

TQM Measured Students' Satisfaction in the Jordanians' Private University for Achieving Institutional Excellence

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Abstract - In this study we aim to expand previous studies and the knowledge in this scope via deriving and examining aspects from Total Quality Management definitions as well as present a theoretical framework. A descriptive analysis and reliability statistics methods are employed to evaluate the theoretical framework. The scope of the research from private universities in Jordan comprised of 150 matched members (lecturers) and 200 about to graduate students from business faculty. A linear regression (one way) method has been adopted. The examinations of this study were motivated to support and understand the influence of Total Quality Management and institutions' excellence through our theoretical framework. Total Quality Management has been measured by (Participation, Development, and Evaluation). Results showed that the participation variable was the stronger influencer towards students' satisfaction.

Keywords - Total Quality Management (TQM), Participation, Development, Evaluation, Universities Excellence.

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1. Introduction

Arab society is experiencing many challenges at all levels, and the interest in higher education in the developing countries has taken a considerable attention. A few examples of the challenges include the economic level, globalization, insufficient education system, and the increased level of awareness among the Arab society. These changes have created a status of mind about the importance of choosing the right and the ideal universities for getting education. And this would affect students' enrolment decisions in the future because they will start to compare universities' performances. Thus, this issue imposed a necessity to adopt modern management aspect to achieve the desired objectives more readily in the universities. Generally, the challenges have created an environment full of competition between the institutions at all levels. As a result, education institutions were encouraged to improve and develop the managerial process to provide a good education service. Because improving the performance of educational institutions is a global issue in all countries in the world, institutions began to respond to this environment of challenges. As an example of that, institutions started to realize the importance of changing, and to adopt new management process to keep abreast with the development of the surrounding environment for progress and prosperity.

Recent research is paying attention towards TQM especially in the education sector [2][30]. TQM is basically designed to inform students, employees, parents, stakeholders, and regulators of higher education that the graduates' students are well trained to meet manpower requirements [3].

In this study the researcher tended to create a theoretical model for TQM driven from several definitions from previous researches in order to examine institutions' excellence using student satisfaction as a dependent variable, and to answer the following questions:

1. Is there an influence of TQM towards institutions' excellence?
2. Is there an influence of TQM variables towards student satisfaction?

2. The concept of TQM

The perspective of TQM (Total Quality Management) relating to the ability of institutions to provide good services for customer satisfaction by involving everyone at all levels in all functions. TQM as process advocates for continually learning and meeting newer demands. It contains aspects which are: (Total) indicates everyone is involved, (Quality) indicates to meet the exact requirements for achieving distinctiveness by controlling the ongoing activities lead by the internal process, (Management) refers to the committed executives [23].

Quality is an ongoing process. It insures the sustaining of the managerial functions by assessing the implied needs. It is the degree in which an assembly of characteristic of the placed activities meets the requirements. Moreover, TQM refers to the ability of managing vital programs to move on effectively and innovatively. Rather than that, it seeks to sustain long term organizational prosperity and successes by encouraging employees' participation and obeying regulation, and allow people in the administration department to continuously improve the process [4] [11][15].

[24] showed that TQM is responsible for problem solving and success. It is working on meeting the organization's satisfaction. The concept has no specific formulation, and has no specific definition because TQM is involved in a wide range of possibilities.

It almost related to several goals in the institutions that can create an argument about whether the desirable goals are achieved or not.

According to [7] the concept was first applied in US at Valley Technical College, and as a result this institution has become more efficient in many different areas such as graduates, employer satisfaction and replacement. We think that the integration of the TQM perspectives in high education is a fundamental principle holding processes such as: following up the ongoing process, developing teaching and learning, decision making process, human resources development and community local services. This goes with [26][27] showing that the success of high education refers to its management style and the ability of adapting new philosophy. Apparently, TQM is more than an approach; it can be considered a framework used in organizations to maximize the achievements [2].

At the same time, quality in the teaching sector insures that learning or the academic processes are

internationally respected standards. We can notice that quality as a process requires evidence. These evidences to make sure goals are achieved and running as required. In other words, make sure policies and activities are undergoing and reviewed as a part of an overall quality enhancement regime. If the quality is a process, there are two bodies overseeing the quality of universities. [18] claims that the committee on university academic programs (CUAP) is charged with setting up and applying qualifications across the universities. [5] showed that New Zealand University Academic Audit Unite (NZUAAU) is more connected with regular audit. Thus, we can find that the former is responsible on setting the regulation and qualifications. And it acts like a moderation process to give an initial approval. While the latter - (NZUAAU) - responsible for auditing the regulations and the standards. By that, the quality is the concept that stands on first 1. Regulations and 2. the degree of applying the process depending on regulations properly to let universities achieve their goals. There are several key principles for the quality activities.

1. Universities are required to provide evidence that their process meet with the goals.
2. The level of the goals and the standards identifications. (enhancement led)
3. Moderating the proposals using peer review. it is required from all universities to conduct formal reviews of all new .
4. The level of the university is subjected to the quality requirements and bound by decision of the quality system. (Individual binding).

According to [3] [30] agreed that quality meaning is closer to the concept of (fitness for purpose).

Fitness of purpose indicates that different stakeholders may have different purpose. It is the ability of the institutions to fulfill their mission to cope with the new teaching methods which universities found for. By that quality plays a prominent role in shaping the tertiary education in all over the world particularly in the developed countries. Apparently, this requires from universities to effectively and adequately manage the quality process.

And thus, TQM is a process that involves everyone in any successful institution. It is a participation process that encourages the involvement trend at all levels to analyze problems, to set strategies for development, and to implement solutions for problem solving. According to the above studies and definitions about the concept of TQM, the researcher concluded that TQM includes (controlling, assessing, managing, improving, following up, developing, and evaluating effectively the internal ongoing process within the institutions).

All these extracts allow institutions to improve the managing process and forecast the failure aspects to breakthrough action.

2.1 Participation views and meanings

According to business dictionary, the concept of participation is also called consultative management. It is a type of management in which employees at all levels are encouraged to share ideas. Besides, employees can contribute and share goals' setting, in problems solving, and any other issues and decisions that may directly affect them. The International Labour Organization has been encouraging member nations to promote the plan of employees' participation in Management through: 1. Decision making process by encouraging the democratic participation; 2. Maximizing collaboration between employer and employee, 3. Realization of the social justice as a great measurement. Moreover, Management MBA knowledge base showed that participation also contains several expanded aspects such as:

1. Information sharing and participation: to ensure that employees at all level in organizations can receive information and express their views and feelings pertaining general issues and provide area for employees in decision-making.
2. Associative participation: it means managers and workers from all levels can jointly take decisions. Management using participation promotes moral obligation by accepting and taking into consideration the unanimous decisions of the employees.
3. Administrative participation to ensure greater share of employees' participation in discharge of managerial functions. At this point, top management takes the decisions, preferably with alternatives, to let employees select the best. Generally, participation in management process is the willingness to share ideas, decisions, and plans among all the levels. This is equal to the definition of TQM. It is a process that involves everyone in the institution, encouraging employees' perceptions, team work, bridging faculty staff functions and leading by a good leadership.

3. Evaluating

Quality evaluating is a process to assess the quality of the inputs. For example, one could therefore evaluate the quality of an information system by assessing the quality of its output. The system includes data, the degree of time and effort to achieve the desired outcome from the data. Based on

these aspects an information system would be of high quality and it would be more accessible. Thus, to develop a useful framework for the quality of any system, one must identify the key components of any system [8]. Evaluating as derived from the above studies showed that TQM is a controlling process and its main objective is to control and manage institutions' activities. Besides, it works on assessing the implied needs and the extent of obeying the regulation within the institution by following the ongoing process regularly and this need to be proven by evidences.

3.1 Development

Development meets the needs of the present without compromising the ability of future generations to meet their own needs. This mean any development in the TQM is running consistency with the generations' skills. At the same time, emphasized are the positive and the strong relationship between organizational performance and organizations implement more TQM practices. Also, both authors [14], [1] advocate to keep improving the process of TQM.

The concept of TQM holds aspects of the definition of development and by that, the development of TQM can be seen through continual learning, meeting demand, keeping managing and improving activities and vital programs in institutions. And thus, after we got many definitions for the TQM, we found that participation, development and evaluation concepts are all involved and can be mentioned under the TQM concept. So, these aspects were considered as an independent variable under the concept of TQM.

The sector of education in Jordan plays an essential role in the process of development. Despite the limited resources in the kingdom, higher education lies within the priorities in Jordan. The sector is considered important because it promotes the levels of economic, social and the knowledge level of the Jordanian citizen. The number of the universities in Jordan has increased. Also, the number of students enrolled at the universities is estimated at nearly 263 thousand including Arabs and foreign nationalities. As a result, the ministry of high education has paid a special attention to higher education by focusing on monitoring end evaluation of the strategy to maintain a shiny image. This pride created various challenges, the things which lead the ministry to put more efforts in order to overcome difficulties and obstacles to maintain the balance between the level of development and the quality. Thus, education be a pure service [20] however, it is different from other services in many ways such as; it can play a central role in students' lives, requires huge amount of

motivation, monitoring, and intellectual skills to attain [17]. Also, this service is intangible, heterogeneous and cannot be measured objectively.

4. High education in Jordan

The sector of education in Jordan plays an essential role towards educational development. It plays in promoting the levels economic, social and the knowledge of the Jordanian citizen. Furthermore, the number of the universities in Jordan has increased, and the number of the students enrolled in the universities estimated at nearly (263) thousand includes the Arab foreign nationalities. By that, the ministry of high education has paid a special attention towards education. [23].

5. Quality in Higher education, reviews

Regarding this paper towards higher education institutions to make them familiar and aware of how to use basic quality tools to improve process. The author focused on a model stating the satisfaction of the customer and employees and the social impact achieved by a great leadership that facilitates and simulates institutions' strategies and plans [30].

The evidence of the study found that excellence and quality of the education happens with high level of TQM indicators. Besides, TQM can be applied in higher education, but it must be modified to fully meet the unique aspects in the education service. The author in his study showed that the benefits of the TQM include team work, employees' moral and bridging faculty staff functions and finally customer point of view. All these aspects enable institutions to excellence through increasing production capacity and improving the quality of the provided services.

By that we can notice that excellence of high education is related with the provided services that reflect the increases in the capacity as a sign of students' satisfactions and this is also corresponding to [7]. Another study was conducted by [28], where the authors tested TQM in using a model which contains outputs, the transformative process and finally the inputs, while the inputs of the model included human, physical and financial.

According to [24] the transformative process includes aspects such as, teaching, learning, activities and knowledge. And the outputs included tangible and intangible outcomes and the value addition through earnings and satisfaction. We would like to point out that the author in the above study considered the students in a place of customer And thus, from the above study we can find that students' satisfaction is an outcome that is considered as a value added related with institution's excellence. An old study was conducted by [13], where the author

distributed a mail survey randomly to 10000 management professors has been selected from the faculty of business in the united states to examine members' perceptions about TQM and its integration to the university curriculum. The results showed respondents felt little pressure to integrate into the TQM process.

[7] pointed to two fundamental aspects to apply TQM in high education. First, to replace the culture of the old values and beliefs by increasing knowledge, especially for the faculty members who never worked in a TQM environment. This needs to create a balance between the old and the new culture. It requires building trust and confidence from a strong leadership from the upper management. Second, employees need to view their university as a system and view their faculty as an interrelated system. According to the same author, the TQM can create effective and efficient business process in a good way in addition to continuous improvement at all levels in an institution.

[10] was conducted on 1290 employee to test hospital effectiveness. The study considered TQM principles and they were leadership, team working, training and the continuous improvement all these aspects was found to contribute to the organization's effectiveness. The study showed a positive correlation between the two variables. And thus, the study revealed if the TQM activities were applied properly, the organization's performance would be increased including improvement of customer satisfaction level. [1] mentioned that TQM is one of the most important tools in measuring universities' effectiveness. The tools of the TQM that were used in the study are to follow up the educational process, decision making dimension and human resources development.

[3] in their paper discussed how universities are managing quality in their operation to bring about continuous improvements. They clarified the quality mechanism or process which includes: 1. Discussion of concepts, insuring that things are running effectively; planning was considered a critical factor for successes, 2. The engagement of key experts and implementing of new information, 3. Creating brain storming with deans and the heads of the departments, 4. Furthermore, they showed that staff should be aware and understanding the process of the quality. This has numerous implications for all institutions to put in place adequate measures to carry out the mandate of quality. This requires a good leadership or in other words, the success of quality process depends greatly on the authorities in charge. A survey was distributed to a physical faculty member in Jordan by [2] to investigate their perceptions regarding the application of TQM. The result of the study indicated that the principle of

commitment of the top management had the highest implementation and all members are involved in the TQM principles. If the top management is not aware to set TQM in its priority, the TQM will fail to sustain a successful program [27]. Besides, the author argued that, to achieve quality education, customer's (students') satisfaction should play a central role in their TQM process. And this requires listening to the customer and trying to meet their needs and expectations.

By that the consequences of applying the TQM lead to more efficiency and prosperity. In other words, it leads to institutions' excellence.

We can conclude that institutional excellences have many areas such as: customer satisfaction, providing good services, solving problems, adopting new learning and teaching path.

In this study institutional excellences will be measured by students' satisfaction).

6. Total Quality Management and student satisfaction

When students become aware of the classes, they would unconsciously acquire an attitude toward the class. Students enrolled in the class to find their expectations. And thus, it's about the discrepancy between what they perceive and what they obtained. The negative discomfort occurs if the performance is less than their expectations and this would create student's dissatisfaction and vice versa. And thus, satisfaction and dissatisfaction are the result of the evaluation of a specific experience, concept or project whether it is good or bad [2]. Student satisfaction can be defined as pleasurable and favorable. It is the ability of the concerned party to provide the desirable need of the customer, and it consists of several dimensions [22]. Students' satisfaction level is perceived from the quality of the offered services by the university.

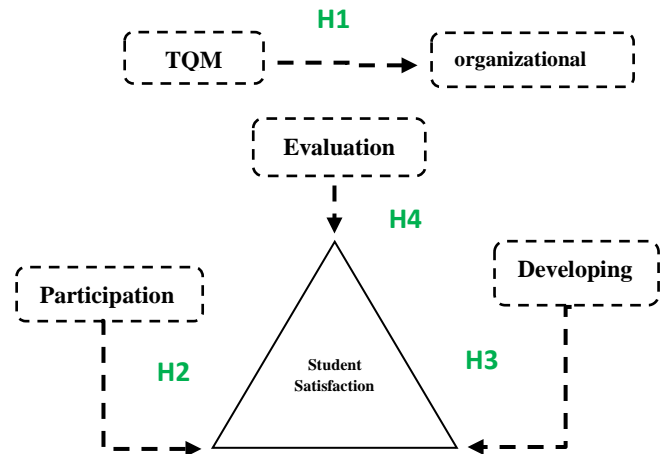
[16] in his study found that students' satisfaction is based on a stable personal relationship environment. It showed that students are particularly satisfied with school's placement dimension and the atmosphere between the students. But they were dissatisfied by the university building and the lectures treats. Quality in the education is complex and the best way to define or to measure quality has not being found yet [6], because every stakeholder has his own way in managing and providing his services.

Both quality and customer satisfaction have their own concept, and both can shape a framework, also, customer satisfaction as was mentioned by [9], is influenced by situational and personal factors.

7. The theoretical framework

In our study, we are going to examine the relationship between TQM and organizational excellences according to the framework below;

- H1: OE is influenced by TQM
- H2: SF is influenced by Participation
- H3: SF is influenced by Developing
- H4: SF is influenced by Evaluation



8. Methodology

In our research we examined the relationship between TQM and institution excellence. The TQM in our research includes participation, development and evaluation and the institution's excellence includes student satisfaction.

Since the aim of any academic institution is to create strong and qualified graduates, in our research we tended to examine the graduates in the Jordanian private universities. We selected the private universities because of the high computation in the private sectors. Also, we selected Business faculty because the researcher is more involved with the faculty and able to reach the faculty members (lecturers) to fill their questionnaires about the TQM variables. We also selected the students who are expected to graduate in 2017/2018 because they have more experience than those who are in the initial semesters. By that we consider our sample purposive. The number of the private universities according to the higher education ministry of Jordan is 17 universities. The researcher reached to 10 universities that were considered near. The total graduated students from the universities are 200 and 150 members from the business faculties. In our research we used a questionnaire and they were distributed to the concerned categories. We got 150 filled questionnaires from the students and 100 from the members and this goes with [12].

The questionnaire includes the aspects of the TQM that were derived in our research. Four questions for each variable, it means 12 items for TQM and 8

questions for the student satisfaction. Total questions were 20. The questionnaires were sent to the head of the department of the Business faculty in each university in order to get them back filled from the concerned category.

9. Statistical treatment methods

To analyse the collected data, “SPSS” program has been used and the statistical methods been used are: Reliability Test Cronbach Alpha test, Means and standard deviations, Liner Regressions.

A Cronbach Alpha test has been used for the TQM variables (participation, development, and evaluation). The value is = 0.90 for the questionnaire. Thus, all values are accepted as they are more than 60 [21][25]. The independent variable for the TQM is: participation, development and evaluation measure based on a five-point Likert scale from 1, “very low”, to 5, “very high”. To make sure of the variance The variance inflation factor VIF value for each independent variable is less than 10, with tolerance ranges between (0.420-0.560). This means that there is no occurrence for any multicollinearity problem between the independent variables. The Control variables of our sample Business faculty members are age, gender, education level, teaching tenure, and experience in teaching. According to the control variables, 60% of respondents were males. In terms of the age, it is interesting to note that 65% fell into the 40-55, with 32% having worked with the university 5 years or more and 55% having 10 years or more of career experience. As for the educational level, the majority (70%) were PHD degree holders. while the means and the Standard Deviation has been used for the TQM variables and indicated that participation factor has the highest rank were mean = 4.333, SD = (.512517). The most cited item in the participation variable was “The democratic atmosphere in participation is almost tangible in the decision-making process” means 3.76. While “Employees are selecting the best decisions that are taken by the top management.” was less, means 3.32. The evaluation factor ranked the second at means 4.122, while the most cited item in evaluation was “Top management keeps controlling the internal process to avoid mistakes” at means 3.66. While the item “Following the ongoing process regularly depends on a period of time” ranked the lowest, at means 3.44. Development factor has the lowest correlation with the TQM means at 3.77 and the most item cited was “The university keeps managing and improving activities and vital programs in institutions” means at 3.76 while the lowest item was “The university meets the demands of the faculty members continually,” means at 3.21. As for dependent variable student satisfaction: the most cited item was “Atmosphere among students” means

at 3.59, while the lowest was “University building” means at 3.27.

We employed five regression models to test the relationship between TQM and institutions’ excellence. We tested our hypotheses’ data at a significant level (0.05). Based on the confidence intervals it appears that the direct, indirect and total effects are statistically significant at the alpha equal 0.05 level. Our results showed that there is a positive and a significant relationship between TQM and institution’s excellence because the value of standardized beta coefficient of TQM toward institution’s excellence was 0.609. This value suggests a positive relationship between the two variables, and the related probability value was less than 0.050 indicating a significant statistical effect for the first hypotheses. As for the second hypotheses, we found a positive and a significant relationship between participation and student satisfaction because the standardized beta coefficient between the two variables was 0.715. The third hypothesis indicated for a positive and a significant relationship between development and student satisfaction because the standardized beta coefficient between the two variables was 0.592. The last hypothesis indicated positive and a significant relationship between evaluation and student satisfaction because the standardized beta coefficient between the two variables was 0.671.

10. Discussion

This research is a descriptive one. We emphasized that TQM in Jordan’s universities demonstrate high mean (4.222), particularly participation variable as an independent demonstrate high mean (4.333). This suggests that TQM in Jordan’s universities is likely to go along with participation and sharing. Our study indicates that TQM is mostly related to the ability of the top management to create an atmosphere full of participation, teamwork and sharing. It is the ability to share the decision between faculty members and top management to make sure all members are aware and getting the info properly. We can explain that participation in the universities indicates that members like to be aware about any taken decision. They like to have justifications regarding the taken decisions. From the other side, Arabic society is known by its collectivist orientation [29], where members prefer to work as a team and share knowledge and information. It means that the required goals are affected by the team work. From the other hand, universities in Jordan should be aware of their employees’ abilities. in the other word members like to feel the democratic atmosphere. The top management is better not to keep holding on

some decisions which would not fit with the members' abilities and expectations.

For the top management at the universities, it is better to take into consideration this part by discussing with their members their needs. Although the evaluation variable of the internal process was seen high, universities still need to have more control over their process. This requires from them to set a schedule to follow up the planned goals with actual performance which would control the possible mistake. Finally, although the development variable indicated the lowest, it still has high indicator toward TQM. The ability of the universities was seen high in managing and improving the program. It means that they are aware of applying new process and can continuously adjust the process to match the goals. While we can explain that the universities in Jordan have no attention to the members' needs, this would slow the process and cause delay. The research results show that our hypothesis has a significant relationship between TQM and student satisfaction. All the variables of the TQM (participation, development, and evaluation) contribute to raising the student satisfaction. We found that the participation variable has high correlation with the student satisfaction. The explanation for the obtained results suggested that, adopting participation between top management and its members will help top management to be aware about the students' needs from the faculty members. In other words, members can transfer the students' needs to be solved. We found that student satisfaction has high mean = (3.59) in students' atmosphere. We can explain this by suggesting the students are treated fairly and there is no discrepancy between them. On the other hand, students are not satisfied with their universities' buildings. It is better to pay attention to the aspects that could harm progress and prosperity.

11. Conclusion

This research aimed to extend previous studies about TQM. We have aimed to answer and clarify the mechanism of how TQM influences the universities' excellence in Jordan through some managerial aspects. TQM has several definitions and perspectives [19].

We started briefly by defining the concept of TQM in education, and we moved on to derive from the definitions of the studies the variables to be examined in our research. The researcher found that some definitions of TQM hold dimensions which can be sorted into variables. And thus, we found that TQM definitions contain aspects that appear in participation, evaluation, and development concepts. Based on this, we argue that TQM management can

influence institutional excellence using these variables. The researcher aimed to expand other studies and build a frame work using these variables under TQM concept to examine institutional success. As long as TQM management can be shaped according to the stakeholders' purpose, so each purpose can create a definition for TQM. This definition will create or exert a variable which can measure the purpose of any organization tending to achieve progress and prosperity. The researcher also deals with the universities' excellence using the variable of student satisfaction. According to our framework we found that TQM has a great influence towards institutional successes. The participation variable holds aspects relates to the meaning of TQM. and this variable had a high correlation towards institutional excellence. Also, development and evaluating variables have achieved high correlation towards student satisfaction. All the obtained results achieved high correlation as expected. Our study goes with [2] because his study result also showed that student satisfaction is a consequence of perceiving quality and might create positive behavior. in this study we found that, students in the Jordanians' universities most likely satisfied in their universities

[30] found that quality and excellence can be found in organizations with high level of practicing management indicators.

Several contributions emerged from our research.

First, we aimed to view TQM management from a different perspective. We didn't use the relevant aspects of TQM to test customer satisfaction, but we tried to gather and sort the definition of TQM to come up with new main variables as mentioned (participation, evaluation, and development). In order to insure our framework, we examined these variables and the result was as expected. Previous research has used the relevant aspects of TQM toward student satisfaction, while some research aimed in their research to a descriptive analysis to check to which extent TQM is applied in Jordanians' universities.

12. Future work

For the future research we recommend to keep moderate TQM components and keep modifying its concept as appropriate to the institution's goals. This would help institutions to recognize other aspects that may serve their goals directly and avoid ambiguity in its managerial process. Also, this would help institutions to set and implement plans for managerial process based on the extracted aspects or variables, as long as TQM can be defined according to the institutions' purposes and goals.

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