

The impact of Total Quality Management on the Institution Performance mediating role of Knowledge Management

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Abstract

Quality is most important aspect with regard to customer satisfaction. In educational sector, total quality management and knowledge management have a dynamic effect on performance of institution and its competitive advantage. The purpose of this research was to investigating the effect of TQM on institution performance with the mediating impact of knowledge management in Palestinian higher education. Data was collected from eighteen different university in Palestine. This was conducting quantitative research and convenience sample was used as a sampling technique for this research. The questionnaires were distributing to 219 faculty staff, working in various education (Palestine). SPSS 24 was using to analyzed data. The main findings of the research were TQM practices has strong and direct effect on institutional performance. Therefore, the association between TQM, knowledge management and institutional performance was positive. This research contributes knowledge management as a first time in the context of Palestinian higher education between TQM and institutional performance which not used so far.

Keywords: *Total Quality Management, institution performance, Knowledge Management, Higher Education*

1. Introduction

In the dynamic environment, it is necessary for organization to maintain competitive advantage in the industry. Quality is considered to be most important aspect with regard to customer satisfaction (Honarpour, Jusoh, & Long, 2017). A recent study by Pambreni, Khatibi and Azam (2019) stated total quality management (TQM) has been regarded as second industrial revolution. The organizations in the developed nations like UK, USA and Japan given full focus to the quality management. From the most recent decade the analysts have begun to inspect the total quality leadership practices in the developing nations. The explanation for this conceivable interest is the breaking of exchange hindrances and the creating nations firms have stretched out their business sectors to worldwide competitors which required the quality enhancements and inventive items for organizational performance. The present study was inspecting the effect of TQM on institution performance and knowledge management as mediating effect in higher education sectors in Palestine.

Most recently era has witnessed important changes in the economy of globe, which has produced a number of forces that have impacted heavily on the concept of knowledge management. The most important for development of technology was communication and usage of internet in recently era and it has made the world more like a village. Therefore, leading to the emergence of entrances, rules, modern concept and adapt to them, and even make for any subsequent changes. Nowadays, organizations are leading to educate their employees that can think intelligently and employ knowledge management in their businesses and operations. Also, based on knowledge management can take the competitiveness of strategic orientations feature that will enable them to attain their goals (Tahir, 2019). The following section will clarify the concept of TQM, knowledge management and institutional performance, the role of TQM in achieving institutional performance, the reality of management quality in higher education institutions, Palestinian (Atallah & Naser 2014).

Moreover, in order to achieve organizational performance and competitive advantage, higher education has to maintain the standards that are critical to their employees (Latif & Rana, 2020). TQM is the only way to achieve differentiation and it is a way forward for achieving organizational performance (Anil & Satish, 2019). Knowledge management is important segment that connect cognitive investment with successful returns. Organization needs to translate important practices through knowledge management to achieve organizational aims and goals (Abbas & Sagsan, 2019). Unfortunately, in fast tract economy, some education sectors are still striving for organizational performance. There is need to integrate TQM practices with institutional performance with proper merger of knowledge management. Additionally, there are numerous studies which have been studied the enablers of organizational performance in construction, public and private organizations (Chatzoudes, Chatzoglou & Vraimaki (2015). There is very less empirically research to assessment the influence of TQM on institutional performance using knowledge management as a mediator in higher education, Palestine.

Furthermore, education plays an important part in economic growth, and sustainable development, and for achieving the ultimate goal of higher education in Palestinian, the implementation of TQM is highly required to ensure the quality service and fostering the competitive advantage of higher education institutions and to improve the institutions performance, many researchers encountered to the implementation globally (Pushpa, 2016). This research will adopt the TQM to examine the extent of implementation of TQM in higher education institutions, Palestinian and measure the reliability of its elements in evaluating the performance of these institutions.

1.2 Objective

The study provides a deep insight in this scenario. The present research aims to achieve following objectives

1. What are the TQM practice used in higher education, Palestine.
2. What is the effect of TQM on institutional performance in higher education, Palestine.
3. How knowledge management (KM) mediates the association between TQM and institutional performance in higher education, Palestine.

2. Literature Review:

2.1 Total Quality Management and Institutional Performance

The concept TQM was defined in 1970s when it was recommended to exchange the word “control” with “management” and it was supposed that quality is not controlled but it can be managed (Sahney & Thakkar, 2016). The word quality derived basically from the word Latin, which means “what kind of”. TQM is the procedure of combination of all functions, activities and processes with higher educations (Ali & Shastri, 2010). Another researcher Pambreni, Khatibi and Azam (2019) stated that TQM is crucial for organizational performance for small and medium enterprises. The research found that TQM practice have four fundamentals such as focus on customer, continuous improvement, strategies based and involvement of employee. The study further revealed that TQM is essential for both financial and operational performance of the organizations.

The present era is a challenging time to be engaged with the working environment. Surrounding us are concerns identifying with so much issues as asset accessibility, innovation exchange, operational and, obviously, add up to quality leadership. Due to its enormous impact on business performance, it is very famous in business organizations (Bajaj, Garg & Sethi, 2018). American Society of Quality (Li, Anderson & Harrison, 2003) included that TQM is a long-haul administration approach that makes all representatives take an interest towards enhancing the administrations, the items and the work culture. Deming, Juran, and Ishikawa was the pioneer of TQM and execution the TQM for originates from the strategies toward quality performance (Bemowski 1992).

Many researchers wrote about (TQM) in their researches and defined it in several ways. It is a defined as approach system performing horizontally through an organization involving all departments in organizations and employees and spreading forward and backward to include both customers and suppliers. It is managing approach which used to improve the quality of performance, efficiency of work

and productivity in organizations for success especially in institutional level. Quality also is a pluralistic concept and it is categorized in, meeting expectations of customers', worth for money, purpose of fitness, and meeting with the requirements of society (Pham and Starkey, 2016).

Higher education sectors declining the quality of their graduate's quality, growing competition and increasing mandates for accountability by accreditation associations are among the factors that have "forced" HEIs to focus on quality (Shahbaz, M. S., & Shaikh, F. A. 2019). A survey conducted in Australia revealed that there were decreasing the quality of teaching standards, qualification level, condition of campus and learning experience quality (Sirvanci, 2004). TQM has been tested quality management models in a number of higher education institution.

The following hypothesis is developed based on the above discussion:

H1: There is a positive and significant effect of total quality management on institutional performance in higher education, Palestine.

2.2 The mediating role of Knowledge Management

In recent era, KM has been seen as a tool for competitive advantage. Effective use of KM mediates the efforts for quality improvement and hence improves organizational performance. A previous study shows the mediating role of knowledge worker for relationship between KM and organizational innovation (Shujahat, Sousa and Hussain et al., 2019). The results indicated the pivotal role of knowledge worker into for enhancing innovation in the organization. Another research conducted by Abbas and Sagsan (2019) on relationship between corporate sustainability and TQM within the framework on KM. The results indicate that knowledge management mediates partially with the relationship of TQM and corporate sustainability(Shahbaz, Mubarik, Mubarak, & Irshad, 2019).

Knowledge management (KM) is the process of sharing knowledge, developing new knowledge, capturing knowledge from others and effectively using organisational knowledge (Davenport & Prusak,1998). KM delivers a complete base from which leaders can emphasis on issues related to strategy at workplace and allows them to create knowledge, capture it from others and re-use knowledge to achieve success for organisational (Simon & De Gaus 1998; Gao, Li & Nakamori, 2003). KM give the facilities to their organizations for generating and using knowledge as a sustainable source (Abbas and Sagsan, 2019). Dynamic organizations focus on generating new KM among employees with overall strategies so that organization performance in all aspects can be achieved (Yusr, Mokhtar, Othman & Sulaiman, 2017). Another study describes KM as a continuous process of knowledge creation, transferring, application and capturing of the right level of knowledge, at the level of right people, with the right time (Horwitch & Armacost, 2002). Furthermore, Duran, Cetindere and Sahan (2014) investigated that TQM and knowledge management can integrate with each other to enhance the corporate performance and organizational performance.

The following hypothesis are developed based on the above discussion:

H2: Knowledge management is a positive and significant effect on institutional performance in higher education, Palestine.

H3: Knowledge management playing significant role as a mediator between total quality management and institutional performance in higher education, Palestine

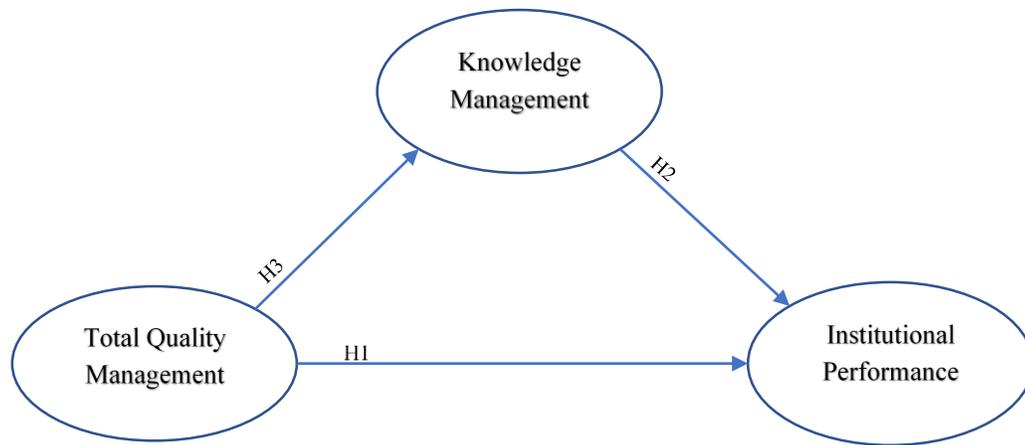
2.3 TQM in higher academic institutions

Palestine occupies a high level of education among Arab countries, and it considered as a main source of individual income, so the investment in education becomes one of the main priorities for Palestinian people due to the scarcity of economic resources and hard political circumstances under Israeli occupation(Hussain, Yusoff, Khan, Diah, & Shahbaz, 2019). Higher education institutions have been established before coming the Palestinian Authority in 1994, and the 14 universities in the Palestinian territory has increased in 2011 (2 governmental, 3 privates, 9 public) 15 universities college. There are (49) higher education institutions in Palestine and number of students are 214 thousand, in which 6600 students including in the master's degrees, and about 65 thousand students in open education are

distributed in all disciplines of about (1100) specialization and academic program. There are 14600 employees who are divided into academic position, administrative and service carders jobs respectively and 21% are part time employees, in higher education for the age group (18-24) yeas is about 30% the database of higher education (Ministry of Education and Higher Education of Palestine 2017).

TQM encourages and improved performance in terms of customer service, staff and also increase the morale of faculty to make more productive work in institution (Prakash, 2018). Quality management is well-defined as a strategic area of activity in all universities and quite a lot of efforts are being made to develop quality systems in compliance with national and European standards (Manatos, Rosa, Sarrico 2018). The Palestine higher education ministry is supervising supporting, and directing the growth of Palestinian higher education through its council bodies, administrations, and various units based on the higher education law 1998.

2.4 Framework



3. Methodology

3.1 Research Design

This research was explanatory where TQM influencing on institutional performance with the mediating role of KM. Convenience sampling technique was used in order to draw a sample form of the target population that consists the staff of higher education in Palestine. Questionnaires were distributed to different eighteen higher education. A cover letter was also attached at the beginning of the questionnaire, which clearly explained the purpose of data collection and demographic information also included in questionnaires(Qureshi, Thebo, Rehman, Shahbaz, & Sohu, 2020). The sample was drawn where 260 questionnaires were distributed among the staff of higher education whereas, 219 completely filled were collected. The data collected voluntarily from the participation of the respondents.

3.2Measures:

Total quality management was based on 5-items scales by Abbas (2020). The KM scale was adapted from scale developed by Lee and Kang (2005). They developed 29-items of questionnaire that measure the Knowledge Management Processes into five dimensions, nevertheless in this study 4 items were used to measure the Knowledge Creation. Performance was based on the 12-items scale adopted by (Motowidlo & Van Scotter, 1994). 5-point Likert scale was used to measure the all constructs (Strongly Agree = 5, Agree = 4, Neutral = 3, Disagree = 2, Strongly Disagree = 1).

3.3 Data Analysis:

Data were analyzed using SPSS 24 version. Before testing the hypothesis, a different test such as missing value and errors were run on the data to make sure it is applicable for the analysis. Data were analyzed using SPSS version 20.

3.4 Finding & Discussion:

Table 1: Reliabilities of construct used in the study

Rank	Variable/ scale	Cronbach's Alpha	Number of Items
1	Total Quality Management	0.720	5
2	Knowledge Management	0.856	4
3	Institutional performance	0.794	12

The reliability of TQM 5-items scaled was found to be 0.720, which cannot be increased from the acceptable range. The alpha reliability of 4-items KM was found to be 0.856, which cannot be increased from the acceptable range. The reliability of institution performance of 12-items scaled was found to be 0.794, which also cannot increase from the acceptable range. In the analysis there was no reverse coded questions were present in this scale. Furthermore, all variables show appropriate value of Cronbach's Alpha above 0.7.

3.5 Descriptive statistic:

Table 2: Mean and Standard deviation

Rank	Variable/ scale	Mean	Std.Deviation
1	Total Quality Management	3.52	.576
2	Knowledge Management	3.77	.391
3	Institutional performance	3.64	.380

The mean score of responders on TQM scale was 3.52, standard deviation in the score was 0.576, mean score of KM scale was 3.77, standard deviation was 0.391, and mean of institutional performance was 3.64, standard deviation was 0.380 (table 2).

3.6 Correlation analysis:

Table 3: Correlation

Rank	Variable/ scale	TQM	KM	Performance
1	Total Quality Management	1		
2	Knowledge Management	3.94*	1	
3	Institutional performance	3.29*	.458*	1

Pearson correlation was conducted to determine the relationship between TQM and outcomes. The outcomes reveal that TQM was positively and significantly correlated to performance of institution ($r = 0.329$, $p < 0.01$), which is most important factors in higher education sector, Palestine. This provided initial support to hypothesis 1. KM was positive and significantly related to institution performance ($r = 0.458^*$, $p < 0.01$). This provided initial support to hypothesis 2. After the evaluations of correlation, calculated values for the further regression analysis.

3.7 Regression Analysis:

Table 4. Regressions analysis

Predictors	Institution Performance		
	B	R2	ΔR2
Step A Control Variables		.025	
Step B Total quality management	.162		
Knowledge Management	.584	.299	.274**
Step C TMQ x KM → IP	.393	.344	.045**

In Table 4 regression analysis was used to describe the hypotheses. The basically aim of the study was investigating about the hypotheses and a technique for regression analysis was used which designed by Cohen, Manion and Morrison (2013). Outcomes of this study revealed that TQM had a significant effect on performance of institutional higher education where value of beta was found to be β .162. Then KM was testing with the performance of institutional higher education and outcome shows the positive effect between these two variables, where the value of beta was found to be $\beta=584$. Furthermore, KM was analyzed as a mediator between TQM and performance of institutional higher education. Outcomes showed that effect of TQM and KM on performance of institutional higher education were found to be significant $\beta = .393$.

4. Conclusion:

In order to improve the higher education in Palestine, their Academic administrators have focused on quality standards. They defined specific quality goals and guide lines to uplift the education quality and standards. Total quality management is well organized philosophy for performance of institutions. The higher education needs to maximize their learning capacities in order to achieve competitive advantage and organizational success. Higher education institutions must incorporate latest practices of TQM such as employee involvement, continuous improvement and strategic organization policies to achieve organizational performance. TMQ practices was showing good and effective against by competitors (Pham and Starkey, 2016).

Furthermore, different boards of directors, coordinator of quality controller and its consisting committees and improvement quality teams were appointed to work towards these policies and issues related to different quality. Furthermore, these higher education universities have well-defined a strategy of action including activities that the higher education institution must follow to achieve its objectives. Therefore, mean that they try to assess and evaluate their work frequently and in all issues. Nevertheless, they are working good and hard enough in the direction of their objectives and goals, they believe that things can be always better and in other words, they are seeking for continuous improvement.

The study established the link that the use of total quality management and knowledge management was directly linked to the institution's performance. The research suggested that the management of higher education institutions should adopt frequent steps to make more productive benefits for improving their abilities of staff and response quickly regarding issue faced by institutions. The research recognized that performance of any institution depends on the involvement of their staff involvement as it resulted in staff motivation, creativity and innovation and accountability among others. This research also suggested that the higher education institution management should involve to solve personal issue of their employees and make possible strategy to enhance the performance of the institutions. This study was done in the public institutions higher learning in Palestine. Similar studies should be done in other institutions of learning to investigate the effect of TQM on the institutional performance.

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