

Perceptions of Top Management Officials Regarding Operative Factors of TQM at Public Sector Universities of Pakistan

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Abstract

This study sought to explore the perceptions of vice-chancellors, registrars, and deans regarding the operative factors of total quality management at public sector universities of Pakistan. All the top management officials of 147 public-sector Universities constituted the population of the study. Participants of the study consist of 10 vice-chancellors, 10 registrars and 10 deans serving in the sampled institutions. Data was collected through a closed-ended questionnaire. The collected data was analysed through descriptive statistics (frequency, percentage, and mode). The findings of the study revealed that majority of the vice-chancellors, registrars and deans believed that total quality management (TQM) operative factors (Vision and Mission, Curriculum Design and Delivery, Monitoring of Program, Process and Performances) were implemented. Based on the result it was recommended that the government might focus on capacity building of concerned personnel of public sector universities of Pakistan to improve the quality of education. The government may provide an adequate budget for the implementation of TQM operative factors in an effective way.

Keywords: Total quality management, Vision and Mission, Curriculum Design and Delivery, Monitoring and Performances

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INTRODUCTION

The goal of higher education is to achieve excellence in a chosen subject of study. It is referred to as the numerous forms of education provided by higher education institutions. Typically, after 12 years of education, students receive higher education. After completing three to four years of post-secondary degree programs, the term "higher education" is also used to describe university-level education, which grants degrees in a variety of fields and specialties. Higher education institutions are typically known as universities, and universities are considered as centres that improve people's lives by offering top-notch instruction and learning opportunities¹. When the Islamic Republic of Pakistan was established, there was just one institution offering post-secondary education, Punjab University, which was established by Gottlieb Leitner in Lahore in 1882. It served the whole region, including Punjab and northern India, from its founding until 1947. It was only permitted in Pakistani regional territories after the country's independence.

Later during the reign of Liaquat Ali Khan, numerous colleges and universities were founded as a result of the recognition that higher education was a crucial tool for the growth of the newly formed state. Under the direction of Quaid-e-Azam Muhammad Ali Jinnah, Pakistan's first educational conference was organized in 1947 with an emphasis on providing enough higher education to meet the demands of future generations. Additionally, he sends a message to the country encouraging it to put in extra effort in order to compete with the rest of the globe, which is constantly moving forward. He took action to establish the University Grants Commission (UGC) to carry out the duties and provide high-quality education in Pakistan because he was concerned about the value of higher education. In 1974, the UGC's roles and responsibilities were altered. In order to strengthen higher education in Pakistan, the Higher Education Commission (HEC) was established in 2002, under President Musharraf, after the University Grants Commission (UGC) had taken numerous initiatives to create a high-quality system of higher education and established numerous institutions for the improvement of higher education and socioeconomic development of Pakistan.

Since its founding, HEC has operated independently, played a critical role in accelerating the development of a high-quality educational system, and supported the country with the most recent information and expertise². Quality control saw quality differences, mass production, and inspection throughout the Second World War. Japan has increased its production of low-cost, high-quality exports for the benefit of consumers worldwide. As the years went by, the quality of Japanese goods rose, and the American financial crisis attained a significant proportion³. Following the lead of Japanese practitioners and quality specialists like Deming, Sarasohn, Juran, Ishikawa, and others, the American economy has begun to focus on innovative quality systems⁴. The new idea of total quality was transformed into total quality management (TQM) in the final decade of the 20th century, and most business organizations in Japan and America adopted TQM

¹ Zhang, Zhihai. "Developing a model of quality management methods and evaluating their effects on business performance." *Total quality management* 11, no. 1 (2000): 129-137.

² Besterfield, Dale H., Carol Besterfield-Michna, Glen H. Besterfield, Mary Besterfield-Sacre, Hemant Urdhwareshe, and Rashmi Urdhwareshe. *Total Quality Management Revised Edition: For Anna University, 3/e*. Pearson Education India, 1995.

³ Levinson, William A., and Raymond A. Rerick. *Lean enterprise: A synergistic approach to minimizing waste*. Asq Press, 2002.

⁴ Zavacki, John. "Lean Enterprise: A Synergistic Approach to Minimizing Waste." *Quality Progress* 36, no. 8 (2003): 97.

as a craze. comprehensive system approach introduced the concept of comprehensive quality control by Feigenbaum in 1951. In addition, he placed an emphasis on product, service, and process quality because the majority of manufacturing organizations focused on both enhancing internal operations and increasing customer satisfaction. In order to promote quality in systems processes, products, internal services, and external services, a new concept known as total quality management was created⁵.

A collection of guiding principles and a management philosophy are known as total quality management (TQM). It is a method for successfully and efficiently managing anything. It is a broad strategy with a technologically advanced formula that continuously raises the bar for the quality of goods and services⁶. Its major concept is improvement, meaning that it continuously works to make processes, goods, and services better. TQM is a general phrase made up of three letters: T means for Total, Q stands for Quality, and M refers for Management⁷. Total refers to a level or extent that covers all activities and is necessary to assess the organization's overall progress. To accomplish an organization's long- and short-term goals, it involves all of its members. Total refers to everything that each person does to advance an organization's ongoing improvement. Total refers to the combined efforts made by all organizational members to achieve all organizational goals.

According to Powell (1995), the major function of quality is maintaining uniformity and providing customers with standardized goods and services⁸. There are several conceptions related to quality, including quality as a process, as absolute, as cultural, and as relative⁹. Studying quality as an absolute introduces the crucial idea of the highest standard. The quality is the conformance to standards that enables an organization to execute the best possible actions. It is centred on measurable and clearly defined objectives¹⁰. In order to accomplish organizational objectives, management entails a succession of ongoing tasks involving people. In general, management is understood as the process of overseeing something since a system needs to be managed because it is unable to do it on its own. According to Fayol (1916), who is regarded as the founder of modern management, management is the act of assisting humans in organizing and achieving their organizational goals¹¹. Management is essentially a method, a strategy, and a command and control structure for organizational activities. Setting objectives, organizing an organization, and maintaining its current state with the aid of its personnel and other organizational resources are all responsibilities of management¹².

⁵ Quinn, Anita, Gina Lemay, Peter Larsen, and Dana M. Johnson. "Service quality in higher education." *Total Quality Management* 20, no. 2 (2009): 139-152.

⁶ Kotler, Philip. *Marketing management, millenium edition*. Prentice-Hall, Inc., 2001.

⁷ Evans, James Robert, and William M. Lindsay. "The management and control of quality." (2005).

⁸ Powell, Thomas C. "Total quality management as competitive advantage: a review and empirical study." *Strategic management journal* 16, no. 1 (1995): 15-37.

⁹ Khan, Faridullah. "Developing a Total quality management framework for public sector universities in Pakistan." PhD diss., National University Of Modern Languages (NUML) Islamabad, 2010.

¹⁰ Suarez, J. Gerald. *Three Experts on Quality Management: Philip B. Crosby, W. Edwards Deming, Joseph M. Juran*. Department of the Navy TQL Office, 1992.

¹¹ Fayol, Henri. *General and industrial management*. Ravenio Books, 2016.

¹² William, N., and G. Amin. "Higher education in Sudan and knowledge management applications." In *2006 2nd International Conference on Information & Communication Technologies*, vol. 1, pp. 60-65. IEEE, 2006.

A system of techniques, strategies, and procedures is called TQM. TQM is a management concept that aims to provide customers with value and satisfy their expectations through providing quality services. TQM identifies and separates everyone in the company and helps them to improve departmental performance¹³. TQM emphasizes cooperation and requires all employees to contribute at a high level. TQM promotes closer ties among customers, manufacturers, and consumers. Design, production, finance, and customer services are just a few of the organizational operations that TQM aims to include, along with achieving organizational goals and satisfying customer expectations¹⁴. By involving everyone in the firm, from senior management to junior employees, TQM cultivates a work environment devoid of defects. Utilizing a variety of quality methodologies and techniques, TQM enhances organizational systems and processes while taking into account the synergy of teamwork¹⁵. Additionally, QM promotes a culture of incentives and recognitions and works to increase the quality of products and services, remove obstacles and flaws, and continuously improve all processes.

Problem Statement

Universities in Pakistan not only offer degrees, but they also play a significant part in generating skilled workers who fulfil their duties and help Pakistan's economy grow. Through high-quality education, the goal of developing productive labourers can be reached. With the use of quality management, a high-quality education can be guaranteed. The goal of the current study was to discover how senior management personnel felt about the TQM operational aspects in Pakistan's public sector universities.

Objectives of the Study

- To explore the perceptions of Vice Chancellors regarding operative factors of total quality management (TQM) at public sector universities of Pakistan
- To discover the perceptions of Registrars regarding operative factors of total quality management (TQM) at public sector universities of Pakistan
- To explore the perceptions of Deans regarding operative factors of total quality management (TQM) at public sector universities of Pakistan

Research Questions

- What are the perceptions of Vice Chancellors regarding operative factors of total quality management (TQM) at public sector universities of Pakistan?
- What are the perceptions of Registrars regarding operative factors of total quality management (TQM) at public sector universities of Pakistan?
- What are the perceptions of Deans regarding operative factors of total quality management (TQM) at public sector universities of Pakistan?

¹³ Evans, James Robert, and William M. Lindsay. "The management and control of quality." (2005).

¹⁴ Yong, Josephine, and Adrian Wilkinson. "In search of quality: the quality management experience in Singapore." *International Journal of Quality & Reliability Management* 18, no. 8 (2001): 813-835.

¹⁵ Colling, Clive, and Lee Harvey. "Quality control, assurance and assessment—the link to continuous improvement." *Quality Assurance in Education* 3, no. 4 (1995): 30-34.

LITERATURE REVIEW

Concept of Quality

Quality is a complicated concept that is defined differently by each quality expert and professional. Although there are many perceptions and notions about quality, none of them can be used to definitively define it. On this subject, competent specialists and professionals are in constant disagreement. In general, quality is viewed as a measure of excellence, usability, and compliance to customer requirements that are suitable for continued use. It is also recognized as a crucial characteristic, feature, and attribute of a procedure, a good, or a service that can be quantified. Modern quality concepts and methodologies are a result of the work of Quality Gurus like Deming, Shewhart, Juran, Feigenbaum, Crosby, Taguchi, and Ishikawa who have had a significant and long-lasting impact on industrial and service businesses. Juran (1992) provided a methodical definition of quality; in his view, it is fit for the purpose of being used by the customers by living up to their expectations¹⁶.

In addition, Crosby (1988) gave various distinct definitions of quality, including "free" and "conforming to certain qualifications, specifications, and value-based approaches."¹⁷ Additionally, Crosby, (1988) expanded on this definition of quality by introducing the idea of Zero-defects, which results from complete compliance with demands and criteria. In addition, Garvin, (1984) described quality in terms of multidimensional notions¹⁸. He incorporated quality into five main categories that are listed below. Feigenbaum (1991) identified quality as the driving force that propels businesses towards economic progress by achieving international market standards¹⁹.

- Transcendent quality: (it's personal and objective view about quality)
- Product-based quality: (measurement is the objective of the product)
- User-based quality: (satisfaction of customers is the prime task)
- Manufacturing quality: (conformance to specifications)
- Value-based quality: (good value costs)

TQM in Higher Education

There is no definition of quality in higher education, but there are many notions and themes of quality that can be postulated there, according to²⁰. Similar to how there is no comprehensive definition of quality in higher education, quality in higher education is a multi-dimensional concept that includes different conceptualizations within its sphere in the form of inputs (teaching and learning activities, students, infrastructure, and faculty), outputs (enlightened citizens). Quality in higher education is a multi-dimensional concept²¹. The use of TQM has been increasingly common in education. In 1988, it became widely accepted in educational institutions because to technology

¹⁶ Juran, Joseph M. *Juran on quality by design: the new steps for planning quality into goods and services*. Simon and Schuster, 1992.

¹⁷ Crosby, P. "Quality work group education—participant workbook." (1988).

¹⁸ Garvin, David A. *Managing quality: The strategic and competitive edge*. Simon and Schuster, 1988.

¹⁹ Feigenbaum, Armand V. "Total quality control." *New York* (1991).

²⁰ Welzant, Heather, Laura Schindler, Sarah Puls-Elvidge, and Linda Crawford. "Definitions of quality in higher education: A synthesis of the literature." *Higher Learning Research Communications* 5, no. 3 (2011): 2.

²¹ Solanki, R. B. "TQM in higher education." *Delhi Business Review* 5, no. 1 (2004): 109-111.

instructor David L's application of overall quality concepts in his computer classes at the Sitka High School in Alaska. Later, this theory gained greater traction in the year 1990 and was embraced by numerous educational institutions to oversee and uphold the standard of their students' academic lives²². However, considering that the TQM concept is as old as education itself²³, per diem needs and requirements have prompted the education sector to work harder to improve educational services and processes by using the TQM philosophy as a cogent framework for assessment²⁴.

Due to the globalization of economic operations, which has made educational institutions more aware of societal requirements and the quickening of change on a national and international level, the TQM philosophy entered the educational sector from the corporate sector. The majority of nations offered quality systems and appropriate strategies for achieving the quality goals through quality planning, quality assurance, and quality improvement to address global concerns. Total quality management is a crucial management philosophy that is used for the ongoing advancement of the higher education system. Total quality management is useful for changing an organization's culture as well as for the teaching and learning process, curriculum development, faculty development, administration, and evaluation of the programs, processes, and performances. In addition to ensuring educational quality, it also ensures organizational effectiveness, leadership, staff development, teamwork, a positive learning environment in the classroom, and faultless productivity²⁵. Essentially, it centres on both internal and external clients; strict efforts should be made to improve all goods and services continuously in order to please clients.

Operative Factors

Vision and Mission

Any organization's key or focal points are its mission, vision, and values declarations. All three have a significant impact on how organizations behave, achieve their goals, and continuously enhance their quality. Any organization's strength is directly related to its vision, mission, and values. Key components of strategic planning, the idealized future that a business envisions, are vision, mission, and values. These are the main claims made by a company that supports the creation of goods or services of high quality and ongoing process improvement. Every organization, whether it is a manufacturing company or an educational institution, has its own purpose, vision, and value statements. Depending on the nature of their production or invention, corporate organizations have their own vision, mission, and organizational culture. For example, the mission of the world's leading nutrition and health company is "Good Food, Good Life," which aims to delight customers or consumers with the healthiest and best-tasting options available throughout the day. While high-quality educational institutions have their own missions and goals for addressing socioeconomic issues, they also work hard to meet the needs of all stakeholders,

²² Wani, Iftikhaar Ahmad, and Hakim Khalid Mehraj. "Total quality management in education: An analysis." *International Journal of Humanities and Social Science Invention* 3, no. 6 (2014): 71-78.

²³ Sallis, Edward. *Total quality management in education*. Routledge, 2014.

²⁴ Ahmed, Jashim Uddin. "Quality and TQM at higher education institutions in the UK: Lessons from the University of East London and the Aston University." *American International University-Bangladesh; Research and Publications* (2008).

²⁵ Wani, Iftikhaar Ahmad, and Hakim Khalid Mehraj. "Total quality management in education: An analysis." *International Journal of Humanities and Social Science Invention* 3, no. 6 (2014): 71-78.

including students, employers, teaching and non-teaching staff, the government, funding agencies, creditors, auditors, and assessors, as well as the general public²⁶. The vision, purpose, and ideals promoted by Hazrat Muhammad (S.A.W.W.) provided abundant evidence of the fundamental purpose of education, which is to uplift humanity and establish the groundwork for a civilized society. In order to make their organizations futuristic with potent tools of strategic planning and to make them focused and devoted to success, nearly all educational organizations worldwide write their core statements²⁷.

Curriculum Design and Delivery

The objective of curriculum is to deliberately organize a process that will lead to beneficial and progressive changes in the educational system. Since curriculum is not just about students and teachers, but also about society as a whole, it generally covers all contemporary and up-to-date themes necessary to advance civilization. In order to meet the information economy of today, curriculum and knowledge content are crucial for the socioeconomic enchantment and advancement of the country. The curriculum offers practical solutions or answers to the most critical social concerns, such as the world's political, socioeconomic, climate change, and environmental problems. The Latin term *racetrack*, which meaning to follow a prescribed set of content to imagine learning, is where the word curriculum got its start. A curriculum is a sequence of lessons that kids learn and practice under the guidance of their teachers in order to cultivate life skills and discipline their thinking and acting patterns. Curriculum was viewed as something to be felt rather than seen. According to Biggs and Tang (2008), a curriculum is a targeted, planned, and systematic activity that helps students achieve real learning results by choosing and planning difficult experiences²⁸.

Monitoring of Program, Process and Performances

The concept of quality in education is nuanced and multifaceted. Since the learner's transformation is its primary component, monitoring in education is seen as a key component in enhancing and improving student learning through improved academic procedures and administrative staff's performance. The strength of an organization depends on the academic accomplishments and professional competencies of its learners, so higher education institutions are currently working to maintain excellence in all of their educational processes, programs, and performances. Monitoring can help evaluate these programs, processes, and performances in order to ensure quality management and education quality, which is a major factor in achieving the highest levels of achievement²⁹. Increasing present and predicting future management results and their effects on organizational efficiency and effectiveness is the quality purpose of monitoring. The major goal of monitoring is to identify areas that need to be addressed in any business in order to maintain the level of quality³⁰. Monitoring and assessment help to identify these areas.

²⁶ Fabrice, Hénard. "Learning our lesson review of quality teaching in higher education: Review of quality teaching in higher education." (2010).

²⁷ Rowley, D. J., Herman D. Lujan, and Michael G. Dolence. "Strategic Change in Colleges and Universities." (1997).

²⁸ Biggs, John, Catherine Tang, and Gregor Kennedy. *Ebook: Teaching for Quality Learning at University 5e*. McGraw-hill education (UK), 2022.

²⁹ Bayraktar, Erkan, Ekrem Tatoglu, and Selim Zaim. "An instrument for measuring the critical factors of TQM in Turkish higher education." *Total Quality Management* 19, no. 6 (2008): 551-574.

³⁰ Khan, Nawar. *Total Quality Management: Concepts, Tools, Systems and Awards*. Nust Publishing, 2008.

Monitoring is used to evaluate how well universities perform in relation to their programs, processes (both academic and administrative), and compliance with national and international quality assurance standards for organization, instruction, and student learning³¹. It is a fundamental management and short-term assessment technique that looks at the effects of an action after it has finished. Monitoring is a continuous process and a crucial tool for gathering regular feedback and data to assess if goals and objectives have been met and to set the course for the future. Monitoring is described as an ongoing process that primarily aims to provide continuous intervention about lack of it or barriers in the achievement of vision/mission and desired results in a paper on monitoring and evaluation published by the World-Bank in 2007. Monitoring ensures accountability and assists in timely decision-making for the growth of organizational effectiveness and sustainability³².

RESEARCH METHODOLOGY

All the top management officials of 147 public-sector Universities constituted the population of the study. List of all the higher education institutions of the Pakistan was obtain from the website of Higher Education Commission (HEC) of Pakistan. Out of the total population 10 public sector universities were purposively selected. Participants of the study consist of 10 vice chancellors, 10 registrars and 10 deans serving in the sampled institutions. Research tool was created for collection of the data from the selected respondents. Five-point scale (SA= strongly agree, A= agree, U=Uncertain, D=disagree and SD=strongly disagree) was chosen for research tool. Tool was distributed to vice-chancellors, registrars, deans at 10 public-sector Pakistani higher education institutions.

Reliability and Validity

Research tool was administered for pilot test in the higher education institutions of Lahore. Research tool was distributed to 50 respondents to get their opinions by the researchers personally. The research tool included total 37 items. Reliability and validity of the instrument was also ensured through panel of experts and various statistical techniques. After piloted the instrument feeble items having low correlation were eliminated. Cronbach's alpha coefficient was used to measure scale and inner reliability of the items. It was found .89 reliability score of the final research tool.

Analysis of Data

The collected data was analysed through descriptive statistics (frequency and percentage).

³¹ Kaynak, Hale. "The relationship between total quality management practices and their effects on firm performance." *Journal of operations management* 21, no. 4 (2003): 405-435.

³² Zhang, Zhihai. "Developing a model of quality management methods and evaluating their effects on business performance." *Total quality management* 11, no. 1 (2000): 129-137.

Perceptions of Vice Chancellor Regarding Operative Factors of TQM

Table 1
Vision and Mission

SD		D		N		A		DA	
<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
10.00	8.33	12.00	10.00	15.00	12.50	53.00	44.17	30.00	25.00

Table 1 described the perceptions vice chancellors regarding operative factor (vision and mission) of total quality management (TQM) at public sector universities of Pakistan. The values of table elaborated that 80% of the respondents respond that quality assurance system exists in their institutions. 90% of the vice chancellors agreed that their institution has a clear vision regarding 21st century. 100% of the participants described that university has plain objectives necessary for public service. 90% of the subjects agreed that their university has defined values for the well-being of students. 100% of the respondents respond that university eagers to maintain the formulated standards of HEC (Higher Education Commission). 40% of the participants agreed that academic research takes place to identify the organizational needs. 70% of the subjects were disagreed their organization seeks students' and employees' views on the aspects of quality management implementation. 80% of the respondents make decision based on information necessary for improvement. 60% of the participants agreed that their institution harmonizing all activities and efforts to cope with the organizational success. 60% respondents agreed that their organization has the system to raise the work capacity of the members. 50% subjects respond that their organization contributes towards the potent management gears. 80% participants believed their organization determines present and future decisions for survival in the global markets.

Table 2
Curriculum Design and Delivery

SD		D		N		A		DA	
<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
23.00	15.33	18.00	12.00	16.00	10.67	71.00	47.33	22.00	14.67

Table 2 described the perceptions Vice Chancellors regarding operative factor (curriculum design and delivery) of total quality management (TQM) at public sector universities of Pakistan. The values of table elaborated that 70% of the respondents believed that the existing curriculum stimulates the strategic change and development. 70% of the vice chancellors agreed that curriculum is engaged in the learning needs processes. 90% of the participants described that the curriculum is designed keeping in view the cognitive (intellectual skills) science. 70% of the subjects agreed that the curriculum is designed keeping in view the affective (deals with attitudes, motivation) domain. 60% of the respondents respond that the curriculum is designed keeping in view the psychomotor (performing activities) learning. 50% of the participants agreed that there is an assessment mechanism in the university to ensure the validity, reliability of the formulated course. 50% of the subjects were agreed that curriculum assist students for success in their future lives professionally and academically. 70% of the respondents agreed that University conducts empirical research before engineering the curriculum and its evaluation in depth for systematic developments. 50% of the participants agreed that Due to limited funding capacities Curriculum

implementers suffer with a lot of barriers which hinder the successful implementation of designed curriculum. 70% respondents agreed that there is a lack of trained course teachers who adopt and implement the ideas of the curriculum designers. 70% subjects respond that the students supposed to provide feedback once in three months of the course delivery for betterment. 50% participants believed that quality assurance system ensures the process of curriculum review and development.

Table 3
Monitoring of Program, Process and Performances

SD		D		N		A		DA	
<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
10.00	10.00	25.00	25.00	31.00	29.00	28.00	28.00	4.00	4.00

Table 4.1.3 described the perceptions Vice Chancellors regarding operative factor (monitoring of program, process and performances) of total quality management (TQM) at public sector universities of Pakistan. The values of table elaborated that 40% of the respondents respond that it is easy to measure, monitor and improve achievements of students after academic programs monitoring. 60% of the vice chancellors agreed that significant services are provided to the concern personnel of programs to promote quality. 30% of the participants were neutral to the statement that the regulatory bodies are only responsible to maintain program standards. 50% of the subjects were neutral to the statement that program evaluations are conducted per year/ semester which provides course strengths and weaknesses 50% of the respondents were neutral to the statement that Program evaluation includes both course evaluations and employee evaluations. 50% of the participants were disagreed that Program-assessment mechanisms are used to improve performance of both the entire classroom students and the students who are at risk. 40% of the subjects were disagreed that Program monitoring indicates that students are making adequate progress desired for short term objectives and annual goals. 60% of the respondents were disagreed that there is an effective link between instructional strategies and the program that addresses the area of need. 40% of the participants agreed that Programs are compared with other local and foreign institutions to establish best learning environment. 40% respondents agreed that concern bodies/ Analysts take effective decisions to quantify the rate of quality performance.

Perceptions of Registrars Regarding Operative Factors of TQM

Table 4
Vision and Mission

SD		D		N		A		DA	
<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
20.00	15.83	53.00	18.33	12.00	10.00	41.00	34.17	24.00	20.00

Table 4 described the perceptions registrar regarding operative factor (vision and mission) of total quality management (TQM) at public sector universities of Pakistan. The values of table elaborated that 60% of the respondents respond that quality assurance system exists in their institutions. 50% of the registrars agreed that their institution has a clear vision regarding 21st century. 70% of the participants described that university has plain objectives necessary for public service. 90% of the subjects agreed that their university has defined values for the well-being of students. 70% of the

respondents respond that university eagers to maintain the formulated standards of HEC (Higher Education Commission). 60% of the participants were disagreed that academic research takes place to identify the organizational needs. 70% of the subjects were disagreed their organization seeks students' and employees' views on the aspects of quality management implementation. 60% of the respondents make decision based on information necessary for improvement. 40% of the participants agreed that their institution harmonizing all activities and efforts to cope with the organizational success. 50% respondents agreed that their organization has the system to raise the work capacity of the members. 40% subjects respond that their organization contributes towards the potent management gears. 60% participants believed their organization determines present and future decisions for survival in the global markets.

Table 5
Curriculum Design and Delivery

SD		D		N		A		DA	
<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
28.00	18.67	27.00	18.00	17.00	11.33	55.00	36.67	22.00	14.67

Table 5 described the perceptions registrars regarding operative factor (curriculum design and delivery) of total quality management (TQM) at public sector universities of Pakistan. The values of table elaborated that 60% of the respondents believed that the existing curriculum stimulates the strategic change and development. 60% of the registrars agreed that curriculum is engaged in the learning needs processes. 50% of the participants described that the curriculum is designed keeping in view the cognitive (intellectual skills) science. 60% of the subjects were disagreed that the curriculum is designed keeping in view the affective (deals with attitudes, motivation) domain. 60% of the respondents were disagreed that the curriculum is designed keeping in view the psychomotor (performing activities) learning. 70% of the participants agreed that there is an assessment mechanism in the university to ensure the validity, reliability of the formulated course. 50% of the subjects were agreed that curriculum assist students for success in their future lives professionally and academically. 50% of the respondents agreed that University conducts empirical research before engineering the curriculum and its evaluation in depth for systematic developments. 80% of the participants agreed that Due to limited funding capacities Curriculum implementers suffer with a lot of barriers which hinder the successful implementation of designed curriculum. 60% respondents agreed that there is a lack of trained course teachers who adopt and implement the ideas of the curriculum designers. 50% subjects were disagreed that the students supposed to provide feedback once in three months of the course delivery for betterment. 50% participants believed that quality assurance system ensures the process of curriculum review and development.

Table 6
Monitoring of Program, Process and Performances

SD		D		N		A		DA	
<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
9.00	9.00	17.00	17.00	22.00	22.00	43.00	43.00	9.00	9.00

Table 6 described the perceptions registrar regarding operative factor (monitoring of program, process and performances) of total quality management (TQM) at public sector universities of Pakistan. The values of table elaborated that 50% of the respondents respond that it is easy to measure, monitor and improve achievements of students after academic programs monitoring. 70% of the registrar agreed that significant services are provided to the concern personnel of programs to promote quality. 80% of the participants were agreed that the regulatory bodies are only responsible to maintain program standards. 50% of the subjects were neutral to the statement that program evaluations are conducted per year/ semester which provides course strengths and weaknesses 40% of the respondents were disagreed that program evaluation includes both course evaluations and employee evaluations. 60% of the participants were agreed that Program-assessment mechanisms are used to improve performance of both the entire classroom students and the students who are at risk. 50% of the subjects were neutral to the statement that program monitoring indicates that students are making adequate progress desired for short term objectives and annual goals. 50% of the respondents were agreed that there is an effective link between instructional strategies and the program that addresses the area of need. 90% of the participants agreed that programs are compared with other local and foreign institutions to establish best learning environment. 60% respondents agreed that concern bodies/ Analysts take effective decisions to quantify the rate of quality performance.

Perceptions of Deans Regarding Operative Factors of TQM

Table 7
Vision and Mission

SD		D		N		A		DA	
<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
2.00	1.67	14.00	11.67	12.00	10.00	62.00	51.67	30.00	25.00

Table 7 described the perceptions Deans regarding operative factor (vision and mission) of total quality management (TQM) at public sector universities of Pakistan. The values of table elaborated that 90% of the respondents respond that quality assurance system exists in their institutions. 80% of the deans agreed that their institution has a clear vision regarding 21st century. 90% of the participants described that university has plain objectives necessary for public service. 80% of the subjects agreed that their university has defined values for the well-being of students. 90% of the respondents respond that university eagers to maintain the formulated standards of HEC (Higher Education Commission). 100% of the participants agreed that academic research takes place to identify the organizational needs. 80% of the subjects were disagreed their organization seeks students' and employees' views on the aspects of quality management implementation. 60% of the respondents make decision based on information necessary for improvement. 60% of the participants agreed that their institution harmonizing all activities and efforts to cope with the organizational success. 50% respondents agreed that their organization has the system to raise the work capacity of the members. 80% subjects respond that their organization contributes towards the potent management gears. 60% participants believed their organization determines present and future decisions for survival in the global markets.

Table 8
Curriculum Design and Delivery

SD		D		N		A		DA	
<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
7.00	4.67	20.00	13.33	20.00	13.33	60.00	40.00	43.00	28.67

Table 8 described the perceptions deans regarding operative factor (curriculum design and delivery) of total quality management (TQM) at public sector universities of Pakistan. The values of table elaborated that 90% of the respondents believed that the existing curriculum stimulates the strategic change and development. 60% of the deans agreed that curriculum is engaged in the learning needs processes. 50% of the participants described that the curriculum is designed keeping in view the cognitive (intellectual skills) science. 50% of the subjects agreed that the curriculum is designed keeping in view the affective (deals with attitudes, motivation) domain. 80% of the respondents agreed that the curriculum is designed keeping in view the psychomotor (performing activities) learning. 70% of the participants agreed that there is an assessment mechanism in the university to ensure the validity, reliability of the formulated course. 60% of the subjects were agreed that curriculum assist students for success in their future lives professionally and academically. 50% of the respondents agreed that University conducts empirical research before engineering the curriculum and its evaluation in depth for systematic developments. 60% of the participants agreed that Due to limited funding capacities Curriculum implementers suffer with a lot of barriers which hinder the successful implementation of designed curriculum. 60% respondents agreed that there is a lack of trained course teachers who adopt and implement the ideas of the curriculum designers. 80% subjects were disagreed that the students supposed to provide feedback once in three months of the course delivery for betterment. 80% participants believed that quality assurance system ensures the process of curriculum review and development.

Table 9
Monitoring of Program, Process and Performances

SD		D		N		A		DA	
<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
5.00	5.00	19.00	19.00	13.00	13.00	44.00	44.00	19.00	19.00

Table 9 described the perceptions Dean regarding operative factor (monitoring of program, process and performances) of total quality management (TQM) at public sector universities of Pakistan. The values of table elaborated that 80% of the respondents respond that it is easy to measure, monitor and improve achievements of students after academic programs monitoring. 70% of the deans agreed that significant services are provided to the concern personnel of programs to promote quality. 90% of the participants were agreed that the regulatory bodies are only responsible to maintain program standards. 40% of the subjects agreed that program evaluations are conducted per year/ semester which provides course strengths and weaknesses 50% of the respondents agreed that program evaluation includes both course evaluations and employee evaluations. 80% of the participants agreed that Program-assessment mechanisms are used to improve performance of both the entire classroom students and the students who are at risk. 40% of the subjects were disagreed to the statement that program monitoring indicates that students are making adequate progress desired for short term objectives and annual goals. 70% of the

respondents were agreed that there is an effective link between instructional strategies and the program that addresses the area of need. 70% of the participants agreed that programs are compared with other local and foreign institutions to establish best learning environment. 50% respondents agreed that concern bodies/ Analysts take effective decisions to quantify the rate of quality performance.

CONCLUSION & RECOMMENDATIONS

Majority of the vice chancellors, registrars and deans believed that quality assurance system exists in their institutions. Most of the respondents described that their institution has a clear vision regarding 21st century. Maximum number of the participants argued that university has plain objectives necessary for public service. Majority of the subjects perceived that their university has defined values for the well-being of students. Most of the respondents believed that their university eagers to maintain the formulated standards of HEC (Higher Education Commission). Half of the participants viewed that academic research takes place to identify the organizational needs. Majority of the subjects were disagreed that their organization seeks students' and employees' views on the aspects of quality management implementation. Most of the respondents make decisions based on information necessary for improvement. Most of the participants perceived that their institution harmonizing all activities and efforts to cope with the organizational success. Majority of the respondents agreed that their organization has the system to raise the work capacity of the members. Half of the subjects respond that their organization contributes towards the potent management gears. Most of the participants believed their organization determines present and future decisions for survival in the global markets.

Majority of the vice chancellors, registrars and deans perceived that the existing curriculum stimulates the strategic change and development. Most of the subject viewed that curriculum is engaged in the learning needs processes. Most of the participants described that the curriculum is designed keeping in view the cognitive (intellectual skills) science. Maximum number of the subjects disagreed that the curriculum is designed keeping in view the affective (deals with attitudes, motivation) domain. Most of the respondents respond that the curriculum is designed keeping in view the psychomotor (performing activities) learning. Half of the participants perceived that there is an assessment mechanism in the university to ensure the validity, reliability of the formulated course. Half of the subjects viewed that curriculum assist students for success in their future lives professionally and academically. Most of the respondents argued that university conducts empirical research before engineering the curriculum and its evaluation in depth for systematic developments. Majority of the participants perceived that due to limited funding capacities curriculum implementers suffer with a lot of barriers which hinder the successful implementation of designed curriculum. Majority of the respondents described that there is a lack of trained course teachers who adopt and implement the ideas of the curriculum designers. Majority of the subjects respond that there is lack of students' response to provide feedback once in three months of the course delivery for betterment. Half of the participants believed that quality assurance system ensures the process of curriculum review and development.

Half of the respondents (vice chancellors, registrars and deans) respond that it is easy to measure, monitor and improve achievements of students after academic programs monitoring. Majority of the participants viewed that significant services are provided to the concern personnel of programs to promote quality. Most of the participants perceived that the regulatory bodies are only

responsible to maintain program standards. Most of the subjects were neutral to the statement that program evaluations are conducted per year/ semester which provides course strengths and weaknesses. Most of the respondents were neutral to the statement that Program evaluation includes both course evaluations and employee evaluations. Half of the participants perceived that Program-assessment mechanisms are used to improve performance of both the entire classroom students and the students who are at risk. Most of the subjects were neutral to statement that Program monitoring indicates that students are making adequate progress desired for short term objectives and annual goals. Majority of the respondents viewed that there is an effective link between instructional strategies and the program that addresses the area of need. Most of the participants described that Programs are compared with other local and foreign institutions to establish best learning environment. Half of the respondents agreed that concern bodies/ Analysts take effective decisions to quantify the rate of quality performance.

- The government may focus on capacity building of concerned personnel of public sector universities of Pakistan to improve the quality of education.
- The government may provide adequate budget for the implementation of TQM operative factors in an effective way.
- The curriculum might be developed according to the levels of affective domain.

The government may introduce a fair system of monitoring and evaluation of operative factors.

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Operative Factors of TQM at Public Sector Universities of Pakistan

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