# **P** periodica polytechnica

Social and Management Sciences 17/2 (2009) 97–103 doi: 10.3311/pp.so.2009-2.06 web: http://www.pp.bme.hu/so © Periodica Polytechnica 2009

RESEARCH ARTICLE

# The effect of 'EFQM Framework for Innovation' on competitiveness in the education sector

Sarolta Tóvölgyi

Received 2010-01-05

#### Abstract

This year is dedicated to 'Creativity and Innovation'. Whole Europe will concentrate on these 'two words' in 2009. So will Hungary. Due to the economic crisis that afflicts our word, the inventive ideas about how to come over such a calamity are of high importance and have not been that vital for a very long time. Beside the different financial packages, reduced expenses and the attempt to retain workplaces (e.g. with 4-day-long work weeks) it is usually emphasized that continuous innovation could help the companies (and their employees) survive the crisis. The aim of this article is to present an effective tool, the so-called EFQM Excellence Model to the education sector for how to come over this recession. What is this Model about? How can it contribute to the success of educational institutions? In what way can educational institutions use the Model and the process of Self-Assessment to improve performance and how can they benefit from making applications for e.g. the Hungarian Quality Award? These questions are aimed to be answered first. Then I will define the innovation – according to the EFQM Framework for Innovation. This article gives examples to the nonprofit area by presenting a primary research in the third part. Thus, the main emphasise is on the education sector. I have also examined an educational institution that was given the Hungarian Quality Award last year – as the first (and till today the last) educational institution -, in order to show the evidence for the improved competitiveness in case of an educational institution that uses the EFQM Excellence Model and the Self-assessment.

# Keywords

EFQM Excellence Model  $\cdot$  innovation  $\cdot$  competitiveness  $\cdot$  education sector

# Sarolta Tóvölgyi

Department of Ergonomics and Psychology, BME, 1111 Budapest, Egry J. u. 1., Hungary

e-mail: ebediyen@erg.bme.hu

# 1 Introduction

On the opening presentation of 'The year of Creativity and Innovation' (held on 25<sup>th</sup> of February 2009) Mr. Károly Molnár, Minister without portfolio responsible for Research and Development, member of the panel discussion, highlighted that although Hungarians have the potential to come forward with creative ideas, they are usually not able to carry them out and so the innovations are not made up either. According to Mr. János Pakucs, honorary president of the Hungarian Association for Innovation, all the tools that can provide innovative solutions are more than welcome in these hard times. In Mr. Miklós Bendzsel's (president of the Hungarian Patent Office) opinion, new patents are one of these tools. However, the aim of this article is to present another one, the so-called EFQM Excellence Model. In this article the education sector is in the focus, so in the followings the examples are given from this field.

# 2 EFQM Excellence Model

The aim of this chapter is to introduce the model established by the European Foundation for Quality Management (EFQM) what is called the EFQM Excellence Model. It is extremely important to pan out about the principles and the functioning of the model in order to substantiate the relationship between quality awards, innovation and competitiveness in the education sector.

# 2.1 European Foundation for Quality Management

The European Foundation for Quality Management is a membership based, non-profit organization, created in 1988 by fourteen leading European businesses, with a mission to be the driving force for sustainable excellence in Europe and a vision of a world in which European organizations excel [1]. By January 2003, EFQM membership had grown to around 800 organizations from most European countries and most sectors of activity. Together with the national organizations (with whom EFQM has promoted the concept of partnership) the membership network runs to thousands of organizations with several million individuals employed in those organizations. In addition to being the owner of the EFQM Excellence Model, EFQM manages The

European Quality Award and also provides a portfolio of services for its members [2].

#### 2.2 Starts

The EFQM Excellence Model has been used since 1991, and has become the most successful quality model in the European business life. It offers a systematic methodical approach for the continuous improvement that will lead to measurable increase in the performance. There are lots of advantages of the principle of the EFQM business excellence: it is tightly connected to the European business life, practice-oriented, result-oriented and can be adopted successfully by profit-oriented companies or nonprofit organizations, thus educational institutions as well [4].

# 2.3 Basic concept

The principles of the EFQM model are the followings: it does not contain compulsory steps; costumers are in the focus; the professional improvement and the involvement (in the quality expansions) of the employees are very important; processes and facts are in the centre; the importance of leaders and aimorientation; responsibility for the society; result-orientation.

#### 2.4 Frame

The EFQM model can be divided into two parts of the same importance: 'Enablers' and 'Results'. The 'Enabler' criteria cover what an organization does. The 'Results' criteria cover what an organization achieves. 'Results' are caused by 'Enablers' and the feedback from 'Results' helps 'Enablers' improve. The main criteria are: 1. Leadership, 2. Policy and Strategy, 3. People, 4. Partnerships and Resources, 5. Processes, 6. Customer Results, 7. People Results, 8. Society Results, 9. Key Performance Results. This can be seen in Fig. 1.

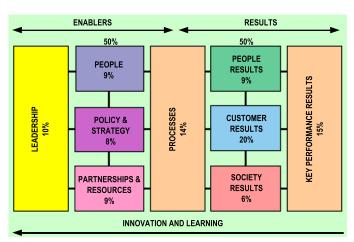


Fig. 1. The EFQM Excellence Model

The arrow below emphasizes the dynamic nature of the Model. It shows that innovation and learning help Enablers improve which in turn lead to improved Results. The percentages shown are those used for assessing applications for the Hungarian (as well as the European) Quality Award.

# 2.5 Self-assessment

Self-assessment is a comprehensive, systematic and regular review of an organization's activities and results referenced against the EFQM Excellence Model. The self-assessment process allows the organization to discern clearly its strengths and areas in which improvement can be made. Following this process of evaluation, improvement plans are launched, which are monitored for progress. Organizations carry out this cycle of evaluating and taking action repeatedly so that they can achieve genuine and sustained improvement [1, pp. 9].

Now that we have got to know the EFQM Excellence Model a bit better, I am going to define the innovation according to the EFQM Framework for Innovation and then the primary research will be shown.

# 3 Innovation

Innovation is not something that comes in and goes out of fashion. It has been taken into consideration as a success factor for more than 30 years. And there are no signs that this trend may change in future. The times of mass production – when building up volume was the main driver of competitiveness – are gone. Economies in scale are still very important, but only if they are woven with the creative spirit of innovation.

Businesses of today compete hard by continuously improving their supply, by attractive new solutions and by buying their competitors. Advantages are not given anymore, but they are short-lived and are copied very quickly by the competitors. The creator of the innovation will succeed, the rest will have to catch up with them.

The expectations and the level of information have been increased significanty over the past few years. Innovation is not only important for the business sector, but also for the public and not-for-profit sector. Nowadays human needs seem to be enormous. Sustainability constrains our opportunities in our work and consume, but necessity makes us be inventive. New technologies will keep on flourishing. Nevertheless, innovation blossoms only in those organizations where this challenge is addressed seriously. All the conditions are given for innovation to remain the first point on the executive officers' 'to do' list.

In the case of EFQM, we can talk about sustainable innovation, which brings lasting added value to the organization (educational institution), its shareholders and to the society, too.

So what is innovation from this point of view?

Hearing the word 'innovation' usually makes us associate with new products or major technical revolution. But it means much more than for example the change of technology. It also stands for the followings: organizations innovate when they create new products, new derivates of existing products or new generations of products. [5, pp. 5] More and more designers think of product platforms in order to be able to offer different solutions for their costumers. Exploring new markets also counts as innovation. New markets usually mean new needs and new relationships.

98 Per. Pol. Soc. and Man. Sci. Sarolta Tóvölgyi

Innovation is not an end in itself. Not something that an organization finds out from time to time to rediscover itself. Systematic innovation needs investment to be returned.

Innovation is defined in many ways in management and academic literature. But they all have one thing in common: the fact that with innovation something new is created.

According to the EFQM Framework for Innovation the definition is as follows:

"Innovation is the practical transformation of ideas into new products, services, processes, systems and social interactions. It creates new streams of value that satisfy stakeholders and drive sustainable growth. It creates jobs, enhances quality of life and fosters a sustainable society. Innovation is not confined to 'high tech'. It flourishes in all dimensions in economy and society" [5, pp. 5].

#### 4 Innovation and the EFQM Excellence Model

In the following part of the article I would like to introduce a primary research about 12 educational institutions with the aim of showing an unambiguous evidence of the correlation between the successfully applied EFQM Excellence Model and high organizational performance.

4.1 The impact of the effective implementation of the EFQM Excellence Model – education sector

The so-called Excellence in Public Education Experimental Project (Project, EPE) was carried out last year. A region – Székesfehérvár and its neighboring cities – was chosen to be the venue of the project. Primary and high schools, kindergartens and day nurseries could have the opportunity to apply for EPE. At the end 12 public education institutions were accepted to take part in the Project.

# 4.1.1 Methodology

The tasks of the institutions were the following:

1 January 2008: to take part in the informative program held by the Hungarian Association for Excellence (HAE), where they could learn in details about the Self-assessment, the EFQM Excellence Model itself and the implementation of it;

# 2 February to April:

- (a) to identify the strengths and weaknesses of their institution by means of Self-assessment,
- (b) to determine different innovative projects that could help the institution improve its weak points,
- (c) to chose at least 3 of the projects mentioned in point b)
  - i. determining priority criteria,
  - ii. making up a priority matrix,
  - iii. determining the schedule of the development activities,
  - iv. mentioning the importance of the development activities,
  - v. detailing the development plan;

# 3 May to October:

- (a) to carry out the (at least 3) chosen projects,
- (b) to submit a work for EPE in which they summarize their identified weaknesses, the projects and which one of them they have carried out, and their results;
- 4 November: to receive the employees of the HAE, who visited the institutions to verify if everything is true to life in their work submitted in the end of October?

After the examination of the spots, the staff of HAE pointed out till what extent could the institutions fulfil their pledge and till what extent the projects could be carried out.

Besides helping the Hungarian Association for Excellence organize this project my task was to identify what internal, positive results the institutions could achieve due to the innovative use of the EFQM Excellence Model and the Self-assessment. In the following subdivision I am presenting these results.

#### 4.1.2 Results

I have used content analysis to identify what positive effects of implementing the EFQM Excellence Model and Self-assessment the institutions could discern.

First of all I could detect that the institutions did not have such an efficient tool as the EFQM Excellence Model or Selfassessment to identify their weaknesses and the fields they should improve. Actually, they did not have any tools for that.

By using Self-assessment, the institutions could realize that they need to repeat it year after year in order to see how much they develop. Although the project is long over, these institutions still use the Self-assessment and keep going on determining projects they want to accomplish. They have learnt how to share their resources in order to be able to carry these projects out. Due to these new projects they have started a new trip to continuous improvement. There are some other common points highlighted by more institutions in what way the EFQM Excellence Model and Self-assessment helped them:

- getting familiar with these tools helped the institutions to widen their methodologies;
- they could use the external evaluation received from the employees of HAE to choose the development activities for the following year;
- due to the continuous collection of data and the continuously coming up of new plans the institutions learnt how to implement a planned, systematic way of work;
- after finishing a project the organizations usually become aware of other ones linked to ones carried out; etc.

However, I found some answers that were typical of certain institutions and can not be generalized to all of them – simply because other organizations did not mention those answers. Hereby, I would like to list answers which are unambiguous evidences for the fact that using EFQM Excellence Model and Self-assessment can lead public education institutions to innovative

solutions and through these solutions to increased competitiveness

Answers mentioned by the institutions which took part in the Excellence in Public Education Experimental Project:

- at one of the institutions satisfaction surveys used to be done earlier as well, but since they adopt continuous improvements and use Self-assessment according to the EFQM principles, they reach better points in these surveys;
- due to the improvements of the institution, people's opinion about it is getting better;
- involving employees in the development plans and activities from the beginning has positive effect on the inner communication of the institution;
- the project done, its results and the lesson that can be drawn from it can serve as a good example for newer, similar plans;
- because of the fact that the institution has to measure itself from different aspects, the employees have got used to this evaluating method and they use it as an everyday tool for e.g. measuring the satisfaction of school events;
- the questionnaires filled in every year help the institution be able to make a comparison between its performance during a period of time;
- since a big amount of the employees were involved in the projects, a great atmosphere, team spirit and communication were formed, where earlier conflicts, disagreements were thrust to into the background;
- the tasks and elements of quality assurance have become of bigger importance;
- during the realization of the quality developing tasks more and more employees, students and parents became interested in excellence;
- the popularity and the attendance of the institution increased due to taking part in the EPE (through publishing in local newspapers, taking part in the closing conference etc.).

The answers above mostly refer to inner, positive results, which are very useful on one hand. On the other hand the (positive) external consequences should also be collected to see in what other ways the competitiveness of the institutions increased. An evidence for the improved competitiveness in case of an institution of public education could be the number of children applying next year, or the increasing satisfaction of the current students/teachers etc., or the rising number of participants of a school event etc. Since the 12 institutions that took part in the Excellence in Public Education Experimental Project obviously could not present these data of several years' time, in this point of view I chose to examine an educational institution that was given the Hungarian Quality Award (HQA) last year – as the

first (and till today the last) educational institution. A new category of the HQA for (only) public services was established in 2006, but during the first 2 years two hospitals were given the prize, and only in the third year, in 2008 was the Award finally given to an educational institution. The following prize-giving event will be held on the  $20^{th}$  November 2009, and other educational institutions have applied for the HQA, but the organizers do not announce a winner in this category (similarly to the other ones) if none of the candidates reach the minimum level.

This means the Kodolányi János College (College, KJC, founded in 1992, in Székesfehérvár) is the only educational institution so far whose data can be used to show in what way the competitiveness increased after implementing the EFQM Excellence Model and using the Self-assessment for at least a 3-yearlong period of time. We have to know about the College that it started to define its quality program as an independent quality strategy long years ago. The following points were taken into consideration as a focus of their quality program: studentorientation; quality-orientation in leadership; involvement of people; process-orientation; continuous development; forming the constructive model of the management; measurement based upon facts; taking into consideration the partners' needs. One of the most emphasized components of the quality control is the main process, the quality and evaluation of the education itself. They also have so-called quality actions, such as: the annual measuring of the academic quality; focused monitoring programs; satisfaction surveys; quality tenders; out-of-school presentations; international cooperation etc. Here we can see the quality awards - except for the HQA - won by the College since 2003.

In the following I am going to present results in which the averages of 2005 (before implementing the EFQM Excellence Model and using the Self-assessment) and the averages of 2008 (results of a 3-year-long period of using the EFQM Excellence Model and the Self-assessment). The results are from different fields: satisfaction with the professors, with the subjects and with the organization of the education.

In Fig. 3 the results show the students' satisfaction with their professors.

The criteria were the following: 1) satisfaction with the requirements; 2) the subject can be accomplished; 3) giving lectures; 4) being up-to-date; 5) well-prepared; 6) presentation; 7) more than in the book; 8) easy to follow; 9) highlighting well; 10) connections; 11) illustration; 12) sense of pedagogy; 13) accessibility; 14) fairness; 15) "I would recommend it".

As we can see there is only one point in which the professors performed better in 2005 – and this is the ability of highlighting well. But in all the other 14 factors the professors performed better in 2008 according to the 2046 students who filled in the questionnaire.

In Fig. 4 the results show the students' satisfaction with the organization of the education.

The criteria indicate the followings: 1) program of the course,

100 Per. Pol. Soc. and Man. Sci. Sarolta Tóvölgyi

Fig. 2. Quality Awards of the Kodolányi János College



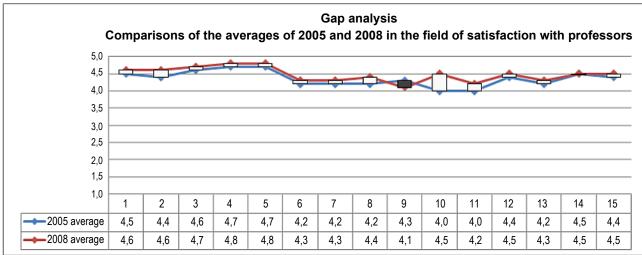


Fig. 3. Satisfaction survey – professors

topics; 2) timetable; 3) optional subjects; 4) schedule of the exams; 5) applying for the exams; 6) practice; 7) choosing specialization; 8) questions for being able to get prepared for the exams; 9) regulations; 10) accessibility to information; 11) lecturer of the department; 12) quality of the service; 13) "I would recommend it".

The different curves indicate the continuously increasing points that were given by the College's students for the organization of the education. There were only 2 criteria (out of 13) in which the students found the organization of the education in the previous years better than in 2008 – and these are: practice and quality of the service. In both questions development actions were taken.

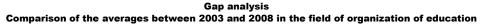
In the Fig. 5 the results show the students' satisfaction with the subjects.

Here the criteria were the following: 1) knowing the requirements; 2) good topics; 3) good conditions; 4) correspondence; 5) up-to-date approach; 6) qualification; 7) independent problem-

solving; 8) logical outline; 9) regular learning; 10) interesting; 11) level of difficulty; 12) more difficult than other subjects; 13) enough classes; 14) questions of the exams; 15) "I would recommend it".

Only 2 points can be found out of 15 in which the subjects were ranked higher (by the 2045 students who filled in the questionnaire) in 2005 than in 2008 – and these are the followings: regular learning and more difficult than other subjects. I think these two criteria are closely connected with each other. And in both cases development actions were taken in order to get better results in the following satisfaction survey.

In the case of the Hungarian Quality Award winner educational institution it can be proved that due to the implementation of the EFQM Excellence Model and the use of Self-assessment, the Kodolányi János College could perform better in different fields such as the satisfaction with professors, with the subjects and with the organization of the education. Since no other educational institution has been given this prestigious prize, we can



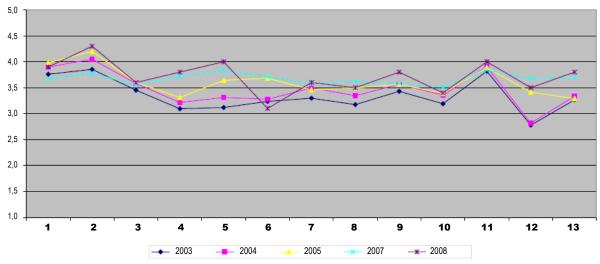


Fig. 4. Satisfaction survey – organization of the education

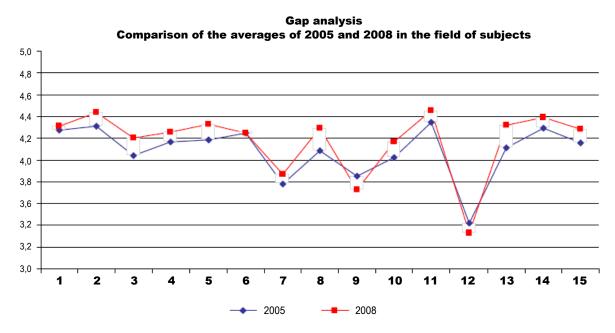


Fig. 5. Satisfaction survey – satisfaction with the subjects

not have a look at other results. But we can examine in what other ways the EFQM Excellence Model and e.g. the application for a quality award (based on this Model) can help to bring forth the organizational competitiveness. In the following I aim to answer this question.

The institutions of public education have the opportunity to apply for the Award for the Quality of Education – as we have already seen. Those who get this award will be recognized by the government, by the profession and by their own partners. Parents prefer to have their children enrolled in prestigious institutions to other ones. People believe that prestige goes with better quality, and of course this supports the institutions that got a name.

Beyond this the institution gets the opportunity to compare itself with other European educational institutions since the scoring system and the criteria of the awards based on the EFQM Excellence Model are the same in all countries.

The award has also a big PR and marketing value. The names of the winners appear in noted trade journals and on the web – for example on the website of the Hungarian Association for Excellence. Due to the new communication channels gained by the quality award, the winners will be known by more people. The award is being given to the winners every year in the Parliament.

Other aspects how a quality award based on the EFQM Excellence Model – like the Award for the Quality of Education – can increase organizational competitiveness:

 Involvement of employees (building the 'team spirit'): one of the factors of the competitiveness is the corporate communication. A project as huge as taking part in the Excellence in Public Education Experimental Project provides the forma-

Per. Pol. Soc. and Man. Sci. Sarolta Tóvölgyi

tion of an effective and aim-oriented inner communication.

- Gives a measurement that is based upon facts and not individual opinions: objectivity gives an opportunity to make good decisions in all probability. If we had to make a decision based only on our own opinion it would be most likely much harder than if we had concrete indexes, indicators and we knew the opinion and advice of an independent institution (thinking of the Hungarian Association for Excellence).
- It gives the company common values that help to determinate the uniform direction: if there were any contradictions inside the institution that for example in which field it should develop, or which department of the institution should be reorganized, the professional advice can make the colleagues come to an agreement.
- Gives the opportunity to everyone for understanding the use
  of the principles of the Total Quality Management (TQM):
  since TQM is one of the principles that is taken into consideration in the EFQM Excellence Model, it will not only appear
  in a theoretical way but will also become an everyday practice. People in every level of the institution will be able to
  identify with the TQM, and the positive effects will be understood.
- It covers all the activities and results of the institution: because of this the organization will be treated as a whole. By means of the Self-assessment we can improve or renew the whole of the institution and not only small parts of it.
- Gives opportunity to get to know to the best practice and to disperse it inside and outside of the institution: spreading the best practice inside the institution helps the organization to use the potency resided in it. Some of the employees, departments or teams have such knowledge that should be useful for other part of the institution, too. By means of this knowledgesharing the organization is able to perform better and workforce can be used for other tasks.
- Gives a point of reference for the institution to be able to define its strategy, and the processes and setting of objectives that are needed to fulfil the strategy: every organization (independently from getting or not getting the Award for the Quality of Education or the Recognition for Excellence in Public Education) gets feedback. According to these feedbacks the leaders of an institution can decide more easily for example in their aims.
- It gives an inner and outer base for comparison, because of the fact that all the results of every candidates of the Award for the Quality of Education or the ones of the Recognition for Excellence in Public Education are brought out after the award giving ceremony: the system of the model (and the results brought out) help all the institutions (whether they have applied to the award or not) to get a picture of Hungary's most excellent institutions, their strategies, best practices etc. Everyone can join – after buying the entrance ticket

- the Winners' and Benchmarking Conference what is organized by the Hungarian Association for Excellence every year. Companies, institutions that were given the Hungarian Quality Award or other quality awards based on the EFQM Excellence Model present their way towards the award, talk about their best practice and the changes they made inside their organizations.

The list could be continued with other evidences, but due to the length of this article I do not have the possibility to write more.

In the future I am planning to continue my research and I would like to visit the institutions which took part in the Excellence in Public Education Experimental Project in order to see and measure if the innovative initiations, the projects carried out according to the EPE have a quantifiable (positive) effect on them. These indicators could be the ones mentioned above – e.g. the number of new students etc. If these indicators showed positive results (as the inner indicators did), the constructive effect of the innovation-centered, competitiveness-increasing EFQM Excellence Model (and Self-assessment) could be confirmed once more.

#### 5 Final words

The model of the European Foundation for Quality management covers the main points and aspects of the Total Quality Management, it helps the institutions to improve continuously and to be able to be competitive by means of its definite criteria system. The institution can find its limits, strengths and areas that should be developed by means of the 9 main criteria.

The incidence of the model shows how much it can help the institutions to do Self-assessment systematically.

Nowadays when the institutions of public education compete to gain their 'costumers" approval and satisfaction, the innovation-centered approach of the EFQM Excellence Model can be an immense help. This Model can be used as a tool for increasing the competitiveness of an institution.

# References

- 1 EFQM, Introducing Excellence, 2003, available at http://www.efqm.org/, ISBN 90-5236-072-3.
- 2 \_\_\_\_\_\_, *The Fundamental Concepts of Excellence*, 2003, available at http://www.efqm.org/, ISBN 90-5236-077-4.
- 3 \_\_\_\_\_\_, Framework of Innovation, 2005, available at http://www.efqm.org, ISBN 90-5236-568-7.
- 4 2009, available at http://www.mik.hu.
- 5 Satisfaction survey of Kodolányi János College, available at http://www.kodolanyi.hu.