APPLICATION OF ISO 9001 AND EFQM EXCELLENCE MODEL WITHIN HIGHER EDUCATION INSTITUTIONS: PRACTICAL EXPERIENCES ANALYSIS

Ramune Kasperaviciute

Mykolas Romeris University, Lithuania

Abstract

Purpose – to systemise and analyse practical experiences of the application of the EFQM Excellence Model (EM) and ISO 9001 standard within Higher education institutions (HEIs). There is an aim to understand: 1) what are the main motives of the application of the analysed quality management (QM) means within academic institutions; 2) what are the most common issues occurring during the implementation; 3) what are the most common benefits.

Design/methodology/approach – practical experiences of HEIs from various countries are analysed and the data from 30 case studies (17 case studies focus on experiences applying ISO 9001 standard for quality management system (QMS) development and 13 case studies focus on experiences implementing EFQM EM) summarized. The sample of the research was formed after review of relevant scientific researches between 1995 and 2013 available in EBSCO, Emerald Management Journal Collection, ProQuest, JSTOR, Sage Publications: Sage Journal Online databases. Selection criteria of case studies was application of ISO 9001 and EFQM EM in HEIs from various countries. Research methods: systematic scientific literature analysis, content analysis.

Findings – the research revealed that the main motives of HEIs to apply ISO 9001 and the EFQM EM are related the most common to internal institutional needs, competitiveness in the market and requirements of the stakeholders. 18 fundamental issues of the application of the means were identified which are more often related to institutional problems than to standard/model issues. The implementation of both means within academic institutions conditioned the benefits linked with internal institutional changes. The most significant general benefits are related to the goals of the means and cultural changes of the institution.

Research limitations/implications – case studies publicised in English and Lithuanian languages only were analysed in the article. The inclusion of available researches in different languages (Spanish, Romanian and Czech) could provide a wider variety of the approaches in terms of the question analysed.

Originality/value – experiences of HEIs from various countries applying ISO 9001 standard and EFQM EM were systemised, analysed and compared in the article.

Keywords: Higher education institutions, quality management system, standard, quality management means, ISO 9001, EFQM Excellence Model.

Research type: research paper.

Introduction

International organization for standardization (ISO) started to collect data about ISO 9000 certified organisations since 1993. According to ISO reports 1 111 698 ISO 9001 certificates were issued in 180 countries between 1993 and 2011. The highest number of ISO 9001 certificates were as follows China (328 213), Italy (171 947), Japan (56 912), Spain (53 057), Germany (49 540), United Kingdom (43 564), India (29 574), France (29 215) etc. (ISO, 2012).

According to the European Foundation for Quality Management (EFQM) more than 30 000 organisations worldwide are using the EFQM EM (EFQM, 2012). The diffusion of the use of the EM can be observed through the number of the EFQM members and recognitions only. According to the EFQM most EFQM awards were issued to United Kingdom (44), Spain (33), Germany (26) and Turkey (21) between 1992 and 2006 (Allur, 2010). In comparison between 2006 and 2013 the highest number of the recognitions (at all levels) was issued to Spain (889), United Kingdom (320), Germany (174), Switzerland (139) and Colombia (130) (EFQM Recognition).

In 2008 according to J. Llach et al. (2011) the education sector was in 12th position out of the 39 on the rating board of ISO 9001 certified sectors. The number of certificates in the education sector between 2004 and 2008 increased more than 40 percent (Kasperavičiūtė, 2012). Meanwhile according to the EFQM education services sector is on the first place of 71 sectors that got any level recognition between 2006 and 2013 (EFQM Recognition).

It should be noted that it is unknown how many ISO 9001 certified HEIs there are in general. General numbers provided in the ISO reports about education institutions in 37th domain does not allow to identify them because the 37th domain includes various schools (e.g. driving), sports and recreational education and etc. (Ekonominės, 2008). Thus, ISO does not provide any detailed information about particular certified education institutions (in this case higher education) nor about the distribution of the certifications in education area across the countries. It is important to emphasize that the "popularity" of the QMS certified according to ISO 9001 requirements between HEIs cannot be identified nor based on ISO reports nor based on the reports of national standardization institutions (ISO members) (except single cases).

EFQM, comparing with ISO, provides the names of the recognised education sector institutions and the names of education sector institutions that are members of the EFQM. 720 educational services institutions achieved various recognitions between 2006 and 2013. Based on the EFQM members lists of 2011 and 2013 HEIs constitute respectively 50% and 70% of about 50 (10%) education sector institutions of more than 500 members in 2011, and of 49 (11%) education institutions of 444 members in 2013 (Kasperavičiūtė, 2011; EFQM list of members).

Thus, it is difficult and complicated to obtain the view of the diffusion of the use of ISO 9001 and the EM within HEIs (ISO 9001 in particular), because their representative institutions provide generic data lacking any specific details.

Practical experiences of HEIs from various countries are analysed and the data from 30 case studies (17 case studies focus on experiences applying ISO 9001 standard for QMS development (Basir, 2012; Chaudhry et al., 2011; Gelders et al., 1995; Hutyra, 2007; Leskauskaitė et al., 2012; Papadimitriou et al., 2010; Moreland et al., 1998; Lundquist, 1997; Misiūnas, 2007; Paunescu, 2005; Ruževičius et al., 2007; Senčila et al., 2007; Sohail et al., 2003; Singh et al., 2006; Thonhauser et al., 2006; Yun-Yao et al., 2004; Tucci et al., 2007) and 13 case studies focus on experiences implementing EFQM EM (Tari et al., 2012; Tari et al., 2011; Tari, 2010; Spasos et al., 2008; Davies et al., 2007; Tari et al., 2007; Farana, 2007; Tari, 2006; Steed et al., 2005; Hides et al., 2004; Osseo-Asare et al., 2002; Steed, 2002; McAdam et al., 2000) summarised. There is an aim to understand: 1) what are the main motives of the application of the analysed QM means within academic institutions; 2) what are the most common issues occurring during the implementation; 3) what are the most common benefits.

Why Higher education institutions apply ISO 9001 standard and the EFQM EM?

The question "why" raised is important because it defines the real reasons for the implementation of the analysed QM means. In the scientific literature it is stated that QMS will be more efficient and deliver more benefits when they are applied based on internal motives and not due to the pressure of external forces (Llopis et al., 2003).

The analysis of the case studies of the implementation of ISO 9001 standard and the EFQM EM within HEIs identifies the fundamental and the most common *internal motives* and *external motives* (Table 1). The results show that both ISO 9001 standard and the EM are being applied within HEIs more often because of internal motives: in case of ISO 9001 standard internal motives constitute 57.89% while external motives – 42.11%; and in case of the EFQM EM internal motives constitute 65.62%, while external motives – 34.38%.

The identified fundamental (the most common) *general internal reasons* of the implementation of the analysed QM means within academic institutions are related to the opportunity to improve internal processes and procedures of the institution, to the improvement of management, performance and effectiveness. The motive of *the improvement of the processes and procedures (including documentation)* was the most frequently reported reason of the application of standardized QMS which is directly related to the primary purpose of ISO 9001 standard. In the scientific literature it is often emphasized the aim of HEIs to optimize administrative processes (Yun-Yao et al., 2004; Misiūnas, 2007; Gelders et al., 1995; Tucci et al., 2007), identify the activities and adjust the documentation (Singh et al., 2006; Sohail et al., 2003). Ruževičius et al. (2007) states that the development of the administrative quality within HEIs is one of the fundamental requirements aiming to meet the needs of your customers and to achieve the goals set. It should be noted that like in case of ISO 9001 most of internal motives provided in Table 1 specific to the EFQM EM (self-assessment, more holistic view of the business, benchmarking, integration of management initiatives and tools and etc.) are directly related to the goals of the EM that helps organisations to develop a particular

management system, assess where they are on the path to excellence and understand any potential gaps. The self-assessment is one of the fundamental motives of the usage of the EM (a primary goal of the Model) and the comprehensive, systematic and sustainable review of the performance of the organisation.

Table 1. Motives of the application of ISO 9001 standard and the EFQM EM in academic institutions

	ISO 9001 standard	Frequency (of 14)	EFQM Excellence Model	Frequency (of 9)
GENERAL	**External motives**			
	Due to the competitiveness in the market [1;2;3;4;5;6;7]	7 (50%)	Due to the competitiveness in the market [16;17;18;19]	4 (44%)
	Due to the pressure/requirements of the stakeholders [3;4;6;8]	4 (29%)	Due to the pressure/satisfaction of the needs of the stakeholders [18;19;20]	3 (33%)
	Due to the national requirements [2;9]	2 (14%)	Due to the national requirements [16; 21]	2 (22%)
	Internal motives			
	Due to the improvement of the processes and procedures (including documentation) [1;2;5;8;11;12;13]	7 (50%)	Due to the improvement of the [performance] (academic and administrative) / processes [16; 19; 22;23]	4 (44%)
	Due to the improvement of the performance and effectiveness [4;12]	2 (14%)		
	Due to the management improvement [12;14]	2 (14%)	Due to the management improvement [19; 22]	2 (22%)
SPECIFIC TO PARTICULAR MEANS	**External motives**			
	Due to the image improvement [2;10;11]	3 (21%)	Due to the opportunity to participate in the national award programme [17]	1 (11%)
			Due to the European requirements for HE [16]	1 (11%)
	Internal motives			
	Due to the clear definition of the objectives and quality policy [5;8;11]	3 (21%)	Due to the self-assessment [16;17;21]	3 (33%)
	Due to the clear definition of the roles, accountability and responsibilities [1;2;8]	3 (21%)	Due to the external assessment [17;19]	2 (22%)
	Due to the permanent necessity to improve quality [1;8]	2 (14%)	Due to the lack of resources / the more effective utilisation [18;20]	2 (22%)
	Due to the requirements of the leadership [6; 15]	2 (14%)	Due to the improvement of the services delivered [20;24;]	2 (22%)
	Due to the identification of the quality issues [2]	1 (11%)	Due to the more effective policy and strategy [19]	1 (11%)
			Due to the establishment of the clear QAS [23]	1 (11%)
			Due to the integration of other management initiatives and tools [22]	1 (11%)
			Due to the more holistic view of the business [22]	1 (11%)
			Due to the benchmarking [22]	1 (11%)
			Due to the leadership improvement [19]	1 (11%)

[1] Misiūnas, 2007; [2] Singh et al., 2006; [3] Hutyra, 2007; [4] Thonhauser et al., 2006; [5] Yun-Yao et al., 2004; [6] Lundquist, 1997; [7] Papadimitriou, 2010; [8] Sohail et al., 2003; [9] Senčila et al., 2007; [10] Leskauskaitė et al., 2012; [11] Gelders et al., 1995; [12] Tucci et al., 2007; [13] Ruževičius et al., 2007; [14] Chaudhry et al., 2011; [15] Moreland et al., 1998; [16] Spasos et al., 2008; [17] Farana, 2007; [18] Steed, 2002; [19] McAdam et al., 2000; [20] Hides et al., 2004; [21] Tari, 2010; [22] Davies et al., 2007; [23] Steed et al., 2005; [24] Tari, 2007.

Regarding *general external motives* both ISO 9001 standard and the EFQM EM the most common are seen as competitive "weapons" responding to challenges of the market. Universities being in the competitive environment must become service providing institutions that meet the needs of their customers, therefore ISO 9001 certificate is evidence that a university is managed properly, that the needs of the customers are identified and the environment of satisfying their needs is established, as states Hutyra

(2007). The competitive environment promotes the pursue of the responses to the challenges, therefore it is essential to manage the organisation in a systematic and clear way (i.e. invoking the EFQM EM and standardized QMS) (Farana, 2007) and to seek to become modern, progressive and a leading university at national level in order to meet the needs of the customers and partners who are using services of the university (Steed, 2002). Burli et al. (2012) suggests that some engineering institutes in India gained international recognition because they had ISO 9001:2000 certificate. Yun-Yao et al. (2004) emphasizes that competitiveness was one of the reasons of the implementation of ISO 9000 within HEIs in Taiwan (following the *Me-too* strategy, considering other institutions have ISO 9000 and assuming this is the main means in the competitive environment).

Another important general motive of the application of QM means is *the pressure / requirements of the stakeholders*. Hides et al. (2004) pointed out that „owing to pressures from a range of stakeholders (e.g. government, students and local communities) for a wider and improved range of services from Higher education sector in UK, linked with simultaneously increasing pressure on resource limitation, a consortium of UK universities is implementing EFQM EM self-assessment as a means for addressing these issues". Steed (2002) emphasizes that „a university has a fundamental responsibility as an employer to meet the needs of the staff and must also satisfy the various demands of the funding bodies and numerous other agencies to which it is accountable". The requirements of the customers was one of the reasons of the implementation of QMS within HEIs in Netherlands, Australia, Austria, Belgium, New Zealand, UK (Lundquist, 1997). The application of ISO 9000 standards within academic institutions in USA and UK was related to the pressure of the industry as one of the stakeholders to prepare more qualified employees (Thonhauser et al., 2006). It is important to note that private sector organisations often indicate "the pressure of the customers" as one of the fundamental motives aiming ISO 9001 certificate, naming it as „necessary evil" which is required by customers and stakeholders (Sampaio et al., 2009).

The research results show that the motives of the application of ISO 9001 standard and the EM within HEIs are more often related to internal institutional needs aiming to improve internal institutional processes and procedures (respectively 62% (±4%) average of internal motives and 38% (±4%) average of external motives). Evaluating an impact of external factors on the application of the means, on the one part it could be affirmed that nor the application of ISO standard nor the application of the EFQM EM is not a significant pressure from the outside, but a subjective action based on internal motives. On the other part it could be suggested that the application of both means is the impact of specific pressure from the outside. Regarding the most significant (the most often indicated) motives, there is an evident dominance of the motives of the competitiveness in the market and the pressure / satisfaction of the needs of the stakeholders. The factors of the competitiveness or the survival in the competitive environment and the pressure of the stakeholders explain the changes within HEIs, while the aim of institutions themselves to improve the performance, processes etc. shows their decision to implement these changes.

The issues of the application of ISO 9001 and the EFQM EM within HEIs

The implementation of QM means within HEIs is not without obstacles. The analysis of the case studies of the implementation of ISO 9001 and the EM within HEIs revealed 18 fundamental the most common their implementation issues (9 for each of the means) (Table 2). Two types of the issues are distinguished: *institutional issues* and *standard / model issues. Institutional issues* are related to particular internal organizational factors and include the lack of senior management and staff commitment, support and motivation, the lack of resources, the shortage of quality culture within institution, the increased workload etc. *Standard / model issues* are the problems that could be conditioned by the specifics of ISO 9001 standard and the EFQM EM, i.e. the difficulties understanding / interpreting ISO 9001 standard / the EFQM EM, the time-demanding implementation, the red-tape and bureaucracy and the constraint on academic and creative freedom.

The research results show that while developing the standardized QMS based on ISO 9001 requirements slightly more often organisations confront with institutional issues than with standard problems (institutional issues constitute 55.17%, standard issues – 44.83%). Whereas in case of the implementation of the EFQM EM institutional and model issues constitute equally 50% each. Respectively 53% (±3%) average of institutional issues and 47% (±3%) average of standard / model issues.

The research revealed that the lack of staff commitment, support and motivation, the lack of resources and the shortage of quality culture within institution are *general institutional* to ISO 9001 and the EM implementation related *issues. The lack of staff commitment, support and motivation* is one of the most common barriers pointed out when developing QM means (64% in case of ISO 9001 and 36% in case of the EM). The reasons of the absence of staff support could be related to many factors: both internal institutional factors (the shortage of quality culture within institution, leadership turnover and insufficient commitment, the lack of resources, the increased workload etc.) and the specifics of ISO standard and the EFQM EM themselves (it is difficult to understand and apply them in academic environment, their implementation is time-demanding, they create constraint on creative freedom and require lots of red-tape). Othman et al. (2007) found out that the dissatisfaction of academic staff with the implementation process of ISO standard in Malaysian colleges was higher than of non-academic staff due to the amount of the red-tape, due to the pressure from senior management to participate in the process, and due to „the doing all the jobs" (academic staff perceived their responsibilities as being teachers more than administrators) as well as due to the thinking that the means being implemented won't improve the present situation. Some researchers state that the efficient stimulus to operate appears when the perspectives of the results aimed are visible and the satisfaction with the ongoing process is felt. Fear and distrust are the biggest barriers for the successful start of the actions (Serafinas et al., 2007).

Table 2. The issues of the application of ISO 9001 standard and the EFQM EM within academic institutions

		ISO 9001 standard	Frequency (of 11)	EFQM Excellence Model	Frequency (of 11)
GENERAL		Institutional			
		Lack of employees support / motivation [1; 2; 3; 4;5; 6; 7]	7 (64%)	Lack of staff commitment and support [11; 12; 14; 15]	4 (36%)
		Lack of resources [3; 4; 8]	3 (27%)	Lack of resources [11; 12; 16]	3 (27%)
		Shortage of quality culture within institution [1;4]	2 (18%)	Shortage of quality culture [11; 16; 17]	3 (27%)
		Standard / Model			
		Difficulties of ISO 9001 interpretation [4;5; 7; 8; 9]	5 (45%)	Difficulties of the Model understanding / interpreting [13; 15; 16; 17; 19; 21]	6 (55%)
				Lack of information about the implementation of the model [11; 12; 16; 19]	4 (36%)
		Long implementation period of ISO 9001 standard [3; 6]	2 (18%)	Time demanding process [11; 12; 14; 16; 19; 20]	6 (55%)
		Constraint on creative freedom [4;5]	2 (18%)	Constraint on academic freedom[17]	1 (9%)
SPECIFIC TO PARTICULAR MEANS		Institutional			
		Increased workload [2;6;7]	3 (27%)	Lack of senior management commitment and support [11; 12; 18; 19]	4 (36%)
		Leadership turnover [5]	1 (9%)	Lack of support from quality unit [11; 12; 20]	3 (27%)
		Standard / Model			
		Red-tape and bureaucracy [4; 6; 7;10]	4 (36%)		

[1] Misiūnas, 2007; [2] Leskauskaitė et al., 2012; [3] Singh et al., 2006; [4] Paunescu, 2005; [5] Sohail et al., 2003; [6] Lundquist, 1997; [7] Moreland et al., 1998; [8] Basir, 2012; [9] Tucci et al., 2007; [10] Gelders et al., 1995; [11] Tari et al., 2012; [12] Tari, 2010; [13] Spasos et al., 2008; [14] Tari, 2006; [15] Steed et al., 2005; [16] Osseo-Asare et al., 2002; [17] Davies et al., 2007; [18] Hides et al., 2004; [19] Steed, 2002; [20] Tari, 2011; [21] McAdam et al., 2000.

The difficulties understanding / interpreting ISO 9001 standard and the EFQM EM, the lack of information about the implementation of the model, the time-demanding implementation of QM means and the constraint on academic / creative freedom are *general issues of the implementation of the means*. The most significant issue in the category of the „standard / model" is *the understanding / interpreting of ISO 9001 and the EM* (accordingly 45% and 55%). Most often this is linked to terminology and „not knowing where to start". Steed (2002) emphasizes that „although the terms like performance management, benchmarking, customer focus are widely used in other sectors and are fundamental seeking excellence, in the context of the university they do not „sound well"". Therefore the researchers point out the need to adapt the EM to the specifics of the organisation (HEI context) (Spasos et al., 2008, Davies et al., 2007). The terminology of ISO 9001 is defined like „over technical or over specific" (Paunescu, 2005; Basir, 2012; Sohail et al., 2003). Van der Berghe (1997) suggests that this characteristic of ISO standard is the advantage (flexibility opportunity, applying it in different sectors) and at the same time the disadvantage (raises the feeling of the insecurity and becomes the subject of discussions and resistance). The ISO system was developed for the industry and production sector, therefore its applicability within educational sector is quite complicated and complex phenomenon (Misiūnas, 2007). There was a feeling in the

institutions that the content of some procedures was not related "neither the language nor the concepts" as Moreland et al. (1998) observed in his research.

The lack of the information about the implementation of the model (36%) is related to „not knowing where to start". This is the lack of particular relevant information (initial knowledge) which, as Tari (2012, 2010) suggests, is gradually resolved through the teaching. Some authors state that the lack of proper understanding of ISO standard conditions the concerns and mimesis, what enables the occurrence of the inflexible and bureaucratic system (Ismail et al., 2006).

Another significant obstacle for successful implementation of the EFQM EM within HEIs is the lack of time (55%). It is emphasized that the process of the use of the EFQM EM is „time-demanding" (Osseo-Asare, 2002). As the research of Ch. Singh et al. (2006) showed academic staff was dissatisfied with the time spent on „more paprework" than in the classrooms.

The research revealed that *the lack of senior management commitment* implementing EM within UK (Steed, 2002, Hides et al., 2004), Spain (Tari, 2010) and Jordanian (Tari et al., 2012) universities, also *the barrier of the red-tape and bureaucracy* developing standardized QMS, are the most often indicated (36% each) issues typical for the specific means. It is proposed that particular ISO requirements are too difficult for academic environment and this can result the over-red-tape (Gelders et al., 1995; Lundquist, 1997). Gamboa et al. (2012) state that although the red-tape and bureaucracy is one of the most often criticized barriers, bureaucracy can also play a positive role in education institutions acting as a defence mechanism against third parties and promoting a reflection on practices intended to simplify processes. Thus, the bureaucracy is a necessary evil forcing to be more organised.

Benefits of ISO 9001 standard and the EFQM Excellence Model

The research shows that in many cases both the implementation of QMS of ISO 9001 standard and the implementation of the EFQM EM within HEIs resulted *internal benefits* (respectively 89% (±4%) average of internal and 11% (±4%) average of external benefits). In case of ISO there are 85.19% internal benefits and only 14.81% external benefits. In case of the EFQM EM there was 93.10% internal and 6.90% external benefits.

For both means typical general internal benefits include the staff commitment to quality, clear goals and strategy, the identification of weaknesses and areas for improvement / quality issues and performance and effectiveness improvement. *The staff commitment to quality* (56% in case of EFQM EM and 36% in case of ISO 9001) and *the identification of weaknesses and areas for improvement / quality issues of the institution* (respectively 78% and 27%) are the most significant benefits in the category of the general internal benefits (Table 3).

Table 3. The benefits of the application of ISO 9001 and EFQM EM within academic institutions

	ISO 9001 standard	Frequency (of 11)	EFQM Excellence Model	Frequency (of 9)
	Internal			
GENERAL	Staff commitment to quality [4; 6; 7; 9]	4 (36%)	Staff commitment to quality [12; 13; 16; 17; 18]	5 (56%)
GENERAL	Identification of quality issues and prevention [3; 4; 7]	3 (27%)	Identification of weaknesses and areas for improvement / quality issues of the institution [12; 13; 14; 15; 16; 18; 20]	7 (78%)
GENERAL	Clear goals and strategy [1; 3; 4; 7; 10]	5 (45 %)	Clear goals and strategy [14]	1 (11%)
GENERAL	Performance and effectiveness improvement [2; 3; 11]	3 (27%)	Performance and effectiveness improvement [19]	1 (11%)
	External			
GENERAL	Collaboration development [3; 5]	2 (18%)	Collaboration development [14; 16]	2 (22%)
	Internal			
SPECIFIC TO PARTICULAR MEANS	Clear defined roles and responsibilities [3; 4; 5; 6; 7; 9; 11]	8 (73%)	Emergence / enhancement of the understanding about quality [12; 13; 15; 18]	4 (44%)
SPECIFIC TO PARTICULAR MEANS	Assurance of the control and evaluation [4; 5; 6; 7; 8; 10]	6 (55%)	General / holistic approach to performance improvement [13; 15; 17; 18]	4 (44%)
SPECIFIC TO PARTICULAR MEANS	Documentation management improvement [3; 4; 5; 6; 8]	5 (45%)	Quality Award received [19]	1 (11%)
SPECIFIC TO PARTICULAR MEANS	Management improvement [5; 7; 8; 11]	4 (36%)	Self-assessment [17]	1 (11%)
SPECIFIC TO PARTICULAR MEANS	Staff satisfaction [3; 4; 5]	3 (27%)	Benchmarking [17]	1 (11%)
SPECIFIC TO PARTICULAR MEANS	Identification of the needs and expectations of customers [3; 4; 11].	3 (27%)	Integration of other management initiatives and tools [17]	1 (11%)
SPECIFIC TO PARTICULAR MEANS	More effective resource management [1; 3]	2 (18%)	Internal collaboration improvement [17]	1 (11%)
	External			
SPECIFIC TO PARTICULAR MEANS	Image improvement [3; 4; 5; 9]	4 (36%)		
SPECIFIC TO PARTICULAR MEANS	Improvement of the competitiveness of the institution [5; 11]	2 (18%)		

[1] Misiūnas, 2007; [2] Leskauskaitė et al., 2012; [3] Singh et al., 2006; [4] Paunescu, 2005; [5] Sohail et al., 2003; [6] Lundquist, 1997; [7] Moreland et al., 1998; [8] Senčila et al., 2007; [9] Chaudhry et al., 2011; [10] Gelders et al., 1995; [11] Hutyra, 2007; [12] Tari et al., 2012; [13] Tari, 2010; [14] Spasos et al., 2008; [15] Tari, 2006; [16] Steed et al., 2005; [17] Davies et al., 2007; [18] Steed, 2002; [19] Farana, 2007; [20] Tari et al., 2007.

For both means the collaboration development is a general external benefit. The essential external benefit of the standardized QMS within HEIs is the improvement of institution's image ensuring the external customers that HEI provides quality services which result in higher student numbers, feedbacks etc.

The research results show that internal benefits of the implementation of both ISO standard and EFQM EM are related to their *goals* (identification of weaknesses and areas for improvement of the institution, self-assessment, general approach to performance improvement etc.), *requirements for QMS* (document management improvement, identification of the needs and expectations of customers, clear defined roles and responsibilities, assurance of the control and assessment etc.) and affect *cultural changes of the organisation* (staff commitment to quality, enhancement of understanding about quality).

Conclusions

The research results showed that the motives of the application of both ISO 9001 standard and the EFQM EM within HEIs are more often related to internal needs of the institutions (respectively 62% average of internal motives and 38% average of external motives). Institutions relate the application of quality management means the most common to *opportunity to improve internal institutional processes and procedures*, *with satisfaction of the needs of the stakeholders and their pressure* and *with competitiveness in the market*. The factors of the competitiveness or the survival in the competitive environment and the pressure of the stakeholders explain the changes within HEIs, while the aim of institutions themselves to improve the performance, processes etc. shows their decision to implement these changes.

The implementation of QM means within HEIs confronts with various issues. According to the research data the difficulties of ISO 9001 and the EM are more often related to institutional issues than standard / model problems (respectively 53% average of institutional and 47% average of standard / model issues). For both means the most common issues experienced are *staff commitment, lack of support and motivation* (institutional) and *difficulties understanding / interpreting standard / model* (standard / model) and *time demanding process* (in case of the EM).

Both the implementation of QMS of ISO 9001 standard and the implementation of the EFQM EM within HEIs resulted in *internal benefits* (respectively 89% and 11% averages). The most common pointed out general benefits are *the identification of weaknesses and areas for improvement / quality issues of the institutions* and *the staff commitment to quality*. A fair amount of significant benefits are related to requirements for QMS (clearly defined roles and responsibilities, assurance of the control and assessment, document management) and affect the cultural changes of the institution (enhancement of the understanding about the quality).

References

Allur E. 2010. The Dissemination of the EFQM Self-evaluation Model across Europe, *Review of International Comparative Management,* Vol. 11, No. 5, pp. 971-979.

Basir S. A. 2012. Complying Quality Management System ISO 9000 Requirements within Higher Education Institutions (HEIs) in Muslim Countries, *World Journal of Islamic History and Civilization*, 2 (1), pp. 30-43.

Burli S. et al. 2012. TQM dimensions and their interrelationships in ISO certified engineering institutes of India, *Benchmarking: An International Journal*, Vol. 19 No. 2, pp. 177-192.

Chaudhry S. et al. 2011. ISO 9001 (a Standard) to Develop a Robust Governance System in Higher Education Institutions. A case study of a degree awarding Institute in Pakistan, *Interdisciplinary Journal of Contemporary Research in Business*, Vol. 3, No. 2. pp. 1456-1466.

Davies J. et al. 2007. The effect of academic culture on the implementation of the EFQM Excellence Model in UK universities, *Quality Assurance in Education,* Vol. 15 No. 4, pp. 382-401.

EFQM. 2012. EFQM Annual Report 2011-2012, EFQM, Brussels.

EFQM list of members, http://www.efqm.org/en/PdfResources/Members%20list%202013.pdf_[accessed 2013-03-09].

EFQM Recognition, http://www.efqm.org/en/Home/Ourservices/Recognition/RecognitionOnline/tabid/333/Default.aspx_[accessed 2013-03-09].

Ekonominės veiklos rūšių klasifikatorius. 2008. Statistikos departamentas.

Farana R. 2007. The Excellence system application in Higher education, *International conference of engineering education* – ICEE, 7, pp. 1-6.

Gamboa A. J. et al. 2012. The impacts and success factors of ISO 9001 in education: Experiences from Portuguese vocational schools, *International Journal of Quality & Reliability Management*, Vol. 29 Iss: 4 pp. 384 – 401.

Gelders L. et al. 1995. ISO 9001 Certification in an Academic Unit, *European Journal of Engineering Education*, Vol. 20, No. 4, pp. 467-471.

Hides M. T. et al. 2004. Implementation of EFQM excellence model self-assessment in the UK higher education sector – lessons learned from other sectors, *The TQM Magazine,* Vol. 16, No. 3, pp. 194-201.

Hutyra M. 2007. The way from Quality management system to Excellence at the university environment, *10th QMOD Conference. Quality management and organizational development. Our Dreams of Excellence*, 18-20 June, Sweden.

Ismail N. et al. 2006. ISO 9000 acceptance and the moderating effect of the implementation strategy: the case of the faculty of Business Management, Universiti Teknologi Mara, Shah Alam, *Asian Academy of Management Journal*, Vol. 11, No. 1, pp. 67–82.

ISO. 2012. L'Étude ISO 2011. http://www.iso.org/iso/fr/home/standards/certification/iso-survey.htm[accessed 2013-03-15].

Kasperavičiūtė R. 2012. Approach of Higher education institutions to ISO 9001 Standard: reasons, issues and benefits of implementation, *Public Policy and administration*, Vol. 11, No. 4, p. 672-689.

Kasperavičiūtė R. 2011. L'application du modèle EFQM d'excellence aux établissements de l'enseignement supérieur, *Public Policy and administration*, Vol. 10, No. 3, p. 387-402.

Leskauskaitė A. et al. 2012. Visuotinės kokybės vadybos modelių taikymas gerinant Lietuvos aukštųjų mokyklų veiklos kokybę, *Organizacijų vadyba: sisteminiai tyrimai*, Nr. 61, p. 71-84.

Llach J. et al. 2011. ISO 9001 diffusion analysis according to activity sectors, *Industrial Management & Data Systems*, Vol. 111 No. 2, pp. 298-316.

Llopis J. et al. 2003. The importance of internal aspects in quality improvement, *International Journal of Quality and Reliability Management*, 20(3), pp. 304–324.

Lundquist R. 1997. Quality Systems and ISO 9000 in Higher Education, *Assessment & Evaluation in Higher Education*, Vol. 22, No. 2, pp. 159-172.

McAdam R. et al. 2000. A critical review of the business excellence quality model applied to further education colleges, *Quality Assurance in Education,* Vol. 8, No. 3, pp. 120-130.

Misiūnas M. 2007. Vidinė kokybės užtikrinimo sistema ir jos įgyvendinimas Kauno kolegijoje, *Aukštojo mokslo kokybė*, Nr. 4, p. 38-52.

Moreland C. N. et al. 1998. Quality and ISO 9000 in educational organizations, *Total Quality management*, Vol. 9, No. 2&3, pp. 311-320.

Osseo-Asare A. E. et al. 2002. The need for education and training in the use of the EFQM model for quality management in UK higher education institutions, *Quality Assurance in Education,* Vol. 10, No. 1, pp. 26-36.

Othman R. et al. 2007. ISO Standard's implementation at private colleges: academics and non-academics perspectives, *The 1st International Conference on Educational Reform 2007*, November 9-11, Mahasarakham University, Thailand, pp. 40-50.

Papadimitriou A. et al. 2010. Adoption of ISO-oriented quality management system in Greek universities Reactions to isomorphic pressures, *The TQM Journal*, Vol. 22 No. 3, pp. 229-241.

Paunescu C. 2005. Commitment to quality education service through ISO 9000: A Case Study of Romania, pp. 1-14.

Ruževičius J. et al. 2007. Peculiarities of Quality Assurance in Higher Education: A Study of Lithuanian Institutions, *Organizacijų vadyba: sisteminiai tyrimai*, Nr. 44, p. 107-123.

Sampaio P. et al. 2009. ISO 9001 certification research: questions, answers and approaches, *International Journal of Quality & Reliability Management*, Vol. 26 Iss: 1 pp. 38 – 58.

Senčila V. et al. 2007. ISO 9000 serijos kokybės vadybos standartų taikymas aukštojo mokslo institucijoje: Lietuvos Jūreivystės Kolegija, *Aukštojo mokslo kokybė*, Nr. 4, p. 53-73.

Serafinas D. et al. 2007. Aukštojo mokslo organizacijų kokybės vadybos sistemų racionalumo ir veiksmingumo analizė, *Ekonomika ir vadyba*, Nr. 12, p. 1051-1057.

Singh Ch. et al. 2006. Effectiveness oh ISO 9000 standards in Indian educational institutions: a survey, International Journal of Services Technology and Management, Vol. 7, No. 4, pp. 403-415.

Sohail M. S. et al. 2003. Managing quality in higher education: a Malaysian case study, *The International Journal of Educational Management,* 17/4, pp. 141-146.

Spasos S. et al. 2008. Implementation of EFQM Model In A Greek Engineering Higher Education Institute: A Framework and A Case Study, *International Journal for Quality research*, Vol. 2, No1, pp. 43-50.

Steed C. et al. 2005. The EFQM Excellence Model for Deploying Quality Management: A British-Russian Journey, *Higher Education in Europe,* Vol. 30, No. 3–4, pp. 307-319.

Steed C. 2002. Excellence in Higher Education. Evaluating the implementation of the EFQM Excellence Model® in Higher Education in the UK, *Beiträge zur Hochschulforschung,* Heft 1, 24. Jahrgang, pp. 74-98.

Tari J. J. et al. 2012. Introducing management models in service organisations in developed and developing countries, *The Service Industries Journal*, Vol. 32, No. 5, pp. 789–806.

Tari J. J. et al. 2011. Preparing Jordanian university services to implement a quality self-assessment methodology, *International Review of Administrative Sciences,* 77 (1), pp. 138-158.

Tari J. J. 2010. Self-assessment processes: the importance of follow-up for success, *Quality Assurance in Education*, Vol. 18, No. 1, pp. 19-33.

Tari J. J. et al. 2007. EFQM model self-assessment using a questionnaire approach in university administrative services, *The TQM Magazine*, Vol. 19, No. 6, pp. 604-616;

Tari J. J. 2006. An EFQM model self-assessment exercise at a Spanish university, *Journal of Educational Administration,* Vol. 44, No. 2, pp. 183-184.

Thonhauser T. et al. 2006. ISO 9000 in Education: a comparison between the United States and England, *Research in Comparative & International Education*, Vol. 1, No. 2, pp. 156-175.

Tucci M. et al. 2007. Quality Management in Administrative Services of the Italian Universities, *10th QMOD Conference. Quality management and organizational development. Our Dreams of Excellence,* 18-20 June, Sweden, pp. 1-9.

Van der Berghe W. 1997. Application des normes ISO 9000 dans l'enseignement et la formation*, Formation Professionnelle. Revue Européenne*. No. 15, pp. 15-30.

Yun-Yao Ch. Et al. 2004. Education Improvement through ISO 9000 Implementation: Experiences in Taiwan, *International. Journal of Engineering Education*, Vol. 20, No. 1, pp. 91-95.