

The Degree of Implementing Total quality Management by School Female Principals in Public School in Mafraq Governorate

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Abstract

The purpose of this study is to investigate the degree of implementing total quality management by school female principals in public school in Mafraq governorate. The researcher developed a questionnaire consisted of (32) items distributed into five domains and administrated it on (30) female principals in public school in Northern Badia Educational District in Mafraq governorate. The findings of the study showed that the means of the application degree of TQM in public schools by Jordanian female principals ranged between (3.21 – 2.63) showing an average degree of application. Moreover, there are significant statistical differences at the level of ($\alpha = 0.05$) attributed to scientific qualification in all domains and in the tool as a whole in favor of graduate studies (Master and PhD) against Bs degree. There are significant statistical differences at the level of ($\alpha = 0.05$) attributed to experience in implementing Total quality management in all domains except for school facilities domain in favor of 10 years and more. Based on the findings the researcher presented several recommendations.

Key Words: TQM. Jordan. Public School. Female Principals.

1. Introduction & Literature review

The issue of Total quality management has become of a global interest as governments and organizations take it into consideration whole planning and executing their recent and future plans. Therefore, TQM is now an administrative management as well as a life style due to the rapid changes and challenges of the modern era.

In the educational context, governments' primary concern is to modernize education as it is the vehicle for entering future and preparing human resources (Nobel, 2001). Cotton (2001: 22) stated that the school, being the field unit which deals with the students directly is required to restore its status and be an actual and effective tool in preparing the generations.

Among the new trends in the school work is the total quality management (TQM), but this does not mean that the educational institution should become commercial or industrial profit organizations. Rather, all what could be made use of through applying the total quality management system in the educational process is the introduction of educational administrative methods for the aim of approaching a high quality educational outcome, and augmentation of the benefit of the number one beneficiary, the student; and encouraging competition to achieve the desired results (Alawneh, 2004).

In the educational field, total quality management is known as performance of work in a deliberate accurate manner from the first time, as per a set of educational criteria to raise the level of the educational product quality with the least possible effort and cost, achieving the educational objectives, the objectives of the community, and to meet the needs of the labor market of the scientifically qualified cadres (Atieh, 2008).

Total Quality Management (TQM) has been the subject of many studies in recent years. The TQM wave is not restricted merely to industry but has seeped into all sectors and has been a central element in many efforts directed towards organizational change. It requires firms to coordinate a wide range of behavioral, tacit, intangible resources and its dissemination stands as both support and a challenge to top management. Moreover, some claim that the successful implementation of TQM could generate improved products and services, reduced costs, more satisfied customers and employees, and improved performance (Al-Saud, 2002; Cohen, Manion & Morrison, 2007; Mahafza & Freihat, 2001; Pineda, 2013).

Within this context, this study explores The Degree of Implementing Total quality Management by School Female Principals in Public School in Mafraq Governorate. . This research utilizes primary data (survey), secondary data and published studies. TQM practices in the educational context.

1.1 Statement of Purpose

The problem of this study is exploring The Degree of Implementing Total quality Management by School Female Principals in Public School in Mafraq Governorate. This statement of purpose appears from the researcher's feeling – as a school principals- for the need of enhancing the implementation of TQM schools in Jordanian schools especially in Badia area.

1.2 Study objectives and Questions

The purpose of this study is to investigate the degree of implementing total quality management by school female principals in public school in Northern Badia Educational District in Mafraq governorate. Specifically, the current study seeks to answer the following questions:

1. What is the degree of implementing total quality management by school female principals in public school in Northern Badia Educational District in Mafrag governorate?
2. Are there any significant statistical differences at the level of ($\alpha = 0.05$) in the degree of implementing total quality management by school female principals in public school in Northern Badia Educational District in Mafrag governorate attributed to scientific qualification and experience?

1.3 Significance of the study

The importance of this study emerged from its purpose as it seeks to reach several findings benefiting researcher son both practical and scientifically levels. This can be summarized as follows:

1. Scientific importance: The scientific importance of this study is represented from its goal of rooting an important issue regarding TQM related the work of female principals in Jordanian schools.
2. Practical Importance: the practical importance is emerged from the goal of this study which is exploring degree of implementing total quality management by school female principals in public school in Northern Badia Educational District in Mafrag governorate.

Study Limitations

The study is limited to female respondents of secondary schools principals in North-east Badia District schools selected purposefully in the second semester of the schooling year 2013/2014.

1.4 Definition of Terms

- **Practice Degree:** The awareness degree and the real application of TQM by female school principals in North-western Badia public Schools as reflected in the study tool.

- **Total Quality Management:** An administrative Strategy to develop work followed by the educational institution according to certain criteria in order to give the highest and best outcomes in all domains.

2. Previous studies

The current study presents several previous studies related to the issue of this study directly and indirectly.

Pineda (2013) assessed the quality management practices in the educational institutions in the Kingdom of Bahrain specifically in the areas of instruction, infrastructure, and student services. Furthermore, the study determined the level of effectiveness of the total quality management practices in instruction, infrastructure, and student services. There was no relationship between the quality of the practices of the institutions and their level of effectiveness. Furthermore, the problems in connection with the implementation of total quality management in the schools in the Kingdom of Bahrain were identified. Cited by the majority of the respondents on the main problem in the area of instruction was lack of cooperation among teachers for changes in curriculum design. The majority also cited that the main problem in connection with the total quality management in the area of infrastructure was lack of concern among students for the upkeep of buildings. The main problems in connection with the total quality management practices in the area of student services were non-compliance among students with the schedule of registration, lack of enthusiasm among students for the leadership training sessions, and inadequacy of equipment for various types of athletic activity.

Al-Mahasneh (2012) conducted a study titled "Effectiveness Degree of the Application of the Total Quality Criteria in the Jordanian Public Schools that Apply TQM". It aimed at revealing the effectiveness degree of applying TQM criteria in the Jordanian public schools that apply this method, from the views of the female teachers and female students. As well as the members of the educational development council. To achieve the objective of the study, a (50) item questionnaire distributed over four areas. The instrument validity and reliability were assured, and the results showed that the effectiveness degree of applying the TQM criteria, as viewed by the female teachers, female students and the educational development council, was good.

Mahafza & Freihat (2011) studied in Jordan degree of practice of total quality management in the directorates of education in Zarqa governorate from the point of view of directors and department heads. To achieve the aim of the study, the researchers developed a questionnaire that consists of (43) items, divided into four fields: satisfaction with the service provided, participation and strategic planning for total quality, training and continuous improvement, and the application of the principles of TQM. Population of the study consisted of (66) directors of education and heads of departments in the directorates of Education in Zarqa governorate, and the study sample covered the whole population. The results of the study showed that the degree of practice of total quality management in these directorates was medium, there were no statistically significant differences at the level of significance ($\alpha = 0,05$) in the degree of practice of total quality management in the directorates of education in Zarqa governorate from the point of view of directors and department heads of directorates of education due to the gender, professional level, educational qualification, and years of experience.

Salameh et al. (2011) tried to identify the requirements for implementing TQM in the Faculty of Planning and Management at Al-Balqa Applied University. Their results showed that the adoption of TQM was limited in Arab countries, particularly at higher education institutions. The results also indicated that there was a weakness

in training for administrative leadership in the universities and colleges which is essential to the success of implementing TQM. Additionally, there was no concentration on teamwork, continuous improvement and coordination which lead to creativity and innovation.

Jaff (2008) investigated the degree of applying Deming principles of Total Quality Management on faculties of educational sciences in private Jordanian universities from the viewpoint of their faculty members. A sample of 106 faculty members participated in this study. The results showed that Deming principles of TQM were practically applied in the colleges of education. The orders of these principles differ as ordered by Deming. Also, there were no significant differences between faculty responses attributed to gender and experience.

Al Saud (2002) conducted a study that aimed to identify the concept of TQM and indicate the steps implemented in the schools of Jordan. the study sub-objectives as follows: defining the concept of total quality, and its importance and basics in the field of school education, defining the concept of TQM and the requirements of application in school management in Jordan, clarifying the steps to the application of TQM in school management in Jordan, determining the most common errors expected during the application of TQM in school management in Jordan, and detection of the most important difficulties that hinder the application of TQM in school management in Jordan . The study found that the new strategy for the development of educational systems must be based on the development of all inputs of the educational system, particularly the educational administration, and must be based on the modern foundations, and trying to apply TQM in the management of educational institutions as well.

3. Methodology and Procedures

3.1 Methodology:

This section describes the sample of the current study, study tool, validity and reliability procedures. It also presents It the statistic that used in the analysis of data, and extract the results, this study belongs to a type of descriptive research survey aimed to, analysis, and evaluate of the characteristics of a particular group, or a certain position dominated by the recipe selection.

3.2 Study Sample

The sample was chosen purposefully from girls public school principals in North-west Badia Educational District in Mafrag governorate totaling (30) female principals. Table (1) presents the distribution of the sample according to scientific qualification and experience variables

Table(1): the distribution of the sample according to scientific qualification and experience variables

Item	No	%
Scientific Qualification		
undergraduate	18	%60.0
graduate	12	40.0%0
Experience		
Less than 10 years	13	43.3%
10years and more	17	56.7%
Total	30	100

3. 3 Study Tool

The researcher reviewed the related literature and the Jordanain ministry of Education TQM guidelines as well as previous Arabic and foreign studies to develop a questionnaire. The questionnaire consisted in its first form of (34) items distributed into five domains

3.4 Instrument Validity

Validity was established through content and face validity, and the instrument was standardized on the response of a experts group of in Educational administration. The raters canceled two items and modified other items. The final form of the questionnaire consisted of (32) items distributed into planning, objectives, leadership, school facilities and human as well as financial resources.

3.5 Instrument reliability

Reliability of the instrument was determined through a pilot study; sample of 20 respondents from of the study population. The reliability coefficient was (0.78) and it seemed to be reliable for use a Jordanian population.

3.6 Study Variables and statistical Procedures

Data was processed through SPSS software by coding the variables in a clear way as well as recording each variable and its symbol as in the list. Then data were processed in the computer according to the following method: the maximum is 5 alternative for each item: $1 = \frac{3}{4}$ levels (high, average, low) = 1.33 and therefore the minimum limit is $1+1.3 = 2.33$, the average is $2.34+1.33= 3.67$, the highest level = $3.68+ .$ Therefore, the scale of the items is: (3.68- 5.00 high degree, 2.34- 3.67 average, 1.00- 2.33 low).

4. Study Findings & Discussion

The first question: What is the degree of implementing total quality management by school female principals in public school in Northern Badia Educational District in Mafrq governorate?

To answer this question means and standard deviations were calculated to estimate the application degree. Table(2) presents the means and standard deviations for the application degree of TQM arranged in a Descending order.

Table(2): means and standard deviations for the application degree of TQM arranged in a Descending order

Rank	No	Domain	Means	SD	Application Degree
1	2	Objectives	3.63	.857	Average
2	3	Planning	3.42	.968	Average
3	4	Leadership	3.41	.789	Average
4	5	School facilities	3.31	.964	Average
5	1	Human and financial resources	3.21	.852	Average
Total degree			3.39	.831	Average

Table(2) showed that the means of the application degree of TQM in public schools by Jordanian female principals ranged between (3.21 – 2.63) showing an average degree of application. Objectives domain came first with the highest means of (3.63) with an average application degree followed by planning domain with a mean of (3.42) an average application degree. Meanwhile, human and financial resources came in the last rank with a mean of (3.21) and an average application degree.

This may be ascribed to the persuasions of the principals that good objectives and standard guidelines may result in applying the standard of Total quality management, and this of course will be supported by planning and practicing leadership skills to merge TQM in the school culture. Those entire domains can be reflected positively in school facilities and human resources.

However, the application degree is still in its average level and this can be attributed to the new trends towards applying TQM in Jordanian schools as this concept had appeared only since the last decades and it still needs time to be applied and understood highly by the Jordanian educational sector.

The findings of this questions are consistent with Jordanian studies like (Saleme et al, 2001; Jaff, 2008 and Al-saud, 2002) which concluded that TQM application in Jordanian educational sector is still in its average level and needs to be improved continuously.

The second question: Are there any significant statistical differences at the level of ($\alpha =0.05$) in the degree of implementing total quality management by school female principals in public school in Northern Badia Educational District in Mafrq governorate attributed to scientific qualification and experience?

To answer this question the researcher calculated means and standard deviations for the application degree according to scientific qualification and experience. Moreover, to find the statistical differences between the means t-test was conducted according to the following tables.

First- Scientific Qualification

Table (3): Means, Standard deviations and t-test for the effect of scientific qualification on the application degree.

	المؤهل	N	Mean	Std. Deviation	t	df	Sig.
Planning	undergraduate (Bs degree)	18	2.91	.893	-2.622	28	.014
	Graduate (master and PhD)	12	3.67	.550			
Objectives	undergraduate (Bs degree)	18	3.36	.833	-2.336	28	.027
	Graduate (master and PhD)	12	4.05	.739			
Leadership	undergraduate (Bs degree)	18	3.01	.904	-3.330	28	.002
	Graduate (master and PhD)	12	4.04	.712			
School facilities	undergraduate (Bs degree)	18	3.09	.723	-3.153	28	.004
	Graduate (master and PhD)	12	3.90	.635			
Human and financial resources	undergraduate (Bs degree)	18	2.92	.947	-3.107	28	.004
	Graduate (master and PhD)	12	3.90	.659			
Total degree	undergraduate (Bs degree)	18	3.03	.792	-3.295	28	.003
	Graduate (master and PhD)	12	3.91	.585			

It is noted from table(3) that there are significant statistical differences at the level of ($\alpha = 0.05$) attributed to scientific qualification in all domains and in the tool as a whole in favor of graduate studies (Master and PhD) against Bs degree.

This can be attributed to the wide awareness of higher studies certificates holder of the importance of total quality management since their qualification in the university had focused on quality issues in education. Moreover, they studied more courses than Bs degrees on school administration and in applying TQM so they are able to apply it in their schools especially in the field of planning, setting goals and using leadership to run school facilities and managing resources.

The findings are consistent with all Jordanian studies which agreed that more qualified principals can implement TQM more effectively in their schools.

Second: Experience

Table (4): Table (3): Means, Standard deviations and t-test for the effect of experience on the application degree.

	الخبرة	N	Mean	Std. Deviation	t	df	Sig.
Planning	Less than 10 years	13	2.82	.837	-2.363	28	.025
	10years and more	17	3.51	.756			
Objectives	Less than 10 years	13	3.28	.915	-2.107	28	.044
	10years and more	17	3.91	.722			
Leadership	Less than 10 years	13	2.98	1.067	-2.339	28	.027
	10years and more	17	3.76	.753			
School facilities	Less than 10 years	13	3.22	.889	-1.211	28	.236
	10years and more	17	3.56	.694			
Human and financial resources	Less than 10 years	13	2.86	1.120	-2.433	28	.022
	10years and more	17	3.65	.670			
Total degree	Less than 10 years	13	3.00	.939	-2.380	28	.024
	10years and more	17	3.68	.615			

Table (4) showed that there are significant statistical differences at the level of ($\alpha = 0.05$) attributed to experience in implementing Total quality management in all domains except for school facilities domain in favor of 10 years and more. This can be attributed to the long work and experiences gained by female school principals in their schools, they are able to plan and set objectives and they had the skills to lead human resources. With regard to school facilities there were no differences because of the centrality of rules regarding school facilities as principles don't share in planning or designing or suggesting any thing related to those facilities.

The findings are not consistent with Mahafza & Freihat (2011) study which concluded that The results of the study showed that the degree of practice of total quality management in these directorates was medium, there were no statistically significant differences at the level of significance ($\alpha = 0,05$) in the degree of practice of total quality management in the directorates of education in Zarqa governorate from the point of view of directors and department heads of directorates of education due to the gender, professional level, educational qualification, and years of experience. This may be attributed to the nature of the sample and the urban area of the study

5. Recommendations

Based on the findings of the study the researcher recommended:

1. Training all female principals especially new ones on applying TQM in their schools.
2. Calling on the Jordanian Ministry of education to educate all school comminutes on the benefits of TQM.
3. Carrying out more research works about the effect of applying the total quality criteria in the schools within other variables and wide samples.

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