

Critical Success Factors in Total Quality Management Practices: a Secondary Education Institution Practice¹

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Abstract

Secondary institutions and bodies of the young population in the country, mental, moral, spiritual, social and cultural nature of development, equipping them with the knowledge and skills required by the age and aims to prepare for the future. Students are able to solve the problems they will encounter after graduation, can evaluate opportunities to enter the work, progress in the field, to adapt to change is directly related to the quality of education. On the other hand, training outstanding amount of money, time, people, resources are transferred to such instruments. However, it is either lack the required quality in human breeding. The aim of this study secondary Total Quality Management (TQM) is to determine the critical success factors to be taken into account in the application. Critical success factors; a few important factors to ensure success for the organization or the manager (Boynton & Zmud, 1984: 17). Theoretically, the critical success factors to help managers achieve their goals known. Because administrators complete control over the critical success factors are present, so they can change them. Students, school employees, parents in terms of TQM Critical Success Factors Questionnaire were organized. This questionnaire 104 students were answered by 104 parents and 13 school staff. Students that have knowledge about TQM, schools of education and training activities, socio-cultural and the sporting events were identified dissatisfaction with the guidance and orientation services. By parents has been positive behavior points to the inadequacy of the services offered by the gain size of the school. School employees can not develop effective leadership behaviors by managers, it was reported to be low in satisfaction and career management and authorization issues.

Keywords: Total Quality Management, Secondary institution, Critical Success Factors, Institution Workers Students, Parents

1. Introduction

Raising individuals who will be the architects of future and will be efficient citizens can only be carried out through a good, quality education. The quality of education process is significant as it has direct effect on individuals and accordingly on the future of nations. Students can solve problems that occur after high school, they can use opportunities, they can find good, proper jobs, they can improve in their jobs and keep pace with technological changes only when they get the chance to have quality education.

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In this study, critical success factors that should be taken into consideration in order to practice Total Quality Management (TQM) in secondary education institutions successfully are presented. A situation assessment about students, school workers and parents is carried out according to the obtained survey results and related suggestions are made.

2. Concepts of Quality and Total Quality Management

TQM is one of the most significant approaches that are used for enhancing institutional activity. It is crucial to explain the concept of quality before explaining TQM. Quality means the aspect of a good in terms of having the lowest price and meeting the demands of consumers in the right place at the right time (Efil, 2010: 69). In other words, quality means customer satisfaction. The concept of TQM can be explained on the basis of this definition. Total Quality Management is ensuring customer and worker satisfaction at the same time, reaching perfection in business process and results, reaching and sustaining success in products and services (Küçük, 2010: 120). Processes about learning, education, continuous improvement, leadership, teamwork, focusing on customers are all carried out on the basis of this definition. TQM is the successful combination of practices as a result of the cooperation among change, organizational culture and functions.

Shortly, the letter T stands for all of the internal and external factors involving participation of all of the workers, business processes, customers, products and services. The letter Q stands for quality, which means the state of being ready to meet the expectations and needs of consumers completely, without any flaw, both today and tomorrow. M stands for management, which means that management department guides workers in every issue; it sets a sample model and takes place in activities, and ensures participatory managing in the company (Çelik, 2010: 21).

3. Critical Success Factors in Secondary School

The word education has a Latin origin. 'Educate' means providing qualification to an individual, giving him/her have some specific abilities. In Turkish, the word 'eğitim' means education and it is derived from the root 'eğ', which means bending, shaping, giving a specific form. Based on this meaning, the general goal of schools and universities is to give information and ability that are necessary in daily life systematically to students (<http://tr.wikipedia.org/wiki/E%C4%9Fitim>). The common missions of all of the educational organizations are to meet the demands of internal and external customers as best as possible by keeping pace with changing environmental conditions. The understanding of TQM has a totalitarian approach; it aims at creating quality and efficient education service by enhancing the systemic factors and improving the connection among them (Halis, 2004: 96).

The concept of critical success factors means the significant factors that ease reaching success. In other words, critical success factors are the elements that should be taken into consideration in order to reach success. These factors can be about internal or external environment of an organization (Ülgen & Mirze, 2013: 134). In this respect, it is necessary to know the educational concepts that correspond to the concepts used in production sector. This information is comparatively prepared and presented in Table 1.

Table 1: TQM Understanding in Secondary Education

Production Sector	Secondary Education (High School Level)
Supplier	Secondary school and equivalence schools
Raw material	Student graduated from secondary school and equivalence schools
Processed product	Student in high school
Process stages	Course content, types, methods and techniques
Final product	Graduated student
Customer	Foreign customers: Families, public and private enterprises, employers, society. Domestic customers: Student, teacher, officer and school workers.
Sales	Number of employed graduates, graduates who entered university.
Unsold good or inventory	Number of unemployed graduates, graduates who couldn't enter university.

Source: Kalaycı, N. (2008). "TQM center and education programs two of the ignored factors in total quality management process in higher education", *Turkish Educational Sciences Journal*, 6(2), p. 169.

Total Quality management is an approach that places individuals in the center. It has a great significance in increasing the quality of administration and educational processes in educational institutions. Sense of productivity and the quality of education system increase through TQM applications. Practicing TQM understanding in classes is presented in Table 2.

Table 2 Appearance of TQM Understanding in Classroom

PRINCIPLES OF TQM	APPEARANCE IN CLASS
Continuous development	Ensuring lifetime learning conscious to students
Customer centricity	Student centered education understanding
Zero error	Complete Learning
Preventive approach	Instead of punishing unwanted behaviors, preventing them before they occur
Full participation	Active learning environment where all of the students participate in learning process
Cooperation with suppliers	Cooperation with families, previous education levels and employers
Respect for human	Giving importance to motivation and communication
Process-driven	Continuous control of appropriateness of education process in terms of final goals
Benefiting from statistics	Numerical statement of general success level of students
Senior management leadership and responsibility	Putting quality improving activities into practice in classes by teachers

Source: Yıldırım, H.A. (2002). *Eğitimde TKY, İlköğretim ve Ortaöğretim Kurumlarında TKY Uygulama Modeli*, Nobel Yayıncılık, Ankara, p. 89.

3.1. Critical Success Factors about Students

Success criteria of TQM practices in secondary education in terms of students are presented below: (http://www.meb.gov.tr/ky/dosyalar/projeler/meb_tasra_teskilati_tky_uygulama_projesi_kilavuzu.pdf).

- Reaching school services,
- Taking wishes and suggestions into consideration,
- Guiding and instruction services,
- Participation in decision making processes,
- Student affairs,
- Lesson programs and educational instruments,
- Learning and teaching methods in classroom environment,
- Sufficiency of course breaks and meeting demands,
- Physical environment of schools,
- Evaluation of student clubs and activities,
- Rewarding, certificate of merit and appreciation.

3.2. Factors about Institution Workers

Success criteria of TQM practices in secondary education in terms of institution workers are presented below: (http://www.meb.gov.tr/ky/dosyalar/projeler/meb_tasra_teskilati_tky_uygulama_projesi_kilavuzu.pdf).

- Career development,
- Communication,
- Authorization,
- Equality in opportunity,
- Participation in decision-making process,
- Being content with the management,
- System of appreciation and performance evaluation,
- Perceptions about the vision, mission and values of school,
- Spirits, motivation, career, equipmentetc. support,

- Physical environment of school,

3.3. Factors about Parents

Success criteria of TQM practices in secondary education in terms of parents are presented below: (http://www.meb.gov.tr/ky/dosyalar/projeler/meb_tasra_teskilati_tky_uygulama_projesi_kilavuzu.pdf).

- Reaching the services of school/institution,
- Giving importance to communication, wishes, suggestions and complaints,
- Security,
- Guidance and instruction, participation in decision making,
- Student affairs
- Course selection, course materials and supplies,
- Course breaks (time to rest and meeting needs),
- Physical environment of school, participation in social, cultural, sports etc. activities,
- Evaluation, rewarding, merit and appreciation,
- Ensuring positive behavior.

3.4. Benefits of Total Quality Management Practices in Secondary Education

Possible benefits of practicing TQM in secondary education are presented below (Okay, 2010: 33).

- An organizational culture based on ensuring satisfaction of students, parents, workers in the organization, employers and other individuals in the society is created.
- Waste of money, time and labor force resources for education is prevented,
- A school that improves and changes according to the needs of learners and education is formed,
- Quality based performance evaluation understanding in education is created,
- When TQM is adopted as a lifestyle by workers in educational organizations, education environments in which everybody can work in peace, satisfaction and motivation is built.

4. Scope of Research

The research has a descriptive style in which screening model is used. Descriptive model is a research approach in which a situation in the past or present is described and presented as the way it is. Event, individual or object that is the subject of the research is attempted to be described in its own conditions, as the way it is. There is no attempt to change or affect it (Karasar, 2011: 77). In this respect, TQM satisfaction surveys, which are revised by National Ministry of Education in 2014 in order to determine the critical success factors of TQM practices in Secondary Education are used. Among these surveys, student satisfaction survey is made of 67 articles, school workers satisfaction survey is made of 32 articles and parent satisfaction survey is made of 57 articles which include critical success factors about TQM. Likert type scale is used for each article from 1 to 5. The prepared survey forms are practiced on students, workers and parents of students in Kızılelma Highschool in 2014-2015 springsemester.

4.1. The Universe of Research

Population of the program is made of 104 students, 13 school workers and 14 student parents in Kızılelma Highschool. 40% of a total of 104 students in the school is female while 60% is male. 39% is in 9th grade, 19% is in 10th grade, 27% is in 11th grade and 15% is in 12th grade. 46% of a total of 13 school workers is male while 54% is female. According to the position of school workers; 23% is manager and 77% is teacher. 38% of a total of 104 parents is male while 62% is female.

4.2. Data Collection

There is a parallelism between internal consistency and construct validity. Internal consistency ratios are interpreted according to Cronbach Alpha values. If Cronbach Alpha value is $0,60 \leq \alpha < 0,80$, the scale is very reliable (Arıkan, 2005: 129). According to this, Cronbach Alpha value of the scale developed for students is 0.68. Cronbach Alpha value for the scale developed by school workers is 0.73 and Cronbach Alpha value for the scale developed for parents is 0.69. Before conducting the survey, participators are informed by the researcher about the goals and articles of the survey. The survey is conducted to parents in parents' meetings. Survey results are organized in the form of frequency and percentage distribution table. Analyses are made with SPSS 18.00 package program.

5. Results

Total Quality Management can be used in any sector. One of the most significant strategic resources of nations is human resource. Education system has a very important role and function in raising this human resource according to the future goals of nations. For this reason, Total Quality Management has been practiced in Secondary Education since 2000.

In order to have successful Total Quality Management practices in education, “Critical Success Factors of TQM practices in Secondary Education” should be determined. TQM practices should be arranged and followed according to these factors. In this study, TQM satisfaction surveys, prepared by National Ministry of Education, are used. These surveys are conducted on students, school workers and parents of students in Kızılelma High school in Bartın. Based on the analysis of obtained data, the ones that can be improved are presented.

5.1. Evaluation of Results in Terms of Students

- It is mentioned that, in terms of “Reaching school services”, school library and school computer laboratory isn’t sufficient for making research.
- In terms of “Wishes, suggestions and complaints”, individuals aren’t sufficiently informed about the question of how do these wishes, suggestions or complaints reach to those concerned.
- In terms of “Guiding and instruction services”, practices are insufficient in general.
- In terms of “Participation in decision making”, goals and duties of student representative and student boards aren’t clear enough and elected representatives are passive in this respect.
- In terms of “Education programs- course contents and curriculums”, practices in this field are generally insufficient.
- Practices in the field of “Teaching-learning processes” are insufficient in terms of arousing curiosity and interest.
- The school has insufficient “Course materials”.
- In terms of “Physical environment of the school”, there isn’t a multipurpose hall in the school in which different activities can be made.
- It is mentioned that in terms of “Assessment and evaluation, rewarding, certificate of participation and appreciation” practices aren’t sufficient in general.

5.2. Evaluation of Results in Terms of School Workers

In terms of “Career development”, personal and professional development of individuals isn’t sufficient.

In terms of “Communication and cooperation”, communication with parents in order to reach the goal of the institution isn’t sufficient.

In terms of “Satisfaction about the management and leadership of managers”, catch-up works about the practice of TQM in education, guidance about developing education programs, efforts for creating sustainable development based institution culture are insufficient.

Practices in the fields of “Course materials”, “Performance evaluation” and “Appreciation and rewarding” are insufficient in general.

5.3. Evaluation of Results in terms of Parents

In terms of “Communication and cooperation”, meetings aren’t productive enough.

In terms of “Guiding and instruction services”, practices aren’t sufficient in general.

In terms of “Student affairs”, services about informing parents about changes in course grade and behaviors of students aren’t sufficient.

In terms of “Ensuring positive behavior and development”, practices aren’t sufficient.

6. Suggestions

The below mentioned suggestions are made in relation to this process of determining factors that can be improved in terms of TQM practices in education:

- a) Education programs about the things that should be done in order to increase the quality in education should be prepared. In service training activities that will increase the sufficiency of teachers in content knowledge and educational sciences knowledge. The sufficiency of school managers in school management abilities should be prepared in cooperation with provincial directorate of national education.

- b) Competitions about designing educational materials that ease learning should be held.
- c) School workers performance evaluation system should be revised on the basis of TQM understanding.
- d) Information and experiences about TQM practices should be shared with all of the schools.
- e) Teachers should be encouraged for post graduate education.
- f) Educations about leadership activities should be given to school managers and teachers.
- g) In order to fertilize the time of students in school, their active participation in social, sportive, cultural and scientific activities should be ensured.
- h) Satisfaction of shareholders in terms of services in secondary education should be assessed and evaluated regularly. Continuous development steps should be taken according to these information.

References

- Arıkan, R. (2005). *Araştırma Teknikleri ve Rapor Hazırlama*, Ankara, Asil Yayın Dağıtım.
- Boynton, A.C. & Zmud, R.W. (1984). "An Assessment of Critical Success Factors", *Sloan Management Review*, 25(4), 17-27.
- Çelik, A. (2010). *Toplam Kalite Yönetimi Kalite Yönetim Sistemi ve CE İşareti Uygulamaları*, Ankara, Gazi Kitabevi.
- Efil, İ. (2010). *Toplam Kalite Yönetimi*, Bursa, Dora Yayınları.
- Halis, M. (2004). *TKY Kapsam, İlkeler ve Uygulamalar*, Ankara, Roma Yayınları.
- <http://tr.wikipedia.org/wiki/E%C4%9Fitim>
- http://www.meb.gov.tr/ky/dosyalar/projeler/meb_tasra_teskilati_tky_uygulama_projesi_kilavuzu.pdf
- Kalaycı, N. (2008). "TQM center and Education Programs two of the ignored factors in Total Quality Management Process in Higher Education", *Turkish Educational Sciences Journal*, 6(2), 163-188.
- Karasar, N. (2011). *Bilimsel Araştırma Yöntemleri*, Ankara, Nobel Yayıncılık.
- Küçük, O. (2010). *Kalite Yönetim ve Kalite Güvence Sistemleri*, Ankara, Seçkin Yayınevi.
- Okay, Ş. (2010). "TKY Uygulamalarının Mesleki ve Teknik Ortaöğretimde Eğitim Faaliyetlerine ve Yönetici Davranışlarına Etkileri: Denizli İli Örneği", *Dumlupınar Üniversitesi Sosyal Bilimler Dergisi*, 2(26), 31-43.
- Ülgen, H. & Mirze, K.S. (2013). *İşletmelerde Stratejik Yönetim*, İstanbul, Beta Yayınları.
- Yıldırım, H.A. (2002). *Eğitimde TKY, İlköğretim ve Ortaöğretim Kurumlarında TKY Uygulama Modeli*, Ankara, Nobel Yayıncılık.