

A Proposed Model for Applying Total Quality Management in Vocational and Technical Training Institutes

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Abstracts: The study proposes a model for management development in the vocational and technical training institutes of the Vocational Training Corporation in Jordan from the perspective of total quality management. The descriptive survey approach and the qualitative approach were used to develop the proposed model of total quality management. The study population consisted of all administrators, teachers, and trainers of the vocational and technical training institutes. The study sample was chosen randomly. To achieve the objectives of the study, the researchers developed a questionnaire to collect data after reviewing the theoretical literature and previous studies. The findings revealed that the degree of applying total quality management standards in vocational and technical training institutes was medium. Also, a proposed model for total quality management standards in vocational and technical training institutes was developed. In addition, there were no statistically significant differences at (0.05) in applying total quality management standards in the vocational and technical training institutes due to the variables of gender, job title, academic qualification, years of experience, and region. In light of these findings, the researchers recommended activating the standards of total quality management within the proposed model and starting to apply them actually in vocational and technical training institutes. This could be achieved by developing the values and trends within these institutes to assist in building a solid organizational culture for the standards of total quality management.

Keywords: Model, Total Quality Management, Vocational and Technical Institutes, Vocational Training Corporation.

1. INTRODUCTION

Today, the world is witnessing rapid and successive changes and developments in all educational and training institutions. These changes are characterized by excellence and the search for more efficiency and mastery. The administrations of these institutions find themselves from time to time facing challenges that impose upon them the application of upgrading and developing the characteristics of the future because these challenges directly affect the development of education. Also, this is reflected in their impact on the educational system in light of globalization and educational openness. In addition, paying attention to modern quality methods does not mean that we plan to make educational institutions commercial or industrial facilities that seek to double their profits by improving their products. Rather, it means that institutions benefit from them in education, training, and the development of traditional educational management methods to achieve the quality of graduates of those vocational and technical institutes and to double the benefit of society with all its institutions.

To meet these challenges, several modern global management systems and concepts have emerged. They have contributed effectively to the development of these institutions, including the total quality management system. It is considered one of those modern systems that have developed and spread widely in institutions, which are used to reduce the possibilities of errors in them by removing differences and reducing administrative and technical errors by using appropriate statistical tools and techniques. The quality team develops the effectiveness of the professional services provided, achieves the desired characteristics, and develops the efficiency and effectiveness of services with the least time, effort, and cost (Coronado & Antony, 2002).

The total quality management standards also adopt many modern and advanced principles and methods for their strategies with all that is new and modern in management science. Some of these principles include customer focus, process optimization, internal activities, decision-making based on facts and data, collaboration, teamwork, continuous improvement, and prevention rather than inspection. This is done by building models and applying them in institutions at their various levels. They are also important in drawing the future picture of reality to move from reality to a better reality. Moreover, the models simulate reality at the same time in a clear systematic framework by

creating relationships that interact with variables towards the required needs and the possibility of reality, and the extent of their ability to achieve security and stability for the future of workers in institutions and a sense of self-satisfaction (Al-Farkhawi, 2018).

The Jordan Vocational Training Corporation aims to regulate the practice of vocational and technical work in the Jordanian labor market. Its vision lies in achieving leadership and excellence in providing education and vocational training services and classifying workers professionally according to the needs of society and the labor market. This is done by training and preparing to work with qualified and competitive human resources in various professional disciplines through designing, implementing, and evaluating training programs according to the highest quality standards. This is done in partnership with employers and civil society institutions within values and principles that focus on teamwork, performance, excellence, and mastery of work, the practice of participation and transparency systems, and the belief that training is for all through the institution's vocational training institutes (Vocational Training Corporation, 2020).

Despite this rapid quantitative expansion achieved by Vocational Training Corporation in establishing vocational and technical training institutes in various Jordanian cities, it can be said that this expansion has been accompanied by many problems and challenges indicating the decline in the level of professional and technical outputs and increase in costs and the presence of administrative slack. The institution is also facing difficulties in competing and providing training services and products that are not commensurate with the volume of expenditures and facilities. There is also a growing reluctance to enroll in vocational and technical training institutes, despite all the marketing methods that institutes use to attract students. In addition, there is an increasing dropout rate of students and a lack of clarity in the relationship between the institution and employers. This was confirmed by the international report of the expert, Thiodory (2008), on the project for the development and reform of the Vocational Training Corporation. He pointed out that vocational training institutes suffer from weaknesses, including in the application of administrative and governance tasks. Also, there is duplication in the functions of the institution. In addition, the private sector sees the institution as representing a bureaucratic image with low efficiency. Further, all power is concentrated in the hands of the Director-General. As a result, the estimates showed a decline in the productivity level of training and the inability to respond to the requirements of the Jordanian labor market (Al-Saleh, 2018).

The Jordanian National Agenda (2005), Al-Khawaja's Study (2008), and the National Committee for Human Resources Development (2016-2025) recommended a radical restructuring of Vocational Training Corporation. The restructuring aims to achieve the strategic objectives of vocational training institutes in empowering the workforce by the requirements of the labor market. It also aims to increase job opportunities for people with special needs and to contribute to the harmonization between supply and demand in the Jordanian labor market. In addition, it aims to raise the efficiency and effectiveness of vocational training by the requirements of the Jordanian labor market and international standards.

Total Quality Management is one of the modern management concepts due to its advanced modern principles, ideas, and systems. It has achieved many successful applications. Al-Ghazawi (2019) pointed out that in industrial and service institutions, our educational, training, and professional institutions have been very late in implementing the total quality management system and methodology. Therefore, this study came to identify the degree of applying the total quality management system in training and vocational institutes and to propose a model for total quality management in vocational and technical training institutes in Jordan.

1.1 Statement of Problem

Many industrial and service institutions have applied international quality standards to address deficiencies in their management to improve their production and service outputs. The total quality management application system is characterized by modernity and effectiveness in improving services. There is also an urgent need for it to improve services, achieve student satisfaction in vocational and technical training institutes, motivate them to be creative in their performance, get rid of bureaucratic restrictions, and allow them to move between education and vocational training and the labor market. In line with the approval of the strategic plan of Vocational Training

Corporation, which aims to raise the efficiency and effectiveness of vocational and technical training institutes in terms of (inputs, operations) and increase the efficiency of the training management system in them by the requirements of the labor market and international standards for quality management. There is also a modern administrative system. Before entering into the process of actually applying it in vocational and technical training institutes, the researchers conducted this study to identify the degree of applying the total quality management system in vocational and technical training institutes. The study also aimed to propose a model for total quality management to ensure its success and continuity to enhance strengths and avoid weaknesses. In this context, the problem of the study is determined by answering the following question:

What is the proposed model for total quality management for vocational and technical training institutes affiliated with Vocational Training Corporation in Jordan?

1.2. Research Questions

1) What is the degree of applying total quality management standards in vocational and technical training institutes affiliated with Vocational Training Corporation in Jordan?

2) Are there statistically significant differences at ($\alpha = 0.05$) in applying total quality management standards in vocational and technical training institutes affiliated with Vocational Training Corporation in Jordan due to the variables of (gender, job title, academic qualification, years of experience, region)?

3) What is the proposed model for total quality management in vocational and technical training institutes affiliated with Vocational Training Corporation in Jordan?

1.3. Objective of the Study

The current study aimed to identify the degree of applying total quality management standards in vocational and technical training institutes affiliated with Vocational Training Corporation from the point of view of its employees within the variables of (gender, job title, academic qualification, years of experience, region). It also aimed to suggest a quality management model that can be applied in those vocational and technical training institutes of Vocational Training Corporation in Jordan.

1.4. Significance of the Study

The significance of this study lies in the application of the concept of total quality. It is one of the most important administrative tools that affect the administrative development of managers and workers at the theoretical and applied levels in vocational training institutions. This can be applied by providing a theoretical framework for the development of standards and determinants that guarantee the quality of the inputs, processes, and outputs of administrative processes in vocational and technical training institutions to raise them to high rates of performance and quality and ensure their quality, and raise the efficiency of the services provided in them. It also provides those interested in the labor market and those in charge of these institutes with total quality management systems to work on strengthening and developing them. This is done by establishing an applied base for consistent and continuous success in vocational and technical training institutions.

1.5. Definitions of Key Terms

The study included a number of terms:

The model: "It is a planned, organized, and accurate conception of reality and a simplified part of the truth. It includes the important aspects that help in understanding and controlling the studied phenomenon. It is a symbolic approximation of the real situation. Therefore, it is not complete because it does not represent the whole truth. Therefore, the model is considered a thinking and analysis tool. He expressed this by saying: Models are an abstract simplification of reality, and in its construction, creative mental ability is needed" (Krone, 1980:16).

Procedurally: it is a conception of the development of administrative work in vocational and technical institutes of Vocational Training Corporation in Jordan. This conception helps the managers and employees of those institutes to improve the educational and training process by applying a proposed model from the perspective of total quality management. It works to enhance the capabilities and skills of employees in line with the strategic plan of Vocational Training Corporation. It also encourages them to participate in decision-making and stimulate their creative ideas to improve the quality of their processes and outputs.

Total Quality Management: It is a basic strategy to maintain the competitive advantage and an ideal way to manage the organization that focuses on the concerted efforts of all members of the organization in a distinct way to meet the expectations of customers and achieve their satisfaction by focusing on the quality of performance in all operations, thus achieving the required quality (Denhardt & Blanc, 2013).

Procedurally: it is an administrative strategy that the higher management of the vocational training institution adopts and spreads its concept and clarifies its importance, benefits, and role in improving the processes and procedures related to the educational and training process in its vocational and technical institutes. This contributes to improving the quality of the outputs of the educational and training process, thus meeting the needs and expectations of parents and students. This, in turn, enhances the competitive position of the vocational training institutes, and it is measured in light of the response of the sample members to the dimensions of the study tool.

Vocational Training Institutes: The training place that is characterized by practical and field application to provide trainees with specific skills in production, operation, maintenance, or management processes. It may be subject to a specific educational and training level for a specific age group and a specific period (Al-Tahhan, 2017).

1.6. Delimitations of the Study

The study was delimited to all of the following:

Human: included all employees of vocational and technical training institutes (administrators, teachers, and trainers) of Vocational Training Corporation in Jordan.

Time: The study was implemented in 2021-2022.

Place: The study was applied in vocational and technical training institutes affiliated with Vocational Training Corporation in Jordan.

Objective: The subject of the study was limited to a proposal for a model for total quality management in vocational and technical training institutes of Vocational Training Corporation in Jordan.

Topic: The results of this study are determined by the extent of the sincerity of the response of the sample members to the study tool and the generalization of its results to vocational and technical training institutes affiliated with Vocational Training Corporation in Jordan.

2. PREVIOUS STUDIES

The researchers reviewed a set of Arab and foreign studies that dealt with the subject of the study. They are arranged chronologically from oldest to newest as follows:

Patyal and Koilakuntla (2017) conducted a study aimed at identifying the impact of quality management practice on performance in productive industrial enterprises: an empirical study in India with its four dimensions: (top management support, relationship with customers, relationship with suppliers, power management working). A questionnaire was prepared and distributed to a sample of (500) male and female managers. The study concluded that the impact of quality practice on performance was high on the level of managers' performance.

Robinson (Robinson, 2017) also conducted a study aimed at demonstrating the application of total quality management to performance measures in Dutch vocational schools. The survey method was used, and the study tool was applied to the administrators in those schools. The results showed that the application of total quality management processes of inputs, processes, and outputs highly affects the results of teachers' performance in the school.

Muslim (2018) also conducted a study aimed at identifying the degree of applying total quality management in public primary schools in the city of Aqaba in Jordan from the point of view of teachers. The descriptive approach was used, and a questionnaire was developed and distributed to a sample of (298) male and female teachers. The results of the study showed that the degree of applying the principles of total quality management in government basic schools in the city of Aqaba was medium. also, there were no statistically significant differences according to the study variables.

Folter (2018) aimed to reveal the elements of total quality management in education, and how they are applied in primary schools in the US state of Michigan. The survey method was used. He has come up with dimensions of quality management elements that include leadership, organization, and self-monitoring. The study concluded that the application of the elements of total quality management was to a moderate degree.

Holp's study (2018) aimed to identify the degree of benefit from providing total quality management models in Finnish universities. The study justified this by the fact that university professors face a great challenge in providing effective teaching of quality management concepts and tools. Most curricula focus on providing theoretical concepts and tools for quality management and fail to present the complex issues that individuals face while solving problems in real life.

Romario (2019) also conducted a study aimed at identifying how to apply total quality management in hotel institutes, by identifying and analyzing the dual roles of students and teachers. The study also discussed some shortcomings in the application of total quality management in the institutes affiliated with the state of Massachusetts, USA.

3. METHODOLOGY

The study relied on the analytical descriptive survey method.

3.1. Population of the Study

The study population consisted of all administrators, teachers, and trainers of vocational training institutes in Jordan, totaling (1109) for the academic year (2021/2022). They were distributed among the management centers (179) employees, the central region (482) employees, the northern region (235) employees, and the southern region (213) employees.

3.2. Sample of the Study

A stratified random sample of workers in vocational training institutes affiliated with the Vocational Training Corporation was selected according to the study variables (gender, job title, years of experience, academic qualification, and region). Table 1 shows the distribution of the study sample according to a set of variables.

Table 1. Frequencies and percentages according to the study variables

Variables	Groups	Freq.	Percentage
Gender	Male	300	65%
	Female	161	35%
Job title	Administrative	201	44%
	Trainer	260	56%
years of experience	-5 years	47	10%
	5-10 years	98	21%

	+ years	316	69%
Academic qualification	Bachelor or above	248	54%
	Diploma	156	34%
	High school	57	12%
Region	North	89	19%
	Center	261	57%
	South	111	24%
Total		461	100.0

3.3. Instrument of the Study

The study tool was prepared based on Arab and foreign studies on the topic of total quality management systems. The study tool, in its initial version, consisted of two parts. The first part contained demographic information about employees of vocational and technical training institutes. The second part consisted of items within primary areas (vision and mission, senior management support, management control, continuous improvement, practical field training, beneficiary satisfaction, electronic regulatory environment, and professional empowerment) to measure the degree of application of comprehensive quality standards in vocational and technical training institutes. The instrument was designed on a five-point Likert scale. To analyze and determine the sample responses, the following grading was used to average the responses of workers in vocational and technical training institutes on the dimensions of the study tool:

- Means of responses from 3.66 - or higher correspond to a high degree of application.
- Means of responses from 2.33-less than 3.66 correspond to a medium degree of application.
- Means of responses from 2.49 - less correspond to a low degree of application.

3.4. Validity of the Instrument

To verify the validity of the tool, the questionnaire and the proposed model were presented in their initial versions to a group of specialists from university professors specialized in the field of management and technical education. They were asked to judge the items of the study tool developed for this purpose in terms of the soundness of its linguistic formulation and the suitability of the items for the study and to make any modifications. After that, the study tool in its final version consisted of (50) items that include the following areas: (vision and mission, support for senior management, management control, continuous improvement, practical field training, beneficiaries' satisfaction, electronic regulatory environment, and professional empowerment). The researchers also presented the proposed study model in its initial version to experts from university professors specialized in the field of management and technical education to express their opinions on the proposed model. Based on the foregoing, the observations made by the experts, and their suggestions were studied. The necessary amendments were made in light of the recommendations, such as reformulating and adding or deleting some items, adding the field (occupational health and safety), and making adjustments to the explanatory arrows of the model.

3.5. Reliability of the Instrument

The reliability of the study tool was verified by applying it to an exploratory sample of the study population and outside its sample by the test-retest method with a difference of two weeks between the first and second applications. The Pearson test correlation coefficient was calculated between the responses of the sample members at both times. The reliability coefficient was also used by the internal consistency method according to Cronbach's alpha equation. Table (2) shows the results.

Table 2. Internal consistency coefficient (Cronbach's alpha) and test-retest method of dimensions and total score

Dimensions	Test-retest	Internal consistency
Vision and mission	0.92	0.87
Support for senior management	0.89	0.92
Continuous improvement	0.90	0.93
Human resource management	0.93	0.91
Beneficiaries' satisfaction	0.92	0.94
Management control	0.91	0.92
Professional empowerment	0.90	0.94
Electronic regulatory environment	0.91	0.94
Practical field training	0.87	0.89
Total	0.92	_____

Procedures Of the Instrument Application

Vocational Training Corporation was approached to obtain approval for facilitating the task of applying the questionnaire and circulating it to all technical institutes affiliated with Vocational Training Corporation. Then, the questionnaire was distributed in two ways: the personal method by hand and the other by electronic method. Paper and electronic questionnaires were collected to unload their data, and invalid questionnaires were excluded. After the researchers finished applying the study tool, collecting, and arranging it according to the study variables, the data were entered into the computer for processing and obtaining the results using the statistical program (SPSS) as follows:

- To answer the first question, means and standard deviations were extracted.
- To answer the second question, multiple variances were analyzed by variables to find out the individual differences between the variables of the study sample members.

4. Results of the Study and Discussion

What is the degree of applying total quality management standards in vocational and technical training institutes affiliated with Vocational Training Corporation in Jordan?

To answer this question, means and standard deviations were extracted from the viewpoint of the study sample about the degree of applying total quality management standards in vocational and technical training institutes in each field of study and the tool as a whole. Table 3 displays the results.

Table 3. Means and standard deviations of the degree of applying total quality management standards in vocational and technical training institutes affiliated with Vocational Training Corporation in Jordan from the workers' point of view are arranged in descending order according to means

No.	Rank	Quality management standards	Mean	Standard deviation	Degree
1	1	Vision and mission	3.62	0.69	Medium
2	2	Support for senior management	3.32	0.87	Medium
3	4	Continuous improvement	3.21	0.81	Medium
4	9	Human resource management	3.03	0.81	Medium
5	5	Beneficiaries' satisfaction	3.18	0.76	Medium
6	6	Management control	3.13	0.55	Medium
7	8	Professional empowerment	3.05	0.78	Medium
8	3	Electronic regulatory environment	3.27	0.88	Medium
9	7	Practical field training	3.12	0.66	Medium
		Total	3.21	0.67	Medium

Table 3 shows that the means ranged between (3.62-3.03). The standard of (Vision and Mission) came in the first rank with the highest mean (3.62) and with a medium degree whereas the standard of (Human Resources Management) came in the last rank with a mean of (3.03) and a medium degree. The mean of the total quality management standards as a whole was (3.21) with a medium degree. This result indicates that the degree of

availability of total quality management standards in vocational and technical training institutes from the workers' point of view did not rise to the required level, compared with the degree of availability and application in the countries of the Western world. Also, there is neglectance of many skills, behaviors, and elements of total quality management, which led to the result being of an average degree. The reason for not improving the degree of availability of these standards may be due to the practice of traditional bureaucratic management in those institutes that are considered a management department, not a development department. This traditional administration does not give any importance to the team spirit of the institute in managing change and decision-making and participating in making important decisions for the institute. Rather, it is concerned with implementing the orders and instructions issued by the Ministry of Labor, which is still in the stage of developing its administrative systems by modern trends. It did not reach high levels in the practice of the modern management trend of which quality standards are one of its pillars. As Table 3 shows, the standard deviations of dimensions ranged between (0.55 - 0.88). This indicates that there is a medium degree of dispersal of the responses of the sample members in vocational education institutes. It may be attributed to their different awareness and understanding of the total quality management standards as a result of their different academic qualifications, experiences, and specializations. Therefore, vocational and technical education institutes must publish total quality management and adopt it in their methodology to a sufficient extent. As a result, the sample members' responses came to a moderate degree. This result agrees with the results of Al-Assaf and Al-Sarayrah (2011), Al-Kasr (2016), and Muslim (2016), and differs from those results of Patyal and Koilakuntla (2017), Robinson (2017), and Folter (2018).

2) Are there statistically significant differences at ($\alpha = 0.05$) in applying total quality management standards in vocational and technical training institutes affiliated with Vocational Training Corporation in Jordan due to the variables of (gender, job title, academic qualification, years of experience, region)?

To answer this question, multiple variance analysis (ANOVA) was used for the effect of gender, job title, academic qualification, years of experience, and region on the degree of applying total quality management standards in vocational and technical training institutes of Vocational Training Corporation in Jordan. Table 4 depicts the results.

Table 4. Multiple variance analysis (ANOVA) of the effect of gender, job title, academic qualification, years of experience, and region on the degree of applying total quality management standards in vocational and technical training institutes of Vocational Training Corporation in Jordan

		Sum of squares	df	Mean of squares	F	Sig.
Job title	Between groups	32.339	131	.247	1.002	.485
	Within groups	81.024	329	.246		
	Total	113.362	460			
Years of experience	Between groups	54.847	131	.419	.911	.729
	Within groups	151.188	329	.460		
	Total	206.035	460			
Academic qualification	Between groups	60.527	131	.462	.919	.709
	Within groups	165.338	329	.503		
	Total	225.866	460			
Gender	Between groups	30.782	131	.235	1.045	.374
	Within groups	73.990	329	.225		
	Total	104.772	460			
Region	Between groups	48.578	131	.371	.811	.917
	Within groups	150.372	329	.457		
	Total	198.950	460			

Table 4 shows no statistically significant differences ($\alpha=0.05$) due to the effect of variables (job title, years of experience, academic qualification, gender, region).

3) What is the proposed model for total quality management in vocational and technical training institutes affiliated with Vocational Training Corporation in Jordan?

To answer this question, the synthetic analytical method was adopted as a way to identify the standards of total quality management in education and training institutions to develop a proposed model to be applied in vocational and technical training institutes in Jordan. This method is based on the results of the first question of the field study and the process of surveying and analyzing the literature on the topic available from primary and secondary sources to introduce the results of research and studies in this field and to draw a general framework (model) in which they show how vocational training institutes can benefit from this model as one of the entrances reform of vocational and technical education centers. Therefore, a proposed framework was developed to implement the model to activate the application of total quality management in vocational and technical education and training centers and institutes. To develop the model, the researchers took the following procedural steps:

- Using the results of the first question related to the degree of availability of total quality management standards in vocational and technical training institutes

- Total quality management standards from primary and secondary sources were investigated and analyzed.

- Some models of total quality management were studied and analyzed. Most of these have emerged in the field of public administration, such as Deming's model, Jouran's model, and Crosby's model, as these models had a major role in the development of the concept of total quality management.

- The results of the degree of applying the principles of total quality management in institutions were studied and analyzed locally and internationally, such as the studies of Al-Assaf and Al-Sarayra (2011), Al-Sharif (2012), Al Kasr (2016), Al-Hassan (2018), Robinson (2017), and Romario (2019).

- The experiences of the developed world countries in the field of applying the principles of quality management and accreditation in educational institutions were examined.

- The results of the current field study in the degree of availability of the principles of total quality management in vocational and technical training institutes were considered. The means of the degree of applying total quality management standards in those institutes reached a medium degree.

- The proposed model was presented to a group of specialized experts from Jordanian university professors, education, and vocational training experts in the Ministry of Labor, Ministry of Education, and the private sector to express their opinions and observations on the proposed model.

- The observations submitted by the experts were studied, and necessary amendments were made in light of the recommendations. The dimension of (occupational health and safety) was added so that the model consisted of the following ten areas: (vision and mission, support for senior management, management control, continuous improvement, practical field training, beneficiaries' satisfaction, electronic regulatory environment, occupational empowerment, occupational health, and safety). Figure 1 shows an illustration of this proposed model. The fields of (vision and mission, support of senior management, management control, continuous improvement, field vocational training, beneficiaries' satisfaction, electronic regulatory environment, professional empowerment, human resources management, occupational health, and safety) were approved.

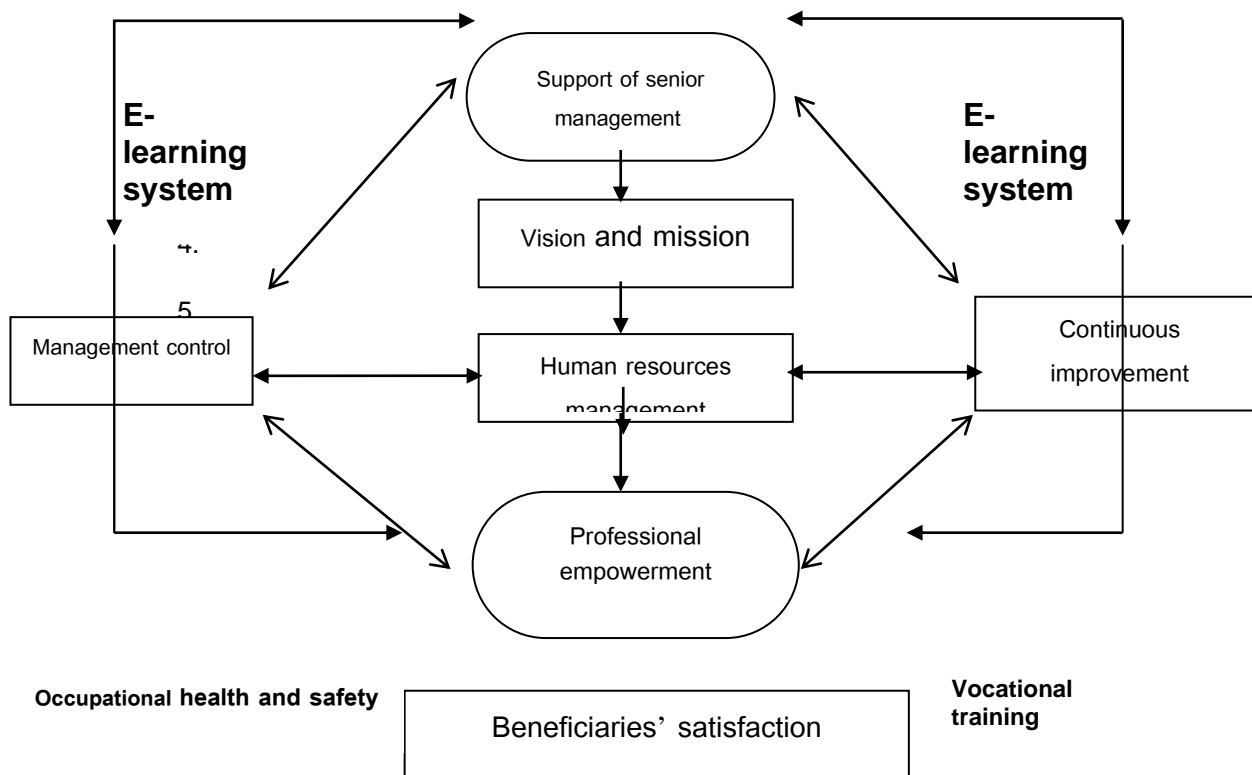


Figure 1. The proposed model for applying total quality management in vocational and technical training institutes in Jordan

In light of total quality management standards that have been designed, the researchers presented an application of the total quality management model in stages by adopting the idea and working to generalize it in vocational and technical training institutes. This contributes to the development of performance and productivity in the following stages:

1. Spreading the organizational culture of total quality management standards through the Ministry of Labor in cooperation with vocational and technical training institutes and holding seminars and training workshops for directors, teachers, and trainers of institutes. These workshops aim is to spread the culture of applying the concept of total quality management and to identify its administrative and technical methods, stages of implementation, and obstacles to its success within a work plan in stages and during a specified period.

2. Adopting the basic idea of total quality management standards: Both Ministry of Labor and Directorate of Vocational and Technical Education Institutes must believe in the idea of the total quality management standards model. This will help in implementing its foundations and rules by forming a supreme board of directors to implement the standards of total quality management in vocational and technical institutes.

3. Preparing a guide for the application of total quality management standards: A guide is prepared that includes the pillars, requirements, and basic stages necessary for the application of total quality management standards and is distributed to managers, teachers, trainers, and students of technical vocational education institutes in Jordan.

4. Formation of advisory committees: They are the technical body responsible for providing advice in the various stages of applying total quality management standards. These committees are formed with expertise and knowledge in the subject of total quality management in coordination with Ministry of Labor and vocational and technical training institutes.

5. Review the total quality management standards before commencing implementation: A comprehensive review was conducted before commencing with the implementation of the model.

6. Experimental application of total quality management standards: It is the selection of a vocational and technical training institute to apply total quality management standards by studying the vision, mission, and objectives of the institution, identifying its available material and human resources and studying previous experiences in the areas of administrative development and the possibilities available for applying total quality management standards.

7. Evaluation and follow-up: To address the shortcomings and overcome the difficulties based on the standards of total quality management to achieve the mission, vision, and objectives of the vocational institute.

8. The full application of total quality management standards: The full application is gradually achieved for the vocational and technical training institutes after ensuring the success of the mini-experiment in one of the institutes and the presence of a consulting team to implement those standards. Also, all the elements necessary for the success of the application of the total quality management standards should be provided, taking advantage of any errors that occurred during the pilot application and avoiding their recurrence in the future. In addition, there should be a commitment by Ministry of Labor and vocational and technical training institutes to apply the standards of total quality management and to work in the spirit of teamwork.

Recommendations

Based on the results of this study, the researchers recommended the following:

- The study concluded that the degree of applying the total quality management standards in vocational and technical training institutes affiliated with Vocational Training Corporation in Jordan was medium; therefore, work must be done to activate and enhance this degree through holding training courses and field workshops to activate the application of these standards.

- Adopting the idea of applying the proposed model for the standards of total quality management standards in vocational and technical training institutes of Vocational Training Corporation in Jordan.

- Spreading an organizational culture of total quality management standards and how to apply them in vocational and technical training institutes and introducing their technical and administrative methods, stages of implementation, and elements of success within the framework of implementing a strategic plan to be applied in stages and during a specific period.

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