



QUALITY MANAGEMENT IN SLOVENIAN EDUCATION PROGRAMMES

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Abstract

Product and service quality, effective process management, continuous improvement and innovation are some essential conditions for making a successful business. They are often emphasised by managers of successful organizations, by authors of professional and scientific papers and even by politicians and journalists.

Quality management standards and models, such as ISO 9001 and EFQM model appeared in assistance to the needs of organisations to assure stable product and service quality, to improve it and to make the production process and its supporting processes effective. It has been 28 years since the standard ISO 9001 appeared. Now it is the most widely spread global standard implemented in more than 1.100.000 organizations worldwide.

If quality management was proved to be an important approach to make organizations operate better and thus to contribute to well-being of the society, it would be expected that it is somehow included in our regular school programmes on all the levels. We expect that learning and living quality approaches in childhood and youth would be the least costly way to improve the culture of quality in the society and to implement it in our organizations as well.

The paper gives some insight in the situation by searching for quality management related programmes and approaches in our primary, secondary and tertiary school programmes. The purpose of this paper is only to highlight the issue of teaching for quality in our regular education programmes – just to become aware of it and to find some improvement opportunities. There should be still some more detailed research on this topic to give strong suggestions.

Keywords: *quality, quality management, ISO 9001, education, school programmes*

1. INTRODUCTION

Business and education area should operate and develop hand in hand to bring up properly skilled and demanded professionals. In the area of quality management (QM) the aging of professional staff is noticed. It raised a question why young people rarely decide for such a profession. Is such a profession not demanded by business anymore? Is there not enough motivation for such job orientation through education process?

Quality and innovation is an imperative for a successful modern business. This is often stressed by professional literature, businessmen, business

agencies and associations, politicians and journalists (Anttila, 2001). On the other hand it is often publicly emphasised that youth education programmes (on all the levels) should support business needs (EC, 2010; EC, 2010a). In this research only an insight into Slovenian primary, secondary and tertiary school programmes was made. It was searched for quality management related programmes and approaches within school programmes. We'd like to open an issue of appropriate school programme offer and school programme support to the business needs in the area of QM. Additionally, the research intends to highlight our basic issue of proper youth motivation in taking quality related professions. It tries to give some answers to it, too.

1.1 The role of QM standards and models in business

One of indicators of importance of QM is a rise of QM standard implementations and certification (e.g. ISO 9001). Their number was rising on the global level all the years till 2011 and reached over 1.100.000 certificates worldwide (ISO, 2013). A slight decrease was noticed in the last year (on the global and European level), however in Slovenia the number of ISO 9001 certificates has been slightly falling since 2006 (Alič, 2014). There has already been some research performed pointing to stagnation of growth of the number of ISO 9001 certificates in some areas due to lower marketing attractiveness QM system certification (Sampaio et al., 2009; Boiral, 2012). Some countries have already reached a market saturation level regarding the number of ISO 9001 certified organizations (Sampaio et al., 2009) or so-called “maturity level” of standardization and QM (Dahlggaard-Park, Chen, and Dahlggaard, 2013) where focuses have shifted from being certified to tools, techniques, and core values of QM. Therefore certification loses its connotation and becomes less attractive for the remaining companies (Psomas and Fotopoulos, 2009) and little or no certification growth is registered. Anyway, ISO 9001 is still the most widely used QM standard in the world. Additionally, the greatest benefits of the implemented QM approaches don't lie in their certification but rather in their internal positive effects on organizations' performance.

Extensive empirical research (Van der Wiele et al., 2005; Magd, 2008; Rusjan and Alič, 2010; Solomon and Hogan, 2012) proves positive effects of the ISO 9001 QMS implementation. Boiral (2012) realized that 80 % of the current studies measured significant benefits of such systems. According to the ISO survey in July 2011 the most important benefits of the ISO 9001 were improved customer satisfaction and standardized business processes (Bangert, 2012). Some research has shown a significant relationship between implementation of the QMS and the improved competitiveness and performance of organizations (Dimara et al., 2004; Mathews, 2005; Magd, 2008; Boulter et al., 2006; Boiral, 2012). On the contrary, other research points to obstacles, side-effects and disadvantages of QM system implementations (Singels et al., 2001; Chow-

Chua et al., 2003; Martinez-Costa and Martinez-Lorete, 2007; Boiral, 2012) that are often related to low internal interest, management support, skills and understanding the QM philosophy and standard requirements (Llopis & Tari, 2003; Prajogo, 2011).

1.2 Identified public support and promotion of QM approaches

Organizations implement QM approaches at their own will. Often the initiative comes from other organizations – current or potential business partners. QM includes a set of directives, requirements and approaches to meet them – all as an aim to improve the quality of the product or service and to satisfy the customer. Additionally, QM was recognised as an important improvement driver in organizations and also on higher influencing levels of the society, such as enterprise associations, chambers and agencies and even on the government level, as well.

1.2.1 Activities and documents on the national (Slovenian) level

Some initiatives have been recognised in support to real sector:

- Ministry of economic development and technology promoted QM approaches in tourism in a special program document (MGRT, 2006)
- The Slovenian Chamber of Commerce announced actions to overcome the economic crisis (Agenda 48+) in the year 2012 and upgraded them in the following year (GZS, 2013) intending to improve business performance and competitiveness of Slovenian enterprises and the economy as a whole. The quality issues were not explicitly emphasised, however providing the expected and standardized product and service quality and implementing system approach in management were implicitly included. Export orientation and innovation were (and still are) two of the most highlighted goals which can be easily attained when QM approaches (such as ISO 9001, EFQM, ...) are implemented.
- The targets and actions in the Slovenian industrial policy (MGRT, 2013) can be more easily attained by implementing QM approaches although they aren't explicitly addressed.

- Additionally, Ministry of economic development and technology indirectly promoted QM approaches by developing “The Strategy of clever specialisation 2014-2020” in cooperation with The Slovenian Chamber of Commerce (GZS, 2013a).

After intensive promotion and implementation of ISO 9001, EFQM and CAF in the public sector in the period 1995 to 2006 (Kovač, Grošelj, 2007) the economic crisis and a decrease in funding these activities appeared. It resulted in giving up certification and decrease in the number of Slovenian business excellence prize applications. In the last few years new initiatives appeared to reactivate QM approaches and make public administration and other public services more effective and more efficient (less costly). Such initiatives were:

- Some public administration departments (such as Public payments administration of Republic Slovenia) set their quality policy and implement ISO 9001(UJP, 2011).
- Some directives were given from the top of the public administration to make its services more customer oriented what is the basic QM directive (Virant, 2012).
- Ministry of Health developed a National strategy of quality and safety in health care (2010-2015) (Simčič et al., 2010) where QM approaches have an important role.
- After some years of stagnation in implementation of QM systems in public sector, in 2012 an action (action no. 14) was announced by The Agency for government of capital investments of Republic Slovenia (“Agencija za upravljanje kapitalskih naložb Republike Slovenije – AUKN”) to stimulate implementation of total QM based on the EFQM or CAF model in publicly funded organizations (SZKO, 2013). After closing of AUKN the action was transferred to its legal successor “Slovenska odškodninska družba - SOD” (central ownership entity of Slovenia) as the action no. 11 (SOD, 2013).
- National Assembly – Board on Health discussed QM approaches in the perspective of overcoming the actual crisis in Health sector (RS, 2014).

Additionally, in the last two years the discussions about quality matters entered the Slovenian Parliament and its bodies.

1.2.2 Activities and documents on the European level

The Europe Commission supports the QM approaches through its efforts for more innovation and better competitiveness. This is especially stressed in “Europe 2020: Europe's growth strategy”, the “Integrated Industrial Policy”, “European competition policy” and their key challenges (EC, 2010; 2010b; 2010c; 2010d).

Important facts:

- A special role is given to research, development and innovation, knowledge and skills, environmental issues, competition etc. (EC, 2010c).
- More emphasis is given to European standardisation (EC, 2010b) including QM, product and services standards intending to gaining economic benefits from harmonisation and economies of scale at all levels (international, European and national). Standards should not create an additional burden, e.g. to SMEs. Instead, they should lead to efficiency gains and act as an incentive for innovation. The ultimate aim should be convergence of standards at world level.
- Europe’s (co)funding is provided for the development of the above mentioned strategic areas. QM is not directly specified among them. However, well implemented QM approaches are often needed to attain the specified objectives and get funding from EU calls and tenders.
- The Association of European Chambers of Commerce and Industry - EUROCHAMBRES (2013) pushes for a business-driven approach to EU research and innovation policy, highlighting in particular the pivotal link between entrepreneurship and innovation following the EU prospective Horizon 2020. Therefore, policy makers have to find new and better ways to involve SMEs in the innovation process, which must no longer be perceived as purely research based. By facilitating better SMEs participation better support and motivation for implementing QM approaches is given as well.

1.3 Reasons for including QM knowledge and skills to educational programmes

We can’t measure the direct impact of above mentioned public emphases on quality. The bad

economic situation in many organizations and the decreased demand on certifying QM systems (Sampaio et al., 2009; Dahlgard-Park, Chen, and Dahlgard, 2013) don't show there have been evidential positive effects already. Especially in the public sector and in organizations having financial problems the cost-cutting influenced the QM trainings and projects. Although the number of maintained and certified QM systems has fallen, the need for QM properly trained people that could help organizations to operate better has probably even risen. However, there is no available evidence about it.

The need of school programmes giving QM knowledge and skills is evident from:

- the predictions of QM scientist (Van der Wiele & Brown, 2002; Wanderbrande, 2013)
- the directly or indirectly recognised need of enterprises:
 - o The previous research indicates the need of enterprises for having or employing QM skilled people (Disney, Crabtree and Harrison, 2000; Llopis and Tari, 2003; Solomon and Hogan, 2012; Boiral, 2012).
 - o Schools should stimulate young people to responsible and hard-working, creative, improvement oriented and able of team-work.
 - o PDCA cycle (Plan-Do-Check-Act) is a basic systematic improvement approach that needs to be built-in in everyone's thinking.
 - o People should know basic QM system directives and requirements (e.g. ISO 9001). They form a frame of a common understood basic order and rules of normal operation and business relations.
 - o Organizational knowledge, wide understanding of basic QM approaches and some basic technical and statistical skills facilitate better decision-making and managing organization's operation.
 - o For effective and efficient operation of the organization it is important that as many workers as possible have at least basic understanding of the organization's QM policy and approaches. This is hard to attain and might be quite an investment if the employees didn't bring at least the basic QM knowledge and feeling from the school.
- o Organizations, especially smaller ones, often hire external QM professionals for implementation of QM projects and keep them on the contract agreements until such projects live. The related high costs of the professionals (consultants, assessors, auditors) might be quite a considerable obstacle to implementation of additional QM approaches.
- o In Slovenia, micro, small and medium-sized enterprises (SMEs = micro, small and medium-sized enterprises) are actively involved in standardization work, however they can't afford such costs of providing QM knowledge (materials and training) as large organizations. According to the classification made by the EU, 99.7% of all Slovenian companies belong to this group (in EU 95% of enterprises are SMEs). The Slovenian institute for standardization – SIST as the national standard publisher established a special committee for SMEs in order to better cover their interests. They prepare special offers for this group of enterprises to help them share the QM knowledge at more acceptable price (SIST, 2014).
- the directly or indirectly recognised needs in the national economic policy and its documents:
 - o In the Slovenian industrial policy (MGRT, 2013) the action no. 9 addresses adapting educational and training systems to the needs of the business. Enterprises need competent and skilled workers as the output of our schools.
- the directly or indirectly recognised needs in the European economic policy and its documents:
 - o The needs of SMEs are given high priority. SMEs represent the core of industry. About 95% of all European companies are SMEs (SIST, 2014). Adapting educational and training systems to the needs of the business is one of strong directives in the documents of European Commission such as "Europe 2020: Europe's growth strategy" and "An Agenda for new skills and jobs" (EC, 2010; EC, 2010a).
 - o The number of QM professionals differs among European countries. "With its 502 experts per million inhabitants, Slovenia is among the countries with highest degree of participation (data for 2008). In some countries, this figure attains

430 experts per million inhabitants, 350 in big and rich countries, and only about 130 in big new Member States of the EU" (SIST, 2014).

2. METHODOLOGY

The research was based on review of literature regarding QM approaches, their use and benefits and on searching for publicly available information and data showing actual business interest in QM approaches and their needs of QM skilled people. The used research method was analysis and synthesis of the findings.

Our study was just a preliminary study testing the QM orientation and support in Slovenian primary, secondary and tertiary school programmes with the intent to highlight the issue of teaching for quality in our regular education programmes. Publicly available documents and data of Ministry of education, science and sport ("Ministrstvo za izobraževanje, znanost in sport" – MIZS) and NAKVIS were analysed.

Elements of QM in educational regulation, national programmes and regular educational programmes on each level of education were searched for. Additionally, other proofs of properly implemented QM approaches in the institutions in a form of other quality related certifications were sought.

In the next step QM related educational content in school programmes was searched for from the list of official school subjects / courses published by MIZS (2014). It was assumed that it could be recognised from the title of the programmes if it was related to QM topics. Therefore, the school programmes / courses having "quality" or quality related expressions in their titles were searched for. The programmes were not analysed in detail regarding implicitly included or detailed QM related contents and approaches.

3. FINDINGS

3.1 Regulated quality management requirements in education

It is in the national and international interest that educational institutions offer appropriate level

of quality of the educational process and programmes. Regulatory requirements have been set on the national and European level to assure it. The national regulation is harmonized with the European one.

Therefore educational institutions implement the adapted form of a quality assurance or QM system. The pupils and students shall benefit from the implemented QM activities, such as environment orientation, planning, provision of appropriate resources, involvement of all stakeholders (including pupils, their parents and students) in management bodies of the institutions, measuring the stakeholders' satisfaction, regular result measurement and self-assessments as the basis for improvement actions. Pupils and students shall get some experiences in a particular QM activity (such as satisfaction survey) if they are involved. Actually, it doesn't happen that all the pupils and students are involved in such activities and it is not the intent to teach them about QM issues and practices this way. Therefore, the benefits of implemented QM systems are mostly overall better teaching process contributing to better learning of the topics covered by educational programmes. So, QM topics should be included in the educational programmes in order to be learned in schools.

3.1.1 Required quality assurance in primary education

In the regulation (Act on the primary schools and the related documents) (MIZS, 2014) there is no explicit requirement on QM in primary schools. However, some QM elements can be found in the act but QM requirements and responsibilities are not explicitly given.

3.1.2 Required quality assurance in secondary education

In the secondary schools area there are two groups of schools: general secondary schools (gymnasiums) and vocational secondary schools of different levels. There is still no explicit QM requirement in regulation for gymnasiums (Act on gymnasiums), however such requirements are set for vocational and professional secondary (lower, middle and

higher level) schools (MIZS, 2014). On the middle level just a “Quality assurance commission” and a set of QM activities are required (Act on vocational and professional secondary education) (MIZS, 2014), on the higher level external evaluation and accreditation (as described in the next paragraph) is required as well (NAKVIS, 2014).

3.1.3 Required quality assurance in tertiary (higher) education

Regulatory requirements specify external evaluation and accreditation criteria and “The Slovenian Quality Assurance Agency for Higher Education” (Agency) as the accreditation body. Educational institutions and programmes should be granted accreditations upon meeting minimum quality assurance criteria, set by national legislation (NAKVIS, 2014). The criteria comply with the quality assurance standards and guidelines that apply in the European Higher Education Area.

Required accreditation procedure and evaluations by the Agency in higher education institutions as a recognition of meeting quality assurance criteria:

- The accreditation procedure for higher education institution and programmes as well as the evaluation process as a part of it are determined in the Criteria for the accreditation and external evaluation of higher education institutions and study programmes (Criteria) (NAKVIS, 2014). In our paper we focus on criteria for accreditation and evaluation of institutions. The procedure is described in articles 3 (definitions), 6 to 15 (initial accreditation) and 22 to 35 (re-accreditation).
- Areas which are the subject of higher education institution assessment (Articles 8 and 26) in initial accreditation and re-accreditation are the following:
 1. integration with the environment (with intent to cover staff needs of the business and social environment and making students employable);
 2. functioning of the higher education institution (planning, achieved results and management of the institution);
 3. human resources (providing appropriate study programmes, providing needed and competent teaching and research staff);

4. students (students’ satisfaction, study interests, enrolment, results and after-study employments, involvement in the institution’s processes and participation in institution’s management bodies);
5. material conditions (premises and equipment, their suitability for students with special needs, funding, library and information services);
6. quality assurance (including regular self-assessments of the institution), innovation and development orientation.

3.2 Additional certified quality management approaches in education

Educational institutions want to attract new potential pupils or students. Enough enrolled pupils/students enable educational institutions to perform and finance the educational programmes. One important element to attract new pupils/students is the quality of the educational process and programmes. Especially on the higher levels of education students seek for the knowledge and skills that enable them to get a job after finishing the study. Institutions compete for the students, so exceeding the required minimum level of quality can be one of the drivers for survival and successful development of the institutions and their programmes. Therefore some of them already implement quality tools and systems which would help them with it and give them some recognisable external signal of quality.

3.2.1 Voluntary additional quality assurance in primary education (standards and certifications)

Some primary schools (e.g. OŠ II Murska Sobota) implemented and certified ISO 9001 (Murski val, 2008), some of them (e.g. OŠ Šentvid, OŠ Trbovlje) implemented locally developed QM scheme for educational organizations Quality for future of education - KzP (“Kakovost za prihodnost vzgoje in izobraževnja”) (SIQ, 2014a). This scheme, established by a national certification body SIQ (SIQ, 2014), helped changing quality culture in these organizations.

3.2.2 Voluntary additional quality assurance in secondary education (standards and certifications)

There were some but rare secondary schools implementing and certifying ISO 9001 (e.g. Visoka šola za zdravstveno nego Jesenice, Šolski center Škofja Loka) or KzP (e.g. Gimnazija Franceta Prešerna) (SIQ, 2014a).

3.2.3 Voluntary additional quality assurance in tertiary education (standards and certifications)

Recognisable external signals of quality of some institutions are their attained international accreditations (like EQUIS, AACSB, TedQual, etc.) (Zajec, 2010). Some institutions implement the international quality management standard ISO 9001 (Škafar, 2008; Bukovec, 2008; FOŠ, 2011) or business excellence model EFQM (Prašnikar and Kern Pipan, 2011). Some quality agencies (e.g. The centre of accreditation and quality assurance of Swiss University) already realised that some concepts from the ISO 9001 and the EFQM may be transferable and applied to education for both systems call for strong leadership, broad stakeholder involvement and the use of success indicators (OAQ, 2005).

There are also special IT applications developed and available, such as "Teaching capability maturity model" (T-CMM) (Chena, Chenb, and Chenc, 2014) supporting QM of a teacher's individual teaching process and thus helping to improve the quality of the teaching process.

3.3 Quality related topics and courses in the regular primary and secondary school programmes

Quality issues and approaches are being recognized as important, leading to better competitiveness on the organizations', national and international levels. Therefore, some basic knowledge of PDCA continuous improvement cycle and some basic quality related values and skill need to be built-in in everyone's thinking. These are really basic principles that could be fostered through education process starting at its basic levels.

The found valid official educational programmes in Slovenia and their courses (MIZS, 2014a; 2014b; 2014c; 2014d) that obviously cover some of QM topics are listed in the next paragraphs as results of our research.

3.3.1 Quality related topics and courses in primary schools

In the primary schools there are no explicitly mentioned QM topics mentioned in the primary school official educational programmes.

However, there are some written programme guidelines for teaching staff and class communities of primary and secondary schools (MIZS, 2014a) where some QM guidelines (similar to the ones of ISO 9000) are suggested to be considered by teaching. On the other hand, no explicit emphasis on teaching for improvement and innovation is recognized in these guidelines.

So, in the primary schools some basic values important in QM approaches and sustainable development may be given and discussed only within the obligatory courses (e.g. social and technical courses). Additionally, there are some possibilities in the primary school extended program and interest activities (language, technical, IT, sport, arts courses). Basically, they aren't QM oriented but can include some of its principles (probably it is up to school and the teachers' affinity to use of such principles).

3.3.2 Quality related topics and courses in secondary schools

The general secondary schools (gymnasiums) continue sharing general knowledge at more comprehensive level. There are no special QM related courses in this group of schools. However, there are some rare other courses that are related to QM or may cover some of these topics. So, there exists only one obligatory course "Entrepreneurship" on the Economic gymnasium and two optional courses "Mechanical engineering" on the Technical gymnasium (MIZS, 2014b). There are still two obligatory elective contents that may be QM related: "Entrepreneurship" on the Economic and Technical gymnasiums and "Project work" on the Economic gymnasium.

QM principles and approaches are at most represented in the educational programmes of vocational secondary (lower, middle and higher level) schools (MIZS, 2014c; 2014d).

There are no special QM related courses in lower level vocational education programmes (CPI, 2014) offering practical oriented knowledge catalogues for 6 vocational qualifications.

The middle level vocational programmes include knowledge catalogues for 42 vocational qualifications. There are no special QM related courses in these programmes (CPI, 2014) either, however some of the QM principles and topics may be included in their general business oriented courses - on processes (7 courses in 5 qualifications' knowledge catalogues) and organization (1 course in 8 qualifications' knowledge catalogues). All such process or organization oriented contents are included in educational programmes for manufacturing vocations (especially in metal, automotive and electro industries).

The middle level professional programmes include knowledge catalogues for 38 professional qualifications. Special QM related courses exist (5 QM course in 5 qualifications' knowledge catalogues = 1 QM course per each professional qualification) (CPI, 2014). There are also business oriented courses - on processes (8 courses in 8 qualifications' knowledge catalogues) and organization (7 courses in 7 qualifications' knowledge catalogues). Altogether there are 15 ones (a few manufacturing oriented ones, the most of them service oriented) from 38 professions that have special QM, process or organization oriented courses in their educational programmes.

The higher level professional programmes include knowledge catalogues for 31 professional qualifications. Special QM related courses are more often offered (6 QM courses exist in 6 qualifications' knowledge catalogues = 1 QM course per each professional qualification) (CPI, 2014). There are also more business oriented courses - on processes (10 courses in 6 qualifications' knowledge catalogues) and organization (18 courses in 12 qualifications' knowledge catalogues). Altogether there are 17 (mostly service oriented) ones from 38 professions that have special QM, process or organization oriented courses in their educational programmes.

3.3.3 Quality related topics and courses in tertiary (higher) schools

The enhanced QM programmes and courses are offered at faculties on all three levels of study (the professional, university, master and the doctoral degree) (2014d). In Slovenia the only specialised QM study on all these levels is offered by only one faculty – a private Faculty of organization studies Novo mesto (“Fakulteta za organizacijske študije” – FOŠ).

On other private high schools and universities and on all three public Slovenian universities no complete QM programmes or specialisations. There are a few study programmes on some faculties covering some of the QM topics in one or two obligatory or optional courses / learning units. Such programmes are:

- “Poslovanje in organizacija” on the Faculty of economics of University of Ljubljana;
- “Strojništvo” on Faculty of Mechanical Engineering of University of Ljubljana;
- “Ekonomske in poslovne vede” on the Faculty of Economics and Business of University of Maribor;
- “Organizacija in management poslovnih in delovnih sistemov” and “Organizacija in management informacijskih sistemov” on the Faculty of Organizational Sciences of University of Maribor;
- “Vodenje in kakovost v izobraževanju”, “Ekonomija v sodobni družbi” and “Vseživljenjsko učenje: management razvoja kadrov” on a private International school for social and business studies Celje (“Mednarodna fakulteta za družbene in poslovne študije”).

4. DISCUSSION

The primary schools are established to give young people the basic general knowledge for further education and life. So no detailed QM knowledge is expected.

In the secondary schools area there are two groups of schools: general secondary schools (gymnasiums) and vocational secondary schools of different levels. The general secondary schools (gymnasiums) have a similar mission as the primary

schools – giving the general knowledge at more comprehensive level.

The secondary vocational schools are very practical oriented. Especially on the middle and higher level they offer some QM related courses and contents. Special courses are still rare.

More often organization and process management knowledge, learning specific profession related processes is a frame for getting known with some QM approaches.

More than 70% of the young people that are finishing one of the secondary schools in 2014 intend to continue their study on a higher level (SURS, 2014). Other 30% of them will probably begin working (take a job) with the level of knowledge (also in the field of QM) they have got by the end of their secondary level education.

The majority of the population (70% of the young people finishing secondary schools) still have an opportunity to upgrade their QM knowledge at the faculty. However, the choice of study programmes that cover QM topics is really narrow as realised through the analysis. Probably there still exist some other faculty courses / learning units dealing also with QM issues that we haven't found through this quick review of the study programmes. We believe it wouldn't change the general picture of low emphasis on QM topics in higher education.

Our business needs skilled people - not only skilled in their narrow profession, IT and languages but also understanding basic QM principles and approaches. This is one of the pillars of making im-

provements and driving innovation and competitiveness which are the highlighted national and European business objectives (MGRT, 2013; EC, 2010; 2010b; 2010c; 2010d).

5. CONCLUSION

The paper gives some insight in the situation of business needs and offered teaching for quality in the regular Slovenian educational programmes on all the levels.

Strong needs for QM knowledge were indicated – not only as adults learning initiated and financed by business organizations but also as a basic knowledge transfer through the obligatory education of youths. Such needs were also recognised from the national and European policy and action documents.

The situation in Slovenia was analysed by searching for QM regulation requirements and QM related programmes and approaches in our primary, secondary and tertiary school programmes. A gap between the needs and the programmes offered was found.

The purpose of this paper is only to highlight the issue of teaching for quality in our regular education programmes – just to become aware of it and to find some improvement opportunities. There should be still some more detailed research on this topic on national and international level to give stronger suggestions.

EXTENDED SUMMARY / IZVLEČEK

Kakovost izdelkov in storitev, učinkovit management procesov, stalne izboljšave in inovacije so nekateri bistveni pogoji za uspešno poslovanje. To pogosto poudarjajo managerji uspešnih organizacij, avtorji strokovnih in znanstvenih člankov ter celo politiki in novinarji.

Standardi in modeli managementa kakovosti, kot so standard ISO 9001 in model EFQM, so se pojavili v pomoč organizacijam, ki potrebujejo zagotavljanje stabilne kakovosti proizvodov in storitev, njene stalne izboljšave in učinkovito izvajanje proizvodnega procesa in njegovih podpornih procesov. Minilo je že 28 let, odkar se je pojavil standard ISO 9001. Zdaj je najbolj razširjen globalni standard, ki ga uporablja več kot 1.100.000 organizacij po vsem svetu.

Če se je management kakovosti izkazal kot pomemben pristop, ki pomaga organizacijam, da poslujejo bolje in s tem prispeva k blaginji družbe, bi bilo pričakovati, da je nekako vključen v naše

redne šolske programe na vseh ravneh šolanja. Pričakujemo, da je učenje pristopov kakovosti in njihovo prenašanje v način življenja v otroštvu in mladosti najcenejši in najučinkovitejši način za izboljšanje kulture kakovosti v družbi in tudi za njeno uvajanje in uveljavljanje v naših organizacijah.

Članek daje vpogled v stanje z iskanjem programov in pristopov, povezanih z managementom kakovosti, v naših primarnih, sekundarnih in terciarnih šolskih programih. Namen tega članka je le izpostaviti problematiko poučevanja za kakovost v naših rednih izobraževalnih programih – predvsem s ciljem, da bi se tega problema zavedli in bi nas to spodbudilo k iskanju možnosti za izboljšave.

Ugotovitve, pridobljene na podlagi analize javno dostopnih podatkov kažejo, da predmetov in učnih vsebin s področja managementa kakovosti v osnovnih šolah in na splošnih srednjih šolah skorajda ni. Prav tako so redki in specialno usmerjeni posamezni s kakovostjo povezani predmeti na poklicnih šolah. Še največ poudarka kakovosti, procesom in organizaciji dela dajejo v okviru svojih učnih programov srednje in višje strokovne šole. Okrog 70% populacije, ki nadaljuje šolanje na fakultetah, pa ima zelo omejene možnosti, da izberejo management kakovosti kot eno izmed študijskih vsebin, saj le redke fakultete ponujajo te vsebine v obliki specialnih predmetov ali celo študijskih programov.

Ugotovitve kažejo na potrebe spremembah, ki jih pa na podlagi izvedene raziskave še ni možno celovito predlagati. Za konkretnije predloge izboljšav bi bilo potrebno to problematiko še bolj poglobljeno raziskati, kar kliče po nadaljnjih raziskavah v nakazanih smereh.

REFERENCES

- Alič, M. (2014). Impact of ISO 9001 certification cancellation on business performance: a case study in Slovenian organisations. *Total Quality Management & Business Excellence*, online publication April 16th, 2014.
- Anttila, J. (2001). *Effective quality communication*, 6th World Congress for Total Quality Management in St. Petersburg, Russia in June 2001, available at: <http://www.qualityintegration.biz/Communication.html> (accessed April 29th, 2014).
- Bangert, M. (2012). Make ISO work for you. *BNP Media*, 2012 (June), 30-35.
- Boiral, O. (2012). ISO 9000 and organizational effectiveness: A systematic review. *The quality management journal*, 19 (3), 16-37.
- Boulter, L., Bendell, T., Singhal, V., Dahlgaard, J., & Abbas, H. (2006). *Report on EFQM and BQF funded study into the impact of the effective implementation of organizational excellence strategies on key performance results*. UK: The Centre of Quality Excellence, University of Leicester.
- Bukovec, B. (2008). *S procesnim pristopom do izboljšanja kakovosti visokega šolstva*. Dlib - Raziskave in razprave. URN:NBN:SI:DOC-BEPIFJAC, 1(3): 213-234, available at: www.dlib.si/stream/URN:NBN:SI:DOC-BEPIFJAC/...6057.../PDF (accessed April 20th, 2012).
- Chena, C.-Y., Chenb, P.-C., & Chenc, P.-Y. (2014). Teaching quality in higher education: An introductory review on a process-oriented teaching-quality model. *Total Quality Management & Business Excellence*, 25 (1-2), 36-56.
- Chow-Chua, C., Goh, M., & Wan, T.B. (2003). Does ISO 9000 certification improve business performance?. *International Journal of Quality & Reliability Management*, 20 (8/9), 936-953.
- CPI (2014). *Standardi poklicnih in strokovnih kvalifikacij (Secondary vocational and professional qualification standards)*. Center RS za poklicno izobraževanje, available at: <http://www.cpi.si/nizje-poklicno-izobrazevanje.aspx> (accessed April 29th, 2014).
- Dahlgaard-Park, S., Chen, C., Jang, J., & Dahlgaard, J. J. (2013). Diagnosing and prognosticating the quality movement - a review on the 25 years quality literature (1987-2011). *Total Quality Management & Business Excellence*, 24 (1-2), 1-18.
- Dimara, E., et al. (2004). Strategic orientation and financial performance of firms implementing ISO 9000. *International Journal of Quality & Reliability Management*, 21 (1), 72-89.
- Disney, J., Crabtree, H., & Harrison, P. (2000). "The case for undergraduate education in quality management". *Total Quality Management*, 11 (4-6), 574-580.
- EC (2010). *Europe 2020: Europe's growth strategy*. European Commission, available at: http://ec.europa.eu/europe2020/europe-2020-in-a-nutshell/index_en.htm (accessed April 29th, 2014).
- EC (2010a). *An Agenda for new skills and jobs: A European contribution towards full employment*. European Commission, available at: <http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52010DC0682> (accessed April 29th, 2014).

- EC (2010b). *An Integrated Industrial Policy for the Globalisation Era*. European Commission, available at: http://ec.europa.eu/enterprise/policies/industrial-competitiveness/industrial-policy/files/communication_on_industrial_policy_en.pdf (accessed April 29th, 2014).
- EC (2010c). *Enterprise and industry – key challenges*. European Commission, available at: http://ec.europa.eu/enterprise/policies/industrial-competitiveness/industrial-policy/key-challenges/index_en.htm (accessed April 29th, 2014).
- EC (2010d). *Competition – Making markets work better – European competition policy*. European Commission, available at: http://europa.eu/pol/pdf/flipbook/en/competition_en.pdf (accessed April 29th, 2014).
- EUROCHAMBRES (2013). *SMEs and innovation*. The Association of European Chambers of Commerce and Industry, available at: <http://www.eurochambres.eu/Content/default.asp?pagename=SMEsAndInnovation> (accessed April 29th, 2014).
- FOŠ (2011). *Pridobitev certifikata ISO 9001*. Novice FOŠ. Fakulteta za organizacijske študije, available at: <http://www.fos.unm.si/si/novice/?id=412> (Accessed Oct. 25th, 2011).
- GZS (2013). *Agenda 48+*. Ljubljana : Gospodarska zbornica Slovenije - GZS (Slovenian Chamber of Commerce), April 16th, 2013, available at: http://www.gzs.si/slo/skupne_naloge/za_uspesno_slovenijo/59870 (accessed April 29th, 2014).
- GZS (2013a). *Prispevek Gospodarske zbornice Slovenije k osnutku Strategije pametne specializacije 2014-2020 (Contribution of The Slovenian Chamber of Commerce to the draft paper of Strategy of clever specialisation 2014-2020)*. Ljubljana : Gospodarska zbornica Slovenije - GZS (Slovenian Chamber of Commerce), July 30th, 2013, available at: http://www.gzs.si/slo/skupne_naloge/za_uspesno_slovenijo/59870 (accessed April 29th, 2014).
- ISO (2013). *The ISO survey 2012*. available at: <http://www.iso.org/iso/home/standards/certification/iso-survey.htm> (accessed Dec. 18th, 2013).
- Kovač, P., & Grošelj, B. (2007). *Odličnost v slovenski javni upravi 1995-2006. (Excellence in Slovenian public administration 1995-2006)*. Nacionalna meroslovna institucija - MIRS (National Metrology Institution), available at: http://www.mirs.gov.si/fileadmin/um.gov.si/pageuploads/Dokpdf/PRSP0/LiteraturaSlo/brosura_JU_SLO_tisk.pdf (accessed April 29th, 2014).
- Llopis, J., & Tari, J.J. (2003). The importance of internal aspects in quality improvement. *The International Journal of Quality & Reliability Management*. 20 (2/3), 304-324.
- Magd, H.A.E. (2008). ISO 9001:2000 in the Egyptian manufacturing sector: perceptions and perspectives. *International Journal of Quality & Reliability Management*, 25 (2), 173-200.
- Martinez-Costa, M., & Martinez-Lorente, A.R. (2007). A triple analysis of ISO 9000 effects on company performance. *International Journal of Productivity & Performance Management*, 56 (5/6), 484-499.
- Mathews, S. (2005). ISO 9000 survey shows value of customer focus – and gives purchaser's viewpoint. *ISO Management Systems, 2005 (Sept.–Oct.)*, 15-19.
- MGRT (2006). *Program celovitega spodbujanja kakovosti v turizmu (Program of promoting total quality in tourism)*. Ministrstvo za gospodarski razvoj in tehnologijo – MGRT (Ministry of economic development and technology), available at: http://www.mgrrt.gov.si/fileadmin/mgrrt.gov.si/pageuploads/turizem/MG-Program_celovitega_spodbujanja_kakovosti.pdf (accessed April 29th, 2014).
- MIZS (2014). *Regulation and public data on primary, secondary and tertiary education*. Ministrstvo za izobraževanje, znanost in šport - MIZS (Ministry of education, science and sport), available at: http://www.mizs.gov.si/si/zakonodaja_in_dokumenti/veljavni_predpisi_s_podrocja_izobrazevanja/ (accessed April 29th, 2014).
- MIZS (2014a). *Educational programmes of primary schools*. Ministrstvo za izobraževanje, znanost in šport - MIZS (Ministry of education, science and sport), available at: http://www.mizs.gov.si/si/delovna_podrocja/direktorat_za_predsolsko_vzgojo_in_osnovno_solstvo/osnovno_solstvo/program/ (accessed April 29th, 2014).
- MIZS (2014b). *Educational programmes of secondary middle level schools*. Ministrstvo za izobraževanje, znanost in šport - MIZS (Ministry of education, science and sport), available at: http://www.mizs.gov.si/si/delovna_podrocja/direktorat_za_srednje_in_visje_solstvo_ter_izobrazevanje_odraslih/srednjesolsko_izobrazevanje/srednjesolski_izobrazevalni_programi/ (accessed April 29th, 2014).
- MIZS (2014c). *Educational programmes of secondary higher level schools*. Ministrstvo za izobraževanje, znanost in šport - MIZS (Ministry of education, science and sport), available at: http://www.mizs.gov.si/si/delovna_podrocja/direktorat_za_srednje_in_visje_solstvo_ter_izobrazevanje_odraslih/visjesolsko_izobrazevanje/programi/ (accessed April 29th, 2014).
- MIZS (2014d). *Educational programmes of tertiary (higher education) schools*. Ministrstvo za izobraževanje, znanost in šport - MIZS (Ministry of education, science and sport), available at: http://www.mizs.gov.si/si/delovna_podrocja/direktorat_za_visoko_sol

- stvo/sektor_za_visoko_solstvo/razvid_visokosolskih_zavodov/ (accessed April 29th, 2014).
- MGRT (2013). *Slovenska industrijska politika 2014-2020 – SIP (Slovenian industrial policy)*. Ministrstvo za gospodarski razvoj in tehnologijo – MGRT (Ministry of economic development and technology), available at: http://www.mgrt.gov.si/fileadmin/mgrt.gov.si/pageuploads/DPK/SIP/SIP_-_vladni_dokument.pdf (accessed April 29th, 2014).
- Murski val (2008). *Osnovni šoli II podelili certifikat ISO 9001*, available at: www.siq.si/.../RA_MURSKI_VAL__O__II_podelili_certifikat_ISO_9001_... (accessed April 29th, 2014).
- NAKVIS (2014). *Criteria for the accreditation and external evaluation of higher education institutions and study programs*, available at: <http://test.nakvis.si/sl-SI/Content/Details/5> (accessed April 29th, 2014).
- OAQ (2005). *ENQA workshop on Institutional Quality Audits. Summary*. Zürich: Center of accreditation and quality assurance of the Swiss universities, 1-2 December 2003, 1-2 December 2003 - http://www.enqa.eu/files/workshop_material/summary_zurich.pdf (accessed Jan. 25th, 2012).
- Prajogo, D. I. (2011). The roles of firms' motives in affecting the outcomes of ISO 9000 adoption. *International Journal of Operations & Production Management*, 31 (1), 78-100.
- Prašnikar, A., & Kern Pipan, K. (2011). *Pristopi za spodbujanje kakovosti in odličnosti v visokem šolstvu*, available at: http://www.mirs.gov.si/fileadmin/um.gov.si/pageuploads/Dokpdf/PRSP/Literatura/2011-Konferenca_Portoroz-Prasnikar_KernPipan.pdf (accessed April 20th, 2012).
- Psomas, E.L., & Fotopoulos, C.V. (2009). A meta analysis of ISO 9001:2000 research – findings and future research proposals. *International Journal of Quality and Service Sciences*, 1 (2), 128-144.
- RS (2014). *Actual problems in the health area – public hearings*. transcribed voice records of the meeting on Jan. 23th, 2014, Ljubljana: The Republic of Slovenia – RS, National Assembly – Board on Health.
- Rusjan, B., & Alič, M. (2010). Capitalising on ISO 9001 benefits for strategic results. *International Journal of Quality & Reliability Management*, 27 (7), 756-778.
- Sampaio, P., Saraiva, P., & Rodrigues, A.G. (2009). ISO 9001 certification research: questions, answers and approaches. *International Journal of Quality & Reliability Management*, 26 (1), 38-58.
- Simčič, B., et al. (2010). *Nacionalna strategija kakovosti in varnosti v zdravstvu (2010 – 2015) (National strategy of quality and safety in health care (2010-2015))*. Ljubljana: Ministry of health, available at: http://www.mz.gov.si/fileadmin/mz.gov.si/pageuploads/kakovost/nacionalna_strategija_kakovosti_in_varnosti_2010-2015/Nacionalna_strategija_kakovosti_in_varnosti_v_zdravstvu_2010-2015.pdf (accessed April 29th, 2014).
- Singels, J., Ruel, G., & Van de Water, H. (2001). ISO 9000 series - Certification and performance. *International Journal of Quality & Reliability Management*, 18 (1), 62.
- SIST (2014). *Paying more attention to micro, small and medium-sized enterprises (MSMEs)*. Slovenski inštitut za standardizacijo – SIST (Slovenian institute for standardization), available at: http://www.sist.si/index.php?option=com_content&view=article&id=280&Itemid=209&lang=en (accessed April 29th, 2014).
- SIQ (2014). *Letak KzP (Flyer KzP)*. Slovenian Institute for Quality and Metrology – SIQ, available at: http://www.siq.si/index.php?eID=tx_nawsecured1&u=0&file=fileadmin/siqnew/izo/KzP/KZP.pdf&t=1404425699&hash=e21d4a771be4596640789baa16b35e51248b52b3 (accessed April 29th, 2014).
- SIQ (2014a). *Vzpostavljanje sistema vodenja kakovosti po modelu KzP (Implementing KzP QM system)*. Slovenian Institute for Quality and Metrology – SIQ, available at: <http://www.siq.si/solstvo/> (accessed April 29th, 2014).
- SOD (2013). *Priporočila upravljavca posrednih in neposrednih kapitalskih naložb Republike Slovenije (Recommendations of the governer of indirect and direct capital investments in Republic Slovenia)*. Ljubljana : Slovenska odškodninska družba – SOD, Mar. 2013, available at: http://www.zdruzenje-ns.si/db/doc/upl/priporocila_upravljavca_posrednih_in_neposrednih_kapitalskih_nalozb_rs.pdf (accessed April 29th, 2014).
- Solomon, D., & Hogan, O. (2012). *The contribution of quality management to the UK economy*. London, UK: Centre for Economics and Business Research, available at: <http://www.managers.org.uk/quality-management> (accessed Sept. 24th, 2012).
- SURS (2014). *Izobraževanje v Sloveniji (Education in Slovenia)*. note on March 12th, 2014, available at: http://www.stat.si/tema_demografsko_izobrazevanje.asp (accessed April 28th, 2012).
- SZKO (2013). *Priporočilo AUKN - Doseganje kakovosti in odličnosti poslovanja družb/skupin (Recommendation of AUKN – Attaining quality and business excellence of companies/groups)*. Slovensko združenje za kakovost in odličnost – SZKO (Slovenian Association for Quality and Excellence), Jan. 19th, 2013, available at: <http://www.szko.si/novice/6/> (accessed April 29th, 2014).
- Škafar, B. (2008). *Navodilo za vzpostavljanje in zagotavljanje sistema vodenja kakovosti v višjih strokovnih šolah*, available at: http://www.impletum.zavod-irc.si/docs/Skriti_dokumenti/Impletum_A9_Navodilo_za

- _vzpostavljanje_in_zagotavljanje_sistema_kakovosti_v_VSS.pdf (accessed April 20th, 2012).
- UJP (2011). *Politika kakovosti Uprave za javna plačila RS - UJP (Quality policy of Public payments administration of Republic Slovenia)*, available at: <http://www.ujp.gov.si/dokumenti/dokument.asp?id=346> (accessed April 29th, 2014).
- Van der Wiele, T., & Brown, A. (2002). Quality management over a decade. *International Journal of Quality & Reliability Management*, 19 (5), 508-523.
- Van der Wiele, T., Van Iwaarden, J., Williams, R., & Dale, B. (2005). Perceptions about the ISO 9000 (2000) quality system standard revision and its value: the Dutch experience. *International Journal of Quality & Reliability Management*, 22 (2), 101-119.
- Virant, G. (2012). *Usmerjenost javne uprave k uporabniku (Customer-oriented public administration)*, available at: http://www.mpju.gov.si/fileadmin/mpju.gov.si/pageuploads/Kakovost/Zbornik_2002.pdf (accessed April 29th, 2014).
- Wanderbrande, W. (2013). *The quality manager of the future: beauty or the beast?*. 22th annual conference of SZKO - Nov. 14-15th, 2013. Portorož : Slovensko združenje za kakovost in odličnost – SZKO (Slovenian Association for Quality and Excellence), available at: <http://www.szko.si/uploads/files/SZKO-Zbornik-22-povzetki.pdf> (accessed April 29th, 2014).
- Zajec, S. (2010). *Prenos dobrih praks managementa kakovosti v visokem šolstvu : primer Ekonomske fakultete Univerze v Ljubljani*. Magistrsko delo. Ljubljana : Ekonomska fakulteta.