students' responses revealed that there is a significant difference in the responses of public and private university students. The difference between mean score of public (16.0) and private (20.4) showed that students from private university were of the view that there were better quality assurance practices.

N. teachers	Mean	t-value	Df	p-value
Public 20	17.9			
Private 20	24.3	-6.876	38	.000

The results of t-value (6.876) and p-value (.000) obtained through teachers' responses revealed that there is a significant difference in quality assurance practices of public and private universities. The difference between mean score of public (17.9) and private (24.3) showed that teachers from public university were of the opinion that there were better quality assurance practices.

IV. CONCLUSIONS

It is concluded from the findings that;

The directors of QEC from both public and private universities know the importance of TQM elements for improving the quality of education. In private universities, the QEC directors are more committed to employ TQM elements in their management system because of the limited number of the departments while in public universities the top-management is committed but the TQM elements cannot be employed explicitly because of the expended system of departments.

Both public and private universities focus on strategic quality planning and develop quality plans based on cleared vision, mission and quality objectives of the university. The plans are based on the requirements of stakeholders with the purpose to improve the quality of the university according to national and international standards.

The top management commitment towards quality improvement and their strategic quality planning has a positive impact on the achievement of students and teachers' level of satisfaction, teaching services and on the quality of infrastructure and quality assurance practices.

The students are the major concern for both the public and the private universities. The requirements of the students are obtained through the quality assurance processes through online or manual Performa about the quality of curricular and co-curricular activities. Students are involved in important aspects of teaching and learning cycle, such as course evaluation is done regularly and sports, clubs and other co-curricular activities and supports galas are arranged. The Performa is provided every year, complains are considered and serious steps are taken keeping in view the demands and satisfaction. The data obtained from teachers and students showed that both public and private universities have good quality assurance practice and the QEC get feedback from teachers and students for quality improvement.

Students are also provided with gyms and fitness clubs, career counseling and infrastructure. Teachers were also satisfied with facilities provided to them. However, the teachers from public universities were more satisfied as compared to the teachers from private universities. The implementation of the TQM element of students focus positively impact on the level of students' satisfaction. This indicates that students from both public and private universities are satisfied with the quality of teaching and learning from the university.

In public universities teachers' involvement in planning is not considered important. However, they are taken a source of plan implementation and execution. Due to the large number of faculties and departments it is not possible to obtain views from everyone. However, in private universities, the teachers are involved where the top management considers it important to involve them. The reason for teachers' involvement in private universities is the limited number of faculties and department as compared to public universities.

Teachers' training is considered important as a source of quality improvement both in public and private universities. Organization of different events in universities helps faculties and students to improve their knowledge and the number of events has been organized in both sectors for training of faculty members and quality improvement purpose. HEC is also taking initiatives to train their academic and non-academic staff, and spending a huge amount on a number of scholarships and professional development programs. These initiatives have positive impact on the quality of teaching learning process. Therefore teachers and students from both public and private universities were satisfied with the quality of teaching services.

In public universities, the teachers' performance is not admired through the rewards on annual events and celebrations. However, shields and certificates are given to the teachers in organizing any activity for the improvement of education in the department. On the contrary, the private universities have clear procedures for rewards and penalties which enhance teachers' commitment. The private universities organize annual events to provide awards to faculty members for better performance.

The implementation of TQM elements such as teachers' involvement in decision making, teachers' training and reward and recognition have positive impact on the achievement of teachers' level of satisfaction and teaching services. The teachers' from private university are more satisfied and have more facilities as compared to public university teachers while the teaching services are good in both public and private universities due to the teachers' training and motivation through reward and recognition.

V. RECOMMENDATIONS

1. The quality assurance processes of both public and private universities are not much satisfied. It is recommended that the quality assurance process may be improved by obtaining feedback from students and teachers in every semester about the quality of teaching learning process and infrastructure.
2. In public universities teachers are not involved in quality planning process due to expended number of departments and teachers. It is recommended that teachers may be involved in quality planning through organizing meetings within the departments and the HODs may share their views in meetings with QEC.
3. Public universities do not have a proper procedure to award teachers' performance. It is recommended that annual events may be organized in university to appreciate and motivate teachers for best performance.

REFERENCES

1. Ahmed, R., & Ali, S. (2012). Implementing TQM Practices in Pakistani Higher Education Institutions. *Pakistan Journal of Engineering, Technology and Sciences*, 2(1), 1-26. Retrieved from
2. <https://www.journals.iobmresearch.com/index.php/PJETS/article/view/692/146>
3. Al-Amri, H. (2012). *The Total Quality Management Practices in Yamene Public Universities* (Master thesis). Faculty of Technology Management and Business, University Tun Hussein Onn, Malaysia.

4. Bayraktar E., Tatoglu E., & Zaim, S. (2008). An Instrument for Measuring the Critical Factors of TQM in Turkish Higher Education", *Total Quality Management and Business Excellence*, 19(6), 551-574. Retrieved from
<https://www.tandfonline.com/doi/abs/10.1080/14783360802023921>
5. Deming, W. E., (1982), *Quality, productivity and competitive position*, Cambridge, Mass.: Massachusetts Institute of Technology.
7. Farooq, M. S., Akhter, M. S., Zia, Ullah & Memon, R. A. (2007). Application of Total Quality Management in Education. *Journal of Quality and Technology Management*, 3(2), 87- 97. Retrieved from
https://www.researchgate.net/profile/Muhammad_Farooq108/publication/234559063
9. Mehta, N., Verma, P. & Seth, N. (2014), Total Quality Management Implementation in Engineering Education in India: An Interpretive Structural Modeling Approach. *Total Quality management and Business Excellence*. 1(25), 124-140. Retrieved from
<https://www.tandfonline.com/doi/abs/10.1080/14783363.2013.791113>
11. Sahney, S., Banwet, S., & Karunes. (2004). Conceptualizing Total Quality Management in Higher Education. *The TQM Magazine*, 16(2). 145-159. Retrieved from
<https://www.emeraldinsight.com/doi/full/10.1108/09544780410523044>
13. Sahney, S. (2016). Use of Multiple Methodologies for Developing a Customer-oriented Model of Total Quality Management in Higher Education, *International Journal of Educational Management*, 30(3), 326-353. <https://doi.org/10.1108/IJEM-09-2014-0126>
14. Venkatraman, S. (2007). A framework for Implementing TQM in Higher Education Programs, *Quality Assurance in Education*, 15(1), 92-112, Retrieved from
<https://www.emerald.com/insight/content/doi/10.1108/09684880710723052/full/html?fullSc=1>
16. Sudha. T. (2013). Total Quality Management in higher Educations Institutions, *International Journal of Social Science & Interdisciplinary Research*, 2(6), 121-132. Retrieved from
<http://indianresearchjournals.com/pdf/IJSSIR/2013/June/11.pdf>
18. Zubair, S.S. (2012). Total Quality Management in Public Sector Higher Education Institutions. *Journal of Business & Economics*. (5) 1, 24-55. Retrieved from
<https://pdfs.semanticscholar.org/ce4a/154a2bb2e0686dfc9e0f4d4aa6c467364028.pdf>
20. Psomas, E & Antony, J. (2017). Total Quality Management Elements and Results in Higher Education Institutions: The Greek case, *Quality Assurance in Education*, 25(2), 206-223
<https://doi.org/10.1108/QAE-08-2015-0033>
22. Altahayneh, Z. L. (2014). Implementation of Total Quality Management in Colleges of Physical Education in Jordan. *International journal of business and sciences*, 5(3), 109-117. Retrieved from
https://ijbssnet.com/journals/Vol_5_No_3_March_2014/13.pdf
24. Usmani, A. W., Khatoun, S., Shammot, M. M., & Zamil, A. M. (2012). Towards a Network of Quality Assurance in Higher Education: A Pakistani Model. *Archive Des Sciences*, 65(2012), 224-229. Retrieved from
<https://www.duhs.edu.pk/departments/qec/downloads/Towards%20a%20Network%20of%20Quality%20Assurance%20in%20Higher%20Education%20A%20Pakistani%20Model.pdf>
26. Hassan, S. S. (2016). *Recent education changes at higher education level in Pakistan: English language teachers' perceptions and practices* (PhD thesis, University of Glasgow, United kingdom). Retrieved from
<http://theses.gla.ac.uk/7662/>
27. <http://theses.gla.ac.uk/7662/>