

The Impact of Total Quality Management in the Supply Chain of High Schools on Performance: A Proposed Framework

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Abstract— Education plays a major role in the progress and development of any country and it helps raise equal opportunities and develop human resources. Education in Iraq suffers from many problems, including a lack of technology, school buildings, and school facilities, and a lack of training for principals and teachers. It is the responsibility of the ministry of education to tackle this situation and it can only possible when authority maintains its relationship with institutions. The supply chain is a flow of material, information, and finance. The ministry of education has to convey the material, information, and finance to the high school for their operations. After through literature review, it has been revealed that there is a significant relationship between TQM factors and performance. This study examines the application of TQM in the supply chain of schools. Therefore, the Iraq government is working to improve the quality of the flow of information, material, and finance in schools through the implementation of TQM. A number of previous studies have focused on the importance of implementing TQM in Iraqi schools for continuous improvement and eliminating the problems facing education. The aim of this study is to highlight the problem and propose a framework on the effects of TQM on performance. This framework needs empirical verification so for future study the data will be collected from the management of Iraqi schools. Base on literature review authors proposed framework of TQM. Habitually, it will assist high schools in improving their practices TQM.

Keywords— High schools, Iraq, total quality management.

1. Introduction of study

Risk Total Quality Management (TQM) focuses on improving and improving secondary school performance to ensure high-level competition and the quality works to change the culture of educational institutions for the better. TQM is composed of the three words: Total as made up of the whole; Quality as the degree of excellence a

product or service provides; and Management as an act, art or manner of handling, controlling, directing, planning, organizing, and staffing. Therefore, quality emphasizes the use of modern technology in education [1]. TQM as a philosophy is based on a set of eight principles: Top management commitment (leadership), the involvement of people, continuous improvement, customer focus, forces and system approach, factual approach to decision-making and mutually beneficial supplier relationships. The principles of TQM in the educational institutions are crystallized through daily work in the institutions' systems. TQM programs focus on continuous improvement, which is a natural part of the development process that was considered at a low rate.

Reference [2] asserts that many high school graduates could not read, add, write or think and the high school dropout rate was staggering. The quest for quality in education has subsequently become a crucial undertaking with the contention that "quality begins and ends with education. Secondary education is the foundation in every country for the growth and development of people for several reasons. First, it is essential to stimulate education and provide the required skills and competencies. Second, develop basic knowledge in secondary schools to acquire a scientific culture that would make them useful citizens in a peaceful society. Secondary education has a key role in giving students the opportunity to develop their ideas and develop their skills) [3].

2 Literature review

2.1 School performance

The major task of the school is to achieve educational objectives, such as learning gains and the addition of educational value to the learners. School performance is therefore, generating high-

quality learner outcomes and in terms of value added to them. Achieving this is the task of school management and the instructional or classroom level within the school [4]. The main criterion of performance in schools as reflected by research on effective schools and effective teaching is higher achievement as measured by standardized tests. Facilities in schools must be monitored and the quality of teaching qualifications and characteristics determined access to reading materials or availability of textbooks, data on student achievement, teacher/student ratios, class size, school location, and staff size [5].

2.2 Total quality management principles

According to Ref. [6] before any school can evaluate the use of TQM, it requires effective change in the organization's culture and must be a significant. Compliance in the participation by stakeholders to apply TQM in educational institutions to develop and improve continuously the performance and cooperation are open throughout schools and TQM is applied to improving the performance of the institution. Employee involvement means sharing knowledge, organizing their contribution and experience in a way that gains some synergy. Employee involvement, responsibility and innovation produce long-term success continuous improvement. To ensure continuous improvement there is need to illuminate customers through the provision of services and facilities and modern information. TQM is a management philosophy that builds a customer-driven, learning organization dedicated to total customer satisfaction through continuous improvement in the effectiveness and efficiency of the organization and its processes [7].

2.3 Relationship between TQM factors and performance

The relationship between TQM and performance is determined by examining the following variables which researchers focused on to contribute to improving the performance of secondary schools:

2.3.1 Leadership commitment and performance

Quality emphasizes cultural change in management behavior and the determination of stakeholders'

attitude towards quality managers are committed to working on change in educational institutions [8]. Although other management models are also doing well, TQM promotes sound and successful management for high quality service. The role of leadership within the TQM context can be summarized as follows: There is a common understanding of quality and the need to change; Management develop operating principles and values which create an environment for continuous improvement; Leadership create the organization and provide the systems and resources to support the process, and everyone is contributing to services given to the user. Furthermore, leadership has to achieve the continuous purpose of schools, values and principles of improvement. All barriers to quality must be removed and the continuity of safety improved and the cultural change begins through education and continuous improvement. The leadership role of the principal is vital and the studies have confirmed the importance of leadership to guide the school correctly. Essential to school performances is strong instructional leadership by the principal. The pivotal, causative feature of virtually every effective school is a principal with vision, energy, and a dedication to leading the staff and learners toward better school attitudes and higher performance levels. Cites research which suggests that effective principals emphasis academic goals and understate the other functions that schools perform. In downplaying non-academic activities in this manner, effective principals avoid sending out mixed messages about what is important. Effective principals also tend to spend more time observing classrooms, giving educators' feedback, mediating the adoption of more effective teaching practices and guarding academic time [9].

According to [10] the achievement of quality is a difficult and complex process involving a number of elements and transactions. They argue that leadership of a high order, spread at many levels of an organization, is required to achieve a critical mass of shared meanings and commitment to go forward. Furthermore, they assert that the establishment and operation of quality systems by themselves will not produce quality outcomes or institutional performance, particularly where such systems are generated solely in response to external assessment and accountability. Leadership works to implement TQM in secondary schools and enhance the utility and work to achieve high quality results.

Based on literature review, following hypotheses have been made.

H1: There is significance relationship between leadership commitment and performance.

2.3.2 *Involvement of people and performance*

TQM has a major influence on the role people play within an organization. It is crucially important that the skills and abilities of each member of an organization should be utilized optimally. TQM requires from senior management to utilize the talents, expertise and skills of every member of the staff. Every employee is encouraged to act on his initiative and be creative so as to bring improvement to his work. They are empowered to solve problems, propose improvements and satisfy customers. Participation of staff members in the management of the organization is required [11]. Simplification of the school structure in order to focus upon the person closest to the learner (home room or classroom teacher is necessary. TQM is a value-based management process based on information and through which the minds and talents of people at all levels are applied creatively and creatively to the continuous improvement of the enterprise. It is all about involving people closest to the client to make decisions about how best to improve. TQM has been presented as a radical departure from the current educational paradigm, by freeing educators from their bureaucratic shackles and providing a model for involvement TQM is a philosophy that needs people to make it happen, quality is the result of people's work. The effective utilization of implementation TQM to be essential in order for improves quality. However, are not to be seen as cogs in a machine, but should rather be allowed to function and make decisions autonomously. Effective schools tend to emphasize continuous communication with parents to raise students' academic level [12].

H2: Relationship between people and performance.

2.3.3 *Continuous Improvement and Performance*

Regard continuous improvement as the most influential of TQM beliefs. The old adage 'if it's not

broken don't fix it' appears to be the antithesis of TQM. The philosophy underlying total quality management is that the production system is the means by which total quality management is continually improved. TQM aims to provide all the necessary means to monitor control and improve education systems. Quality improvement relies on systems thinking, customer feedback, worker empowerment, and data based methods to build quality into the manufacturing process [13].

According to [14] total quality management is a way of managing an organization to achieve continuous improvement. In TOM all quality principles work on continuous development. TOM is an approach to improving performance in education and flexibility in work as a whole. It is basically a way of organizing and involving entire schools; each individual is each department and every activity is for each level. Quality focuses on the concept of institutions as systems and subsystems that act as a unified unit. An organization must prepare and implement strategies that would achieve and implement continuous improvement. This can only be performed if all the activities are well coordinated and reliable. Educators will be more receptive to changes if they participate in the process. Participation in work groups and teaching teams is more likely to result in improved teaching [15].

H3: Relationship between Improvement and performance.

2.3.4 *Customer focus and performance*

TQM refers to the systematic management of an organization's customer supplier relationships in such a way as to ensure sustainable steep-slope improvements in quality performance [16]. Total quality management calls for excellence in people management since the human behavior elicited is a direct effect of management style. Modern management science addresses the fact that behavior is determined by unsatisfied needs and that individuals have different needs as well as different levels of need. The human element is crucial in implementing TQM because it is through people that excellence comes to pass [17].

The selection, training and development of staff are critical to the success of any organization and warrants considerable investment. The meaning of

quality is quite simple: complete customer satisfaction. TQM is a dynamic set of activities to achieve this. The total quality management system focuses on schools and aims to continuously increase customer satisfaction consistently. The foundation of TQM is philosophical. It includes systems, methods and tools. This definition of TQM explicitly states that all aspects of an organization (or school) have to be dedicated to the goal of achieving the highest standards of performance as required by their customers. "TQM is about creating a quality culture where the aim of every member of staff is to delight their customers and where the structure of their organization allows them to do so. In the total quality definition of quality the customer is sovereign [18].

It is about providing the customers with what they want, when they want it and how they want it. It involves moving with customer's expectations and fashions to design products and services, which meet and exceed their expectations [19]-[21]. TQM emphasizes the development of organizational plans and priorities directed toward increasing the sense of satisfaction felt by those who are the clients or customers of organizations. In other words, when the external environment perceives that it is satisfied with what happens within an organization then the organization is, in fact, effective. Deming realized that TQM resides effectively in the eye of the beholder. All TQM initiatives must therefore focus on customer satisfaction [22]-[24].

H4: Relationship between customer focus and performance.

Table: 1. Total quality management measures used in different studies.

No	[1]	[16]	[4]
Leadership	✓		
Employee involvement	✓		✓

3. Process control and improvement		✓	
Student focus	✓		✓
Quality system improvement		✓	
Measurement and evaluation	✓		✓
Education and training		✓	
Other stakeholders' Focus	✓		✓
Program design and Resources	✓		✓
Fact based decisions		✓	
Frequency	6	4	5

3. Proposed Methodology and Framework

A comprehensive research on literature related to the legitimate research issue was designed to identify and retrieve the initial experimental experience [25]. TQM is focused where possible; otherwise, it was searched as a keyword. A proposed conceptual framework has been developed based on literature review.

Most previous studies show a positive relationship between TQM factors and secondary schools performance. Most of studies show that performance is improved when implementing TQM in educational institutions. Some researchers also obtained results partly in relation to the performance of educational institutions.

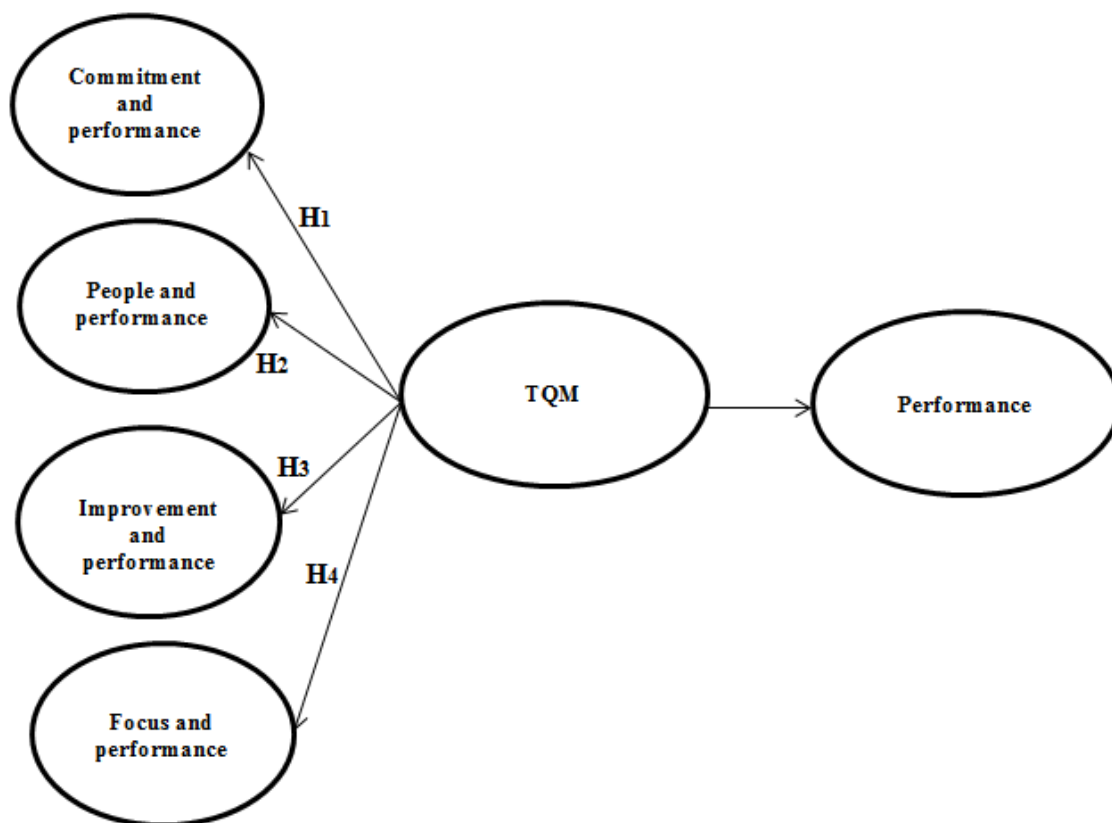


Figure 1: Research framework

4. Discussion

The aim of education system is to improve the performance, especially in school level, that is called the foundation of education. If education at school level is not up to the mark the students cannot persevere their study. The aim of this study is to know that if school apply total quality management in their system that will increase the performance in Iraq. It has been revealed in various studies that TQM improve the performance in numerous demographics but this study in Iraq is not available. Due to war and other unfavorable conditions, it has become essential for Iraq to more focus on education to avoid more terrorism. This paper aims to propose a framework that will help manages of the school system in enhancement of the performance.

5. Conclusion

Based on the assumptions and the role of TQM in the supply chain of every system will improve the performance, based on this literature review this

study highlights the various problem that schools in Iraq are not performing up to the mark and this is due to war and terrorism that has destroyed all the basic infrastructure of the country. Government of Iraq and ministry of education is trying to hail the situation but due to infrastructure problem it is difficult to convey the information, material and finance to the schools that are effecting the performance badly. This study gathers the literature and found the gap for future study. After extensive literature review current study proposes the framework, by apply TQM in the high school the performance can be improved. For future study, there is need to empirically verify this framework.

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