
The Use of Continuous Improvement in Albanian Public Higher Education

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Studies on the use of Total Quality Management (TQM) in the context of higher education have been focused primarily on the implementation of TQM as an institutional initiative. In many cases is implemented Continuous Quality Improvement (CQI as part of TQM) as department-based initiative, but rarely as a project institution-wide supported. The focus of this paper is to investigate how the Albanian public universities are implementing the concepts and processes of TQM/CQI in their activities, and focus on using continuous improvement methods in higher education focusing on the institution-wide and department-based initiatives. Also, there were identified general drivers, obstacles, and the results derived from the implementation of CQI methods.

Key words: *higher education, TQM, continuous quality improvement, CQI's drivers, CQI's results*

JEL Classification: *M110, A230*

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1. Introduction

In today's world of increased costs, concerns about efficiency and effectiveness, and increasing demand for quality and productivity in the public and private sector, organizations are trying to adopt management styles that encourage and lead to higher profits, services and products with better quality. Colleges and universities in the XXI century are feeling the increase of pressure to reform and improve; they are expected to be efficient and to provide a qualitative education for students attending the university (Bailey, Chow, & Hadad, 1999). These changes are forcing universities and administrators to rethink curricula and academic structure. As a result, these institutions are struggling to implement many of the same methods for operational and quality improvement, which have been operating successfully in business and industry (Birnbaum, 1999; Malaney, 1998; Juran 1995). One of the philosophies of management that was adopted by the industry, by some public sectors and higher education institutions is Total Quality Management (Dahlgard, Kristensen & Kanji, 2007; Kesavan, Elanchezhian, Vijaya Ramnath, 2008; Goetsch & Davis 2010). A variety of methods of quality improvement are used and considered within the scope of TQM, such as continuous improvement teams, benchmarking techniques, Balanced Scorecard method (Kaplan & Norton, 2001), Baldrige National Quality Award and the European Quality Award, etc.

TQM is a comprehensive management system that seeks to integrate functional areas in an organization geared towards long term success by satisfying the customers and by using continuous improvement (Crosby, 1979; Deming, 1986; Feigenbaum, 1991; Ishikawa, 1985; Juran, 1989). Key elements include the link to an institutional strategic plan, empowered employees and team working, continuous improvement of process, collaborative work, and using a scientific approach to the process analysis (Munoz, 1999; Kaye & Anderson, 1998). The philosophy is that improving the quality, improves

customer satisfaction, which improves the performance of the business, and which turns in a positive net effect (Crosby, 1979).

One part of the TQM is called "Continuous Quality Improvement" (Chambliss, 2003). While TQM focus on quality improvements in all areas of an organization, CQI can be focused in improvement efforts on a single area or department. For CQI, the times for improvements can be based on months rather than years, and does not require all aspects of TQM elements, such as being strategically based or having empowered employees. Although there are differences, CQI and TQM are often used instead of each other in literature. For purposes of this research is simply important for the reader to understand that basic concepts TQM and CQI use employees teams and other techniques to proactively review the processes to improve the efficiency and effectiveness, and to improve customer satisfaction rather than respond to problems when they occur (Cullen, Joyce, Hassall & Broadbent, 2003).

In the '90s, many colleges and universities began to implement new management programs (earlier embraced by private businesses) such as TQM and CQI (Birnbaum, 2000; Brower, 1994; Mergen, Grant & Widrick, 2000). Many institutions of higher education have tried quality efforts to improve the satisfaction of students and to undertake reforms of administrative structures (Bogue, 1998; Campbell & Rozsnyai, 2002). Since 2002, many higher education institutions in the world use different quality award criteria (European or American) in order to improve their performance (many of these universities were honored for their commitment to quality) (Blazey, Davison & Evans, 2003).

Higher education institutions in Albania, while continuing development are facing with a variety of problems. In a rapidly changing world, the existence of problems is acceptable; they are considered part of the inevitable process of growth and development. On the other hand, it's presumed that the application of Bologna

process should serve as an incentive to provide to higher education in Albania the full view of a priority sector of the economy. To make more efficient higher education as in social and economic viewpoint, higher education should be based on its effective strategy of continuous improvement.

In this study, through the use of literature, the questionnaires and interviews directed mainly to the directors of departments in public universities, the emphasis is put on implementation of concepts and processes of TQM/CQI in public universities, the use of continuous improvement methods, and the identification of general drivers, obstacles, and the results derived from CQI. At the end of the material are made suggestions regarding public higher education in Albania.

2. Research Methodology

There're used mainly qualitative methods, combined with quantitative research methods. Sources of data obtained for this study include interviews, questionnaires (sent in hard copy form and by e-mail). There're used primary sources of data (interviews and questionnaires distributed to professors/pedagogues of public universities), and secondary sources (literature that exists regarding this managerial approach). It's used survey by choice, where the selection is random probability sample. There're collected 141 questionnaires completed by professors from higher education institutions throughout the Republic of Albania (taken under consideration 9 Albanian public universities, excluding the 3 academies), so the sample size was $n = 141$, and the selection covers a significant proportion the population ($n/N = 141/1,800 = 7.8\%$, so the choice is considered large, which means that it is representative of the population). Universities taken under consideration are the Tirana University, Polytechnic University, Agricultural University, Elbasan University, Shkodra University, Gjirokastra University, Korça University, Vlora University and Durrës University. SPSS statistical program was used, where the data are

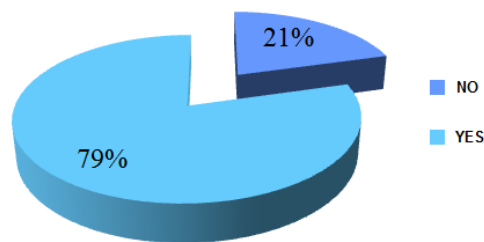
numbers, and was proceeded with the Descriptive Analysis to analyze the means, standard deviations and other statistical indicators for different variables.

3. Recognition and implementation of TQM as the institutional initiative

Regarding the recognition of the managerial concept TQM, from the survey we have the following results (Figure 1):

Figure 1

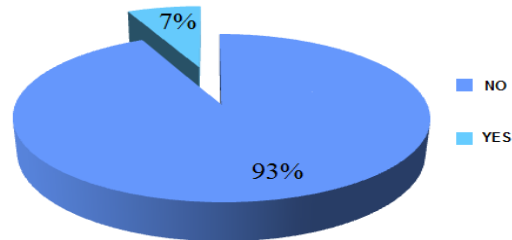
Recognition of the managerial concept TQM (the total = 141)



Source: The questionnaire (2010)

As shown, about 80% of professors of public universities have heard about and recognize TQM, and its importance in the successful performance of businesses. Based on the question of recognition of the TQM concept, was done the next question concerning the implementation of TQM as institutional initiative, and for this we have the following results (Figure 2):

Figure 2

Implementation of the managerial concept TQM as institutional initiative

Source: The questionnaire (2010)

As shown, about 93% of professors said that public universities do not implement the managerial concept TQM as institutional initiative, and only 7% say that TQM is implemented as an institutional initiative. But the author's opinion is that even the value 7% is not the real value, because for TQM to be applied, should be formalized by the higher education institution, and in Albanian public higher education institutions there is no tradition of implementing this concept, because even in the western institutions of higher education was later embraced as institutional initiative. These respondents expressed this way by the fact that they have implemented some of the principles of the TQM, although without formally implemented by the institution. For this reason, the main focus of this paper was department-based CQI as one of the main principles of TQM, which will be addressed below.

4. The use of continuous improvement

Of those surveyed, 77.3% (109 of 141) had begun CQI methods at some point within their department. Of these, 92.7% are still using CQI methods, with only one respondent indicating that their department had abandoned CQI. For those that use CQI (109

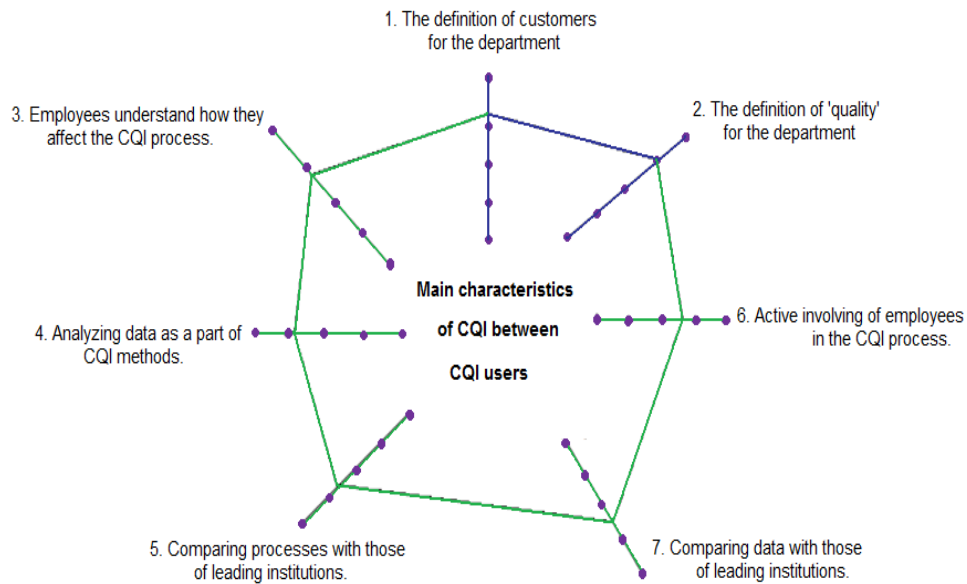
pedagogues), 76.7% have used CQI from 1-5 years, 17.3% from 6-10 years, and 6% have used CQI 11 years or more. As seen from the data, there is a trend the last 5-years to use more CQI methods. This comes from the fact that many young people educated in western universities have been employed in the Albanian public universities and have brought with them western experience in successful managing of universities/faculties/departments.

To further explore the implementation level of CQI, participants were asked to answer questions about the extent of use of their main different characteristics of CQI. In general, participants rated 7 out of 12 characteristics implemented in a moderate degree or greater ($\mu = 2.5$ or higher). Besides the means, for each characteristic are calculated other statistical indicators as standard deviation, coefficient of variation, standard error of the mean, median and mode. They are: the definition of customers by the department, the definition of 'quality' by the department, employees understand how they affect the continuous improvement; analyzing of data as part of continuous improvement methods, the comparison of processes with those of leading institutions, the involvement of employees in the process of continuous improvement, and comparison of data with those of leading institutions (see Figure 3).

Then we can say that participants who have applied CQI, have actually implemented the most important characteristics of CQI methods. Five characteristics that seem to have not been fulfilled by respondents were: availability of data on process improvements to employees, use of figures (numeric data) to measure the quality of services or products (teaching, research, etc.); linkage of participation in CQI to performance evaluations, linkage of awards and recognition with CQI, and specific training of employees regarding CQI.

Figure 3

The main characteristics of CQI between CQI users
(7 out of 12 with $\mu \geq 2.5$)



Source: From the analysis of Auhor (2010)

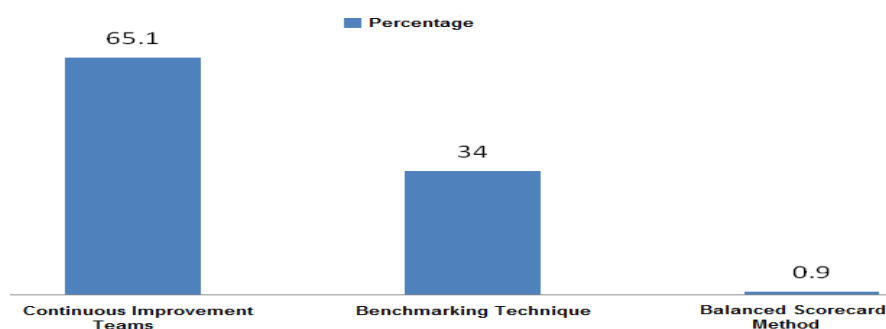
5. Methods of continuous improvement

From the analysis of the questionnaire resulted that a significant number of respondents use one or two methods, and very few use three or four methods. For those that use CQI (109 out of 141 respondents), 45.6% use or have used more than one method. Of those that use CQI, most of them have used the continuous improvement teams and benchmarking technique, only one has used the BSC, and nobody has use criteria of different quality awards. But there is a certain percentage of respondents who claim to have used a combination of these methods, but without having in mind specifically each of the above methods.

For those who are using or have used CQI methods, additional analysis was conducted on the main method reported by them to determine if one method was more prominent than others. Based on this analysis, most respondents use the continuous improvement teams (65.1% or $n = 71$) and benchmarking technique (34% or $n = 37$), than BSC method (0.9% or $n = 1$) or criteria of different quality awards ($n = 0\%$ or 0) as their primary method, as shown in Figure 4.

Figure 4

Frequency (%) of main method used for continuous improvement in universities/faculties/departments (the total = 109)



Source: The questionnaire (2010)

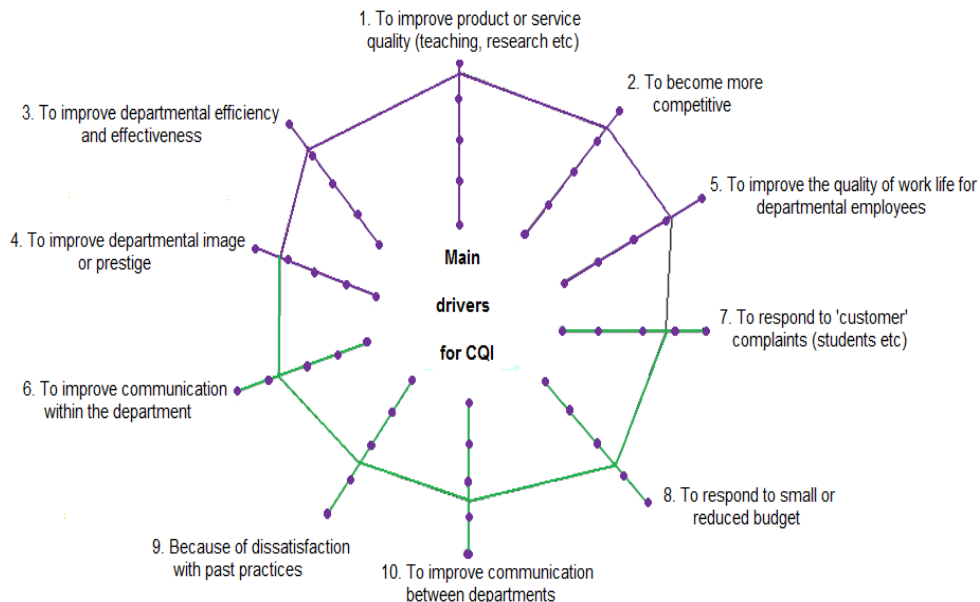
6. Perceived drivers

From 16 drivers listed in the questionnaire, 10 had a mean score higher than 2.5. The main drivers for quality continuous improvement are shown in Figure 5. Five drivers had a mean score 3 or higher: to improve the quality of the products or services ($\mu = 3.706$, $\sigma = 0.53$); to become more competitive ($\mu = 3.394$, $\sigma = 0.63$); to improve the efficiency and effectiveness of the department ($\mu = 3.229$, $\sigma = 0.8567$); to improve the departmental image or prestige ($\mu = 3.202$, $\sigma = 0.75$); and to improve the quality of work for employees of the department ($\mu = 3.1$, $\sigma = 0.47$).

To determine if CQI was driven more by external pressures or internal reasons, the author grouped the 16 drivers into two categories: internal drivers and external drivers (see Table 1). Nine of the 10 drivers which had a mean score 2.5 or higher belonged to improve efficiency and effectiveness of departments or to improve jobs - in other words, these institutions were driven from within to carry CQI, with the mean for all internal drivers $\mu = 2.9706$. Drivers associated with pressure from others to implement CQI were assessed generally low ($\mu = 2.156$).

Figure 5

Key drivers for Continuous Quality Improvement (10 of 16 with $\mu \geq 2.5$)



Source: From the analysis of Author (2010)

Table 1

Condensed CQI drivers: Means and Standard Deviations

Drivers	Mean (μ)	Standard Deviation (σ)
Internal Drivers		
To improve product or service quality (teaching, research etc)	3.706	0.5323
To become more competitive	3.394	0.6386
To improve departmental efficiency and effectiveness	3.229	0.8567
To improve departmental image or prestige	3.202	0.7550
To improve the quality of work life for departmental employees	3.101	0.4703
To improve communication within the department	2.761	0.7058
To respond to small or reduced budget	2.716	0.8829
Because of dissatisfaction with past practices	2.661	0.5809
To improve communication between departments	2.578	0.6425
To respond to small or reduced staff	2.358	0.6013
	$\mu=2.9706$	
External Drivers		
To respond to 'customer' complaints (students etc)	2.743	0.5512
To respond to pressures from immediate supervisor	2.220	0.5987
To respond to pressures from state bodies (MoES etc)	2.138	0.5688
To respond to pressures from upper administration	2.092	0.5189
To respond to pressures from community groups and leaders, and other stakeholders	2.073	0.5219
To respond to pressures from alumni	1.670	0.7460
	$\mu=2.156$	

From the above table we can say that the main category of drivers for continuous improvement is the category of internal drivers.

7. Perceived Obstacles

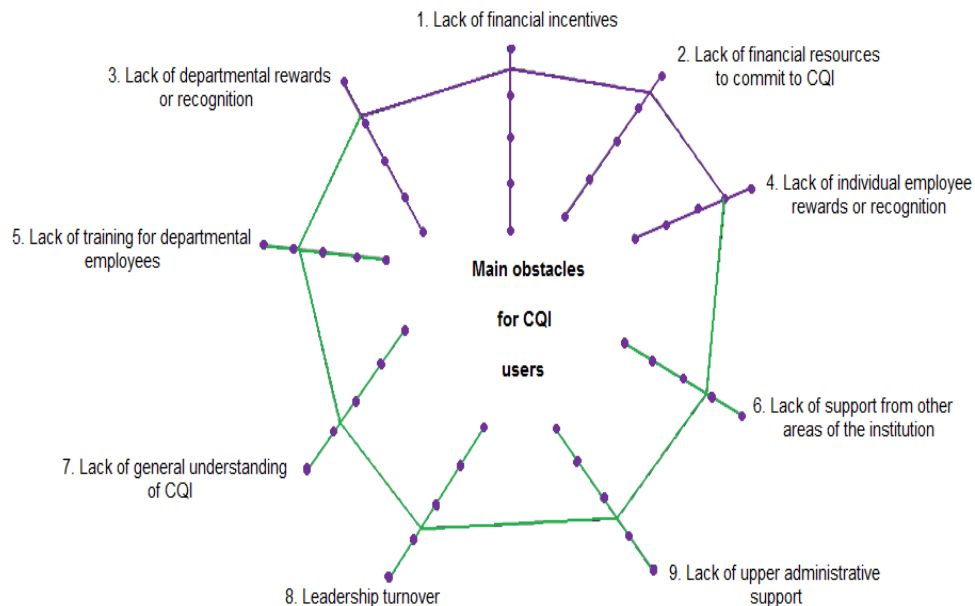
From 14 obstacles, nine had the mean 2.5 or higher. Participants estimated four obstacles with the mean 3 or greater: the lack of financial incentives ($\mu = 3.5$, $\sigma = 0.78$), lack of financial resources to

engage in continuous improvement ($\mu = 3.45$, $\sigma = 0.61$), lack of departmental rewards or recognition ($\mu = 3.15$, $\sigma = 0.66$), lack of individual rewards or recognition of employees ($\mu = 3.03$, $\sigma = 0.7$). Other obstacles with $\mu > 2.5$ included: lack of training for departmental employees, lack of support from other areas of the institution, lack of general knowledge on continuous improvement, leadership turnover, and lack of administrative support from above.

They reviewed other obstacles only 'in limited extent' ($\mu < 2.5$). The main obstacles for Continuous Quality Improvement are presented in Figure 6.

Figure 6

Main obstacles for CQI for CQI implementers (9 of 14 with $\mu \geq 2.5$)



8. Expected and achieved outcomes

Participants rated only 4 of 17 of expected results in the limited extent ($\mu < 2.5$): improving relationship with community groups and leaders, increasing financial returns to the institution, improving relationship with state bodies, and increasing financial returns to the department. Participants expected all other results in moderate extent or great extent ($\mu \geq 2.5$). The results achieved changed slightly, but remained generally the same in terms of the results assessed more than others. These estimates, however, were generally lower than those for the expected results. The author first created each of these outcome's variables from averaging the results of variable of the sub category, and then recoding into two categories: low/limited (values from 1 to 2.5) and moderate/large (values ranging from 2.51 to 4). The author condensed 17 variables of the expected and achieved results in 3 variables or categories: improved quality or service, productivity improvements and financial returns, and improved communication and relationships. Table 2 shows variables used in each of these condensed variables along with relevant results.

Table 2

Condensed variables of expected and achieved outcomes

	Expected Results			Achieved Results		
	Mean (μ)	St. Dev. (σ)	Coef. of Var. (Cv)= σ/μ	Mean (μ)	St. Dev. (σ)	Coef. of Var. (Cv)= σ/μ
Improved quality or service						
Improved quality of processes (teaching, research etc)	3.468	0.5704	0.1645	3.046	0.5992	0.1967
Increased competitiveness	3.376	0.6496	0.1924	3.202	0.7172	0.2240
Quicker response to customers (students etc)	3.248	0.5956	0.1834	2.761	0.6512	0.2359
Improved service to customers	3.211	0.6677	0.2079	3.156	0.6691	0.2120

	$\mu_p=3.2257$			$\mu_a=3.0412$		
Productivity improvements and financial returns						
Improved process efficiency and effectiveness	3.394	0.6941	0.2045	3.211	0.6677	0.2079
Increased financial returns to the institution	2.385	0.637	0.2671	2.229	0.6181	0.2773
Increased financial returns to the department	2.349	0.7249	0.3086	2.211	0.6393	0.2891
	$\mu_p=2.7093$			$\mu_a=2.55$		
Improved communication and relationships						
Improved teamwork	3.239	0.6925	0.2138	3.101	0.6518	0.2102
Improved departmental prestige	3.009	0.5357	0.1780	2.927	0.4851	0.1657
Improved employee morale	2.954	0.5992	0.2028	2.89	0.7496	0.2594
Improved communications in the department	2.844	0.564	0.1983	2.881	0.5041	0.1750
Improved communication within the institution	2.716	0.5946	0.2189	2.468	0.5539	0.2244
Improved relationship within the institution	2.661	0.5966	0.2242	2.468	0.602	0.2439
Improved relationship with business and industry	2.624	0.7427	0.2830	2.495	0.7773	0.3115
Awards or recognition	2.523	0.7649	0.3032	2.028	0.535	0.2638
Improved relationship with community groups/leaders	2.459	0.7269	0.2956	2.394	0.7073	0.2954
Improved relationship with state bodies	2.376	0.6637	0.2793	2.101	0.4896	0.2330

	$\mu_p=2.74$		$\mu_a=2.575$	
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As can be seen, we have condensed variables in 3 categories, each category has $\mu > 2.5$, and there're shown summarized results for categories for expected and achieved results, where we found a slight decrease of the summarize mean of expected and achieved outcomes for each case. If we make a comparison of expected and achieved outcomes, we see that the improvement of service and quality has the highest index ($\mu_p=3.2257$ and $\mu_a=3.0412$). This shows the focus more and more by universities/faculties/departments on matters relating to service and quality. Summarized indicators of the resulting means are: for the result of improved quality or service, the expected results are $\mu_p=3.2257$ and for achieved results $\mu_a=3.0412$; for productivity improvements and financial returns, the expected results are $\mu_p=2.7093$ and the achieved results $\mu_a=2.55$, and for the result of improved communication and relations, we have the expected results $\mu_p=2.74$ and the achieved results $\mu_a=2.575$.

9. Conclusions and recommendations

One of the main results of this paper was that most of respondents recognize (80% of respondents) TQM as a concept, and despite the fact that they have not implemented it institution-wide, they have implemented some of its principles department-based (even without knowing that they're applying TQM), for example they have implemented one of the most important principles, that is CQI, and that some of these institutions are still using CQI. Respondents reported as primary methods, CQI teams and benchmarking technique. This makes sense because both are used on many department initiatives.

In general, regarding the external and internal drivers, surveyed participants see as more important internal drivers than external

drivers. In fact, this related to higher education departments encouraged more by internal factors than external factors is in conflict to some extent with that of higher education institutions are open systems with external pressures that require answers from the organization. This probably is explained by differences between the departmental-based and institution-wide initiatives, and maybe individual departments may be less influenced by external factors.

The survey showed that the implementers of CQI have encountered obstacles such as lack of incentives and financial resources, lack of recognition, lack of individual and departmental rewards, lack of training on TQM/CQI, lack of support from other areas of the institution, lack of general knowledge about CQI, leadership turnover, etc. But lack of support from immediate supervisors, and resistance from faculty/staff related to CQI was considered low.

The most common achieved results on CQI, however, with some of the results estimated in a moderate degree or greater, were: improved efficiency and effectiveness of the process, increased competitiveness, improved service to customers, improved quality of the processes (teaching, research, etc.), improved team working, etc. Given the increasingly competitive nature of the higher education, these results are encouraging. From all results, only two have been evaluated in limited extent: improved relationships with state bodies and the rewards or recognition. In addition, when the author reflected on the drivers, improving the efficiency and effectiveness were the main drivers - no rewards or recognition. Important to get expected results is having adequate resources to implement the CQI, because greater resources are associated with greater returns.

Some recommendations:

- Implementation of TQM approach in different universities/faculties or department-based CQI as a means to improve their functioning and increasing the competitiveness.

- Implementation of various CQI methods by universities, such as continuous improvement teams, benchmarking techniques, Balanced Scorecard methods, and criteria of different quality awards.
- In view of the main drivers and obstacles for the implementation of CQI efforts in different universities, it should be considered by senior directors of universities to eliminate these obstacles to a minimum, and to find ways to motivate staff in order to achieve the expected results from the implementation of CQI.
- Training the staff in universities on TQM/CQI approach/methods.
- The faculties should develop clear strategies and policies for a long period (10-20 years) to resist competition. In the future, with visa liberalization, people will have greater movement opportunities, and the competition will be too large for public and private universities, so many qualitative students may leave in foreign universities, and this may give very serious negative effects for a 10-20 years period.
- Decentralization is a good way to empower departments to take initiatives and to become aware of the financial facts. Strategic initiatives seek a balanced method "from down-top to top-down".
- Various collaborations with foreign universities, granting joint degrees (such initiatives are in Macedonia, etc.) where students perform 2 years at a public university and last year at a foreign university. This helps in the exchange of experiences between universities.
- It must be established the tradition of participation of pedagogues in projects under the scope of their research. This would affect them financially, and consolidate their knowledge about specific areas they are specialized.

- The creation of better relations with private companies in Albania, as well with public institutions. To some extent this is achieved: so many private institutions fund various activities organized by universities such as conferences, etc., but more must be done more by both sides. This cooperation is necessary given that many universities today in the world are adopting methods previously applied by businesses.
- Almost all of these mentioned above are very important elements that will lead to making continuous improvements, will affect the creation of universities according to European standards, which then will lead to increased competitiveness and image of these universities in the world, which will bring more successful coping with the challenges that emerged XXI century.

References

- Bailey, A. R., Chow, C. W., & Hadad, K. M. (1999). Continuous improvement in business education: Insights from the for-profit sector and business school deans. *Journal of Education for Business*, 74(3), 165-180.
- Birnbaum, R. (1999). Has the academy adopted TQM? *Planning for Higher Education*, 28(1), 29-37.
- Blazey, M. L., Davison, K. S., & Evans, J. P. (2003). *Insights to performance excellence in education 2003* (1st ed.). Milwaukee: ASQ Quality Press.
- Bogue, E. G. (1998). Quality assurance in higher education: The evolution of systems and design ideals. *New Directions for Higher Education*, 99, 7 - 18.
- Brower, M. J. (1994). TQM in Education. *Applying Quality to Education*, 15-66.

Campbell, C. and Rozsnyai, C. (2002), *Quality Assurance and the Development of Course Programmes*, Papers on Higher Education, UNESCO-CEPES, Bucharest, p.165

Chambliss, C. (2003). *Making departments distinctive: The continuous quality improvement (CQI) mindset*. Collegeville: Ursinus College.

Crosby, P. B. (1979). *Quality is free: The art of making quality certain* (1st ed.). New York: New American Library.

Cullen, J., Joyce, J., Hassall, T., & Broadbent, M. (2003). Quality in higher education: From monitoring to management. *Quality Assurance in Education*, 11(1), 5-14.

Dahlgaard, J. J., Kristensen, K., Kanji, G. K. (2007). *Foundation of Total Quality Management*.

Deming, W. E. (1986). *Out of the crisis*. Cambridge, Mass: Massachusetts Institute of Technology, Center for Advanced Engineering Study.

Feigenbaum, A. V. (1991). *Total Quality Control*. (New York: McGraw-Hill).

Goetsch, D. L., & Davis, S. B. (2010). *Quality management for organizational excellence*. (6th ed.)

Ishikawa, K. (1985). *What is total quality control? The Japanese way*. (Translated by David J. Lu). Englewood Cliffs, NJ: Prentice-Hall.

Juran, J. M. (1989). *Juran on leadership for quality* (1st ed.). New York: Simon & Schuster.

Juran, J. M. (1995). *A history of managing for quality: The evolution, trends, and future directions of managing for quality*. Milwaukee, Wis: ASQC Quality Press.

Kaplan, R. S., & Norton, D. P. (2001). *The strategy focused organization: How balanced scorecard companies thrive in the new business environment* (1st Ed. ed.). Boston: Harvard Business School Press.

Kaye, M., & Anderson, R. (1998). Continuous improvement: The ten essential criteria. *International Journal of Quality & Reliability Management*, 16(5), 485-506.

Kesavan, R., Elanchezhian, C., Vijaya Ramnath, B. (2008). *Total Quality Management*.

Malaney, G. D. (1998). Continuous quality improvement in student affairs: A survey of staff opinions on the work environment. *NASPA Journal*, 35(4), 318-330.

Mergen, E., Grant, D. & Widrick, S. M. (2000). Quality management applied to higher education. *Total Quality Management*, 11(3), 345-352.

Munoz, M. A. (1999). *The vital role of task teams: The Total Quality Management approach on restructuring organizations*. (No. ED463700): University of Louisville.