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Impediments of Total Quality Management Application at Higher Education Institutions

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Abstract
The study aimed to identify the impact of total quality management(TQM) application obstacles on total quality management level application at Jordanian private universities through the identification of trends in the study sample of constraints of total quality management application, and the level of total quality management application. To achieve the objectives of the study, the researcher developed a questionnaire for the detection of Obstacles of total quality management application (top management obstacles, human resources obstacles, financial resources obstacles, educational technology obstacles, relation with society obstacles, and organizational culture obstacles) and the level of total quality management. The study sample consisted of (234) academic deans and department chairs at Jordanian private universities. The sample was selected randomly, and in light of this, data was collected and analyzed using the statistical package for social sciences (SPSS). The most important findings and conclusions of the research are:

1- The arithmetic mean of the estimates of academic deans and department chairs at Jordanian private universities towards the obstacles of total quality management application were high.
2- The arithmetic mean of the estimates of academic deans and department chairs at Jordanian private universities towards total quality management application were moderate.
3- The organizational culture obstacles were ranked first in the impact on the level of total quality management application, it interpreted (36%) of the variance in the level of total quality management application.

Keywords: Total Quality Management Obstacles , Total Quality Management Application, Jordanian Private Universities.

1.1 Introduction

Arab societies are experiencing at the moment a lot of changes in all fields; which urges all organizations to change its traditional methods of administration and adopt modern management concepts if they want to achieve their goals efficiently and effectively. Many universities have adopted total quality management concept and have applied it with the aim of continuous improvement in the educational product and the outputs of the educational process. Also raising the efficiency of workers in order to ensure that the graduates have the knowledge and skills that will help them compete in the market efficiently. Besides, several countries establish organizations that supervise total quality management application at universities. Jordan established Board of Higher Education Accreditation and quality assurance which has monitored the implementation of quality at Jordanian universities. In order to implement total quality management at Jordanian universities, it is necessary to realize the obstacles facing application. So This study will try to shed light on the application level of total quality management at Jordanian universities and clarify the obstacles facing application.

1.2 Study importance:

The significance of the current study can determine as follows:

- It is expected that the results of this study will benefit the decision-makers in Jordanian private universities to clarify the impact of total quality management Obstacles on(TQM) application.
- Results of this study will benefit Jordanian private universities to implement TQM which increases the profitability and effectiveness of their organizations.
- This study will also contribute through the recommendations to be submitted for reducing total quality management Obstacles.

1.3 Study objectives

The study seeks to achieve a main aim, which is related to exploring the effect of total quality management obstacles on(TQM) application. Based on that main aim, this study aims at identifying:

- The level of total quality management Obstacles, and the level of (TQM) application in Jordanian private universities from the perspective of the deans and departments' chairs.
- The impact of total quality management Obstacles on(TQM) application in Jordanian private universities from the perspective of the deans and departments' chairs .

1.4 Problem and Questions of the Study

The problem of the study can be stated in the following question :What is the effect of total quality management Obstacles on(TQM) application in Jordanian private universities?. From this question , the following sub questions **are** derived:

- What is the level of total quality management Obstacles (top management obstacles, human resources obstacles, financial resources obstacles, educational technology obstacles, relation with society obstacles, and organizational culture obstacles) in Jordanian private universities?
- What is the level of(TQM) application in Jordanian private universities?
- What is the effect of total quality management Obstacles on(TQM) application in Jordanian private universities ?
- Are there statistical significant differences between the averages of estimates of the study sample toward total quality management Obstacles due to the variables (gender, age, years of experience, and job title)?

1.5 Study Hypothesis

The first main hypothesis: there is no statistically significant effect ($\alpha \leq 0.05$) for Impediments of total quality management (top management obstacles, human resources obstacles, financial resources obstacles, educational technology obstacles, relation with society obstacles, and organizational culture obstacles)on total quality management application at institutions of higher education.

Sub hypothesis1: there is no statistically significant effect ($\alpha \leq 0.05$) for top management obstacles on total quality management application at institutions of higher education.

Sub hypothesis2: there is no statistically significant effect ($\alpha \leq 0.05$) for human resources obstacles on total quality management application at institutions of higher education.

Sub hypothesis3: there is no statistically significant effect ($\alpha \leq 0.05$) for financial resources obstacles on total quality management application at institutions of higher education.

Sub hypothesis4: there is no statistically significant effect ($\alpha \leq 0.05$) for educational technology obstacles on total quality management application at institutions of higher education.

Sub hypothesis5: there is no statistically significant effect ($\alpha \leq 0.05$) for relation with society obstacles on total quality management application at institutions of higher education.

Sub hypothesis6: there is no statistically significant effect ($\alpha \leq 0.05$) for organizational culture obstacles on total quality management application at institutions of higher education.

The second main hypothesis : there is no statistically significant effect ($\alpha \leq 0.05$) of demographic factors (gender, age, experience, job title) to Impediments of total quality management.

Sub hypothesis1: there is no statistically significant effect ($\alpha \leq 0.05$) of gender on workers perception towards Impediments of total quality management.

Sub hypothesis2: there is no statistically significant effect ($\alpha \leq 0.05$) of age on workers perception towards Impediments of total quality management.

Sub hypothesis4: there is no statistically significant effect ($\alpha \leq 0.05$) of experience on workers perception towards Impediments of total quality management.

Sub hypothesis5: there is no statistically significant effect ($\alpha \leq 0.05$) of job title on workers perception towards Impediments of total quality management.

2. Literature review

2.1 Total Quality Management in Higher Education

Total quality management in higher education could be seen as a system, whereby there is interaction between inputs to achieve a high level of quality, where the workers participate effectively in educational process, and higher education organizations focus on continuous improvement for output quality to satisfy customers needs. Inputs of total quality educational system can be defined as the curriculum material , supplies, and individuals whether they are students or staff or faculty members. On the other hand outputs of total quality educational system can be defined as the specialized personnel of graduates and beneficiaries of the education system of the community organizations that employ these graduates (Altartouri & Joahat 2006).

Total quality management in higher education is a new management philosophy that leads universities based on the needs of students and the surrounding community, which achieves ongoing growth for the university and increases effectiveness and excellence. Total quality management in higher education include all colleges, departments, staff and students who are the beneficiaries of the continuous improvement of operations and beneficiaries of the output of this sector (Sahney& Banwet, 2001). Total Quality Management in higher education is based on several factors. These factor include: considering quality as a major part of the university's strategy, focusing on workers participation, enhancing energies and possibilities for high-quality implementation, relying on continuous improvement, considering each individual in the university responsible for the quality, and

it involves changing the university culture (Bennett, 2001)

2.2 Total Quality Management Impediments in Higher Education

Some institutions may succeed in total quality management application programs while others fail. The main reason for failure is the application process. (Hamoud, 2008) indicates that the major obstacles to total quality management application are: lack of clear cultural values, lack of leadership's commitment to implement quality management , change resistance, absence of skilled manpower required for application, lack of financial resources and the rush to see the results. (Altartouri and Joahat,2006) indicated that Impediments of TQM application are: lack of leadership's commitment to implement quality management , workers non-participation of, focus on certain methods in total quality management system rather than as a whole, change resistance, and expect immediate results.

(Alkhatib and Alkhatib, 2006) suggests that obstacles of TQM application in education are: the inability of universities to accommodate the growing numbers of students, the imbalance between quantitative growth of students number and education numbers, lack of appropriate coordination between education output and needs of development plans, and typical planning. (Albilawy, 2008) indicates that Impediments of TQM application are: the difference between quality policy and quality application system, academics views divergence about quality, the absence of an upper limit to achieve quality, and the absence of suitable climate of quality culture.(Azab, 2008) suggested that obstacles of TQM application in higher education are: organizational inertia, organizational inadequacy for work needs, weak attention to research, lack of teamwork, lack of effective communication, the prevalence of authoritarian management styles, and misunderstanding of beneficiaries needs.(Haddad, 2009) indicates that Impediments of TQM application are: Making total quality management application cure for all organizational problems, administration inability for long term commitment to apply total quality management, a lot formation of working groups, failure to provide required resources to ensure application process.(Naji, 1998) indicates that Impediments of TQM application are: the belief that quality improvement process is a short-term stage, the narrow view for quality management system is just focusing on statistical control, and rumors believing of that TQM is just a fashion. (Badi, 2010) indicates that Impediments of TQM application are: college resistance to the idea that students are service recipients, colleges resistance to interfere in its domestic laws and educational experience, the high cost of total quality management principles training, and the inability of the administration to build quality circles. (Yadollah & Massoud, 2010) indicates that Impediments of TQM application in higher education are: change resistance in academic departments, lack of trust between the faculties and departments, the existence of a conflict between stakeholders such as the conflict between the community and the internal customers (students, teachers, administrators and staff), and the incompatibility between universities existing organizational structures with horizontal organizational structures needed for total quality management. (Sirvanci, 2004) indicated that Impediments of TQM application in higher education are: Incompatibility of some prevailing values in universities (academic freedom assume choosing courses content, choose research topics) with quality values such as: collective employment, participation. Also total quality management application is possible only in non-academic departments such as registering students. (Sitalakshmi, 2007)indicated that Impediments of TQM application in higher education are: weak leadership and unwillingness to change, nonparticipation, misunderstanding of TQM philosophy, processes differences between education and industry, change resistance, financial resources lack, restrict middle management participation, and fear of total quality management failure.

2.5 Conceptual models

The study of (Alkraawi,2016) aimed at to clarify the reality of (TQM) principles in the Iraqi higher education sector. In addition to explore the application of (TQM) at governmental and private colleges and make a comparison between the two. The study showed that there is high degree of awareness for principles of total quality management between faculty members . Also there is a difference in the averages of estimates of study sample towards the (TQM) application due to college type.

The study of (Hassan,2016) aimed at exploring (TQM) application obstacles in the Faculty of Social Sciences in Imam Muhammad bin Saud Islamic University in Riyadh. The study showed that there is a lot of obstacles in implementing (TQM) such as: Absence of special academic programs quality standards, unjustified Permanent change for university leaders, weak commitment of the university leadership to eliminate obstacles of total quality management application, expecting quick results for total quality management benefits, and weakness of material incentives system.

The study of (Alnajjar& Jawad, 2014) aimed at exploring (TQM) application obstacles in the Iraqi private colleges from the perspective of Faculty members. (TQM) application obstacles include: teaching Obstacles, scientific research constraints, community service constraints, curriculum constraints, community service constraints, and the impediments to senior management. The study showed that there is statistical significance relation between (TQM) application and teaching Obstacles, scientific research constraints, and

senior management constraints. Besides, the agreement between Faculty members on unavailability of (TQM) requirements application.

The study of (Aladadi, 2012) aimed at exploring (TQM) application obstacles in King Khalid University. (TQM) application obstacles include: leading Obstacles, organizational constraints, teaching Obstacles, scientific research constraints, and community service constraints. The study showed there are obstacles that prevent(TQM application in Higher Education, and the highest obstacles in (TQM) application is teaching Obstacles.

The study of (Faddaalah, 2009) aimed at knowing degree of total quality management application in nursing colleges in Jordanian universities from the standpoint of administrators, department heads and faculty members. And exploring the differences in the averages of estimates of study sample towards total quality management application due to demographic variables. The study showed that the level of total quality management application is moderate, and there is no difference in the averages of estimates of study sample towards total quality management application due to demographic variables.

The study of (Mdouk, 2008) aimed at exploring (TQM) application obstacles in Palestinian universities and ways to overcome them. (TQM) application obstacles were classified to : administrative staff constraints, faculty members constraints, scientific research constraints, and community service constraints. The study showed there are obstacles that prevent(TQM application in Palestinian universities, and the highest obstacles in (TQM) application is scientific research constraints, and community service constraints. Besides, there is no difference in the averages of estimates of study sample towards total quality management application due to demographic variables(job title, experience, and qualification).

The study of (Sangeeta et al., 2008) aimed at identifying quality system components in Indian management institutions, and exploring the trends of faculty members towards ten variables that consists integrated model of quality management in education: continues improvement, differentiation, focus on the customer, financial resources, communications, effective leadership, clarity of policies, efficiency of the teaching system, administration by facts, and strategic planning. The study identify quality system components which is if implemented could lead to satisfaction of the faculty.

The study of (Sitalakshmi, 2007) aimed at providing TQM framework that stresses continuous improvements in higher education programs. Also the study aimed at comparing TQM adoption in industry versus higher education. The analysis of TQM in higher education was done considering various critical factors such as existing educational practices, the barriers of TQM and the return on investment (ROI) of TQM implementations. . The study proposed TQM framework with six core quality elements: Leadership and quality culture, innovation in the educational process, development of personnel, rapid response and management information, orientation towards the customer, and participation at all levels.

The study of (Al-Koran,2004) aimed at developing a model to measure degree of total quality management application in the administrative units in Jordanian universities. The study showed that the degree of total quality management application at the administrative units in Jordanian universities is moderate., Besides, there is differences in the averages of estimates of study sample towards total quality management application due to demographic variables(job title, and qualification).

The study of (Bdh,2003) aimed at developing a model to measure degree of total quality management application at Jordanian universities. The study sample consisted of (508) Dean and Head of Department. The study showed that the degree of total quality management application at Jordanian universities is moderate. Besides, there is differences in the averages of estimates of study sample towards total quality management application due to job title.

The study of (Naji,1998) aimed at identifying the concepts of quality management and the possibility of their application in higher education institutions in Jordan. The study showed that the level of students satisfaction was high with regard to university facilities, and the level of students satisfaction was low for academic plans and internal regulations, and that the university apply of some total quality management principles ,also the university has a desire to apply total quality principles. The study of (Sahney et al., 2003) aimed at identifying quality system components in Indian higher education institutions, The study showed that the model of total quality management must consider the needs of stakeholders, and must include three systems: management system, technical system, and social system.

3. Method of the study

3.1 Study Community and Sample

The community of the study consists all the deans and heads of academic departments who are employed in (18) Jordanian private universities. A simple–random sample was chosen from the study community, the researcher distributed (254) questionnaires, (244) questionnaires were received with the rate of return (95%). Only (10) questionnaires were dismissed because of being unusable for statistical analysis.

3.2 Study instrument

The researcher reviewed the theoretical background and previous studies about total quality management Obstacles and (TQM) application. The researcher also reviewed many questionnaires that used in the previous studies ,so he designed one that reflects . The parts of the questionnaire are:-

A- Part one- background information: - In this part, respondents were asked to indicate their gender, age, job title, and experience.

B-Part two- dimensions of the study:-This part covers dimensions:-

The first dimension –independent variable- total quality management Obstacles which contains (30) items. total quality management Obstacles contain the secondary dimensions:- items from (H1 to H5) related to top management obstacles, items from(H6 to H10) related to human resources obstacles, items from (H11 to H15) related to financial resources obstacles, items from(H16 to H20) related to educational technology obstacles, items from(H21to H25) related to relation with society obstacles, and items from(H26to H30) related to organizational culture obstacles.

The second dimension- dependent variable- is (TQM) application which contains twelve items from (H31 to H42).

The participants were asked to identify the degree of their agreement with each item in the second and third sections of the study , using five point Likert scale (5= strongly agree, 4= agree, 3=neutral, 2= disagree, and 1= strongly disagree). The scale was calculated through the following formula:

The highest point of the scale (5) – the lowest point of the scale (1)/ the number of required categories (3) = 1.33. Thus, 1.33 was added to the end of each category, so that the categories and the degree of agreement became as follows (from -1.00 to less than 2.33 = low) and (from 2.33 to 3.66 medium) and (from 3.67 to 5.00 = high).

3.3 Study Validity and Reliability

- Face validity: this is applied in the present study in two phases: First, the questionnaire sent to a pilot sample of (20) deans and the heads of academic departments from different managerial level to assess the clarity of the questionnaire. Second, The questionnaire was reviewed by (12) referees from among the faculty members at Jordanian universities, and some items were adjusted based on their recommendations.

- **Instrument reliability:-** the current applied Cronbach's Alpha measures the reliability of measurement in similar research. Cronbach's Alpha coefficient value of all dimensions of the study is (90%).

3.4 Statistical methods used

In order to answer the questions of the study and test its hypotheses , the following statistics were employed: percentages , frequencies , One Way ANOVA, multiple regression, and (T- test).

3.5 Data Presentation and Analysis:

A profile of the sample- The characteristics of the respondents are shown in table (1)

Table (1) Frequencies and Percentages of Demographics factors of the sample

Variable	Characteristics	Frequency	Percentage
Gender	Male	165	70.5%
	Female	69	20.5%
age	30- less than 40 Years	65	27.8%
	40- less than 50 Years	85	36.3%
	50- less than 60 Years	51	21.8%
	60+	33	14.1%
Job Title	Dean of college	56	23.9%
	Head of an academic department	178	76.1%
Experience Years	Less Than 5 Years	51	21.8%
	6-10 Years	70	29.9%
	11-15 Years	60	25.6%
	More than 15 Years	53	22.6%

1- The distribution of the sample according to gender : the number of males was (165) with a percentage of (70.5%) , while the number of female participants was(69) with a percentage of (20.5%) , which suggests that the percentage of males is higher than the percentage of females , which is natural in that it reflects the higher percentage of males having higher education degrees compared to females in Jordan .

2- The distribution of the participants of the study sample according to age : the percentage of the participants who belong to the age group (30-50 years) was 36.3% , and the category (30- less than 40 years) had a percentage of (27.8%) , while the category (50- less than 60) had a percentage of (21.8%) , and lastly was the

category of (more than 60 years) with a percentage of (14.1 %). The researcher ascribes this result to the fact that the majority of heads of academic departments are chosen from among the category of the age group (40- less than 50 years) , who are new appointments , and who have the ability to work more hours compared to others who are older.

3-The distribution of the participants of the sample according to years of experience : the percentage of the participants of the study whose number of years of experience(6- 10 years) was (29.9%) , and the percentage of the category (11- 15 years) was at (25.6%), and the category of (more than15 years) was at (22.6%). and lastly came The category of (less than 5 years) has a percentage of (21.8%). This indicates that the deans and heads of academic departments at Jordanian private universities of all the categories of years of experience had good experiences , which is logical , due to the fact that Jordanian private universities are undergoing continuous growth , and that the number of students at those universities is increasing . In order to cater for these developments , they set strategic plans for managing their human resources , and they keep hiring new staff and set plans for recruitment which provides them with staff having various experiences.

4-The distribution of the participants of the study based on the job status : the percentage of the participants from among the sample of the study who have the job title of " academic departments' chairs " was (76.1%), while the percentage of deans of colleges was (23.9%) , which is a logical result , because private universities consist of a number of colleges , and each college consists of a number of departments , so each college has one dean and a number of heads of academic departments based on the academic specializations at the college . The number of departments varies from one college to another, based on the policies adopted at the university and the regulations of the ministry of higher education.

3.6 Analysis of the questions of the study:

-What is the level of total quality management Obstacles (top management obstacles, human resources obstacles, financial resources obstacles, educational technology obstacles, relation with society obstacles, and organizational culture obstacles) in Jordanian private universities? The means and standard deviations were calculated for the dimensions of total quality management obstacles, TQM obstacles as a whole from the perspective of deans and the heads of academic departments as is illustrated in table(2).

Table 2:means and standard deviations of total quality management obstacles

Rank	dimension	mean	Standard deviation	Degree of assessment
1	financial resources obstacles	3.94	.56	High
2	relation with society obstacles	3.84	53	High
3	organizational culture obstacles	3.80	.55	High
4	top management obstacles	3.61	.39	moderate
5	educational technology obstacles	3.57	.53	moderate
6	human resources obstacles	3.57	.42	moderate
	TQM obstacles as a whole	3.72	.41	High

(1.00 to less than 2.33 = low), (from 2.33 to 3.66 medium) and (from 3.67 to 5.00 = high)

Table (2) shows the level of total quality management Obstacles as a whole among members of study sample at Jordanian private universities was high, with a mean of (3.72) and a standard deviation of (0.41) , which suggests the similarity of the responses of the participants of the study concerning total quality management Obstacles. Table (2) shows also that the means of the responses of the participants of the study concerning total quality management obstacles ranged between (3.57- 3.94), the highest being for financial resources obstacles, with a mean of (3.94) and a standard deviation of (0.56) and a high degree of assessment, and lastly came the dimension of human resources obstacles with a mean of (3.57) and a standard deviation of (0.42) and a moderate degree of assessment. The means and standard deviations of the assessments of the participants of the study, concerning the items related to the dimensions of total quality management obstacles, which were as follows:

First dimension: top management obstacles

Table 3:means and standard deviations of top management obstacle

Rank	dimension	mean	Standard deviation	Degree of assessment
1	Top management don't adopt effective policies to achieve set targets	3.77	.64	High
2	Top management don't focus on continuous improvement of performance within university strategic plans	3.66	.65	moderate
3	Top management unable to develop a clear vision for future	3.59	.67	moderate
4	The lack of a specialized administrative unit for quality assurance in the university	3.58	.69	moderate
5	Top management has little desire to implement total quality management	3.44	.66	moderate

1.00 to less than 2.33 = low), (from 2.33 to 3.66 medium) and (from 3.67 to 5.00 = high)

Table 3 shows the means and standard deviations for the items related to top management obstacles. The means of **the** items ranged between (3.44-3.77) , the highest was the mean for item 1 (3.77) , and a standard deviation of (.64), and with a high assessment, while item 5 was ranked last with a mean of (3.44) and a standard deviation of (0.66) and a medium degree of assessment.

Second dimension: human resources obstacles

Table 4:means and standard deviations of human resources obstacles

Rank	dimension	mean	Standard deviation	Degree of assessment
1	weakness of e academic competence of faculty members	3.71	.760	High
5	Lack of suitable recruitment policies at the university	3.38	.633	moderate
3	lack of documented procedures for evaluating faculty performance at University	3.61	.699	moderate
4	inflation between administrators number compared with work tasks	3.56	.705	moderate
2	Weakness of administrators competencies to perform their responsibilities	3.64	.802	moderate

Table 4 shows the means and standard deviations for the items related to human resources obstacles. The means of the items ranged between (3.38-3.71) , the highest was the mean for item 6 (3.71) , and a standard deviation of (.76) , and with a high assessment , while item 7 was ranked last with a mean of (3.38) and a standard deviation of (0.63) and a medium degree of assessment.

third dimension: financial resources obstacles

Table 5:means and standard deviations of financial resources obstacles

Rank	dimension	mean	Standard deviation	Degree of assessment
2	There is insufficient financial resources for TQM application	4.11	.587	High
3	There is insufficient financial resources for development and improvement	4.09	.590	High
1	There is insufficient financial resources for providing advanced learning techniques for students	4.12	.586	High
4	There is insufficient financial resources for supporting scientific research	3.88	.775	High
5	There is insufficient financial resources for incentive system and fringe benefits	3.52	.927	moderate

(1.00 to less than 2.33 = low), (from 2.33 to 3.66 medium) and (from 3.67 to 5.00 = high)

Table 5 shows the means and standard deviations for the items related to financial resources obstacles. The means of the items ranged between (3.52- 4.12) , the highest was the mean for item 13 (4.12) , and a standard deviation of (.58), and with a high assessment, while item 15 was ranked last with a mean of (3.53) and a standard deviation of (0.92) and a medium degree of assessment**.**

Fourth dimension: educational technology obstacles

Table 6:means and standard deviations of educational technology obstacles

Rank	dimension	mean	Standard deviation	Degree of assessment
3	The weakness of necessary educational resources for academic offered programs	3.62	.658	moderate
1	Failure to provide laboratories with adequate equipment for academic programs implementation	3.81	.634	High
2	Failure to provide necessary classrooms for academic programs implementation.	3.71	.717	High
4	Failure to provide efficient libraries and electronic system for information search	3.41	.815	moderate
5	Reliance on traditional teaching methods and lack of updated ones	3.33	.868	moderate

1.00 to less than 2.33 = low), (from 2.33 to 3.66 medium) and (from 3.67 to 5.00 = high)

Table 6 shows the means and standard deviations for the items related to educational technology obstacles. The means of the items ranged between (3.33-3.81) , the highest was the mean for item 17 (3.81) , and a standard deviation of (.63), and with a high assessment, while item 20 was ranked last with a mean of (3.33) and a standard deviation of (0.86) and a medium degree of assessment**.**

Fifth dimension: relation with society obstacles

Table 7:means and standard deviations of relation with society obstacles

Rank	dimension	mean	Standard deviation	Degree of assessment
5	Lack of policies and plans for relationship with community	3.25	.874	moderate
3	Lack of training and advisory programs to serve community	4.02	.600	High
2	Incompatibility of academic programs outputs with labor market requirements	4.04	.647	High
1	Lack of faculty members participation at conferences and seminars	4.05	.660	High
4	Poor coordination with employers and recruiters for graduates	3.87	.700	High

Table 7 shows the means and standard deviations for the items related to relation with society obstacles. The means of the items ranged between (3.25-4.05) , the highest was the mean for item 24 (4.05) , and a standard deviation of (.87) , and with a high assessment , while item 21 was ranked last with a mean of (3.25) and a standard deviation of (0.66) and a medium degree of assessment**.**

Sixth dimension: organizational culture obstacles

Table 8:means and standard deviations of organizational culture obstacles

Rank	dimension	mean	Standard deviation	Degree of assessment
3	The weakness of university readiness to change its culture to fit in with the overall quality management requirements	3.72	.751	High
4	Low constructive dialogue with staff to educate them about total quality management principles	3.63	.726	moderate
5	Lack of quality culture clarifying among workers	3.59	.651	moderate
1	Negative organizational climate for total quality culture	4.06	.612	High
2	Misunderstanding of employee humanist aspects	4.03	.627	High

1.00 to less than 2.33 = low), (from 2.33 to 3.66 medium) and (from 3.67 to 5.00 = high)

Table 8shows the means and standard deviations for the items related to organizational culture obstacles. The means of the items ranged between (3.59- 4.06) , the highest was the mean for item 29 (4.06) , and a standard deviation of (.65) , and with a high assessment , while item 28 was ranked last with a mean of (3.59) and a standard deviation of (0.62) and a medium degree of assessment.

-What is the level of(TQM) application in Jordanian private universities?

Table 9:means and standard deviations of TQM application

Rank	dimension	mean	Standard deviation	Degree of assessment
1	Continues improvement	3.38	.37	moderate
2	Employee participation	3.52	.39	moderate
3	Customer satisfaction	3.53	.47	moderate
TQM application as a whole		3.47	.41	moderate

(1.00 to less than 2.33 = low), (from 2.33 to 3.66 medium) and (from 3.67 to 5.00 = high)

Table (9) shows the level of total quality management application as a whole among members of study sample at Jordanian private universities was moderate, with a mean of (3.47) and a standard deviation of (0.41) , which suggests the similarity of the responses of the participants of the study concerning total quality management application .

Table (9) shows also that the means of the responses of the participants of the study concerning total quality management application ranged between (3.38- 3.53), the highest being for continues improvement , with a mean of (3.38) and a standard deviation of (0.37) and a moderate degree of assessment, and lastly came the dimension of customer satisfaction with a mean of (3.53) and a standard deviation of (0.47) and a moderate degree of assessment.

3.7 Study Hypothesis Testing

The first main hypothesis: there is no statistically significant effect (α≤0.05) for Impediments of total quality management (top management obstacles, human resources obstacles, financial resources obstacles, educational technology obstacles, relation with society obstacles, and organizational culture obstacles)on total quality management application at institutions of higher education

Sub hypothesis1: there is no statistically significant effect (α≤0.05) for top management obstacles on total quality management application at institutions of higher education

Sub hypothesis2: there is no statistically significant effect (α≤0.05) for human resources obstacles on total quality management application at institutions of higher education

Sub hypothesis3: there is no statistically significant effect (α≤0.05) for financial resources obstacles on total quality management application at institutions of higher education

Sub hypothesis4: there is no statistically significant effect (α≤0.05) for educational technology obstacles on total quality management application at institutions of higher education

Sub hypothesis5: there is no statistically significant effect (α≤0.05) for relation with society obstacles on total quality management application at institutions of higher education

Sub hypothesis6: there is no statistically significant effect (α≤0.05) for organizational culture obstacles on total quality management application at institutions of higher education

Multiple linear regression was used in exploring the presence of a statistically significant effect of the independent variables on the dependent variable at the significance level (α≤0.05). Upon inserting the independent variables into the multiple linear regression analysis (top management obstacles, human resources obstacles, financial resources obstacles, educational technology obstacles, relation with society obstacles, and organizational culture obstacles) through stepwise method . table (4) shows that each of the sex dimensions has a predictive power and is statistically significant.

Table 10 : multiple linear regression for the second hypothesis

Independent variables	Source of variance	Sum of squares	df	Mean of squares	R	R^2	Adjusted R^2	F value	significance
Organizational culture obstacles	Regression	11.357	1	11.357	.602	.362	.360	131.828	.000
	Residual	19.986	232	.086					
	Total	31.343	233						
financial resources obstacles	Regression	12.745	2	6.373	.638	.407	.402	79.156	.000
	Residual	18.597	231	.081					
	Total	31.343	233						

Table (10) shows that the value of (f) is (79.156) with a statistical significance of (0.000) , which is less than (α≤ 0.05) , which indicates the significance and predictive power of the multiple linear regression , between the independent variables (Organizational culture obstacles and financial resources obstacles) and the dependent variable (total quality management application). Thus, the multiple linear regression model suitable for the assessment of causative relationship between the independent variables (Organizational culture obstacles and financial resources obstacles) and the dependent variable (total quality management application).

Table (10) shows that two independent variables had statistically significant effects on total quality management application, Organizational culture obstacles came first concerning the size of the effect, and its multiple correlation coefficient value was (0.602) and the R^2 was (0.364) and the value of Adjusted 2R was (0.360) which indicates that Organizational culture obstacles was capable of accounting for (36%) of the changes in the dependent variable (total quality management application).

financial resources obstacles came second in terms of the size of the effect, and its multiple correlation coefficient when added to the effect of the Organizational culture obstacles was (0.638) (R=0.407) for both dimensions, and the value of their Adjusted R^2 was (0.402) which indicates that the dimensions of Organizational culture obstacles and financial resources obstacles together accounted for (40.7%) of the changes in the dependent variable ((total quality management application) . financial resources obstacles accounted for (4.2%) of the changes in the dependent variable (total quality management application).

Table 11: the significance of standardized and unstandardized multiple linear regression coefficient of the first hypotheses

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.111	.134		15.753	.000
	Organizational culture obstacles	.400	.035	.602	11.482	.000
2	(Constant)	1.804	.149		12.094	.000
	Organizational culture obstacles	.314	.040	.472	7.932	.000
	financial resources obstacles	.161	.039	.247	4.153	.000

The table(5) shows:-

-The existence of a statistical significance for the constant of the multiple linear regression formula, in which the value of(t) was (12.094) with a statistical significance of (0.000) which is below the level (α≤ 0.05), which indicates the significance of the constant (1.804).

- The presence of a statistical significance for the coefficient of the multiple linear regression formula related to the independent variable Organizational culture obstacles, for which the value of t was (7.932) , with a statistical significance of (0.000) , which is below the significance level (α≤ 0.05) , which suggests the rejection of the null hypothesis and accepting the alternative hypothesis which states that : there is no statistically significant effect (α≤0.05) for organizational culture obstacles on total quality management application at institutions of higher education

- The presence of a statistical significance for the coefficient of the multiple linear regression formula related to the independent variable financial resources obstacles, for which the value of t was (4.153) , with a statistical significance of (0.000) , which is below the significance level (α≤ 0.05) , which suggests the rejection of the null hypothesis and accepting the alternative hypothesis which states that : there is no statistically significant effect (α≤0.05) for organizational culture obstacles on total quality management application at institutions of higher education

- **The second main hypothesis** : there is no statistically significant effect (α≤0.05) of demographic factors (gender, age, experience, job title) to Impediments of total quality management.

Sub hypothesis1: there is no statistically significant effect (α≤0.05) of gender on workers perception towards Impediments of total quality management. To test the sub hypothesis, we used (T- test) for independent – samples.

Table12:Independent Samples T- test of gender

	Mean	Std. Deviation	df	t	Sig(2- tailed)
male	3.72	.32	432	.113	.910
female	3.73	.42			

Table (12) indicates that the mean for male responses for total quality management Impediments was (3.72) and the mean for female responses for was (3.73). Besides, the Sig(2- tailed) is (.910) for , so we accept the null hypotheses that there is no statistically significant effect (α≤0.05) of gender on workers perception towards Impediments of total quality management.

Sub hypothesis2: there is no statistically significant effect (α≤0.05) of age on workers perception towards Impediments of total quality management.

Sub hypothesis4: there is no statistically significant effect (α≤0.05) of experience on workers perception towards Impediments of total quality management.

Sub hypothesis5: there is no statistically significant effect (α≤0.05) of job title on workers perception towards Impediments of total quality management

Table (13) One – Way ANOVA test of the impact of age, experience and job title

		Sum of Squares	df	Mean Square	F	Sig
age	Between groups	.175	1	.058	872.	.481
	With in groups	28.901	232	.126		
	Total	29.076	233			
experience	Between groups	.019	3	.006	.050	.985
	With in groups	29.057	230	.126		
	Total	29.076	233			
job title	Between groups	.158	1	.158	1.271	.261
	With in groups	28.918	232	.125		
	Total	29.076	233			

Table (13) indicates that:

- There aren't differences among groups according to their age. Besides, the Sig is (.481), so we accept the null

hypotheses that there is no statistically significant effect (α≤0.05) of age on workers perception towards Impediments of total quality management.
- There aren't differences among groups according to their experience. Besides, the Sig is (985), so we accept the null hypotheses that there is no statistically significant effect (α≤0.05) of experience on workers perception towards Impediments of total quality management.
- There aren't differences among groups according to their job title. Besides, the Sig is (.261), so we accept the null hypotheses that there is no statistically significant effect (α≤0.05) of job title on workers perception towards Impediments of total quality management.

4. Results and conclusions:-

1- The existence of obstacles limit total quality management application in the private universities. Organizational culture obstacles occupies the first rank among application constraints, this result agree with (Sirvanci, 2004) study Which concluded that the incompatibility of some prevailing values (academic freedom) in universities with quality values is impede total quality application. Also this result agrees with (Sitalakshmi, 2007) study. This result may be attributed that universities has many values, customs, norms and standards that may be a reason for change resistance, so organizational culture is one of the important requirement for total quality management application, and the application process basically correlate to incompatibility between organizational culture with quality values, which means it is necessary knowing positive and negative components of universities organizational culture.

2- The existence of financial constraints limit the application of total quality management, which ranked second among total quality management application obstacles, this result agree with (Aladadi, 2012) study which concluded that the important difficulties facing total quality management application at universities are: Lack of adequate budget, and lack of needed resources to ensure the application process. This result may be due to that the Jordanian private universities are facing significant financial challenges of financial resources lack. External environmental changes affecting financial resources such as: the small number of students in private universities, increasing the number of graduates to a significant level, and stopping employment by Service Bureau.

3- There is statistically significant effect (α≤0.05) for Impediments of total quality management (top management obstacles, human resources obstacles, financial resources obstacles, educational technology obstacles, relation with society obstacles, and organizational culture obstacles)on total quality management application at institutions of higher education. Private universities should adopt organizational change for its cultural values and adopting total quality management values such as: teamwork, customer focus, employee participation, and continuous improvement. Besides, financial resources are important for TQM application, governmental universities may gain financial support while private universities need extra effort to gain financial resources.

4- There is no statistically significant effect (α≤0.05) of demographic factors(gender, age, experience, job title) to Impediments of total quality management. This result indicate study sample agreement about Impediments of total quality management.

Recommendations

Based on the results of the study, the researcher recommends Jordanian private universities to:-

1- Adopt organizational development for studying prevailing organizational culture, and identify it's components, also changing the bureaucratic culture based on centralized power and organizational rigidity to quality culture.

2- Use strategic long term planning , and using effective policy for services quality and attracting students.

3-Open new specializations that are required in the labor market especially technical education, and raising the level of graduates to be qualified for job market.

4-Develop universities working system to provide best services for students and society through computed services and speed up access to the concerned authorities, including students admission and registration.

5-Provid positive organizational climate for TQM application, and take care of the humanist aspects of the staff, and effective application for ISO in administrative units.

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