QUALITY MANAGEMENT IN EDUCATION SERVICES.
ISO 9000 FOR UNIVERSITIES

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Abstract: In October of 2001, during the ceremony of 75 years of jubilee of University of Economics in Poznań, the Faculty of Commodity Science received the ISO 9001:2000 certificate. In March 2002, the certifying organization, Det Norske Veritas, carried out the first control audit. In this way the information concerning project process, documentary and introduction as well as development of the quality management system will be presented to the readers.

INTRODUCTION

Total Quality Management is not a fad or fashion that will disappear next season. It is a revolutionary concept that is taking root and fundamentally altering the way organizations do business and are managed. We have found that high schools should be treated also like the other business organizations. The Faculty of Commodity Science of the Poznań University of Economics is the first one, which received the ISO 9001:2000 certificate, among the other organizing units of the higher schools in Poland.

The aim of the Faculty is to achieve a high level of education quality. This fact caused the discussion: if the university accreditation is the only and sufficient system in order to guarantee development the quality of education services at the Polish high schools?
IMPROVEMENT OF EDUCATION QUALITY

Decision about introducing the quality management (QM) system according to ISO 9001 norm

Except from seeking the best possibilities of defining and developing steady mechanism concerning the improvement of education quality also the grounds of university accreditation was considered. There were a lot of questions concerning that problem. So far the appraise system of education quality and accreditation consistent with the legislation has been introduced. Nevertheless, the Higher Accreditation Commission of Vocational School and The Main Board of Higher Schools use the abovementioned system. In year 2000, at our Faculty the accreditation system was not found to be intelligible enough and it did not guarantee the required level of the development within the field of education quality. It was impossible to carry out the accreditation procedures because of low number and variety of specializations concerning the commodity science at only two Universities of Economics in Poland. That is why the Faculty Board gave a positive opinion on concept of introducing the Quality Management (QM) System consistent with requirements of ISO 9001:2000 international norm.

Although negative opinions concerning this idea occurred, however there were more advantages. Advantages are following:

- meeting the requirements of international standards concerning management system of unambiguous mechanics of quality planning - defining measurable goals, necessary resources and verifying the extent of their performance at each level of the Faculty,
- measurable goals and the way of reporting about their performance will contribute to facilitate the reporting system to Scientific Research Committee (KBN – Polish Ministry of Science),
- defining the role of all activities of the Faculty (education, administration, scientific research) unambiguously within realization of goals of the Faculty and defining connections between the Faculty and other structures of the University of Economics,
- determining responsibility and entitlements of teachers and administration personnel,
- integrating and involving a big group of people in organization matters of the Faculty,
- defining the required standard of education unambiguously and building strong mechanics of improving the quality of education process,
- improving the communication - improving the efficiency of information exchange for workers and students,
making possible for students to participate in planning, realizing and improving the education process.

Formally in March 2000 the Faculty Board made a decision about introducing the Quality Management System and accepted the work schedule.

**Project management**

The decision concerning the introduction work was preceded by long-lasting analysis. The aim of analysis was to specify the work that should be done, to determine responsibility and to define necessary resources (also material) in order to ensure the success of the undertaking. A Dean’s Plenipotentiary on the Quality Management System (Dean’s QM Representative) together with a group of four teachers (including both the Plenipotentiary and the Dean as well) was appointed. The group was responsible for all the duties resulting from requirements of ISO 9001 directed to the representative of the management. The Plenipotentiary (Dean’s QM Representative) was responsible for co-ordination of the whole work. An expert of documentary (the only new post) and the administration worker of one of the chairs at the same time was charged with the documentary supervision except his daily work. The group met every week according to the commitment in order to plan necessary activities and verify the extent of their realization.

But after all the supervisors’ engagement was the most important. In our case the Dean of The Faculty participated in every meeting and - as a member of a group - was realizing each decision. As the result each Faculty meeting began with problems concerning the Quality Management System according to ISO 9001. Four obligatory trainings for all workers of the Faculty were organized. Also representatives of the University of Economics and students took part in it.

A special guide-book for both workers and students as well was edited and it contained basic information concerning the Quality Management System.

**Defining a client of the Faculty**

The extent of the quality management system as well as the certification at the Faculty of Commodity Science concerns preparation and realization of teaching process at the regular, doctoral and postgraduate study. That extent of the quality management that corresponds with a definition of a client - *a student of above mentioned kinds of studies* - is the most adequate. Students’ parents, society and ministry of education and employers were defined as the interested client whose requirements are known and respected.
Such definition corresponds with the saying of J. Hodgkinson during the 43rd EOQ congress that a client is also a material during the education. Such attitude of teachers towards students is connected with the necessity of understanding the building system as well as the opinion of certifying organization of higher school.

The higher school can not be responsible for satisfaction of employers and society, for success of graduates from the Faculty on the employment market so the definition was narrowed down.

At the stage of improvement of quality management system annual meeting with students were planned in order to define their requirements. In the first quarter of 2002 the requirements of students (on 7 – 10 semesters of study) were defined:

- qualified teachers who can guarantee well preparation of education programs
- professional level of lectures and exercise lessons
- higher possibility of choosing subjects
- participation in process of modification of the study program
- objective forms of knowledge verification

There is always time to improve the education process respecting demands of interested sides and permanent analysis of students’ requirements.

**Quality planning**

At the first stage of work the *mission* and *quality policy* of the Faculty was worked out. It was presented by the Dean at the Faculty Board Meeting and then accepted and approved.

**Mission** of the Faculty of Commodity Science of the Poznań University of Economics is defined as follows: Conducting the scientific and didactic activities up to standard assuring all academic rights the field of natural and economic knowledge concerning THE COMMODITY SCIENCE, which means the science of quality. Co-operating with the best scientific centers in order to create best education standards and conduct basic and scientific research connected with the quality issues.

**Quality policy:** The Faculty of Commodity Science of the Poznań University of Economics declares permanent quality improvement as far as the education services and the scientific research are concerned, based on efficient management in accordance with the local legal requirements as well as the internal regulations of the University.

The proper realization of the education process and scientific research is guaranteed by the introduction and permanent improvement of the Quality Management System according to ISO 9001. Moreover, it is also possible thanks to the specified responsibilities of the dean authorities and the heads of the
departments, and the commitment of all the employees to meet the established quality goals:
- students are provided with the broad and interdisciplinary knowledge of nature and economics,
- students are encouraged to perfect their knowledge and to learn how to analyze the problems accurately,
- the university is an unit which services high public purpose and takes part in education of economic elite.

Reaching of the above mentioned goals is being accomplished by the means of the guaranteed and available resources that enable:
- continual education improvement,
- the methods and organization of teaching perfection,
- the improvement of staff’s scientific and didactic qualifications,
- scientific and educational co-operation with leading scientific centers,
- students’ exchanges and staff’s professional training,
- permanent equipment modernization for didactic and scientific work.

The assumptions of the Quality Policy are well known and respected by the whole staff of the Faculty of Commodity Science, as we want to meet the commitments made to our students and the society. The mission and quality policy are the leading documents which determine a strategy of the Faculty. They take into consideration the whole its activity especially the Quality Management System which means preparation and realization of the education process.

Process approach

Since the very beginning of work over the system, despite the fact that ISO 9000:1994 was obligatory in that time and only a project of new edition of ISO 9001 was available, the process map was prepared. Requirements connected with process approach seemed to be sure. It was assumed that a chain of activities connected logically and using available resources (personnel, materials, information, equipment) processes inputs into outputs what leads to goals achievement is called a process. During mapping the APQC referential model and the P4 method were used. In 2002 the software supporting the process management and documents supervision will be used.
The processes map is the basis of the process approach at the Faculty of Commodity Science. The map consists of:
- basic processes - with defined mutual correlation (Figure 1),
- parallel processes - with input data necessary to realize more than one basic process (Figure 2).
Figure 1. The processes map at the Faculty of Commodity Science - basic processes

Source: Quality Book, The Poznań University of Economics - The Faculty of Commodity Science, 2nd Edition

Regarding each process there are defined:
• a goal - achieved thanks to the process realization,
• a leader - an employee responsible for realization and development of the process,
• scope - directed to the whole Faculty by the system documents which are a basis of realization and other assumptions defining criterion and methods necessary to support the process function and supervision,
• characteristic - description of criterion of particular processes realization and verification.
Figure 2. The processes map at the Faculty of Commodity Science - parallel processes
The Faculty of Commodity Science, 2nd Edition

In case of each process input data (information, documents, notes) and output data (which decide about realization efficiency) were defined. At the stage of planning and realizing particular process, resources and information necessary to support the process function and monitoring were available. Realization and improvement process require the responsibility of leadership of the Faculty. Table 3 shown this relationship.
Table 3. Matrix of processes and responsibility within the Quality Management (QM) System - the Faculty of Commodity Science.

<table>
<thead>
<tr>
<th>Basic processes</th>
<th>Processes</th>
<th>Dean</th>
<th>QM Plenipotentiary (Representative) of Dean</th>
<th>Dean Council</th>
<th>Faculty Board</th>
<th>Chair Head</th>
<th>Head of Dean's Office</th>
</tr>
</thead>
<tbody>
<tr>
<td>New specializations projecting</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
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<tr>
<td>Enrolment</td>
<td>C</td>
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<td>C</td>
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<tr>
<td>Parallel processes</td>
<td>Degree and professor title achieving</td>
<td>P</td>
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<td>C</td>
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<td>Administration</td>
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<td>Quality management</td>
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Note: C – Complete responsibility; P – Partial responsibility.
Source: Quality Book, The Poznań University of Economics - The Faculty of Commodity Science, 2nd Edition

The defined goals and improvement of each process is taken into consideration within the established planning system. All improvements is not a haphazard occurrence; it must be carefully and precisely planned. For this very reason, the necessary instruments, as internal and external audits, have to be put into place; staff must be managed and directed to carry it out; and every move continuously monitored to ensure proper results. Quality audits are planned and realized within particular processes.

IMPROVEMENT OF THE QUALITY MANAGEMENT SYSTEM

Internal and external audits of the Quality Management System according to ISO 9001:2000

In March and April 2001 according to accepted schedule of preparation for certification internal audits were carried out. Leading auditors of all process audits were assigned. They next chose audit groups and worked out detailed
audit programs. The engagement of students of 7 – 9 semesters of study in carrying out the audits should be marked here. Despite the prior concern for interactions between auditors and people being audited we found it favorable solution after carrying out the first round. They are especially appreciated by students who acquire practical experience.

In May 2001 the assessment of documentation was made by DNV and the first part of certification audit within planning and carrying out lectures and classes took place because of education lectures before the summer exams. The second part of external audit was made at the beginning of June 2001 and finally the Faculty of Commodity Science received the recommendation. Handing the certification took place during the anniversary of 75 years of existence of the University of Economics.

In May 2001 the first inspection of the Quality Management System took place and it was carried out by the management of the Faculty. Because of some understandable reasons the inspection was dominated by the assessment of the extent of preparation for the certification and most of conclusions and decisions were complied with that matter. But one of the problems appointed for the following year of the Quality Management System concerned the survey of documents (taking into consideration their application) relating to the system. It resulted from the matter of finding the most favorable number, form and detailed processes in comparison with other documents which were supervised, for example: the act concerning higher schools or internal rules of the University. Verification process, which was being realized by the designated group of people, finished in December 2001 by editing all the documents once again. The accepted rule that the documents were verified by other workers than those who had worked them out ensured that different requirements according to the documents were taken into consideration. Finally according to requirements the number of procedures had not lessened, new documents were created, most of the documents were modified.

The group of people designated first of all to supervise the introduction of the system dissolved. Only personnel changes took place. At present as well as before the certification process every week a meeting of the abovementioned group of people and the Dean Council is held what is commonly considered necessary. The last external audit of the Quality Management System took place in March 2002.

The leading problem appointed for the next year is to introduce software supporting process management and document supervision. As the matter of fact this undertaking is being realized since April 2002 so that since October the users of the software may have access to the document in Internet. Other the most important resolutions of the inspection are:

- common discussion over rules of planning within the Quality Management System - defining goals, their measurement and reporting,
- emphasizing validity rules of education process in a Quality Book,
• defining incompatibilities within the education process unambiguously, defining their sources precisely, defining the rules of correction activities,
• organizing additional permanent meetings of students, the Dean and the Pleni-potentiary of the Dean on Quality of Management in order to raise objections towards the education process (meetings of students of 1st and 2nd year of learning and students of 3rd and 4th year of learning),
• verification of previous methods concerning the appraisal of efficiency and effectiveness of the Quality Management System,
• encouraging the students to write thesis concerning the Quality Management System of the Faculty,
• verification of planning system and internal audits system at the Faculty, changing its activity,
• closer cooperation with people responsible for research of students' satisfaction on behalf of the University, improvement of research correlation at the Faculty,
• editing international journal connected, among others, with the Quality Management System according to ISO 9001.

CONCLUSIONS

In order to achieve and maintain quality policy at Faculty of Commodity Science traditional management approaches and practices are not enough. A new way of doing education and scientific works running it must be sought. We must learn to practice by process rather than by function, and in order to do so, we must turn our Faculty into a learning one, where our staff not only learn to work together but also learn to learn together. Now we known, we should be paid for what we can do rather than for what we do. An organization (at general), or Faculty of high school (at particular case), cannot change unless it has the will and feels the urgency to change. It also must know how to change and have the power to do so. Ability to change is based on number of factors and prerequisite, such as leadership, an adequate organizational structure and good communications, highly empowered co-workers with ability for innovation. Standards ISO 9000 do not replace more wide understanding of Quality Management (QM). They are an important part of it, however, and have to be treated as such. That is why we recommended the ISO 9000 effort be included in a wider, more global effort aiming at achieving high quality of education process through QM. University accreditation system of evaluation of high schools is sufficient to create a output standards for education, output standards for certification on ISO 9000 standards, but absolutely not sufficient to guarantee permanent improvement of the quality of education and development of respective Faculties at high schools.
Applied at our Faculty Quality Management System confirmed by certificate ISO 9000:2000 was very favorable. It is not easy to estimate to what extent the Quality Management System has contributed for example to increase the importance of the Faculty in the opinion of Scientific Research Committee. Nevertheless, everybody is sure that the System had a great influence on the Faculty. What is the most important, the students speak highly of changes which have taken place at the Faculty recently.

REFERENCES