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## STANDPOINT OF THE TOP MANAGEMENT ABOUT THE EFFECTS OF INTRODUCED QUALITY SYSTEM AND CONTINUATION OF ACTIVITIES OF ITS IMPROVEMENT

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**Abstract:** *There are number of obstacles on a challenging road to the effectiveness and business and organizational excellence. One of the most difficult ones is human (not) understanding of the constant flux of change. Such is the case when it comes to development of quality management system. Will the quality be either a problem or resource of some organization depends above all on the basic standpoint towards quality that exists in the organization. Many authors underline that implementation of quality management system and obtaining ISO 9000 certificate is not an easy task, but also emphasize that its maintenance and improvement is much more difficult task. The greatest number of problems that occur during the realization of project of quality management system as well as its improvement are the result of misunderstanding of the essence of standard, that is its principles. One of these principles is Leadership too, that is the role of Top Management. Managers at the highest levels are certainly the most responsible for establishing the vision and guiding organization in all business aspects, including Quality Management and Quality Management System.*

*This work presents results of research conducted on the top management in 204 organizations with introduced quality system. Results show views of top management about the effects of introduced quality system as well as about future steps in terms of improving the same.*

**Keywords:** *quality system, top management, effects, constant improvements*

### 1. Introduction

Organizations which operate in the market and which seek to advance the long-term success and work, must act globally. The last decade of last century testified that the

period of global competition has began, and it is identified through the penetration of world market standard and international orientation of organizations. The free flow of products is not possible to stop anymore by any obstacles nor by protective customs, allowing customers to get more and more choice, and thus become more sensitive and demanding, and always wanting new and better products. This particularly applies to

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the countries whose economy is in transition. There is no more “safe” position in the market. This caused that many organizations – the ones on “the top”, the ones which want to get there, but also the ones which want to stay in “the game”, very seriously, responsibly and comprehensively think about all aspects of their work.

In order to achieve competitive advantage the organizations in the global market apply a very different concepts: lower price, differentiation, costs, speed of delivery, time from development to offer of a product in the market, **certificate of quality management system**, the latest technologies, etc. If an organization wants to compete by lower price, then it has to have lower product costs. This is impossible if purchasing price of some resources are fixed, i.e. uniformed. If an organization wants to compete by differentiation, it has to find a way for its product or service be better in some way from the products or services of competition and bearing in mind that customer have to notice that. What makes the product of some organization better and more different is the **quality** which is exactly one of the ways of differentiation. But, if the customer defines the quality, but not the company. The goal is customer satisfaction, and the quality is only a tool. (Porter, 2007) Therefore, the quality is often in the service of product differentiation. Many successful organizations realize the quality as a strategy to ensure growth and this is the concept of quality in a broader sense. **For such organizations, the quality is no longer just a feature of the product, it is also a characteristic of the organization.** The quality represents a relationship of not only customer-product, but also it represents a customer-organization relationship.

## 2. Quality, series of ISO 9000 standards and their connection with management

The main problem of the lack of market success of domestic companies in business is

likely in terms of poor business productivity and inadequate relation of prices – quality of products. During last several decades, local companies had significant problems with work productivity which is not only a consequence of war destruction, and which influenced the growth of costs and formation of sale prices that were uncompetitive in the market (Matić, 1999).

Unfortunately, local organizations on all levels, organizational forms and size still not sufficiently implement quality management system, which significantly affect their competitiveness in both domestic and international market. Specifically, managers of these companies, mostly due to their lack of information, are not much interested in investing in implementation of ISO 9001:2000(2008) because they feel they do not need it yet. However, reality of international market always force them to change their opinions, but then it is usually too late, because the competition in this market is severe.

The analysis of competitiveness and quality (number of certified organizations) at the global level indicates that the most competitive countries in the world are also the country with the “highest quality culture”, which confirms the fact that the quality today is still an important factor of competitiveness on the world market.

Organizations which possess such certificate have, without doubt, corresponding edge in the market, because they reduce risk to potential buyer and users of their products and services. The reason is very simple – in such organizations all employees (“from a director to the watchman”) are involved in the struggle for quality and its constant improvement.

The basic intention of ISO 9000:1987 and ISO 9000:1994 standards was to ensure required quality, i.e. ensuring fulfillment of customer requirements related to product quality. In that sense, their main intention was to create documented system, where through an external audit and certification of

such system it will be proved that everything functioned as documented. In other words, we should say (write) how to work, and then to implement how it was written – compliance of quality system with requirements of standard was proved in this way. This means that the biggest attention was paid to the formality of system, rather than to improving business results.

Series of ISO 9000:2000 standards was developed to assist organizations in establishing effective quality management system. All of them together (ISO 9000:2000, ISO 9001:2000(2008), ISO 9004:2000(2008), and ISO 19011:2002) represent a harmonious whole, which facilitates mutual understanding. The primary purpose of this change was approaching of organization to business excellence. Thus, the starting assumption is that the effective management of organization came as a result of introduction and maintenance of such organization management system which provides steady improvement of business while respecting the needs of all stakeholders. The basis of such management system, among other things, also contains the quality management system (QMS) which is built on the basis of *eight principles*. These principles are deeply involved in all requirements of ISO 9001:2008 standard. **In the creative application of standards it is important to look at them from several angles:** (1) from the side of requirements of standards and those who interpret them (consultants); (2) from the side of organization; (3) from the side of customer, and (4) from the side of auditors of quality system, and more recently (5) from the side of supplier who is more and more under the attack of their buyers (organizations) which have introduced quality system. Certainly, the most important viewpoint comes from **the side of organization**, that is from the aspect of possibilities and benefits that standards brings to the organization. In fact, it is important to emphasize the following basic values of successful organizations: (1) **behind every effective quality management system there**

**is a strong management system;** (2) behind a strong management system there is strong vision and goals widely communicated and accepted in organization; (3) behind a strong vision there are strong values of commitments, trust, confidence and responsibility. (Easterby-Smith *et al.*, 2005)

The new structure of standard is primarily oriented toward results, rather than to the methods; towards processes, and not to the procedures. In fact, it is necessary to have significant change in thinking in regards to the quality, because both standards (ISO 9001 and 9004) must be treated as a “consistent pair” that only together can contribute to the achievement of business objectives of organization. Thus risk of separation of business goals and objectives of quality is reduced, which contributes to the real integration of quality management system in the organization management system.

The quality management system as a subsystem of the business or organizational system is the integration of organizational structure, responsibility, procedures, processes and resources for the achievement of quality management. This implies that such system must provide quality of organization in all its aspects, not just the quality of products or services. Great number of authors agree with the fact that the model of the process approach, applied to the ISO 9001: 2008, is more and more put among the **models for managing the ENTIRE organization**, not only among models for managing quality system.

Through the application of these systems there are also some negative ratings of usefulness of ISO 9001:2000 system, in the sense of not adding of values for customer, which are the most often a consequence of the following (Heras *et al.*, 2006):

- Purchasing of certificate, the certificate is a goal,
- **Not-including of the top management of organization (only verbal support)**

- Cumbersome documentation which is not part of the business management system of organization, even though only 12% of the whole series of ISO 9000 standards is used,
- Excessive use of services of external consultant who does not know enough the processes and business of concrete organization,
- Auditing oriented only to find mismatches, and
- Global certification where the speciality of organization is being lost.

Still, there are far more positive opinions, and many experts believe that a good use of series of ISO 9000 standards is the first step on the road to business excellence. This is particularly true if the top management of organization actively participates in the construction, maintenance and constant improvement of quality system. Without their involvement in all these phases, the quality management and thus the organization management certainly remain “a dead letter” on paper and is much more difficult task for all employees in organization.

Job of the top managers, according to P. Drucker (Drucker, 2005) (in the book *The most important things about management*), will be more and more “... like the most complicated job I know about, which is the operating the opera. Here are the singers-stars and you cannot order them; there is an ensemble and orchestra; there are people who work behind the scenes and there is an audience. Each of these groups is quite different. But, the conductor of the opera has a score and all others have the same score. In the company you have to ensure all these groups connect between themselves in order to produce desired total result. It is not about who is more or less important, but who is responsible for what is important... We need to know when to order something, and when to treat someone as a *partner-associate*.”

The aim of this paper (work) is to determine whether the highest (top) management in B&H organizations participate in building of quality system, what is the opinion of top management about the benefits acquired by introduced quality management system in their organizations, and that we explore ways of continuation towards improvement of quality system in their organizations, i.e. how does the top management conduct this part of orchestra which many people see as an important part.

### 3. Previous researches

In the past, from the moment of occurrence of the series of ISO 9000 standards from 1987 there were many researches conducted, and which refer to various aspects of implementation and the efficiency of standards in organizations around the world. We will refer here only to some researches which are associated with the participation of top management, their understanding of standards of this series, their views of the achieved results, as well as steps that they intend to take in their upgrading and achieving constant improvements in their organizations.

In a research (Jones *et al.*, 1997) authors studied the link between the type of motivation for certification and perceived benefits. Only 14% of organizations could be included in the group of only developing motivated ones, next 43% besides developing motives accepted the external ones as well which Jones, Arndt and Kustin name the mixed motives. The remaining 43% of the surveyed organizations certified themselves only because of external pressures. **In the questionnaire filled by 272 directors** of Australian organizations which were certified according to ISO 9002 standard, and who stated developing motives as a reason for certification, noticed benefits in all five observed areas: greater standardization of performed processes, less mistakes and less repeated work, less complaints by customers, and thus more orders and lower business costs. In the first

three benefits the average opinion statistically significantly deviates from the average. In the last two benefits there are no significant statistical differences, but still they are positive. In the continuation, the researchers concluded that groups of organizations with developing and mixed motives do not differ significantly in statistics per observing the effects, and therefore they merged them. Organizations which did not have developing motives in average did not experience benefits by certification, level in the area of better standardization of performed processes (Jones *et al.*, 1997, page 660). The latter also coincides with the statement that: “Systematic, but not only formal, introduction of uniformed quality management significantly increases efficiency and effectiveness of organization. There are lots of concrete and convincing evidence for aforementioned.

Research (Casadesus *et al.*, 2000) was conducted on 502 organizations in Spain from which 38% had 15-100 employees, 28% had 101-200 employees, and 20% had 201-300 employees. The largest internal effects were achieved on the definition and standardization of working procedures (33%), increment of confidence in the quality of organization (11%), better participation in the work (11%), reduction of improvisation (7%). The greatest impact on employees was in working satisfaction (78%), safety at work (57%), **communication between employees and managers (73%)**, salaries (52%). As for the external influences we can separate: increased client satisfaction (95%), reduction of number of complaints (86%), improvement in repeated works (75%), increment of participation in sales (82%), increment of the sales share per employee (68%), etc.

In the year 2001 Economic and Social Commission for Western Asia issued a document entitled: “Impact of the Application of ISO 9000 and ISO 14000 on Selected Industrial Sectors: Case Studies” (United Nations, 2001) where it is assessed the effects of introduction of quality system in three

countries of Western Asia, Lebanon, Jordan and Syria. Thus, in Jordan in may 2001 there were 365 certified organizations which recognized benefits in the following: **initiating management of organization (85%)**, increment of reputation for the organization in local and international trade, better arrangement of documentation, better marketing, **increment of managerial procedures**, job descriptions for employees, and the biggest obstacles were the resistance of employees towards changes, lack of resources as well as adequate knowledge and experience in organizations. Most of the certified organizations did not apply modern approaches to quality through the costs of quality, work organizations, understanding of knowledge as a function of quality, and TQM.

Research of the effects of obtaining the certificate of ISO quality for quality management system in Thai organizations (Hong and Phitayawejwiwat, 2005) showed that the requirements of standards had great impact on five systematic elements of quality management: **the responsibility of management on influence of leadership**; documentation and verification of data about influence on information and analysis; objectives of quality and its plans affect quality of strategic planning of quality; identifying needs for education of all employees who perform their tasks, that are connected with quality, affect development of managing human capabilities, overview of development of new product, specification and control of the process, preventive maintenance and control of quality have influence on quality provision. The research was conducted on 245 organizations from which 67 did not have introduced quality system, and others had it either according to ISO 9001:1994 (84) or according to ISO 9001:2000 (94). Organizations are mainly from timber industry, textile industry, and motor industry, industry of plastic and rubber, and electronics. It was also noticed that organizations which were certified according to new standard achieved better results in almost all eight elements in which they were

assessed except for the element of responsibility of management.

The paper (Besednjak-Suhodolnik, 2005) researched the influence of ISO 9001:2000 standard on the company Mercator-Goriška. The sample was 50 employees (30 sellers, 16 department leaders, and **4 persons from the top management**). All respondents think that standard did not affect costs reduction and increment of employee productivity. Positive effects are greater but there are different views on it. While sellers think that standard had the biggest influence on improvement of service quality and improvement of image of organization, the middle level – department leaders see improvements in better control of leadership, and **the top management** see it as a chance for survival on the market and improvement of the culture of organization. It was also noticed that 37,5% department leaders thought that introduction of quality system was not justified. Quality system positively affected the increment of business success which was rated with the highest mark by the majority owner. It also positively affected most of hard and soft indicators of business success during which bigger influence was on soft indicators, as well as on the satisfaction of employees.

In year 2005 Lagrosen and Lagrosen conducted a survey of opinions among 256 **Swedish experts** (Lagrosen *et al.*, 2005), who are professionally dealing with quality. They divided area of overcoming of quality on three levels: principles, models (ISO 9000, EFQM, Swedish Award for Quality, Baldrige Award Quality) and tools (flow charts, seven quality tools, FMEA...), and the survey found the presence of each of these three levels. During this survey they established that there was noticed the effectiveness of quality system in a strong relationship with perceived importance of principles on which the standards and models are based, and with the great use of quality tools. It is particularly important that, in order to have proper understanding we have to give importance to principles of constant improvements, management on the basis of facts and involvement of all employees. As

for the usage of ISO 9000 standards the respondents sighted effects in the area of improvement in business processes, increment of participation of employees and improvement of customers' satisfaction. Researchers emphasize that the weakness of survey is considering of opinions of respondents only about the effects, rather than independent data.

In year 2006 Heras, Landin and Casadesus conducted a survey of opinions on the group of Spanish experts for quality systems (Heras *et al.*, 2006) (**directors**, consultants, examiners, assessors, academic specialists and representatives of influential organizations) pursuant to the Delphi method. Heras, Landin and Casadesus assessed opinions of interested groups in two rounds and by in-depth interviews. According to the opinion of respondents, the effects of both usage of quality system standard and excellence module are positive, and this is primarily due to improvement in the area of business, effectiveness and costs reduction within business processes. Respondents also underlined significant difference between only minimal satisfaction of requirements of ISO 9000 standard and desire for improvement according to the excellence module EFQM where the first one would represent only a rate of satisfaction, and for the second one, the organizations would fight for the rating of excellent, and therefore the effects on business results would be significantly different. The survey differs from others because it is not interested in only average opinion of respondents, but determines various levels of consensus within the various groups.

In year 2006 Franka Piskar and Slavko Dolinšek, published scientific monography (Piskar and Dolinšek, 2006) A significant part of this monograph represents a survey of effects of using ISO 9000 standard, which was conducted on 212 certified organizations, during which the four groups on questions were answered by the managers for quality system, directors of some business functions,

and chief managers of the studied organizations. Here we will take a look only to the answers by chief managers. Slovenian managers believe that ISO 9000 standards are a good system for provision of quality in organizations (mark 4, 24 – maximally possible was 5,0), and that they provide necessary flexibility in their appliance (mark 3,94). The top managers have found that introduction of quality system in their organizations contributed their process be clearer (18,0% of a total responses), that the quality of products and services is improved (15,8%) and that there is better representation of organizations to foreign countries (12,0%), satisfaction of customers is better (9,9%), that the arrangement of information system is better (9,8%), and that the cooperation with customers is improved (8,8%). Other responses were expressed in smaller percentages.

Slovenian managers see continuation of these activities in the re-recertification (33,1%) and in the establishment of other systems and participation in the excellence modules (ISO 14001 – 18,1%, restoration of processes – 14,0%, modules of business excellence 12,2%, Benchmarking 8,4%, Balanced Score Card 8,2%). They will decide for these steps above all because of the desires or the needs of customers (in 19,4% of cases), requirements of standards and what they offer (18,8%), requirements of management (18,6%), ecological requirements (15,3%), technological necessity (12,2%), ownership claims (7,8%), etc. The main activities that they intend to pursue in achievement of constant improvements in these organizations are: improvement of processes (23,1% of a total responses), improvement pursuant to PDCA circle (12,7%), introduction of permanent control points (12,2%), bigger number of preventive and corrective measures (11,7%), shorter time for ordering cycle (11,15%), improvement during conduction of internal audits (10,7%), etc. As for the improvement in business process they will focus on the following: quality improvement and achievement of 100% of customer satisfaction (25,2%), improvement of reputation of

organization in the eyes of customers (22,4%), new markets (16,2%), improvement of knowledge of existing markets (13,6%), development of expertise in the area of new technologies (12,3%), and development of a database about customers and business (10,3%). The main non-financial goals set by the chief managers are: improvement of capabilities of employees (28,7%), creation of a working environment which will stimulate employees (26,0%), connect rewards with the success of organization (17,6%), develop information capabilities in organization (15,0%), and shorten the time of introduction of a new product (12,75%). The biggest obstacles in this way noticed by top managers are the following: overloading of Management through regular tasks (43,05%), small support from employees regarding changes (18,2%), lack of interest of lower managers (9,27%), poor qualifications of employees (8,28%), etc.

As for the researches related to the area of Bosnia and Herzegovina it is interesting to mention a research of professor Klarić (Klarić, 1999) who was one of the first people who scientifically tried to do something in the area of quality, and particularly in the postwar period. He tried to quantify and analyze external and internal factors which affect quality and quality system in Bosnia and Herzegovina. In this context the effects of some factors have been experimentally researched. The experiment was conducted through a survey published in 100 different organizations all over Bosnia and Herzegovina, and the method of interviews was used. Characteristics of the research itself was that it was conducted in the period when there were no much organizations with introduced quality system in Bosnia and Herzegovina (in the end of survey, only 14 organizations, that is the survey was conducted in organizations that were potentially assessed as possible for introduction of quality system). The research seized 100 organizations, meaning 53 manufacturing and 47 that were not manufacturing (18 service organizations, 12 from the area of public companies, and 17

from the area of public administration). As for the factors regarding management we separate the following ones: in regards to internal factors which significantly affect the quality the most important and dominant ones were: finance 37%, personnel 21%, technical-technological factors 17%, organization and management 14% and policy and goals 11%. The main obstacles to introduction of quality system in organizations are: money 27% (which is more expressed in manufacturing organizations 32%, and 19% in organizations which are not manufacturing ones), education/personnel 26%, motive of leadership 23% (more expressed in organizations that are not manufacturing ones 27%, and 20% in manufacturing organizations), and technical regulations 20%. In 27% of organizations the management does not discuss quality at all, and in 28% of organizations it discuss quality occasionally, while it is disturbing that in 17% of organizations the management does not act in accordance with its conclusions in relation to quality, and in 33% the management acts occasionally in accordance with conclusions. Both cases are identical, because one of the basic managerial rules of behavior is "realization of the decisions and plans". Manager who does not practice this does not have to be in this business.

#### 4. Methodology of research

Research of the effects of B&H organizations which have introduced and certified their quality system according to demands of standard ISO 9001:2000 is defined in this paper as empirical research (because authors have chosen direct observation of selected segment from the real environment and analysis of collected information in it) (Jašarević, 2009). For collection of quantitative information was used one of four main ways – a questionnaire. Authors shaped the questionnaire in a way to have it as simple as possible (for usage and understanding), thorough and reliable, made in the way of claims and questions so that its filling needs

as less time as possible. In the view of time dimension the research was limited only with one time point, i.e. research of the time review, while from the point of view of originality the research goes towards research with primary performance because it is based on original empirical data. It is one of the first researches on that area in selected environment (Bosnia and Herzegovina) and in such volume. The research is structured in the way to enable comparison or possible repeated performance after certain time, and in time it could become starting research (starting point) of study which could be continued on that "follow-up study" (Easterby-Smith *et al.*, 2005).

##### 4.1. Triangulation method

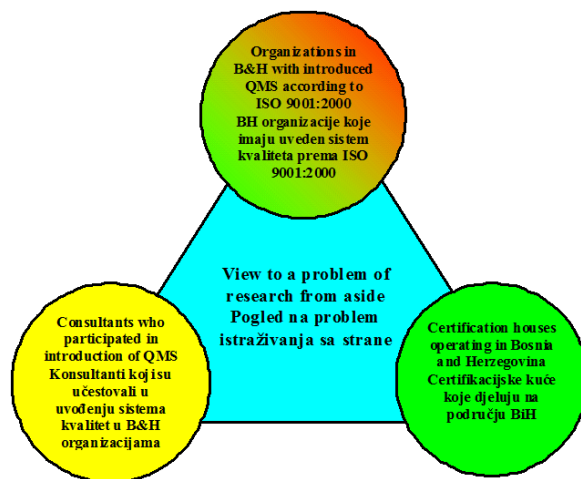
During integral research presented in (Oslić, 2007) authors used triangulation method. It refers to the usage of more than one approach in procedures of researches in the purpose of strengthening of trust into results of researches. Webb and Denzin defended the fact that *the hypothesis verified-experienced by more methods is more worth from the one that is verified-experienced by only one method*. Denzin recognizes four sorts of triangulation: methodological triangulation, data triangulation, triangulation of research and theoretical triangulation (Lobe, 2006).

In this paper **data triangulation** is used in a way that authors could gathered information on the same issue from various sources, as well as the usage of different kind of information (qualitative and quantitative) collected by various methods. Information that refers to the problem of research of effects acquired by organizations in B&H was given by the following sources (Figure 1) (Jašarević, 2009):

- Organization with certified quality system according to ISO 9001:2000,
- Consultants who worked on preparation of those organizations for introduction of quality system, and



- Certification houses that certified those systems.



**Figure 1.** Overview of triangulation method used in work (Jašarević, 2009; Jašarević *et al.*, 2012)

**4.2. The conduction of the information collection plan**

The postal questionnaire was selected for information collection. Table 1 shows described conduction. As for the phone and

personal contacts authors limited themselves to remind and ask people to fill questionnaires and return them. In this way could be fulfilled one of the key conditions for objectivity of research.

**Table 1.** The conduction of the information collection plan (Jašarević, 2009; Jašarević *et al.*, 2012)

Statistical population - for the organizations  - for the consultants - for the certification houses	- organizations in B&H which possesses introduced QMS according to requirements of standard ISO 9001 - consultants who operate in the area of B&H - certification houses which operate in the area of B&H
Unit of the sample	Individual organization, Individual consultant, Individual certification house
Limits of sampling - for the organizations - for the consultants - for the certification houses	660 organizations from the population (from B&H) 70 consultants (addresses from authors data base) 14 houses (addresses from authors data base)
Size of the sample - for the organizations - for the consultants - for the certification houses	- planned out of 120-150 units – 204 units achieved - planned and achieved 31 units - planned 10 units – 11 units achieved
Procedure of sample choosing	Random sampling inside the population
Researching instrument	Structural questionnaires
Acceptance of the researched factor	Mark of the factor $\geq 3,70$
Method of information collection	Combined postal method, supported by authors phone calls and contacts through certification houses and ministries

### 5. Representativeness of the sample

As for the organizations the situation is as follows:

Regarding the activity all organizations gave the answer, and the structure is as follows (Figure 2): eighty two (40,2%) organizations were service organizations, 24 (11,8%) were mainly service organizations, 72 (35,3%) were manufacturing organizations and 26 of them (12,7%) were mainly manufacturing organizations. This means that authors received closely the same sample for manufacturing and service organizations, that is insignificantly more service and mainly service (52%) organizations in comparison to manufacturing and mainly manufacturing (48%). **This points to a change of belief that only or mainly manufacturing organizations dominate in the certification process.** Basically, number of organizations from the area of service activities

which had introduced and certified quality system is increasing (Jašarević, 2009; Jašarević *et al.*, 2010; Jašarević *et al.*, 2012).

Answers to a question regarding the sort of company were as follows:

Limited liability company (139 answers=68,1%), joint stock company (41=20,1%), public companies, organs and organizations (21=10,3%) and one organization from the area of public companies, one organization from the area of financial institution and others (3=1,5%). Other sorts of organizing were not registered. Standards are mainly introduced in economic companies and service organizations, and number of companies in public administration (municipalities and cantons) and other organizations (such as insurance companies, agencies for property and personal protection) slowly grows (Jašarević, 2009; Jašarević *et al.*, 2010; Jašarević *et al.*, 2012).

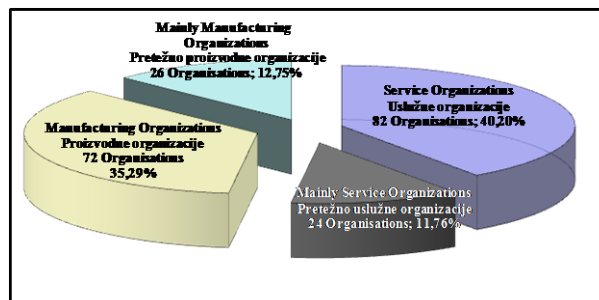


Figure 2. Overview of organizations per activity (Jašarević, 2009; Jašarević *et al.*, 2010; Jašarević *et al.*, 2012)

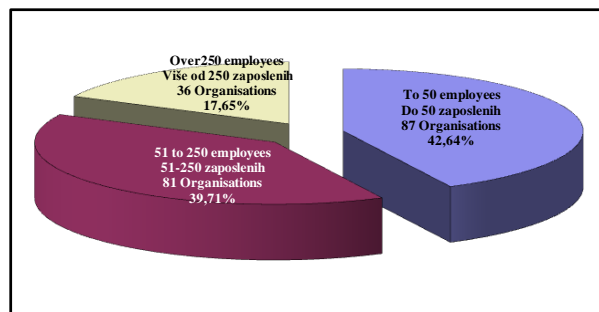


Figure 3. Overview of organizations per number of employees (Jašarević, 2009; Jašarević *et al.*, 2010; Jašarević *et al.*, 2012)

Answers to a question regarding number of employees were as follows (Figure 3): eighty seven organizations have got up to 50 employees (42,65%), 81 have got between 51 and 250 employees (39,7%) and 36 organizations have got more than 250 employees (17,65%). Here it can be seen that every group for itself can represent minimal statistical sample and also that participation of large certification organizations in B&H is decreasing and **the focus is on small-size and middle-size organizations** (Jašarević, 2009; Jašarević *et al.*, 2010; Jašarević *et al.*, 2012).

Answers to question regarding the year of acquiring of the certificate:

Sixty two organizations (30,4%) acquired certificate in the period 1997-2003 and 142 organizations (69,6%) acquired certificate in the period 2004-2008. Answers were given mostly by the organizations which acquired certificate in the period 2005-2007. This shows that **in starting years upon acquiring of the certificate there is better motivation for quality in organizations and that their readiness to participate in such researches is bigger** (Oslić, 2007; United Nations, 2001).

Our wish was to set nine questions in the form of statements and that chief managers (directors of company or organization) give answers to them. 201 organizations gave the information about who filled this part of the questionnaire. 138 (almost 70%) were fulfilled by chief managers. This part of a questionnaire was filled in accordance with instructions. Remaining 30% was mainly filled by managers for quality in organizations (representatives of leadership for quality). Therefore we can assume that answers express opinions of the chief managers (Jašarević, 2009).

## 6. The results of researches

The dilemma on quality definition seems to hinge on satisfying customers' expectations. More confusing arguments are forwarded in

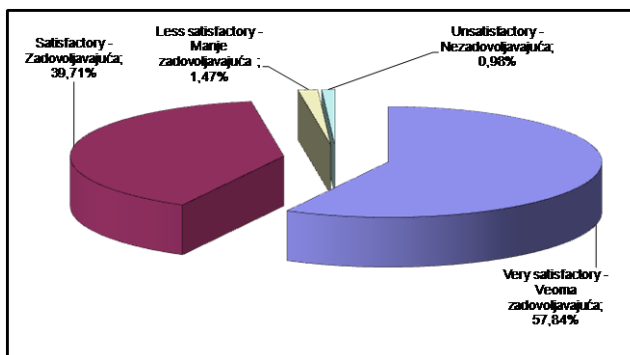
connection with the approaches and/or methodologies to fulfil customers' stated or implied needs. To achieve the core objective of quality different approaches have been action to be considered.

### 6.1. Results on the participation of management

It is said that the management is the head of organization. A place where everything is been "cooked" and decided about future steps. What was the involvement of management in the process of introduction of quality system is presented by Chart 4. Very satisfactory participation was noticed in more than a half of organizations 57,84%, which is a very encouraging data. **This points that managers do not see quality system only as something referring to quality only, but as something that will help them to manage easily with the entire organization.** Remaining 40% of organizations thought that participation of management was satisfactory, while only 2,4% of organizations expressed less satisfactory and unsatisfactory participation of management in the process of introduction of quality system. Participations of management in the phase of setting any system, including quality system, is needed to provide because this is a sensitive phase which, if they recognize it as something worthy to force, can be a springboard for further activities in the area of quality. Also, satisfactory participation at this stage facilitates the continuation of activities in the field of improvement of the quality system as well as the introduction of specific tools for implementation and monitoring of results. The obtained results represent a large percentage of trust and support from the management, although it seems that the result of this answer is very questionable. **Namely, the management represents a large obstacle in introduction of system in many organizations.** This was pointed by answers to a question xx (in continuation), where even 42,68% of organizations circled

“overloading of management with regular activities – work” as one of the main obstacles in introduction of quality system or other quality systems as well as in the continuation of activities in this field.

We can briefly conclude that **appropriate involvement of management significantly affects the success of introduction of quality management system**, the motivation of employees and further activities of organizations in this field.

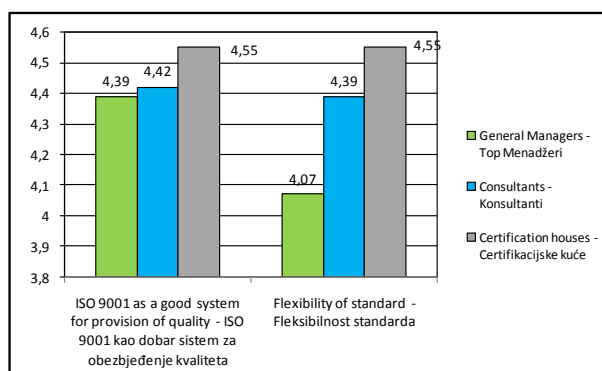


**Figure 4.** Percentual participation of involvement of management in the phase of introduction of quality system (Jašarević, 2009)

## 6.2. The vision of top management about ISO 9001 standard and benefits

Before we give these results it is interesting to look at the results referring to perception of general managers, consultants and certification houses (that is their auditors) about ISO standards (series 9000) as a good system for provision of quality in organizations, and about the flexibility of this standard (ISO 9001). As seen from the Chart 5 the scores are very high which

confirms generally accepted opinion that ISO 9001:2000(2008) is a good system for provision of quality and that it is very flexible. It can also be seen that the size of score depends of the level of knowledge, i.e. understanding of given standard. By far the highest scores were given by the certification houses, i.e. their auditors of quality system who first came in touch and who are most in touch with possibilities of this standard, and then followed by the consultants and general managers of organizations.



**Figure 5.** Parallel overview of scores of ISO 9001:2000 standard (top management – consultants – certification houses) (Jašarević, 2009)

In the crosses of different factors and in the results obtained from the general managers (from the organization) a deviation has been noticed regarding the size of organization. Large organizations pointed out that the standard was more flexible in relation to the middle-size and small-size organizations. The AV at large organizations is 4,26; the AV is 4,05 at organizations with 51-250 employees; AV is 4,00 at organizations with up to 50 employees. Also, organizations that operated with old standard, that is the ones which acquired certificate in period 1997-2003 think that this is flexible. The AV is 4,11; and for the organizations which acquired certificate

after year 2003 the AV is 4,04. We can say that this is a completely normal effect.

In Table 2 we analyzed the question where the general managers could circle multiple answers. Percentages were calculated relatively to a total number of responses (1111), given the number of managers who circles e.g. answer a). There is also percentual part of sample of organization which answered those questions, e.g. 14,40%. Important advantages, that is good sides which organizations benefitted by introduction of quality system, according to opinions of general managers, are ranked in order of significance in Table 2.

**Table 2.** Ranking regarding significant advantages, i.e. good sides which organizations benefitted by introduction of QMS (Jašarević, 2009)

What are important advantages, i.e. good sides that you benefitted by certification of quality ISO		(1)	(2)
1.	Processes are clearer	160	14,40
2.	Quality of products and services is improved	145	13,05
3.	Satisfaction of customers is better	131	11,79
4.	Representation of the company to foreign countries is better	122	10,98
5.	Arrangement of the information system is improved	107	9,63
6.	Cooperation with customers is better	98	8,82
7.	Business results (business success) are improved	97	8,73
8.	Number of inovations of business processes (constant improvements) is increased	89	8,01
9.	Satisfaction of employees is better	63	5,67
10.	Working atmosphere is improved	53	4,77
11.	Customers are more loyal	44	3,96
12.	Other	2	0,18
13.	Total sample of valid answers	1111	100,0
14.	Share of valid answers regarding given sample (204)	204	100,0

(1) number of valid sample units (N); (2) share of valid answers (in percentages)

General Managers mostly circled that processes are clearer (N=160; 14,40%). The reason is a requirement of ISO 9001 standard per process approach and item of standard “7. The Product realization” which foresees all activities which have to be performed before realization of product, that is service or after it. This factor was assessed by quality managers as very high, with a score 4,24. It is followed by improvement of quality of products and services (N=145, 13,05%). The entire standard talks about

this, especially about constant improvements. Quality managers assessed this factor with a score 4,02, meaning high. In 131 (11,79%) organizations the general managers pointed out that there was better satisfaction of customers. There is a noticed emphasis of ISO standard pursuant to principle “Focus on customers”. Managers assessed satisfaction of customers with a score 4,03, and functional managers scored it with even 4,11. Better representation of the organization to foreign countries is the next

important advantage obtained by introduction of standards, according to opinions of leading managers in 122 organizations, or 10,98%. Quality managers put this on first place with a score 4,25. Arrangement of information system is improved in 107 (9,63%) organizations. The item of ISO standard “8.4. Data analysis” and the principle “Deciding on the basis of facts” speak about the significance of arrangement of information systems. Quality managers assessed this factor as 4,05, and also this factor was underlined in un-financial goals. These five upper factors are important advantages that general managers in more than 50% of organizations stated that they had obtained by introduction of standard. Next, cooperation with customers is improved in 98 (8,82%) organizations, business results are improved in 97 (8,73%). These two factors were noticed in around 48% of organizations and we underline them as significant ones (Oslić, 2007).

### **6.3. The vision of top management about continuation of activities in the field of quality**

In older editions of quality systems, that is standards from 1987 and 1994, i.e. ways of certification according to these standards there was a rule of certification after three years without any special checks of what you do in the meantime. The new standards from years 2000 and 2008 have brought so-called control audits every year where organizations had to show their progresses, constant improvements, that is what they did in that period. Although this made certification process more expensive, it is one important and good thing. Organizations, managers in charge for organizations and managers for quality system must continuously work on maintaining and improving the achieved level of quality in organization. What to do in this field? Is it just a standard sufficient or should look for additional tools to improve quality?

Organizations that introduced quality system and obtained the certificate are now at a stage of development. The fact that standard needs flexibility and more immediate connection with business results of organization is necessary that organizations start thinking about expanding of standard to a different quality system which will have that connection and undertake measures in this regard, i.e. upgrade organization in that field. Analysis of questions about decision regarding the continuation of activities in the field of quality is presented in Table 3. Answers point out what are/will be business decision regarding the quality. It was possible to give multiple answers. Since the research was conducted in period when ISO 9001:2000 standard was valid, we asked organizations whether they would certify themselves according to new standard after its adoption. 149 (30,53%) organizations will decide for this step. 90 organizations (18,44%) will go for getting a system of managing with environment ISO 14001 which is more and more popular and needed regarding general situation in the area of environment and environment protection in the world. The module of business excellence is the goal of 50 organizations (10,25%), but it is not clear which one. There is no Bosnian and Herzegovinian one (we will talk about it afterwards), and are we ready to compete in the field of EFQM of module of business excellence? 49 organizations (10,04%) decided for restoration of processes, but still not knowing which system to go with. Comparative assessment (Benchmarking) will be used by 43 organizations (8,81%), and 33 organizations (6,76%) are streaming towards TQM module. Obtaining of OHSAS 18001 is the priority in 24 organizations (4,92%), Balanced Scorecard in 22 organizations (4,51%) and only 14 organizations (2,87%) will decide for the method of 20 keys, while only one organization stated it would not go for restoration of ISO 9001 standard (Oslić, 2007).

Unfortunately, we believe that the state organs fail in this area. They were supposed, if not the first ones to go into, at least to promote and assist organizations in establishing quality systems, assist in establishing state institutions which deal with this issue, etc. Apart from them, the academic community (with some exceptions) can be partly marked as one of the “culprits”, that also did very little in popularization of this field and research in this area. Very few undergraduate, master’s and doctoral papers (works) was done in this area, which would show, above all, all good sides and advantages of these standards as well as some new modules that could be

applied and that could improve entire quality culture. Individuals from academic community have even tried to understate concerned area. As a good example we can underline Slovenia which in its faculties made more master’s and doctoral dissertations from this area (mainly on economic faculties) who dealt with researches of both the effects and application of new tools that will not be implemented in our country for a long time (e.g. introduction of 20 keys, Balance ScoreCard or the analysis of some organizations which applied some of these tools and methods in their improvement of quality).

**Table 3.** Business decisions of organizations regarding continuation of activities in the field of quality (Jašarević, 2009)

Circle what are/will be your business decisions in regards to quality?		(1)	(2)
1.	Certification according to new ISO 9001 standard (after adoption)	149	30,53
2.	Obtaining, i.e. establishing of ISO 14000	90	18,44
3.	Module of business excellence	50	10,25
4.	Restoration of processes	49	10,04
5.	Benchmarking -	43	8,81
6.	TQM module	33	6,76
7.	Obtaining OHSAS 18001	24	4,92
8.	Balanced ScoreCard	22	4,51
9.	Usage of a 20 keys method	14	2,87
10.	Others	14	2,87
11.	Total sample of valid answers	488	100,0
12.	Share of valid answers regarding given sample (204)	200	98,0

(1) number of valid sample units (N); (2) share of valid answers (in percentages)

**Table 4.** Reasons for continuation of business decision (Jašarević, 2009)

Circle or add why did you decide for aforementioned business decisions regarding quality?		(1)	(2)
1.	Technological necessity	43	7,48
2.	Requirements of the owner	54	9,39
3.	Ecological requirements	81	14,09
4.	Desire of employees	22	3,83
5.	Conditions of suppliers	23	4,00
6.	Requirements of standard	120	20,87
7.	Requirements of customers	114	19,83
8.	Requirements of management	107	18,61
9.	Others	11	1,91
10.	Total sample of valid answers	575	100,0
11.	Share of valid answers regarding given sample (204)	198	97,00

(1) number of valid sample units (N); (2) share of valid answers (in percentages)

What were/will be the reasons that organizations are/will decide for the continuation of activities and introduction of other systems? The answers can be found and classified from Table 4. The organizations could circle multiple answers. The most circle answers were requirements of ISO 9001 standard (N=120, 20,87%), i.e. what those requirements are looking for and what the organization obtain through its implementation. Next are the requirements of customers (N=114, 19,83%); requirements of management (N=107, 18,61%); ecological requirements (N=81, 14,09%); ownership requirements (N=54, 9,39%); technological necessity (N=43, 7,48%); conditions of suppliers (N=23, 4,0%); the desire of employees (N=22, 3,83%) (Oslić, 2007).

Table 5. presents answers regarding main non-financial goals that were set in organization. Table presents answers from managers for quality system or from representatives of leadership for quality, and from general managers of organization. Our wish here was to see whether there are major similarities or differences in understanding of these activities between these two categories, which are closely related to the field of quality. Regarding the respondents the answers were classified according to

significance and in full measure are the same, or have the same order. There is a small difference in percentage for individual questions where for example the general managers are less interested in improvement of capability for employees, but it is more interested for them to create working atmosphere which gives stimulus as well as shorten time for introduction of new product in market. (Note that the difference in percentages is not dramatically high; 1-3%). From all this we can conclude that **the key managers are involved in quality management system, that they started to get knowing it as a general management system and do not observe it only as a quality management system.**

When we crossed factors and analyzed e.g. demarcation limits in regards to activity of organization, and with regard to the year of obtaining certificate, and with regard to the number of employees, we did not establish significant differences from the presented conclusions except for general managers of manufacturing companies who gave small advantage to shortening of time for introduction of new product in market over the connection of rewards with success of organization (goals replaced places on the 4<sup>th</sup> and 5<sup>th</sup> place).

**Table 5.** Comparison of main non-financial goals which were set in the organizations (Jašarević, 2009)

What are the main non-financial goals that you set to yourself?		Quality system managers			Top managers		
		(1)	(2)	(3)	(1)	(2)	(3)
1.	shortening of time for introduction of new product in market	5	44	8,71	5	54	10,09
2.	improvement of capability of employees	1	167	33,07	1	160	29,91
3.	create working atmosphere which gives a stimulus	2	130	25,74	2	144	26,92
4.	connect rewards with success of organization	4	60	11,88	4	74	13,83
5.	develop information capabilities	3	92	18,22	3	100	18,69
6.	Total sample of valid answers		505	100,0		535	100,0
7.	Share of valid answers regarding given sample (204)		204	100,0		204	100,0
(1) ranking (2) number of valid sample units (N); (3) share of valid answers (in percentages)							



Organizations will have to continue their journey upon obtaining quality system. With regards to the reasons it will be decided either for introduction of some new system or for planning of improvement in some business processes.

Table 6. presents comparison of order of significance of answers to questions about activities which organizations perform or intend to perform for provision of constant improvements. Improvement of processes in both answers takes first place, where small percentual advantage was given by managers for quality (27,60%/24,74%). There was a change of significance on the second place. Managers for quality think that these are improvements during conduction of internal audits 8for which they are subjectively connected because they participate a lot in them and around them) while general managers put permanent control points on

the second place, and which received a slightly higher percentual significance. As for the importance, permanent control points are on the third place for quality managers, and those are internal audits if we ask general managers. Fifth place is given to improvements per Deming circle (P-D-C-A) for both managers. General Managers put drastic cost reduction on the sixth place, and quality managers put there the shortening of time for supply. As for the persons who answered these questions this is quite reasonable. Quality managers put reshaping of organization on the seventh place, and general managers put shortening of time for supply on that seventh place. The eighth place is also different. Quality managers put drastic cost reduction there, and general managers would only in the end do reshaping of organization. Let us try to put ourselves in the role of both of them!

**Table 6.** Comparison of activities, performed/intend to perform in organizations in order to provide constant improvements (Jašarević, 2009)

There is a belief that obtaining of certificate is only a beginning. What are the activities that you perform/intend to perform for provision of constant improvements?		Quality system managers			Top managers		
		(1)	(2)	(3)	(1)	(2)	(3)
1.	Improvement of processes	1	186	27,60	1	167	24,74
2.	Reshaping of organization	7	52	7,72	8	51	7,56
3.	Shortening of time needed for completion of ordering cycle	6	57	8,46	7	54	8,00
4.	Drastic cost reduction	8	42	6,23	6	55	8,15
5.	Permanent control points	3	91	13,50	2	103	15,26
6.	More preventive and corrective measures	4	71	10,53	3	100	14,81
7.	Improvement pursuant Deming circle (PDCA)	5	67	9,94	5	55	8,15
8.	Improvements during conduction of internal audits	2	97	14,39	4	85	12,59
9.	Total sample of valid answers		674	100,0		675	100,0
10.	Share of valid answers regarding given sample (204)		204	100,0		204	100,0

(1) ranking (2) number of valid sample units (N); (3) share of valid answers (in percentages)

Next question for these two categories referred to planned improvements in business process, whose results are given in Table 7.

As for the planned improvements, the managers for quality and general managers

defined the same planned improvements in first three places, as follows:

- 1) improve general business quality and service quality for achievement of 100% of satisfaction of customers;

- 2) improve reputation of organization in the eyes of customers (keep the customers);
  - 3) develop expertise in the fields of new technologies.
- The difference in percentages is not greater than 1%.

**Table 7.** Comparison of planned improvements in business process (Jašarević, 2009)

What are the improvements planned in business process?		Quality system managers			Top managers		
		(1)	(2)	(3)	(1)	(2)	(3)
1.	Improvement of knowing its markets	4	83	13,61	5	81	12,58
2.	Develop expertise in the area of future-upcoming technologies	3	104	17,05	3	112	17,39
3.	Develop solutions for additional values (new markets)	5	75	12,30	4	83	12,89
4.	Improve reputation of organization in the eyes of customer (keep the customers)	2	135	22,13	2	151	23,45
5.	Improve general quality of business and quality of services for achieving 100% of customer's satisfaction	1	153	25,08	1	158	24,53
6.	Develop database about customers and business, needed for synergy	6	53	8,69	6	57	8,85
7.	Total sample of valid answers		610	100,0		644	100,0
8.	Share of valid answers regarding given sample (204)		204	100,0		204	100,0

(1) ranking (2) number of valid sample units (N); (3) share of valid answers (in percentages)

Replacement of planned improvements came in the next two places where managers for quality put the improvement of knowledge of their markets on the fourth place, and on the fifth place they put develop solutions for additional values (new markets), while the general managers turned this order. The last, sixth place is given to develop database about customers and business, and need for synergy.

When we cross these results the biggest difference was noticed with general managers of manufacturing and service organizations at the question of shortening of time for introduction of new product in the market, where managers of manufacturing companies gave more significant importance than the managers of service companies (15,12%/5,40%), as well as at the creation of working environment which gives a stimulus, and where managers of service organizations gave more importance to this (M:S = 24,81%:28,78%).

Certainly, in this way the organizations will not have an easy task, and will meet certain obstacles that will either disable or delay planned activities. In the next question we explored what will be the main obstacles while establishing business decisions of organizations considering the quality. (Table 8.)

Organizations - top managers could circle more options. The main obstacle is the overloading of management with regular jobs. (N=100; 42,68%), followed by too little support by employees for changes (N=35; 10,67%); lack of interest of lower managers for new system (N=22; 6,71%), poor qualifications of employees (N=23; 7,01%), lack of interest of customers (N=22; 6,71%), lack of interest of employees (N=21; 6,41%), poor information support (N=21; 6,40%), problems with suppliers (N=16; 4,88%) (Oslić, 2007).

Other obstacles that the organizations listed themselves are:

- lack of interest of senior managers,
- requirements for reducing the number of employees against the growing number of obligations,
- changes in management from election to election,
- a disorder of legislation at the state level,
- costs for implementation of quality system,
- low participation of state organs in the changes,
- weak financial capability

**Table 8.** Obstacles for establishing business decisions (Jašarević, 2009)

What were/are now/will be main obstacles during establishing aforementioned circled business decisions?		(1)	(2)
1.	Lack of interest of lower managers	28	8,54
2.	Lack of interest of employees	21	6,40
3.	Too little support by employees for changes	35	10,67
4.	Poor information support	21	6,40
5.	Overloading of management with regular tasks	140	42,68
6.	Poor qualifications of employees	23	7,01
7.	Problems with suppliers	16	4,88
8.	Lack of interest of customers	22	6,71
9.	Others	22	6,71
10.	Total sample of valid answers	328	100,0
11.	Share of valid answers regarding given sample (204)	185	90,6
(1) number of valid sample units (N); (2) share of valid answers (in percentages)			

The biggest obstacle for establishing new systems is the management, because it is overloaded with regular tasks. So, the organizations which opt for new systems would have to solve this problem in a planned manner. It is up to them whether to solve this with better involvement of employees, parallel with reorganization of their jobs to some other, with rewards that stimulate quality, more informed employees (internal communication).

## 7. Conclusion

The introduction of quality management system according to ISO 9000 standard, without any doubt, represents the first serious step in any organization on the path of securing the business and organizational excellence as well as the competitive advantage. The value and success of this path depend a lot on understanding the concept of quality by all employees in

organizations, and primarily by the top management which will by its activities and participation in some phases of introduction, implementation, maintenance and improvement significantly contribute to its ultimate success in organizations. This is especially important in countries that are in the phase of economic transition.

Until the introduction of ISO 9000 is motivated by external causes and left to people who are professionally dealing with quality, rather than to the top management of organization as the only competent structure, the ISO 900 will be a problem. From the moment when top management, which has chronic problem with lack of time, finds the time to actively involve into the project, the chances for success become more certain. Therefore, the real challenge for QM professionals is to persuade their managers to accept QMS standards, modules and techniques as tools that will help them to achieve better effectiveness in their work. In

this regard, it is worthwhile to think about suggestions of P. Drucker who is very precise speaking about the effectiveness of executive directors: “*There are lots of educated directors, but there are significantly less the effective ones. Directors are not paid for what they know. They are paid to do right things*”. Effective introduction of quality management standard in organization is one of such – “right things”.

On this path, it is also necessary to ensure that the top management in organization accepts the quality as a management system in organization, because by the consistent implementation of consistent pair of standards ISO 9001 and ISO 9004 this can be achieved.

Considering obtained results we can conclude several things:

- Top managers in B&H recognize importance of the introduction of quality systems in their organizations and their necessary flexibility and possibility of their application in their own organization,
- Top managers in B&H are on track to adopt quality management system as a general management system in organization,
- Organizations which have introduced quality system and their top managers recognize importance of continuous improvements, because only in this way the quality and their organizations can go forward,
- In the space of possible improvements there is still enough unused space, especially when it comes to application of PDCA cycle,
- B&H organizations need provision of space for competition as soon as possible, firstly through the introduction of B&H Quality Reward (it does not exist yet), and then through the participation in other European modules. Thus they will realize their true position.
- Top management, unfortunately like in many other areas, is occupied with current obligations which do not allow them to commit in full capacity to the tasks that are by nature their responsibility and they will have to pass some of their regular tasks to lower managers (middle management).

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