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QUALITY MANAGEMENT

SERVICE QUALITY IMPROVEMENT: THE BUSINESS PROCESS MANAGEMENT APPROACH

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Abstract: This paper is primarily focused on investigation of issues related to application of business process management (BPM) approach in the service organizations. Almost every management model, including the one related to business processes, has been originally created for the manufacturing industry. In order to successfully implement these models in the service industry it is important to understand how services are different from manufacturing activities. Proper comprehension is possible only once the identification of services, their classification and characteristics are addressed. The central piece of the paper examines implementation stages of the BPM and analyses the possible challenges that service organizations can face based on the experience of a business unit of a UK service organization. Examples of BPM practice in service organizations are rare in the literature and mostly based on short analyses of case studies. For that reason, the value of this work lies in the combined study of theoretical background and practical challenges related to basic issues that service organizations have to consider when they are establishing a system for improvement of business processes.

Keywords: *quality management system, service, business process management*

1. INTRODUCTION

In the recent decades, attention of experts in the particular fields of management has been increasingly shifting from manufacturing to service sector. Starting from 1970s the issue of implementation of management models that were crafted for the so called "hard" industries in service companies has been addressed ever more. Consequently, today it is possible to detect, both in academic literature and business practice, development and evolution of numerous process management and quality improvement models that are specifically designed for requirements of the service industry.

An important feature of the service industry is that, thanks to its resources and expertise, it provides its users with considerably better capabilities to satisfy their needs than they could do on their own. Some of these needs (i.e. long-distance communication) can only be satisfied by large enterprises that possess necessary technology and knowledge (for the mentioned need those could be postal services, mobile phone operators or internet providers). Particular service industries owe their entire existence to own superiority (speed, price, high quality, convenience) over the independent realization of tasks. On the other hand, a significant number of services is devoted to satisfying certain psychological and physiological needs, such are needs for entertainment, sport, culture, religion etc.

Service sector has expanded greatly in the last few decades. In the USA, for example, around 23 million people were employed in the service industry in 1945, while there were 18,5 million people working in manufacturing. In 1997, there were already 100 million people working in services and only 25 million in manufacturing. That means that roughly 80% of employees outside of agriculture were actually working in the service sector. (Fitzsimmons and Fitzsimmons, 2001)

In Serbia, the ratio is also changing in favour of the service industry, though still considerably below the American level. This paper analyses how some of the key concepts of business process management can be utilized for quality improvement of service activities.

2. SERVICE PROPERTIES

2.1. Basic distinctions between manufacturing and provision of services

One of the main conceptual issues with implementation of process approach is process classification. For the purpose of this paper it is significant to consider distinction between **product** and **service** types of processes (Melan, 1992).

There is a considerable number of differences between manufacturing and provision of services. Boone and Kurtz (1998) have defined the following important criteria for making the distinction:

- **Users' needs** – it is much more difficult to identify and measure them in case of provision of services than it is with the production of goods.
- **Tangibility/intangibility** – in contrast to goods, that are tangible, services are intangible even when they are visible to the user. Quality of goods can be measured using specifications, while quality of service is often determined by subjective measures of a user (i.e. past experiences – good or bad). User can possess goods, while he may only remember the service. Goods can be returned or replaced, while only ramification for poorly provided service can be apology or some sort of compensation.
- **Schedule of production and consumption** – services are “created” and consumed simultaneously, while production of goods must precede the consumption. Furthermore, many services have to be provided when it is convenient for the user. Service can't be stored, inventoried or inspected, like it is the case with goods, before it comes in contact with the user. Because of that, it is important to devote more effort to training and “building-in” quality into service processes.
- **Presence/absence of a user** – users are frequently present, even involved in the process of service provision, while production of goods is mostly performed far away from them. Users of fast-food restaurants are good example of that. They order food, take it to their table, consume it and afterwards take care of waste, dishes and cutlery. A more sophisticated example of user participation can be found in education (previous knowledge and students' effort are contributing in many ways to the output of the education's “production system”) and health care (output of the “production system” is affected by the capability of a patient to recognize and communicate symptoms to a doctor, as well as his ability to act in line with the given instructions).
- **Labour or capital intensive** – services usually demand exercise of work, while production requires investment of capital as well.
- **Output durability** – tangible outputs of manufacturing are lasting, while only memory and consequences remain after a provision of service. That means that results of services perish considerably faster.
- **Consistency of quality** – services are frequently more inconsistent in quality than manufactured goods. Considering that service quality depends mostly on the person that is providing it, the competence, physical and psychological wellbeing can be decisive factors.

According to the same source, service market is affected by the following factors:

- changes in regulations,
- privatization,
- lowering standards of professional associations,
- technological innovations, including computerization and telecommunication developments,
- establishment of profit centres for services in manufacturing companies,
- financial pressure on social and non-profit organizations to discover new sources of income,
- globalization of service industries,
- expansion of leasing and renting business,
- emergence of a new group of entrepreneurial and innovative managers,
- development of quality initiatives, especially in the service industry.

2.2. Definitions, classifications and characteristics of services

There are many definitions of services. The following ones can be highlighted as frequently quoted in the literature:

“Services are intangible tasks that satisfy the needs of consumer and business users.” (Boone and Kurtz, 1998)

“Service is an act that takes place in direct contact between the customer and representative of the company that is providing the service.” (Zeithaml and Bitner, 1990)

“Service is an act or an action that provides benefits to a customer, by realizing changes that are convenient for the service recipient.” (Zeithaml and Bitner, 1990)

“Service industries” include:

- transportation (railway, air transportation, bus lines, metro, truck transportation, pipelines),
- activities of public enterprises (phone connections, delivery of all sorts of energy, water supply and sanitation),
- trading (food, cloths, cars, department stores),
- financial services (banks, insurance, investments),

- mediation business (real estate business, visa application, marriage proposals),
- hospitality industry (restaurants, hotels, motels),
- news media,
- marketing services (advertising),
- health care (hospitals, ambulances, retirement homes, childcares, medical labs, health tourism),
- education and training services,
- personal services (amusements, laundry and cleaning, beauty salons, barber shops),
- professional services (lawyers, consultants, private medical and dental practice),
- renting (apartments, rent-a-car),
- product, machine, building maintenance (car repairs, painting),
- state-controlled public services (defence, health care, education, social care, municipal services),
- non-profit organizations (Red cross, religious institutions, army).

Purposefulness of services is determined by their characteristics that user (client) recognizes as useful. Evans and Lindsay (2005) distinguish several important dimensions of services:

- **time** - how long user has to wait for a service and how much time does the provision of service take,
- **timeliness** - will a service be provided at the arranged time,
- **completeness** - i.e. are all pieces that were ordered delivered,
- **courtesy** - it relates to the attitude and behaviour of the personnel that is providing a service,
- **consistency** - is service provided every time and to every customer in the same way (robots can almost always replicate actions in the same manner, but people can't)
- **accessibility and convenience** - is there an easy access to services,
- **accuracy** - was the service provided in the right way,
- **responsiveness** - how fast can personnel react to unexpected problems,
- **numerical accuracy** - i.e. how accurate is the transfer of assets in the bank,
- **cleanliness** - i.e. how clean are hotel rooms.

According to the same source, additional characteristics of services that can sometimes be crucial are of:

- **psychological nature** - i.e. appreciation of regular customers, beauty of the environment (landscape, interior of a restaurant), comfort,
- **technological nature** - i.e. transmission without interference (related to phone, TV and radio transmissions),
- **ethical nature** - i.e. truthfulness of information from commercials, no discrimination of customers (respecting religious, national and sex differences, providing equal treatment to people with a disability etc.),
- **legal nature** - assuring that all obligations are fulfilled (i.e. travelling tours should be done on time and include visits to all locations that were previously promised).

Differences between manufacturing and service organizations have led to creation of specific management. Many service organizations, such as airline companies, banks and hotels, have excellent quality assurance systems (Filipović & Đurić, 2009). Most of them are based on the business experience from the manufacturing industry and, therefore, is more product- than service-oriented. For example, quality assurance systems of hotels are frequently limited to technical standards, such are the ones related to furnishing and maintaining rooms. It is much harder to establish standards for intangible characteristics of quality. Often, they are set in arbitrary manner and later tested in practice. Having in mind that work and behaviour of workers, as well as the speed of service provision, are key determinants of users' perception of quality, it is clear that two most important components of quality systems in the service industry are employees and informational technologies. Certainly, this doesn't mean that these factors aren't important in the manufacturing industry, but simply that they are vital for service industry just like production technologies are in the manufacturing.

3. BUSINESS PROCESS MANAGEMENT IN SERVICES

3.1. Stages of BPM implementation

BPM is becoming popular in companies as a holistic management tool for achieving and sustaining corporate success. However, applying BPM in whole organization is not a simple task. The very implementation is usually divided into five main phases (Rosemann, 2008).

First, **it is necessary to create awareness of the BPM methodology and potential benefits of its implementation.** In many instances, insufficient understanding of the BPM concept can be identified as an obvious cause of unsuccessful implementation of BPM. This can be explained by already present high level

of organizational activity, previous commitment to some other methodology of organizational engineering or, commonly, to lacking of initiatives for change or improvement. Sometimes, it occurs that even proponents of this concept lack in knowledge about methods, assets and issues related with the BPM. Overall, lacking of awareness can be assigned to insufficient training in most of the cases. Once the training is properly organized, it represents the best instrument for creating, enhancing and sustaining the awareness of the concept and its importance.

Second, **previously mentioned awareness and comprehension of BPM must be transformed into a real desire for actual adoption of the concept.** This is a critical phase and it demands presence of drivers (i.e. introduction of a new, large system or merging of organizations) and a leader – at least one person with strong commitment to the concept. These can be found in various organizational departments and hierarchical levels of the company. Initiative can emerge from IT department, HR department, business improvement teams or internal stakeholders, such are line and executive managers. One of the biggest obstacles is the fact that BPM doesn't have its typical "home" inside of an organization.

Next, **if the initiative for adoption of the concept was accepted, individual projects for quality improvements have to be set up, executed and monitored within the BPM.** It is recommendable to ensure early that visible results are achieved, especially those that can be used for promotion and development of the concept within the organization. This is usually the phase in which organizations develop organizational capabilities for implementation of BPM and faith that it will yield expected results (Tregear, 2005). Individuals are, at first, fascinated with BPM. They explore the potential career opportunities related to development of concept and later, mostly unofficially, take ownership over it.

Fourth, **if individual projects were successful, organization will seek for the opportunities for further expansion of BPM.** Individual BPM projects will be combined into centralized BPM program that will be in charge of the whole organization. At this stage, the overall BPM methodology has to be fully designed. Methods, techniques and tools have to be specified, established, documented and maintained, accompanied always by appropriate communication. One of the most significant issues at this point is development of BPM strategy that should contain the specification of activities planned for the following 3 to 5 years.

At the end, in the final stage of the change, typical scenario includes establishment of centralized group for BPM. This group needs to have precisely defined internal roles related to the company wide BPM implementation. In this way, BPM-related values will be created and will affect the overall system of values.

3.2. Example of usage of BPM for quality improvement in service industry

Some basic principles of BPM will be analyzed on the example of a large enterprise that is in the business of servicing of capital equipment. This company has over 4000 employees in 50 different locations all over the United Kingdom and more than 24000 across Europe, Asia and Africa. The study was conducted on one of the six business units that is in charge of delivery and service within the particular region. (Lee & Dale, 1998)

Company started its BPM journey by adopting the following definition: "BPM is about measuring core processes, analyzing what works and what doesn't, and improving them". Simply put, the concept was related to "waste elimination and adding value".

By analyzing the internal documentation of this service organization, it is possible to notice that there are three crucial factors affecting the success of BPM implementation:

- Process discipline - imply accurate and consistent application of business processes in the whole organization and constant monitoring of performances;
- Process improvement – improving business processes that includes:
 - ensuring that processes are designed from the customer's perspective,
 - using benchmarking,
 - practicing continuous improvement activities,
 - practicing improvement through breakthroughs, and
 - insisting on quality of information;
- Cross-process integration - user-oriented process management and integration of improvement initiatives in a way that will make them visible to users.

BPM is a helpful instrument for improving processes that are crucial for achieving company's objectives. This organization possesses a set of standard processes in its business architecture and they are supported by BPM principles that are complied with rules of pervasiveness, ownership, documentation, measurement and inspection. (Zairi, 1997)

This organization is assuring compliance with these rules in the following way:

- **Pervasiveness** - understanding BPM principles throughout the whole organization,
- **Ownership** - every process must have appointed owner who will review process performances and be responsible for its continuous improvement,
- **Documentation** - each process has to be modelled from the beginning to the end and have standards for documentation defined in a way that will correspond to the needs of all process users; this includes in-process control measures, documentation and information usage procedures, management controls, as well as a description of process realization,
- **Measurement** - indicators that are used for process measuring are classified into cost, quality and time parameters. All key processes are monitored by usage of indicators related to flow and outcome of the process. Measurements are performed in the critical stages of the process in order to ensure that user requirements are met, mistakes avoided, variations reduced, time of the cycle improved and productivity boosted,
- **Inspection** - process owners have to monitor performances, identify gaps through regular reviews and close them. This principle is related to the need for reduction of variations as well.

BPM approach in the organization includes also understanding of connections among different functions and initiatives. They are another source for the improvement that can be achieved using:

- investments in technology,
- factual approach to decision making,
- simplification, and
- innovation.

Processes in this organization share characteristics with ones that Mitchell (1991) described in his work:

- „they have customers (internal or external), they have defined outcomes and there are users for those outcomes“,
- „they can cross organizational boundaries“ .

The study of BPM practice in this business unit has shown that there is an active effort for maintaining process discipline. The most of the key processes are documented, measured, controlled and owned. However, there is a difference in the level to which a discipline is present. Out of five principles of BPM, measurement is applied in the most vigorous way. It is easy to spot that there are too many measures in the business unit, which is obstructing managers to apply them effectively. Principles of pervasiveness and documentation are not applied, even though they are necessary for application of measurement and control - before simplification and improvement of the process, it has to be understood and documented.

All of the key processes tend to be owned but with variations in the level of documentation. For that reason, some processes are fully documented, some partially and some are not at all. Service engineers that work in self-managing work groups (“SMWG”) are the most advanced in the level of application of BPM principles. Every group has managed to successfully establish ownership over the key processes for which they were responsible, document them and have them inspected bi-monthly by line-managers. Processes are measured during the monthly service reviews and their key measures are presented on quarterly tracking chart as part of a visible management system. Despite this, there are great variations in application of the concept between different self-managing work groups. This leads to conclusion that individual and team motivation are important factors that can influence the effectiveness of implementation.

When asked about the reasons for problems related with the inconsistent application of principles, some of process owners complained that there wasn't enough time for realization of “demanding” process or that they couldn't deal with the process simplification because of the overload which is created during the process realization. It is clear that the organization needs better cross-process integration and more effort in improvement activities.

Matrix organization form that is in between functional and process orientation is present both on the organizational level and on the level of the business unit. For complete adoption of process approach it is necessary to secure strong leadership and change of organizational culture. Another challenge is the presence of isolated departmental teams that work according to own procedures and have job attitude that makes understanding and communication in the organization even more difficult.

This and other studies dedicated to BPM implementation in service organizations are missing an adequate process description which would provide better insight on the practical implications of the concept application in the specific circumstances.

4. CONCLUSIONS

There is a significant number of differences between manufacturing and provision of services that has created a need for adjustment of existing and development of new BPM approaches specifically for service activities. Effective creation and adoption of these methodologies depends on proper understanding of essential differences between products and services and resulting consequences.

Some of the most important criteria for distinction are users' needs, tangibility, schedule of production and consumption, presence/absence of a user, labour/capital investments, output durability and consistency of quality. It is also important to have in mind that service market is affected by specific circumstances that are frequently different from the ones related to goods. Even the very category of the services is today covering considerably broader field of activities than it was the case before.

Adoption of BPM throughout the organization usually implies five particular stages. Firstly, the awareness of the BPM methodology and its potential benefits has to be created. Secondly, consciousness and understanding of BPM have to be transformed into a desire for application of the concept. Thirdly, if initiative for change is accepted, individual quality improvement projects within the BPM have to be established, executed and monitored. It is preferable to strive for results that can be achieved fast and be useful for the promotion and expansion of the concept in the organization. After that, if individual projects are successful, organization will explore how to use BPM idea further and, finally, create a centralized BPM program that is in control of all projects and is responsible for bringing the maximum value to the organization. In the final phase, organization creates centralized BPM group that works on incorporating BPM-related values to the overall culture of organization.

These general stages of BPM implementation are, however, influenced to a great extent by the particular nature of services. Analysis of the business unit of an international UK service organization has shown that there are certain critical factors, principles and rules in the BPM approach that should be considered in the BPM implementation.

This organization that is working on delivery and service for its customers has defined the BPM concept as "elimination of waste and value adding activity". The implementation experience of this company has shown that there are three crucial factors for successful adoption of BPM: process discipline, process improvement and cross-process integration. The organization utilizes a set of standard processes that are supported by BPM principles, which are in compliance with the rules of pervasiveness, ownership, documentation, measuring and inspection. Processes in this organization are set in a way that every process has its customers (internal or external), precisely defined outcomes and freedom to exceed organizational boundaries if it is needed for effective functioning.

One of the conclusions that emerged during the implementation of the concept is that process has to be understood and documented before it is simplified and improved. Establishment of ownership over the key processes, their documentation and bi-monthly inspections are some examples of good practice. Processes should be measured during the regular service reviews and their key measures monitored using the visual tools of quality management.

By analyzing the studies on BPM implementation in the service industry, it can be noted that critical factor of success is always the improvement program that is based on clear categorization of processes.

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CORRELATIONS OF RESTRUCTURING ENTERPRISES PERFORMANCE AND ISO 9001 CERTIFICATION

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Abstract: *The popularity of documented quality management systems in accordance with ISO 9001 standard is evident in many countries. Implementation and certification to ISO management system standards should be observed in relation to economic performance of the company. The aim of this paper is to explore correlation between business performance of Serbian enterprises in the restructuring process and ISO 9001 certification. Main hypothesis of paper has been proved, as existence of statistically significant difference in business income per employee between enterprises with and without ISO 9001 certificate.*

Keywords: *Restructuring, business efficiency, business performance, standardization, ISO 9001*

1. INTRODUCTION

The implementation of management systems, in accordance to requirements of international standards, reflects a socially responsible company and positively affects both image and reputation of the company. According to ISO/IEC (2004) and CEN (European Committee for Standardization, 2013), standard is: 'a document, established by consensus and approved by a recognized body, that provides, for common and repeated use, rules, guidelines or characteristics for activities or their results, aimed at the achievement of the optimum degree of order in a given context'. The development of international standards is based on the results related to science, technology and experience. The ISO 9001 is a generic standard and, as such, it can be implemented in all organizations regardless of their size, activities or organization method. The ISO 9001 standard defines quality management system requirements, but fails to define the method an organization should or could use to meet such requirements. Sukhija (2009) indicates that ISO 9001 standard enables companies to create their own quality management systems.

Basic idea followed by the authors of ISO 9001 standard is that, in order to successfully manage an organization, it is to be managed and run systematically and transparently. Eight principles of the Quality Management System standards (QMSs) ISO 9001 are the following: customer focus, leadership, involvement of people, a process approach, a system approach to management, continual improvement, a factual approach to decision making and mutually beneficial supplier relationships (ISO, 2005). Based on ISO 9001 (ISO, 2009):

- *customer focus* typically leads to ensuring a balanced approach between satisfying customers and other interested parties
- *leadership* typically leads to: considering the needs of all interested parties; creating and sustaining shared values; fairness and ethical role models at all levels of the organization; establishing trust and eliminating fear, providing people with required resources; training and freedom to act with responsibility and accountability; inspiring, encouraging and recognizing people's contributions.
- *involvement of people* typically leads to people freely sharing knowledge and experience and openly discussing problems and issues.
- *a process approach* typically leads to evaluating risks, consequences and impacts of activities on customers, suppliers and other interested parties.
- *continual improvement* typically leads to providing people with training in the methods and tools of continual improvement.
- *a factual approach to decision making* typically leads to ensuring that data and information are sufficiently accurate and reliable.

ISO 9000 series standards present useful guide for (Thorpe & Sumner, 2004): clarification on what quality management includes, system approach and process approach in the organization management, development of policy and objectives of quality, defining the top management role within the quality management system, defining the importance and types of documentation used in the quality management

process, relations with other management systems and basis for relations between the quality management system and the excellence module.

Contemporary certification is a procedure in which the ‘third party’, certification body (registrar), issues a document (certificate) confirming that a product, process or management system meets the necessary requirements (Hesser, Feilzer & De Vries, 2007). The quality management system certification proves that the organization is provided with the whole, consistent and (sufficiently) well documented quality management system. Certified quality management system does not necessary means that the organization provides high quality products or services. The certification is voluntary and is under no power by the International Organization for Standardization ISO. The organization may decide to implement the quality management system according to the requirements of ISO 9001 standard, but not to adhere to certification of its own quality management system.

2. OVERVIEW OF LITERATURE ON FORMALIZATION OF AN ORGANIZATION

Even though the formal process of adopting ISO standards is widely accepted and well-known method of formalization of an organization, it is not the only one. According to Mintzberg, there are three ways to increase formalization within an organization (Mintzberg, 1979): **Formalization by job**, where the specifications refer to work performed by an employee at the specific work position, which results in more precise **job descriptions**; **Formalization by work flow**, where the specifications refer to the work activity process, which results in more precise description of **standard work procedures**; and **Formalization by general rules**, where the specifications refer to general instructions and regulations not specially aimed at job descriptions or standard work procedures, which results in **general regulations**, such as dress codes at work or rules of using the internal forms. Standards used to achieve the above mentioned practically may be but don't have to be in written form. Right example may be an organization with specific ethical behavior standard – even though the standard is not written, everyone is aware of it, it is always being communicated and applied in practice in the same way, and therefore behavior related to ethical issues within an organization is formalized (Burton, 2011). Jones (2000) specifies six principles that may help us recognize highly formalized organizations: Duties, responsibilities and deciding authorities are clearly defined; Rules, standard work procedures, job descriptions and norms are used for the control of behavior and relations between roles within an organization – logic of suitability dominates in the organization; Formalized organizations are based on a principle of legitimate rational authority; Organizational positions are filled based on technical competencies of workers, and not based on social status, friendships or inheritance; Positions within an organization are organized hierarchically so the inferior position is controlled and supervised by the superior one; Administrative decisions and rules are created in written form.

3. RESEARCH HYPOTHESIS AND METHODS

Subject of analysis presented hereafter refers to restructuring enterprises in Serbia, and the aim of the analysis was determination of correlation between holding a certificate of conformity with ISO 9001 standard and business results achieved by such enterprises. Taking that into consideration, we can present the base hypothesis of this paper **H1**: There is statistically significant difference in business quality measured in income per employ between a group of restructuring enterprises holding ISO 9001 standard certificate and a group of enterprises with no ISO 9001 certificate.

For collecting data on restructuring enterprises in Serbia we used the data issued by the Privatization Agency and the Business Registers Agency. Using the documentation analysis method, we have selected relevant data for our analysis. Based on the collected data, there are currently 178 enterprises in restructuring process in the Republic of Serbia.

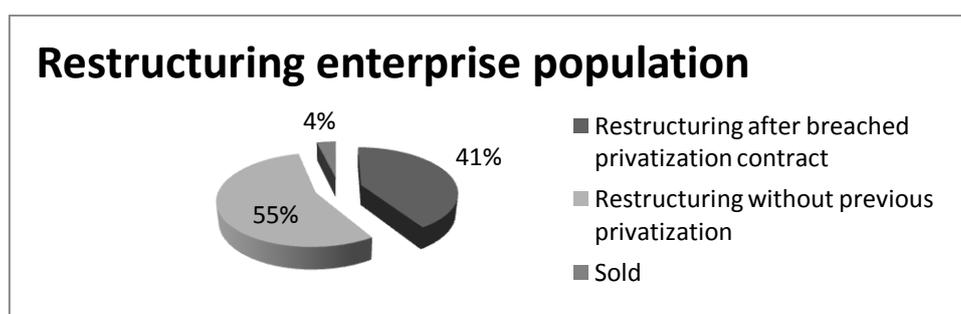


Figure 1: Restructuring enterprises according to 2013 data

Total of 76 enterprises have entered the restructuring process following the termination of privatization contract, whereas the rest of enterprises have never been privatized. Only 7 of the restructuring enterprises have been sold, 3 of which are in business today, whereas 4 have gone bankrupt.

4. RESULTS

Collected data have firstly been analyzed by descriptive statistics method, following the exclusion of enterprises outliers from the population, with annual profit per employee exceeding RSD 30 million, and annual loss per employee exceeding RSD 30 million. Based on the assumption that, due to size of the sample following the exclusion of outliers (N = 168), the observed parameter is normally distributed, such collected data are later analyzed by parametric methods.

Data presented in figure 2 indicates the number of restructuring enterprises in Serbia meeting ecological requirements under law, as well as whether an enterprise holds certificate of quality management system in accordance with ISO 9001. It is clear that the highest number of enterprises meets the ecological requirements, whereas a few enterprises hold ISO 9001 certificate. Considering the fact that certain number of enterprises failed to meet ecological requirements, it can adversely affect them in terms of attracting investors.

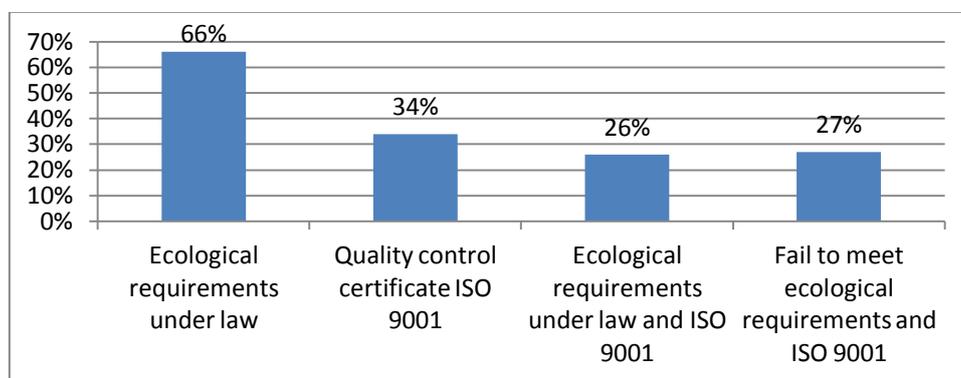


Figure 2: Having a certificate and meeting ecological requirements

Table 1 indicates descriptive statistics of the observed enterprise population. As indicated, intermediate values as well as standard deviations of income per employee are always higher in the previous three years in restructuring enterprises holding ISO 9001 certificate.

Table 1: Descriptive statistics

Indicator / Holding ISO 9001 certificate		N	Intermediate Value	Standard Deviation	Standard Deviation – Intermediate Value
2010 income per employee (in RSD 000)	No	109	1004.35	1862.33	178.38
	Yes	57	1953.58	3489.94	462.25
2011 income per employee (in RSD 000)	No	109	1041.38	1510.78	144.71
	Yes	57	1720.68	2836.13	375.65
2012 income per employee (in RSD 000)	No	108	1141.22	1543.60	148.53
	Yes	57	1721.44	2040.04	270.21
Income per employee (in RSD 000) 2010-2012	No	108	3205.52	4597.48	442.39
	Yes	57	5395.71	7748.97	1026.37

Table 2 provides parametric statistics analysis of intermediate values for income per employee in the past three years, as well as three-year period in total. F statistics value in the first column regarding the income per employee in 2010 indicates that the observed parameter has no equal variance in the two observed groups of enterprises, and in the relevant column the t statistics value of -1.92 with significance of .059 indicates that we may not claim statistically significant differences ($p < 0.05$), but we can do that with $p < 0.1$, which practically means that there are 10 or less percent of probability that our results were produced as a consequence of coincidence. The following two columns providing monthly income per employee in 2011 and 2012, as well as the fourth column providing collective indicator for three relevant years, all have the F statistics value referring to equal variances in parameter values in enterprise groups with and without ISO 9001 certificate, whereas values and significance of t-statistics indicate statistically significant difference in

parameters ($p < 0.05$) in all of the three observed cases. Thus, it could be concluded that the hypothesis **H1** stated at the very beginning of the paper has been proved.

Table 2: t-test of intermediate values of income per employee

Levene's Test of Variances			T-Test for Equality of Intermediate Values						
	F	Sig.	t	Degrees of Freedom	Sig.(2-side)	Difference in Intermediate Values	Difference in standard deviations	95% of Confidence Interval	
								Bottom	Top
2010 income per employee - Assumed difference in variances	8.74	.00	-1.92	73.08	.059	-949.23	495.48	-1936.70	38.23
2011 income per employee- Assumed equality of variances	1.69	.195	-2.02	164	.045	-679.30	336.96	-1344.64	-13.95
2011 income per employee - Assumed equality of variances	.596	.441	-2.05	163	.042	-580.23	283.28	-1139.59	-20.85
Income per employee 2010-2012 Assumed equality of variances	2.338	.128	-2.28	163	.024	-2190.19	961.68	-4089.15	-291.23

5. DISCUSSION AND CONCLUSIONS

Holding a certificate of conformity with ISO 9001 standard is not legally binding but does present certain advantage. When exporting or entering foreign market, domestic enterprises often feel the need to implement this standard and have ISO 9001 certificate. On the other hand, as previously indicated (Mijatović, Čudanov & Jaško 2012), standardization and formalization in organizations is not necessarily limited by certification motives according to the international standard requirements. In order to find solution for matching problems organizations might consider other ways of standardization - ad-hoc de-facto standardization (de Vries, 1999; Hesser, Feilzer & De Vries, 2007; de Vries, 2010) can be one of the possibilities. The obtained results indicate that business of the enterprises holding formal certificate ISO 9001 as measured in income per employee is better compared to the group of enterprises with no ISO 9001 certificate. The results are statistically significant ($p < 0.05$), except for the 2010 records with $p < 0.1$. Conclusion that may be reached is that better regulated organizations, having progressed with the restructuring process and obtaining higher income per employee tend to enter the quality management system certification process according to the ISO 9001 requirements. Considering the fact that according to the ISO 9001 requirements quality management system fosters engaging all of the employees within an organization, it may result in higher value generated by the employees. On the other hand, information and methods used in this paper fail to provide the possibility for the noticed relationship between the formal ISO 9001 certification and income per employee in a restructuring enterprise to be interpreted as causality in any direction. In the following researches special attention is to be paid to other factors indicating a relationship between a restructuring enterprise business performances and certification according to the standard ISO 9001.

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ANALYSIS OF THE EXPERIENCES IN THE IMPLEMENTATION OF AN INTEGRATED MANAGEMENT SYSTEM

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Abstract: *In addition to quality, enterprises give more and more attention to aspects such as environment, occupational health and safety, food safety and other management systems. Addressing all the relevant stakeholders' concerns, many enterprises have implemented integrated management system (IMS) in order to overcome the problems resulting from multiple management systems, to create competitive advantages and to achieve sustainable development.*

This paper aims to examine and compare both benefits and problems that are expected from implementation of an integrated management system (IMS) for enterprises. The benefits and problems were generated through analysis of experiences in the implementation of integrated management system pointed out in literature by different authors in this field. Additionally, benefits and problems that were practically proved are singled out from those that are stated as author's opinion or expectation. This examination and comparison can give a valuable insight into overall effectiveness of integrated management system implementation.

Keywords: *integrated management system, benefits, difficulties*

1. INTRODUCTION

Globalization and increased focus on sustainable development bring in new stakeholders and their needs that enterprises need to satisfy (Abrahamsson et al., 2010). In order to satisfy stakeholders' needs and thus create competitive advantages and achieve sustainable development, many organizations have implemented quality (ISO 9001), environmental (ISO 14001) and occupational health and safety (OHSAS 18001) management systems, which has become a widespread practice around the world in recent years (Esquer-Peralta et al., 2008; Jørgensen et al., 2006; Rocha et al., 2007). To meet these requirements, each management system demands a lot of documentation, written procedures, checking, control forms and other paperwork (Karapetrovic & Jonker, 2003). In practice, it has been proved that it is difficult to handle separate management systems, where the major problems for organizations to operate multiple management systems are complexity of internal management, lowering of management efficiency, incurring cultural incompatibility, causing employee hostility, and increasing management costs (Zeng et al., 2007). Undoubtedly, at the operational level, organizations strongly desire to integrate these systems, due to not only these difficulties encountered in managing different management systems separately, but also because of the important advantages gained from the integration. Hence, there is a trend towards implementing an integrated management system (IMS) (Jørgensen, 2008; Salomone, 2008). Integration normally leads to a strong and comprehensive management system (Karapetrovic & Jonker, 2003). Different management systems which have similar implementation procedures should be integrated to improve performance (Wilkinson & Dale, 1999). As it is stated by Zutshi & Sohal (2005), the imperative is to integrate management systems to one system in order to achieve full realization of the potential benefits of each individual system. Many empirical studies have documented the benefits and problems achieved by companies that implemented an integrated management system. The general impression from studies carried out is that there are more benefits than downsides and problems when management systems are integrated (Karapetrovic, 2002).

2. MANAGEMENT SYSTEMS INTEGRATION

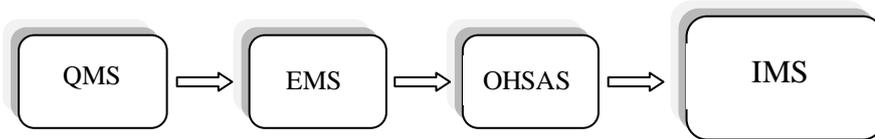
According to Karapetrovic (2003), an integrated management system is conceptually seen as a set of interrelated processes that share the same resources (personnel, information, materials, infrastructure and finance), to achieve goals aimed at meeting numerous of stakeholders' needs. Therefore, anything that could affect operating results and stakeholder satisfaction has to be within the system. Hence, the IMS should integrate all the current formalized systems that focus on quality, environment, occupational health and safety, food safety etc.

Implementation of IMS can be carried out through two approaches of integration (Zivkovic et al., 2010):

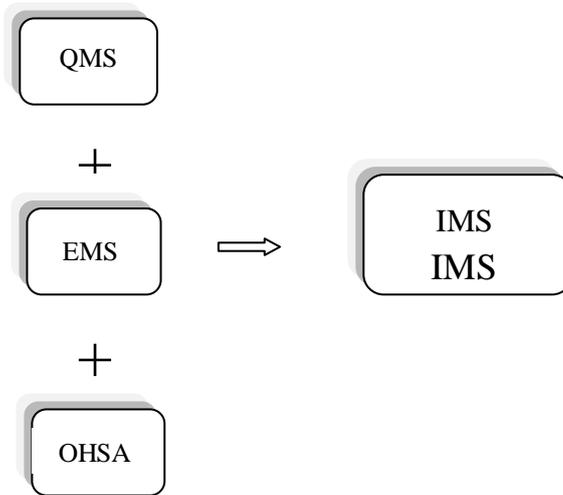
- Integration of requirements of different standards,
- Integration of management systems.

Integration of requirements of different standards is conducted through the consideration of similar or compatible requirements of different standards and integration of one part of documentation in the IMS. This approach involves consideration of the common requirements of the standards as the basis for design and implementation. It is possible, within this approach, to distinguish three approaches:

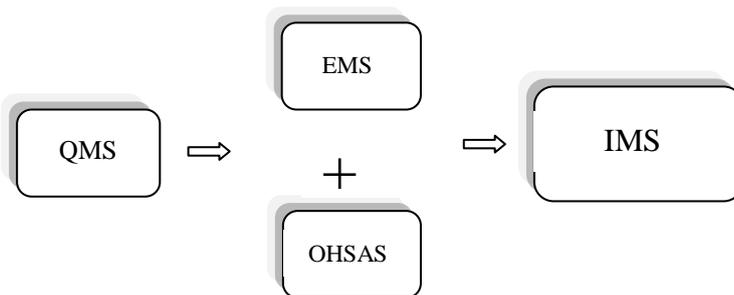
Sequential approach - involves successive application of different management systems - management system is established first, then other management systems are established, one by one:



A parallel approach - refers to the simultaneous application of two or more management systems:



A combined approach - a combination of the previous two approaches - two or more management systems are upgraded to the already implemented management system:



Integration of management systems is carried out through the identification of requirements of various stakeholders and then through analysis of products and processes of designing and integrating these systems into the existing management system. The basis of this approach is stakeholders' requirements, system approach and the existing management system of the company.

If the company decides to integrate management systems, it is necessary to decide to what extent, that is, to choose the level of integration, which depends on the complexity of the existing management system and reasons for the integration. There is no unique level of integration model that could be applied, but many authors have defined different levels of integration. It is shown in Figure 1, where the level 0 means that there is no integration, and level 3 means the full integration.

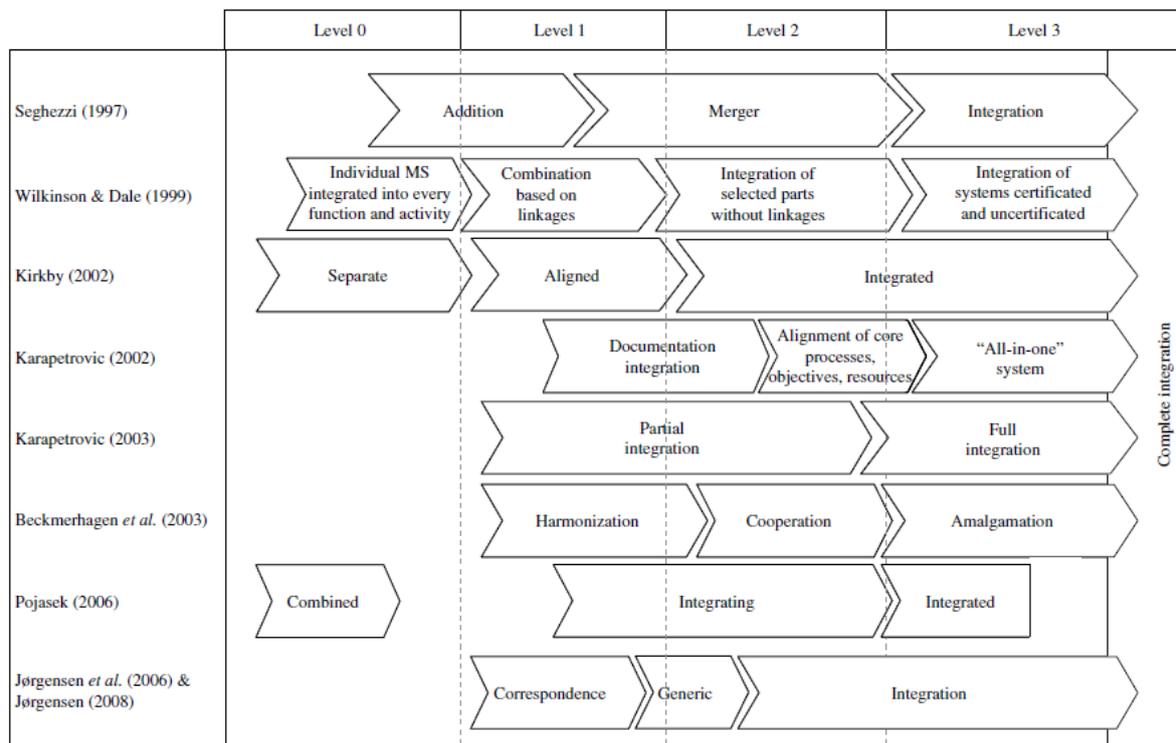


Figure 1: Levels of integration according to different authors (Bernardo et al., 2009)

Generally, there are the following three levels of integration (Zivkovic, 2012):

- The highest level - Implementation of the requirements of management systems into the existing management system of organizational system. Recognizes the existence of management systems as a basis for full integration.
- Intermediate level - Implementation of requirements of standards and designing the relevant management system of organizational system that does not recognize the existence of the management system and leads toward two parallel management systems.
- The lowest level - A variation of the previous levels of integration that is deepened in the case of the further implementation of requirements of other standards. Involves the implementation of the requirements of the relevant standard and design of observed management system, with or without its integration with existing, pre-designed management system. Does not recognize the existence of basic management system and usually leads to several parallel management systems.

Organizations decide to integrate management systems because of a number of reasons. The list of advantages and difficulties of IMS implementation is given below.

3. BENEFITS AND DIFFICULTIES IN MANAGEMENT SYSTEMS INTEGRATION

The purpose of this paper is to make an overview of benefits and difficulties in integration of management systems. We have drawn this overview from the existing literature on the subject. Table 1 shows the benefits of IMS as perceived by different authors, while difficulties in integration are presented in Table 2.

All the benefits, drawn out the existing literature, could be classified into six groups: improvement of processes effectiveness and efficiency, improvement of human resources management, improvement of relations with stakeholders, improvement of the company's reputation, competitive advantage and market share increase, more comprehensive compliance with laws. It is obvious from the table that the first group of benefits (improvement of processes effectiveness and efficiency) is the most cited.

Table 1: Benefits of IMS implementation

Benefits		Supporting literature
<i>Improvement of processes effectiveness and efficiency</i>	Lower operating costs	Brecka (1994), Terziovski et al. (2003), Casadesus and Karapetrovic (2005), Karapetrovic et al. (2010), Moljevic et al. (2013), Suditu (2007)
	Decreased management cost	Zeng et al. (2011), Olaru et al. (2014), Moljevic et al. (2013)
	Reduced wastage	Brecka (1994), Terziovski et al. (2003), Casadesus and Karapetrovic (2005), Karapetrovic et al. (2010), Moljevic et al. (2013)
	Decreased paperwork	Zeng et al. (2011), Olaru et al. (2014), Moljevic et al. (2013)
	Time saving	Olaru et al. (2014)
	Improved efficiency and productivity	Brecka (1994), Terziovski et al. (2003), Casadesus and Karapetrovic (2005), Karapetrovic et al. (2010), Asif et al. (2010), Olaru et al. (2014)
	Decreased complexity of internal management	Zeng et al. (2011), Olaru et al. (2014), Moljevic et al. (2013)
	Simplified certification process	Zeng et al. (2011), Olaru et al. (2014), Moljevic et al. (2013)
	Facilitates continuous improvement	Zeng et al. (2011), Olaru et al. (2014), Moljevic et al. (2013)
	Clearer responsibilities and relationships	Olaru et al. (2014)
<i>Improvement of relations with stakeholders</i>		Moljevic et al. (2013), Suditu (2007), Asif et al. (2013)
<i>Improvement of human resources management</i>	Increase in employee motivation, awareness and qualifications	Moljevic et al. (2013), Suditu (2007)
<i>Improvement of the company's reputation</i>	Improvement of company's image	Moljevic et al. (2013), Suditu (2007), Asif et al. (2013)
	Creation of a better company image among employees	Moljevic et al. (2013), Suditu (2007), Asif et al. (2013)
<i>Competitive advantage and market share increase</i>	Competitive advantage	Moljevic et al. (2013), Suditu (2007), Asif et al. (2013)
	Improvement of market place	Moljevic et al. (2013), Suditu (2007), Asif et al. (2013)
	Gained new customers/higher satisfaction of existing ones	Moljevic et al. (2013), Suditu (2007), Asif et al. (2013)
<i>More comprehensive compliance with laws</i>	Better evidence of legal compliance	Moljevic et al. (2013), Suditu (2007), Asif et al. (2013)

Problems that may arise in the integration process can be related to two phases: problems that arise during IMS designing, and problems that arise during IMS implementation, where both the phases carry similar number of problems.

Table 2: Difficulties in IMS implementation (adopted from Asif et al., 2009)

Difficulties	Supporting literature	
Problems in IMS designing	Unavailability of formal standard for integration of management systems	Labodova (2004)
	Unavailability of common denominator (common characteristics)	Karapetrovic (2002)
	Different scope of individual systems	Wilkinson and Dale (2001), Zeng et al. (2007)
	Different structure of individual systems	Karapetrovic (2002), Seghezzi (2000)
	Lack of understanding of the relevant individual management system	Karapetrovic (2002), Bernardo et al. (2008)
	Risk of not assigning the right level of importance to each function (such as quality, environment, and health and safety)	Salomone (2008)
	Misunderstanding of integration concepts	Salomone (2008), Wilkinson and Dale (2001)
Problems in IMS implementation	Employees' resistance during integration (due to loss of individual functions)	Karapetrovic (2002), Matias and Coelho (2002), Zutshi and Sohal (2005)
	Inadequate audit methodologies	Karapetrovic (2002)
	Reduced flexibility	Crowe (1992)
	Insufficient financial resources	Zutshi and Sohal (2005)
	Lack of information and knowledge of how to integrate systems	Salomone (2008), Zeng et al. (2007), Zutshi and Sohal (2005)
	Cultural aspects (requires cultural transformation)	Jorgensen et al. (2005), Wilkinson and Dale (1999), Zeng et al. (2007)
	Lack of human resources	Asif et al. (2009), Simon et al. (2012)
	Lack of motivation	Asif et al. (2009), Simon et al. (2012)

4. CONCLUSION

The analysis shows that organizations which implemented IMS gain significant operational, financial and marketing benefits. IMS integrates all business components in order to reduce documentation, to reduce costs, to increase profitability, to eliminate problems of responsibilities and relationships, to direct focus on business goals, to improve internal and external communication, to facilitate the process of training and to increase competitiveness.

Although ISM implementation can bring in many advantages, it is very important for companies to be aware of the possible problems that can occur within the process of integration. Thus, the analysis also points out the difficulties which organizations should take into consideration before processing standard integration. These difficulties are related to the risk of creating parallel system separately, excessive documentation, different scope of individual systems, insufficient financial resources, etc.

Highlighting benefits and problems in IMS implementation can give a basis for improvement of integration process of management systems, such as quality management systems, environmental management systems, occupational health and safety management systems (ISO 9001, ISO 14001, OHSAS 18001) and etc.

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CONCEPTS OF STANDARDS AND STANDARDISATION IN PUBLIC ADMINISTRATION JOURNALS

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Abstract: We examined the ways how ISO and other standards were used in papers published in four leading journals of public administration and analyzed perceptions of these standards by scholars. Results of our study show that they rarely use the concept of management system standards in researches published in journals of public administration, which particularly stands for ISO standards (ISO 9000, ISO 14000, ISO 26000, ISO 27000 and other ISO standards families). Specific standards were mentioned in very few articles, generally without greater importance assigned. One of the possible reasons for this is that the practitioners have been less introduced with standards or they simply do not understand the role and benefits of ISO and other management system standards in public administration. This paper also presents examples of the most commonly used terms, related to standards in journals of public administration.

Keywords: standards, management system, standardization, public administration, journals

1. INTRODUCTION

Public administration is “often regarded as including also some responsibility for determining the policies and programs of governments. Specifically, it is the planning, organizing, directing, coordinating, and controlling of government operations.”¹ M. Holzer (2011) defined public administration as information and implementation of public policy. There are four values that are fundamental to understanding the administrative systems: political responsiveness, organizational efficiency and effectiveness, individual rights, and social equity. (Murray, 2006) Public administration is the management of affairs of the government at all levels-national, state and local. (Basu, 2004)

Since public administration is the only study that studies government in all its aspects (and not just from disciplinary defined angles), it is fundamentally an umbrella discipline. Public administration’s object of study, government, is also of interest to scholars in other social sciences, to political officeholders, to career civil servants, to corporate executives, and to citizens.“.(Raadschelders, 2011)

The ISO standards (ISO 9000, ISO 14000, ISO 26000, ISO 27000 etc.) are widely implemented in public institutions in all countries but results show that scholars have less believed in standards or they simply do not understand the role of standards as “de facto” or “de jure” standards. It could be a new hypothesis for researches. We also analyzed other “de facto” standards (Standardization carried out by parties other than Formal Standardization Organizations (Hesser W., 2007)) but the results were not much different. “The aim of ISO is to promote the development of uniform standardization so as to achieve a situation in which goods and services can be exchanged freely on an international level” (Hesser W., et. al, 2007).

The aim of this paper is to analyse of presence of term of standard and provide key insight in scholar's perception of standards. Paper is organised in three main parts: research methodology including data collection and data analysis. An analysis was performed to understand the perception of standards by scholars.

2. CLASSIFICATION OF STANDARDS

De Vries (1999) cited, in Hesser W. (2008), classified standards as: basic standards; requiring standards; and measurement standards. Basic standards provide general descriptions and requiring standards define requirements for an entity or relations between entities. Measurement standards provide methods to be used in checking whether the criteria given in requiring standards are met. In this category, requiring standards

¹ <http://www.britannica.com/EBchecked/topic/482290/public-administration> prezeto 17.08.2012

include: compatibility standards; quality standards; and interference standards. Compatibility standards are used for fitting interrelated entities to one another to enable them to function together; quality standards define the requirements for entity properties to have minimum levels of quality; and interference standards set requirements regarding the influence of an entity on other entities such as safety, health and environmental requirements.

The ISO standards (ISO 9000, ISO 14000, ISO 26000, ISO 27000 etc.) are widely implemented in public institutions in all countries but results show that scholars have less believed in standards or they simply do not understand the role of standards as “de facto” or “de jure” standards. It could be a new hypothesis for researches. Authors also analyzed other “de facto” standards (Standardization carried out by parties other than Formal Standardization Organizations (Hesser W. 2007)) but the results were not much different. “The aim of ISO is to promote the development of uniform standardization so as to achieve a situation in which goods and services can be exchanged freely on an international level” (Hesser W. et. al, 2007).

3. RESEARCH METODOLOGY

3.1 Data Colection

Subjects of work were the electronic articles of public administration and the Internet browser was a main tool for researching. The data were collected from the Internet using KOBSON browser, and relevant papers were published between 2000 and 2013. Key search words were: standard, stadndardization and ISO. All 67 papers used in analysis are from the four leading journals of public administration which have impact factor greater than 0.9. including:

1. “Public adminstration” (IF=1,026)
2. “Public administration review” (IF= 0,9)
3. “Journal of Public Administration Research and Theory/J PART” (IF=1,951)
4. “Regulation and Governance” (IF=1,625)².

3.2 Data analysis

The articles are divided into three categories (Figure 1):

- Category (I) The frequency of occurrence of word “standard”,
- Category (II) Citing specific standards (refer to ISO or other standards) and
- Category (III) The article is concerned with the certain standard

The idea was that the papers be classified into three categories depending on whether the word "standard" was only mentioned as part of the text without reference to a specific standard (n-number of words greater than 3). Second, if the article cited certan standard in any context (e.g. ISO). Third, if the whole paper examines the standard in any form. The articles published between 2000 and 2014 were taken into consideration.

4. RESULTS

It has been found that the practitioners didn't explore and use standards, particularly ISO management system standards. The results are shown as the percentages in Figure 1, and Table 1 including descriptions of individual papers.

Table 1: Number of papaers used in analysis

Journal name	Number of papers used in analysis [1]	[%]
Public administration	33	49%
Public administration review	19	28%
Journal of Public Administration Research and Theory	10	15%
Regulation & Governance	5	7%
Total	67	100%

The results showed that researchers generally little studied standards in the journals of public administration. Because of that, it cannot be single out as the significant trend of occurrence of the term "standard" in the

² It should be noted that the authors of this study were analyzing only the articles that had been given access to over KOBSON portal. (www.kobson.nb.rs)

text. Therefore, we decided to comment on the individual papers, and to make some conclusions about scholar's perception of standard. The survey showed that most of the articles (61%) belonged to category (I), where the "standard" was mentioned in various contexts, including:

1. National/International standards (Rothstein, 2004) (Schrank, 2013);
2. Principles of standards (Brereton and Temple, 2002);
3. Service standard (Boyne, 2003);
4. Service standard initiative (Torres, 2005);
5. Standards of operation (Vigoda, 2000);
6. Quality standards/standards of quality (Schiavo, 2000), (Torres, 2005) (Verdun, 2012);
7. Set of standards (Karsten et. al, 2010);
8. Quality management standard (Macadam and Walker, 2003);
9. Standardized assessment tools;
10. Standard performance indicators;
11. Organizational standards;
12. Developing standard;
13. Certification standards (Doelle et. al, 2012);
14. Public standards (Allmendinger, 2003);
15. Standard operating procedures (William L. Waugh Jr., Gregory Streib, 2006);
16. Risk management standards (Rothstein, 2004) etc.

*Example of "service standard": "...perhaps because comprehensive data on local service standards have become available only in recent years" and "...inspectors' views about ability to improve were shaped by authorities *existing* service standards, as reflected in the core service performance scores." (Andrews et. al, 2005)

**Example of "standard of operation": "The environment of PA had started to change and called for establishing new standards of operation in the public services of western societies" (Vigoda, 2000)

***Example of "organizational standard": "Organizational standards or guidelines, although commonly applied in public sector organizations..." (Dahl, et. al 2006)

****Example of "developing standard": "Helen Gunter's criticism on our proposal for developing standards for the publication of school performance indicators..." (Karsten, Visscher, 2010)

*****Example of "certification standard": "Like other forest certification standards and hard law forest practice regulations, it allowed for on-the-ground flexibility with respect to how these outcomes were to be achieved". (Doelle et. al, 2012)

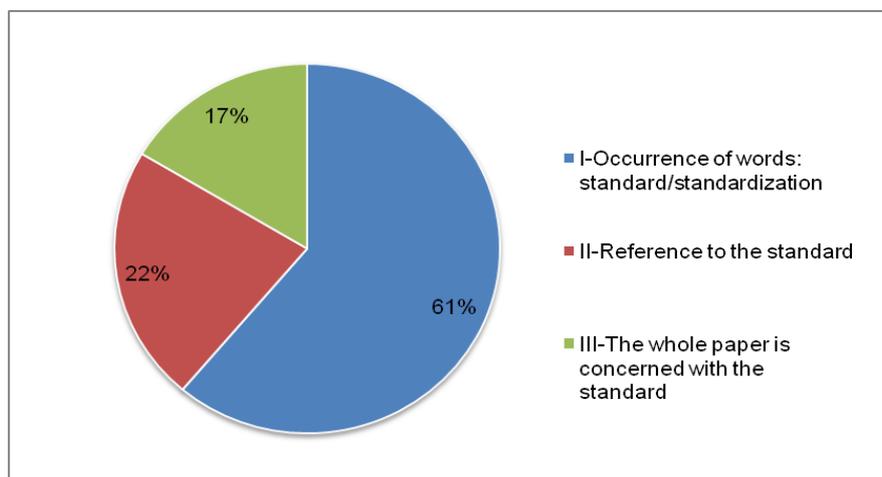


Figure 1: Term standard in Public administration Journals

This finding suggests that the individual practitioners have understood the concepts of standard and there were technical terms used in connection with standardization but it did not refer to any specific standard. It has showed that use of the term "standard" is popularized and these findings lead to the following conclusion: 1. Scholars are not familiar with the specific standards, 2. Scholars do not believe that certain system management standards (or other standards) are relevant. 3. Scholars perceive definition of "standard", in different ways. In the Table 2, it is shown that the scholar's perception of standard is the highest in "Public administration" journal.

In the „Public administration“ journal, which dealt with the quality standards in public administration, was not included standard ISO 9001. The article showed „cultural differences in the usage of the concepts of service quality standards between the UK experience and the Italian“ (Schiavo, 2000). In the whole paper, authors didn't mention any specific standard of management systems, especially, keeping in mind that in the same period of time it was the first edition of ISO 9001:2000. The same situation was in the article by L. Torres, 2005. There wasn't any sign of ISO 9001 too.

The papers that mentioned a specific standard (II-Citing specific standards) have represented 22% of total, only 15 papers of total 67 analyzed. The most common were ISO (International Organization for Standardization) standards (Gunter, 2010), (Torres et. al, 2011) mainly ISO 9000 (Mcadam, Walker, 2003), (King et. al, 2004), (Milakovich, 2006), ISO 14000 (Doelle et. al, 2012), (Bovaird, Russell, 2007) and ISO 31000 (Ferreira Da Cruz, Marques, 2012) as far as the of management systems. This fact demonstrated that the knowledge of specific standards was used in the right context, but only as secondary/incidental information. (Milakovich, 2006) Also, it was mentioned that standards such as „The Food standards“ (Tomlinson, 2010), (Schofield and Shaoul, 2000), (Rothstein, 2004), „Common Language Standard - CLS“-compatibility standards, (de facto standard) (Dahl, Hansen, 2006), standards of the National Committee for Quality Assurance (PCMH standards) (Klein et. al, 2013) and „de jure“ standards such as „NFPA 1600 - the international standard for emergency management programs“ and EMPA standards (Waugh Jr. and Streib, 2006)

The last but not the least category is Category III-The article is concerned with the certain standard, where the authors dealt with standards in articles (17%). The one example was in paper by Korego et al., 2010, talking about how non-compliance with OSHA standards changes as an establishment undergoes repeated inspections and what the implications are for regulatory enforcement. It is about interference standards. It was one of the few papers in four analyzed papers which dealt with issues of non-compliance with the requirements of the U.S. standard, including inspection checks, as far as occupational injuries. Nor in this paper it didn't mention occupational health and safety management system standard (OHSAS 18001).

Another example (Skov, 2006) was the article, which dealt with compatibility standards as a softer program and its speed of application, ie. standard diffusion through a certain period of time. This paper considered the speed of acceptance of this standard, depending on many factors, but it didn't emphasize any certain standard, for example ISO 27001 (Information security management) which is necessary to support this standard due to successful diffusion. It is about compatibility standards. The same example is the article by Potoski, 2001, which studied competition for industrial development, creates a "race to the bottom" in which states relax their environmental standards to avoid losing businesses to states with more "business-friendly" regulations. The article presented the reasons why the states exceed the USEPA standard but it was interesting that nowhere was mentioned ISO 14000 standards (Environmental management). It is about interference standards

In another article (Karsten, 2010), the policy context of this development, in the education sector, is analyzed in conjunction with the problems associated with the public reporting of school performance indicators. This is followed by a discussion of the need for an accepted set of publication standards. The aim of this article is to initiate a debate about whether international consensus can be reached on the content of such a set of standards, and whether a particular set of standards is applicable in and relevant to other countries. This is the case where generic set of de facto standards is a model with the defined rules for writing "report cards" in primary schools. Likewise, there weren't used any of management system standards (For example: ISO 9000, ISO 14000, ISO 26000, ISO 27001).

Also, there was one part of the article (Waught and Streib, 2006) where was mentioned NFPA 1600 standard (The international standard for emergency management programs). Authors said: „Standards have made it difficult for public officials to ignore the need to invest in programs to address hazards and these standards have also made it easier to hold public officials accountable when they do not address known risks and prepare for disasters reasonably“. It is much more difficult to claim ignorance of risks when the standards identify potential hazards and provide assessment procedures. Standard ISO 31000 was exempted in this paper.

Klein et al, 2013, in the article talked about PCMH standards by The National Committee for Quality Assurance. "As a private organization, it maintains a unique governance role because it develops its own standards and accreditation guidelines for many government (and private) health care initiatives: medical homes, accountable care organizations, disease management, and even health plan evaluations, among other offerings. Practices can also apply to other organizations such as the Joint Commission and the Accreditation Commission for Health Care, which have also crafted recognition standards for medical homes". This was an example of "de facto" standards and only one part of article wrote about it without explicitly citing of system management standards.

Hence, all the examples above indicate that standards so far have studied rarely by practitioners and scholars, especially management system standards. Perhaps they thought that these standards were outdated or not interesting for a science or they haven't seen the potential importance and role of standards in public services.

5. CONCLUSION

Conclusions were identified from citations in these articles and in review articles. Standards were obviously understood as set of norms, guidelines, and rules by the authors (Category III) (Noordegraaf et. al, 2014), (Alvarez and Hall, 2008). The articles of the third category (III) didn't relate to the ISO standards and 22% of papers only mention some of the ISO standards (Category III and Category II). Also, they didn't write about terms "de facto" or "de jure" standards, differences between them or any examples. The reason for this could be that they thought that these standards were outdated, uninteresting for a science or they don't see the importance of role of standards in public services. The overall conclusion is that researchers in journal of public administration didn't address standard as a specific problem. This paper has researched and showed date but not the reasons why it was the case.

It should be noted that there are the limitations in this research such as the number of analyzed journals, lack of access to all articles over the internet, unspecified areas of public administration and the journals with impact factor (IF). It would be suggested direction for future research. More broadly, questions remain about the extent to which the conclusions presented here apply to other public areas such as: education, health care, police service and judiciary. The answers to such questions will help scholars and policy-makers to understand how the quality and standards are perceived and used in public administration. There is the possibility of conducting research among researchers about what they think about the standards and application of standards in their field and then compare those results with the present.

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CRITICAL ANALYSIS OF THE ISO METHODOLOGY FOR ASSESSING THE ECONOMIC EFFECTS OF STANDARDS

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Abstract: *The impact of standards on modern business is evident. However, it is not easy to provide objective evidence of their effect on economic performances of company. This paper provides some aspects of critical analysis of the ISO Methodology 2.0 for assessing primarily the economic benefits of standards. This ISO Methodology and many case studies, in which ISO approach to assessment of economical benefits of standard is explained, are publicly available on the official ISO website. The main intentions of the authors of this methodology and case studies are to justify the use of standards in company through the achievement of certain economic benefits within it. However, the dynamics of business activities and many influential internal as well as external factors that affects business performance cause that determination and measuring of single and specific influence of standard implementation to specific business performance are complex and need more sophisticated approaches.*

Keywords: Standards, ISO Methodology, Economic Benefits

1. INTRODUCTION

Standardization has been crucial for the development of the industrial society. The rapid progression of the globalized and increasing complex knowledge economy not only demands new standards, but it also challenging the form of standardization (Blind 2004). Understanding of different aspects, concepts, complexity and technological, economic and social implications of standards and standardization is complex task. The job of standardization is a hard job (Kondo, 2000). The majority of studies on standards and standardization are based on experiences and practice of developed countries and technology advanced companies. Many authors have dealt with problems of economic benefits of standards and the economic benefit of standards seems to be widely acknowledged within scientific authors (see more in David (1987), Tassej (2000) and Blind (2004)). David (1987), Tassej (2000) and Blind (2004), even, proposed a categorization of standards based on the economic problem they solve. Later some writers have extended the number of categories of standards to this (Tassej 2000, Blind, 2004):

- Compatibility and interface standards
- Minimum quality and safety standards
- Variety-reducing standards
- Information and measurement standards.

Leaving aside the perspective of the individual actors and taking a comprehensive macroeconomic view, it is evident that standards help to reduce costs of transactions between the different actors and therefore the emergence and organization of markets. This perspective is taken from the so-called institutional economists (Blind 2004). More comprehensive researches on the economic effects of formal standards began in year 2000 within German national standardization body (DIN) and other (ISO, 2010). ISO has worked with over 20 of its members, national standards bodies in different countries, to develop case studies to assess and quantify the benefits companies can obtain from the use of standards (ISO 2010). Many organizations from the private and public sector use standards and participate in standards development. A few of them see standardization as directly linked to their core business strategy. Some approach standardization in a highly organized way and have a clear perception of the impact of standards on their activities and performance (ISO, 2014). Others may use standards from a narrower perspective, for specific processes or activities. Most of them realize that standards bring benefits to their organization, although the level of awareness and the perception of such benefits vary considerably (ISO, 2014).

2. ISO METHODOLOGY CONCEPT

The ISO Methodology has been designed to support analysis of a company, or a specific organizational entity in order to assess the economic benefits of standards. (Gerundino, Hilb, 2010)

2.1 ISO Methodology Objectives

The methodology has the following three objectives (ISO, 2010):

- to provide a set of methods that measure the impact of standards on organizational value creation with an emphasis on business organizations;
- to provide decision-makers with clear and manageable criteria to assess the value associated with using standards; and
- to provide guidance on developing studies to assess the benefits of standards within a particular industry sector. (“Standards” in the ISO Methodology are not limited to standards developed and published by ISO, but comprise all consensus-based standards issued by any standards-developing organization. Companies often call these “external” standards to distinguish them from internal company standards. “External” standards include International Standards developed by ISO and the International Electrotechnical Commission (IEC), regional and national standards, standards developed by sector-based standards development organizations, as well as consortia standards if the consortia are open to participation by interested parties in addition to consortia members (ISO 2010).

2.2 ISO Methodology Process

Generally, the assessment of the effects of standards proceeds in accordance with the steps below:

- Understand the value chain of the industry and the company.
- Identify the impacts of standards.
- Analyze the value drivers and determine operational indicators.
- Assess and calculate results.

The first step is to determine the value chain of the industry, and to position the organization to be assessed in the context of this value chain. (Gerundino, Hilb, 2010) A value chain comprises a sequence of activities to generate a certain output, a product or a service. (ISO, 2010) Standards used by the organization are considered in relation to the organization business processes and its specific activities.

The methodology first identify in which activities standards are used and how these activities, supported by the use of standards, contribute to the creation of value for the company (ISO, 2010). The next step is to create standards impact map aims to determine the impact resulting from the implementation of standards on each of the main business functions and associated activities.

Operational indicators associated with the activities impacted by standards then need to be identified to allow quantification (EBIT accounts for the gross profit for a company (revenue minus costs) at a given point in time), Fig 1.

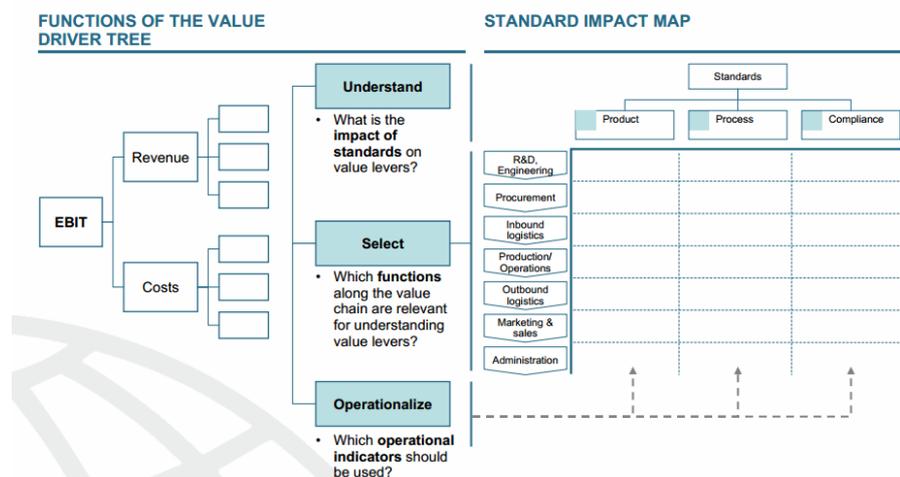


Figure 1: The impacts on operational indicators converted in EBIT impacts (ISO, 2011)

This is done by translating the impact into financial metrics. It can be directly measurable (for example, cost savings for the procurement of materials and components), or determined on the basis of existing company data (for example, the reduction of manpower needed to complete the design of products is converted into estimated cost savings on the basis of the average cost of personnel). (Gerundino, Hilb, 2010)

2.3 Some Methods for Measuring the Impacts of Standards

Basic approach to measuring the impacts of standards in this Methodology is given through some comparison:

- Before-after comparison.
- Comparing concurrent conditions – Projects.
- What-if comparison.

The second type of comparison is situation when standards may be used in some projects, and not for others. The simplest case is a “before-after” comparison when an organization may have changed from situation (1) - when it did not use standards to a situation (2) when it uses relevant standards. The final “What-if” - assumption, which is based on estimating how certain activities/processes would be performed without standards (situation 1) and comparing such a condition with the existing situation, in which standards are applied (situation 2) (ISO 2010). This methodology provides basics for:

- The assessment of economic benefits of standards for an industry sectors (given in Annex A of the Methodology).
- The extension of the methodology to assess non-economic benefits of standards (covered in Annex B).
- An overview of the individual tools (given at Annex C).
- A definition of the individual business functions (is given in Annex D Terms and definitions).

2.4 Company Case Study Findings - Application of the Methodology according to ISO

ISO Methodology has been tested in over 20 countries across the world in 30 company covering areas such as the agri-food business, the chemical industry, construction and construction materials, electrical appliances, electrical power transmission, food retail and food logistics, heating, ventilation and air conditioning, industrial automation equipment, information and telecommunication, pipes and piping systems, ship building, and water supply. Since October 2010 a case studies about the economic benefits of standards were undertaken in South East Asia (Indonesia, Singapore, Thailand and Vietnam), Southern Africa (Botswana and South Africa), South America (Brazil, Colombia and Peru), Europe (Germany and other). The set of case studies are published in couple of books edited by ISO.

Table 1: Comparative analysis of two case studies in organizations Festo Brasil and Danper

Criteria	Festo Brasil	Danper
Economic benefits generated by standards	BRL 4.5 million (USD 2.7 million) annually, which amounts to 1.9 % of sales revenues.	USD 648 158 annually which amounts to 0.73 % of sales revenue.
Key qualitative benefits	Standards are considered an essential component of good engineering and manufacturing practices, with a potential that has not yet been fully exploited	Standards helped instil a culture of continuous improvement in the company
What were the major benefits of using standards?	Using standards allowed Festo Brasil to : <ul style="list-style-type: none"> • Implement an efficient procurement process resulting in significant work savings • Save around 30 % in its purchase operations by buying standardized supplies • Optimize the design times of its engineers and shorten time to market • Improve communication between different technical departments in the company • Implement a company-wide continual improvement process that streamlined manufacturing and brought significant savings 	Using standards (and certifications) allowed Danper to : <ul style="list-style-type: none"> • Continually improve its skills and implement an efficient and reliable production chain • Manage a highly efficient cold chain and delivery service for fresh produce, ensuring product quality requirements in overseas markets are met • Demonstrate to overseas customers its ability to produce and deliver safe, high-quality products and qualify as a supplier for them • Export close to 100 % of its produce and penetrate new markets by meeting the requirements and building the confidence of key international retailers

These case studies were made in close cooperation among ISO member bodies, academic institutions, companies and staff of the ISO Central Secretariat, acting as advisors to the project team. Just as illustration of comparative potential of those case studies we provide comparative analysis of two case studies of Festo Brasil and Danper. Festo Brasil is one of the group's largest companies and manufactures a wide variety of products for the Brazilian market and for export to other Festo subsidiaries and to the parent company. Danper is one of the largest agro-exporter companies in Peru.

Also, there are some interesting findings in undertaken case studies such as that the results show an incidence of the impact from standards ranging from 0.15 % to about 3 % of turn-over – depending on the company and the business function analyzed. To give a better appreciation of the scale of the standards impact, the above estimate has been projected to the total industry revenues for 2008. As a result, the total contributing impact would be between USD 38 billion and 55 billion. (Gerundino, Hilb, 2010)

Table 2: Example of Activities in the production function and standards used (Source: Juhayna, Egypt)

Business function	Activities	Standards	Description
Manufacturing	Raw material reception	ISO 22000:2005 ISO 17025:2005	<ul style="list-style-type: none"> • Food safety management systems • General requirements for the competence of testing and calibration laboratories
	Materials preparation : sugar syrup and other production ingredients	GMP standards ISO 22000:2005	<ul style="list-style-type: none"> • General requirements for the competence of testing and calibration laboratories • Good manufacturing practice • Food safety management systems
	Mixing process	GMP standards ISO 22000:2005	<ul style="list-style-type: none"> • General requirements for the competence of testing and calibration laboratories • Good manufacturing practice • Food safety management systems
	UHT treatment (pasteurization)	GMP standards ISO 22000:2005	<ul style="list-style-type: none"> • General requirements for the competence of testing and calibration laboratories • Good manufacturing practice • Food safety management systems
	Filling and packing	GMP standards ISO 22000:2005	<ul style="list-style-type: none"> • Good manufacturing practice • Food safety management systems
	Palletizing	GMP standards ISO 22000:2005	<ul style="list-style-type: none"> • Good manufacturing practice • Food safety management systems
	Storing until dispatch to distribution centre	ISO 22000:2005	<ul style="list-style-type: none"> • Food safety management systems

3. CRITICAL ANALYSIS OF ISO METHODOLOGY

3.1 Advantages of ISO Methodology

The first survey that DIN (2000) was conducted within different organizations and countries was using different methodologies of assessment and had different goals. But due to different methodologies and goals the results obtained were not sufficiently comparable (ISO 2010), Having this in mind, ISO Methodology provided to standard user common methodology to asses economic benefits of standards in order to give basic possibility to intercompany comparison in area of economic benefits of standards.

Because of the way through empirical attempt to quantify certain indicators this Methodology is trying to economically justify the application of standards which is very important for any organization. ISO managed to implement its complete Methodology within 30 organizations around the world for four years. With this step ISO and its Methodology succeeded in provoking many organizations to analyze and gain insight which standards they were using within their company and for which processes and activities. The fundamental point in the ISO Methodology is to consider the company perspective: its environment, objectives, business processes and activities (ISO, 2010). It is an accomplishment to conduct so many case studies and thereby including huge number of participants help to raise awareness of the importance of standards.

The ISO Methodology also offers a toolbox to support the assessment process, the capturing of information and data, and the calculation of the impact of standards (Gerundino, Hilb, 2010). Consistent with the above, case studies provide evidence that a focus on standards can be the core of an upgrading strategy through which companies aim at entering higher value-added segments of the value chain in their respective industries (ISO, 2010).

3.2 Disadvantages of ISO Methodology

It is difficult and risky to apply a specific methodology to different types of companies or various forms of organization and functioning because of their different nature, needs and goals. It is important to leave some

latitude in describing the process of the company. "The benefits associated with participating in standards development are only addressed at a qualitative level" (ISO, 2010).

As explained in section 1.3 of ISO Methodology it is important to underline that the impacts from internal company standards (even if they are not related to external standards) can also be assessed using the same approach and the same set of tools provided by the ISO Methodology (ISO, 2010). This is a delicate assumption because it is necessary to clearly distinguish what are internal standards within an organization. A frequent replacement of the thesis is that the documentation resulting from fulfilment of the requirements of external standards are so called as an internal standard of organization.

Internal company standards are excluded from the assessment except if they are related to or based on external standards. In such cases, the interplay between internal and external standards needs to be carefully analyzed, because the influence and impact of external standards can be substantial, even if the effect is achieved through internal standards. (ISO, 2010) In external standards it is always given what you need to fulfil but almost never how. Bearing this in mind, each organization can in its own way to achieve fulfilment of requirement of the standard. Therefore it is very difficult in such circumstances to make a comparative analysis of the impact of the internal or/and external standard of two or more organizations.

The approach and the tools provided by the ISO Methodology can be applied to both voluntary standards and technical regulations (ISO, 2010). We think this is overambitious due to the nature of the regulations that they are always mandatory and that they differ from one state to another. It is naive to believe that the offered method in ISO methodology can extract the effects of standardization of other effects in some organizations. This requires significant research in the context of effects separation in some organization because they are most often seen at the end of process and it is not simple to get to the cause of such an effect. And, also certainly not enough to monitor just one economic indicator, in this case, EBIT, but these complex analyzes require identification of some additional important economic indicators and their consideration.

4. CONCLUSION

The ISO methodology for assessing primarily the economic benefits of standards describes the key stages of the assessment process and provides references to some of the tools which should be applied at certain stages of the assessment. It presents the key elements and concepts of the methodology, including practical advice on the organization of projects, on steps in the assessment process, and on methods to calculate the benefits of standards. The set of case studies (published and edited by ISO) were made in close cooperation among ISO member bodies, academic institutions, companies and staff of the ISO Central Secretariat.

The ISO Methodology succeeded to provide to standard user common methodology to assess economic benefits of standards and provide basic tool for intercompany comparison in area of economic benefits of standards. ISO methodology can motivate many companies to analyze economic benefits of usage of standards and gain insight into standards usage (what standards and for which processes and activities). However, the main problem within this methodology might be related with extraction of the effects of standards usage from other influential factors on company economic performances. The methodology need to address this issue more clearly. Certainly it is not enough to monitor just one economic indicator, like EBIT, complex analyzes require identification of some additional important economic indicators and their consideration.

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STANDARD ISO 26000 AND SOCIAL RESPONSIBILITY IN THE SERVICE OF SME-S SUSTAINABILITY

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Abstract: *This paper presents an overview of current knowledge regarding the practice of corporate social responsibility in small and medium-sized enterprises. The paper first gives an overview of the definition of social responsibility, based on the literature review. It also shows the specific features and motives for corporate social responsibility in small and medium-sized enterprises. As a standardized basis on which SMEs can build their socially responsible practices, the international standard ISO 26000 is summarized. It also shows the process of implementation of SR in SMEs. At the end of the paper, an overview of the main advantages and disadvantages of the concept of CSR in SMEs application was given through SWOT analysis, and the conclusion shows how CSR and the recommendations of ISO 26000 contribute to business sustainability of SME.*

Keywords: Social responsibility, SMEs, Sustainability, Corporate Social Responsibility, Standard ISO 26000,

1. INTRODUCTION

There is an increased number of those who advocate that companies can not be exclusively focused on obtaining the highest possible profits for the owners. It is clear that companies must take appropriate responsibility. Social responsibility is one of the pillars of operational excellence of organizations. It contributes to economic growth and development on healthy basis, both in developed and in developing countries. If properly practiced, the principles of social responsibility given in the standard ISO 26000 can be a key tool in the struggle for environmental and fair business activities, contributing to a better society.

While social responsibility has traditionally been the domain of the corporate sector, recognition of the growing importance of the small and medium-sized enterprise (SME) sector has led to an emphasis on their social and environmental impact of SMEs (Nejati & Amran, 2009). Supporting SMEs is a cornerstone of the EU's drive for growth and jobs. Since 99% of all EU companies are small and medium-sized enterprises (SMEs), accounting for 67% of jobs, it is clear that what is good for small businesses is good for Europe's economy (EPC, 2012). They are a major source of entrepreneurial skills and innovations, and they contribute to economic and social cohesion. In its publication "Opportunity and Responsibility - How to help more small businesses to integrate social and environmental issues into what they do", the European Commission mentioned: "SMEs have always been very close to what we call today "CSR". Through their typically local anchoring, they are well placed to make a strong contribution to socio-economic development at a local level and act as responsible members of a community. But it is possible to help and encourage SMEs to go further down the road of CSR."

Increased global competition means that corporations need to find innovative ways to engage stakeholders and other interested parties. One of the factors contributing to the ambiguity of CSR is the lack of consensus as to what the concept really means (Sweeney, 2007). As levels of sophistication among stakeholders and other interested parties continue to rise, businesses will come under increasing pressure to find ways of participating in sustainable development (Planken, Nickerson & Sahu, 2013). One area in which a corporation's sustainability stance can be communicated to stakeholders and other interested parties is in the construction of a social responsibility strategy (Planken et al., 2013).

2. THE CONCEPT OF CSR

The African Policy Institute research (API, 2011) indicates that the history of social responsibility is as old as the history of the business. Taking care of business that contributes to society and has a positive impact on both the people and the environment existed in societies at a much lower level of development than today. The best sources of examples from the ancient history on this topic can be found in the books whose primary

topics are the history of law and legal rules, which give us an insight into how the ancient people resolved their legal and economic issues. Some of these examples date back to 5000 years ago, such as the laws that regulate the protection of forests. In this sense, we should not forget the ruler of ancient Mesopotamia, Hammurabi and his Code of Hammurabi, which dates from 1700 BC, as an essential example of regulation of various forms of business relationships, such as norms which prescribed the death penalty for builders, farmers or supervisors whose negligence caused an accident or death of other people (Asongu, 2007).

The concept of CSR evolved from two parallel developments (Nejati & Amran, 2009). The first comprises the efforts of policy-makers and organizations to spread the idea of socially responsible behaviour at every level, by means of numerous initiatives, formal definitions and so on (Tencati, Perrini & Pogutz, 2004). The second path consists of academic contributions, evolved from an initial, vague awareness of the relationship between companies and social-environmental contexts into an explicit identification of rules of conduct and management tools (Nejati & Amran, 2009).

To begin with, it is necessary to look at the definition of corporate social responsibility (CSR) that can be found in the academic literature. CSR concept was initially proposed in the literature of the early 1950s (Carroll, 1999). In 1980, Jones (1980) states that corporate social responsibility means that the company has a liability in respect of all stakeholders in the society, not only to their stakeholders, and that this responsibility applies not only to what is required by law or contract. In the 1990s, practitioners began using CSR as an essential part of their business language and practice (Carroll, 1999). Modern jurisprudence is presented by Marsden (2001) stating that corporate social responsibility is the basic behavior of the company and the takeover of responsibility for the overall impact on the society in which it operates. According to Holme & Watts (2000) CSR is "the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as of the local community and society at large." Authors McWilliams & Siegel (2001) define corporate social responsibility as well as activities that have a positive impact on society, which are above the interests of the company and legal requirements. Scholars have demonstrated that it is important that companies spend the resources allocated to CSR in ways that yield optimum benefits to society as well as to their stakeholders such as customers, employees, investors, supply chain associates, strategic alliances, communities, as well as governments (Poolthong & Mandhachitara, 2009). The definition that is much cited in the literature is the definition formulated by Pinney (2001), which defines corporate social responsibility as a set of management techniques that enable the company to minimize the negative and maximize the positive impact of its operations on society. Author Dahlsrud (2008) studied the definition of CSR and concluded that all the definitions include some of the following dimensions: 1) the social dimension, 2) the size of the environment, 3) the economic dimension, 4) measuring stakeholder and 5) measuring volunteerism.

"Corporate social responsibility is the obligation of the firm to use its resources in ways to benefit society, through committed participation as a member of society, taking into account the society at large, and improving the welfare of society at large independently of direct gains for the company" (van der Wiele, Kok, McKenna & Brown, 2001). As authors Pérez & del Bosque (2014) mentioned *"CSR refers to the company activities demonstrating the inclusion of social and environmental concerns in business operations, and in interactions with stakeholders, also according to the ambition levels of corporate sustainability"*. Social responsibility, according to the authors Djuric, Vujosevic & Kovacevic (2012) could be described through the process of identifying stakeholders, identifying current and potential problems associated with them and creating appropriate strategies and processes to solve these problems. The most representative definition of corporate social responsibility given by ISO (ISO 26000, 2010) reads as follows: *"the responsibility of an organization for the effects of its decisions and activities on society and the environment, through transparent and ethical behaviour, such that it contributes to sustainable development that includes the health and welfare of the society; takes into account the expectations of its stakeholders; is in accordance with applicable law and international norms of behaviour; and which is integrated throughout the entire organization and applied in all of its relations"*.

3. SPECIFIC CHARACTERISTICS OF THE CSR IN SME-S

No SME company is completely isolated from its surroundings and it usually represents an important part of its local community and the environment within which it operates. The ability of a business to succeed on a long-term basis depends on the relationships it has with its owners, investors, employees, customers, suppliers, the local community and other involved parties, who are collectively referred to as interested parties. All stakeholders should be encouraged to see the opportunities that can arise from engaging SMEs on social and environmental issues. In order to effectively implement ISO 26000 recommendations, SMEs have to understand and appreciate value of their involvement with their interested parties. This is because corporate social responsibility is not just about the advocating of the company's values and principles but also about understanding expectations of those who have an impact on the company and who are being impacted by the company. A large proportion of SMEs have always done things that could today be called "social responsibility", even if they do not know or use the term themselves. CSR in SMEs is less formal and more intuitive than in larger enterprises, but that does not make it less valuable, according to the European

Commission. SMEs are means of combating poverty in developing countries, Serbia being one of them. If the recommendations of ISO 26000 are perceived by SMEs as protectionist, inappropriate to the culture or excessively bureaucratic, the ultimate effect will be negative. On the other hand, we must not allow the SMEs to become a training ground for excessive pollution or exploitation of labour. The right understanding of the ISO 26000 recommendations points to the fact that the support in the development of SMEs is within the domain of the responsibility of large companies and that the improvements in the field of social and environmental protection go hand in hand with quality and management improvement, according to Filipovic (2008).

Governments and other public authorities in Europe are putting increasing pressure on SMEs in order to make them realize that respect for ethical codes of conduct and ISO 26000 is not only a concern of multinational corporations (Luetkenhorst, 2004). Besides, the concept of family businesses, often present in SMEs, carries elements of ethics, philanthropy, patriarchy, ethnicity and community, which provides an additional color of social responsibility. These elements are part of the essence of the social responsibility of SMEs, and therefore, aspects that need to be considered and included in all social responsibility programs aimed at SMEs, especially those in developing countries, according to Filipovic (2008). To remain competitive, companies need to be able to adapt to new demands from the market and the society in which they operate (Nejati & Amran, 2009). The flexible and personal nature of many small and medium-sized enterprises often allows them to respond quickly to these changes, because they can spot and take advantage of market opportunities more easily than many larger companies (Nejati & Amran, 2009).

Surveys and research in the field demonstrate that many SMEs tend to handle CSR activities unsystematically and on a personal ad hoc basis (Murillo & Lozano, 2006). The CSR concept is generic in nature and is applicable to organizations regardless of type and size (Nejati & Amran, 2009). The roots of CSR in SMEs seem to lie neither in purely utilitarian motives nor in ethical and altruistic decisions (Nejati & Amran, 2009). A key difference between large and small firms is that in small firms, ownership and management are not separated to the extent that they are in large multinational firms (Spence & Rutherford, 2001). Thus, control remains in the hands of one of the owners, potentially enabling him or her to make personal choices about the allocation of resources (Spence, 1999). Thus, in SMEs, the acceptance of CSR is largely a factor of the personal attitudes of the owner/manager (Perez-Sanchez, 2003). SMEs by their nature may experience specific barriers to CSR (Sweeney, 2007). It has been argued that SMEs are constrained by time and financial resources (Vives, 2006). A focus on the short term can mean long-term investment projects in CSR are not of immediate concern (Carlisle & Faulkner, 2004). On the other hand, it has been argued that being smaller and flatter, SMEs may be better placed than large firms to take advantage of the changing needs of society (Sarbutts, 2003; Perez-Sanchez, 2003). In one study conducted by Sweeney (2007), it was concluded that *"The volume and diversity of CSR activities was positively correlated with size. While large firms believe SMEs experience barriers such as perception and resource limitations such as financial, human and time constraints, in reality the only barrier noted by SMEs was financial constraints"*. Concerning the motivations of SMEs to engage in CSR, Revell & Blackburn (2007) found that *"SMEs are only motivated to take environmental actions as a result of external pressure. Here one can think of adverse publicity, legislation and damage to the company's image leading to a reduction in a firm's competitive advantage"*. Another external pressure motivating SMEs to engage in CSR is supply chain pressure from large companies (Revell & Blackburn, 2007). When companies see these external pressures as the main driver to engage in CSR their motivations fall into the integrative category of Garriga and Melé (2004), because these companies feel they depend on society for their existence, otherwise they would not see external demands as pressure. Enderle (2004) found that SMEs engage in CSR because they want to be good citizens, based on the moral obligation to contribute to the well-being of society, and not to increase profits.

According to the survey conducted by Hellenic Network for CSR, corporate social responsibility in SMEs has several components:

- **Environment** - The activities of all enterprises, independently of their size, may affect the natural environment. Implementation of comprehensive systems managing and controlling the influence each productive procedure has upon the environment may not be a simple task for a small medium enterprise.
- **Human resources** - Human resources is the most precious asset of the enterprise. Among other things, human resource is the company's main representative to all interested parties (customers, partners, local communities etc.). A constant and socially responsible management of human resources ensures not only the company's profile as a preferred employer but also the employees' creative involvement towards achievement of business goals.
- **Marketplace** - The most crucial factor of each enterprise's economic effectiveness is the marketplace and the business environment into which it operates.
- **Society** - Being a "responsible citizen", the company participates definitively in local progress and development. The conscious participation of businesses in the society may also be expressed through CSR activities.

4. THE ESSENTIAL CHARACTERISTICS OF THE ISO 26000 STANDARD

Standard ISO 26000:2010 provides guidance to all types of organizations, regardless of their size or location, whether they are public or private, operating at any stage of development. The standard represents an incentive to organizations to make a difference in relation to the formal compliance with the laws, recognizing that acting in accordance with the regulations is the basic obligation and an essential part of their social responsibility.

ISO 26000:2010 integrates seven social responsibility core subjects and within each of them addresses other, broader relevant issues:

- **Organizational governance** - the system by which an organization makes and implements decisions in pursuit of its objectives. At the same time it represents the most crucial core issue that organizations should consider when applying ISO 26000;
- **Human rights** - organizations should ensure that their activities uphold the internationally recognized human rights. They should ensure that they are not complicit in human rights abuses; that staff are aware of the recommendations in the field of general culture and human rights, as well as the recommendations of the ISO 26000;
- **Labour practices** - includes all forms of policy and practice in relation to work on behalf of the organization, including wage labour. It goes beyond the scope of an organization and its relationship with employees. Include recruitment and promotion of staff, transfer of employees, training and skills development, health, safety, practices that affect working conditions, trade union activities, and the like;
- **Environment** - Organisations should ensure that their activities comply with internationally recognized principles and obligations concerning the protection of the environment. They should support a cautious approach towards environmental issues; popularize greater environmental responsibility; encourage the development and expansion of technologies that favour the environment; accept the polluter-pays principles, and so on;
- **Fair operating practices** - Organizations should ensure that their activities are in accordance with internationally recognized principles of fair dealing. For example, they should promote the application of these principles with business partners; and to consider the willingness of others to accept these principles as an important factor in deciding on partnerships;
- **Consumer issues** – They involve basic user rights: the right to fair marketing practices, protection of healthy, safe and sustainable energy, dispute resolution, the right to compensation, data protection and privacy, the right of association and the like;
- **Community involvement and development** - contribute to the strengthening of civil society based on the contention that an organization represents "a community stakeholder". A socially responsible attitude towards community organizations can contribute to its technological development, promotion and preservation of culture and the arts, developing educational programs, strengthening institutions, creating and promoting environmental protection, reducing poverty, unemployment and the like.

5. CSR IMPLEMENTATION IN SME-S - MAJOR STEPPING STONES

According to the Poláček (2010), the prescribed basic steps to be followed in the implementation of CSR in SMEs are as follows:

- **Management commitment to social responsibility** - should make efforts to ensure the management's thorough understanding of the benefits of applying the CSR principles. For larger SMEs, personal management commitment, based on an ethical approach to business, can contribute to the effectiveness of the implementation of CSR and the formation of a special team of social responsibility. It should include experts in the fields of human resource management, communication, marketing, process management, finance, manufacturing, health and safety and sales. For smaller SMEs, it is the owners, management and employees that should provide the function of such a team.
- **Identifying key stakeholders** - In today's business practices, companies are faced with the increasingly diverse range of demands and interests of its stakeholders and interested parties. They include employees, suppliers, customers, owners, narrower and wider community in which SMEs operate, a state with its institutions, groups that advocate for issues of society and the environment, future generations, etc. The identification of stakeholders and their involvement is essential for social responsibility.
- **Analysis of the current situation** - before defining the basic values and principles of corporate social responsibility, SMEs should conduct an internal and external analysis of the current situation. As part of the internal analysis, SMEs need to analyze the current situation when it comes to their involvement in the area of corporate social responsibility (legislation, current activities, tools and methods for communication, policies and documents, etc). In the external analysis, SMEs should focus attention on the identification of external factors that can affect their business (globalization, new regulations, technological advancement, etc), analysis of the activities that use competition in the area of social responsibility, the comparison of their performances, of SMEs with the best socially responsible practices (benchmarking).

- **Defining Fundamental Values and Principles** - it is essential that SMEs identify values that on which their CSR policy should be based. These values are used as the criteria for defining the proposed instruments and activities in the field of corporate social responsibility. In order to successfully direct its activities, SMEs need to identify the core values relevant for all the stakeholders.
- **Setting Key Objectives and Corporate Social Responsibility Approach** - Based on the defined values and principles, SMEs need to determine the direction in which they want to develop their CSR activities. In order to ensure effective implementation of the commitments, the SMEs must set measurable goals and identify measures for the realized performance.
- **Preparation of the Action Plan** - Considering all that has been done so far, a matrix of proposed actions related to social responsibility should be created. Most often this is done by summing up the current and by planning new activities, processes, products and impacts in terms of SMEs social responsibility, in regard to economic, social and environmental aspect. The implementation of the CSR „obligations“ involves the pursuit of daily activities, processes, decision making process and so on, by which SMEs implement all their commitments deriving from the adoption of the CSR strategy.
- **Implementation Phase** - During the implementation of CSR, MSP monitors the action plan, including it in their daily activities. SMEs need to perform analysis at appropriate intervals to determine the progress in relation to their goals related to social responsibility and to identify the necessary changes to processes. When deciding which activities will be monitored, SMEs should focus on activities related to the most important and influential stakeholders.
- **Monitoring of Corporate Social Responsibility** - Performance review is used to determine the progress with the implementation of CSR principles, to identify areas in need of change and the activities that require improvement. In addition to reviewing current activities, SMEs should take into account the changes in conditions or expectations, legal and regulatory framework affecting the social responsibility and the opportunities for improvement. One of the most commonly used methods is the monitoring of the measurement with respect to the indicators.
- **Communicating and Reporting** - There are many types of communication related to social responsibility: meetings with stakeholders, the communication between management and employees in order to increase general awareness of social responsibility, communication with suppliers on the requirements for procurement, communication with the public about the emergency situations. Different methods that could be used for communication and they incorporate meetings, public events, forums, reports, newsletters, magazines, posters, advertisements, letters, voice mail, live performances, video, web sites, podcasts, instructions for use and product labels.
- **Preparation and Implementation of Improvement Measures** - Based on the periodic review of activities in the area of social responsibility and recommendations by stakeholders, SMEs should consider ways in which they can improve their performance. The review results should be used to help them achieve continuous improvement of social responsibility. These improvements can include changes to the general and specific objectives of social responsibility, expanding the scope of activities and programs in the area of social responsibility, obtaining additional resources for socially responsible activities or complete revision of the CSR strategies of SMEs.

6. ADVANTAGES AND DISADVANTAGES OF CSR IMPLEMENTATION IN SME-S

Social responsibility entails new demands that the SMEs in developing countries are expected to meet. Accepting the social and eco standards are increasingly becoming a precondition of cooperation with large companies. These are taking the form of individual codes or more widely adopted standards. Market movements can cause a situation where the social and eco- responsibility extends from SMEs that are in direct partnership with multinational companies to those which are indirectly related. This scenario occurs through local competition, strengthening of the mechanisms for the implementation of local laws, targeted investments, or through a change in user behavior. A certain number of multinational companies are very actively involved in the creation of partnerships, through enabling SMEs from developing countries access to otherwise inaccessible markets for them, funds, programs, education and training, infrastructure. Lack of access to technology, eco eligible materials, credit, information and trainings represent an insurmountable obstacle to the promotion of SMEs in terms of social responsibility and especially eco eligibility and liability, according to Filipovic (2008).

Table 1: The main characteristics of the relationship between social responsibility and SMEs (Filipovic, 2008)

DANGERS	CHANCES
'Back door' protectionism Loads as a result of needs for reconciliation and monitoring SR Paradox: Is it possible for MSPD not to benefit from the SR?	Business benefits: better compliance with user needs, cost reduction, increased productivity, innovation The positive implications of the SR to SMEs Additional benefits of SR, continuous improvement and development of local communities
OBSTACLES	DRIVERS
Lack of technology, expertise, training and investment necessary for improvements. A small number of initiatives aimed at SMEs. Lack of understanding of the SMEs characteristics Initiatives within the supply chain very rarely go in depth, ie. they retain on the first level Pressing of the necessity for improvement of technology, management and marketing Price competitiveness and limited pressure	Pressure by the transnational companies whose supplier chain they belong to, the requirements for certification and compliance with the Code Changing markets, the need for adjustment of production to the changing preferences of the user, the internationalization of standards Local pressures by regulation, public opinion, civil society Strategic business benefits

Improving SMEs social responsibility may prove to be a very successful business move, according to Filipovic (2008).

By applying the concept of social responsibility SMEs achieve:

- better cognition of user requirements,
- greater customer / employee / business partner loyalty
- better relate to user - supplier chain ,
- improve relations between employees and managers,
- increased ability to recruit and retain competent staff ,
- readily coping and risk management, increased capacity for learning and innovation,
- improve productivity and increase the capacity for learning, creativity and innovation ,
- increase mutual trust between companies,
- savings achieved through measures such as eco-efficiency ,
- enhance its image and reputation, improved company reputation
- opportunity to create partnerships with multinational companies ,
- increase productivity and profitability,
- greater competitiveness.

However, the aforementioned benefits will not be important for all SMEs. In the case of SMEs in the developing countries priorities are undoubtedly in the domain of mastering new production, management and marketing technologies, among which the quality management occupies an important place, according to Filipovic (2008).

7. CONCLUSIONS

ISO 26000 is intended to assist organizations in contributing to sustainable development. The intention is to encourage them to do much more than merely observing the law, given that the compliance with the law is the basic responsibility of each organization and a key part of its social responsibility. Its goal is to promote a common understanding of social responsibility, as well as to complement, but not to replace other instruments and initiatives related to social responsibility.

CSR is not a short-cut to business success, but an investment that can pay off in the longer term. It can bring advantages, for example in terms of staff retention and recruitment, staff development and motivation, customer loyalty and reduced expenditure on energy. In the knowledge economy it can increasingly be a source of innovation and it can facilitate access to and sharing of information. By managing CSR in a more strategic and conscious manner, enterprises can better reap these advantages. CSR is about continuous improvement and should be seen as part of the modern model of business excellence (according to European Commission). The personal and ethical values of SME owners, managers and employees are a strong motivation for an enterprise to pay more attention to social and environmental issues.

Small and medium-sized enterprises (hereinafter SMEs) are becoming an increasingly important part of national economies around the world. As for Europe, as early as 2001, the European Commission emphasized the need for the SMEs to fully participate in public debate on social responsibility, and to better promote their good SR practices. In the period 2004 - 2007 the number of SMEs in the total number of companies in the Republic of Serbia reached 99.7%, while the number of employees and revenues

participated with 60.6% and 67.2%, which in itself emphasizes the need for this campaign being included in the SR. Although they do not have the capacity and ability of large companies in terms of being able to make large donations, grants or engage in infrastructural projects or large projects related to the environment, SMEs are generally better integrated into local communities than large entities. Often SMEs in local communities conduct a series of socially responsible activities that are not adequately recognized as such. These activities, which are conducted periodically, in most cases point to the ethical principles of the owner rather than the idea that they could bring benefits and advantages to the owners of the business. All in all, the main obstacles to the inclusion of SMEs in CSR are the lack of awareness and lack of funds.

Keeping in mind the upcoming process of integration into the European Union, on the one hand, there is a growing opportunity for companies in Serbia to improve their approach and the presence in the single market of the European Union, but on the other hand, it is there that they are faced with the expectations of consumers, supervisors and investors regarding the implementation of CSR practices. In addition, the companies in Serbia that intend to cooperate with large foreign companies need to introduce the CSR practices because they are often in accordance their policies and a prerequisite for business cooperation (according to Strategy for development and promotion of Social Responsibility in the Republic of Serbia for the period 2010-2015).

ACKNOWLEDGEMENT

This paper is part of a project supported by the Ministry of Education, Science and Technological Development of Republic of Serbia, under the heading III 43008 and entitled "Development of methods, sensors and systems for monitoring the of water, air and soil quality".

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THE ECONOMIC SUSTAINABILITY OF STANDARDS – CAN ISO METHODOLOGY HELP?

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Abstract: *In publication by ISO, Economic benefits of standard-ISO methodology 2.0, is explained how one organization can measure the economic benefits that introduced standard brings with it. Methodology consists of four basic steps that defines what the company needs to do to make the results relevant and accurate. Using various tools and techniques that this methodology suggests, one can easily distinguish economic improvement that is caused by standard and economic improvement caused by other factors. But in practice it is more difficult than in theory. It is very hard, nearly impossible to measure economic impacts of standard. There are many issues that should be clear such as cost of assessment, determine of operational indicators and validity of results.*

Keywords: Standards, Sustainability, Economic Sustainability, Economic benefit of Standardization

1. INTRODUCTION

1.1. Importance of Standards in Business

There are many definitions of standards as term of “standards” is used in the world in almost all spheres of life. According to CEN, standard is “a document that sets out requirements for a specific item, material, component, system or service, or describes in detail a particular method or procedure. Standards facilitate international trade by ensuring compatibility and interoperability of components, products and services. They bring benefits to businesses and consumers in terms of reducing costs, enhancing performance and improving safety” (CEN-CENELEC,2014).

According to ISO “a standard is a document that provides requirements, specifications, guidelines or characteristics that can be used consistently to ensure that materials, products, processes and services are fit for their purpose” (ISO,2014). This is one of the many definitions of IEC gives two little rougher definition of standards but also the definition of a standard observer from two aspects, in terms of formal standard bodies and industry. Standard is an agreement developed by several parties with the intent that all parties comply, and also standard is a product or service with a significant market share (IEC,2007). In terms of formal standard bodies a standard is “a document established by consensus and approved by a recognized body, that provides, for common and repeated use, rules, guidelines or characteristics for activities or their results, aimed at the achievement of the optimum degree of order in a given context” (ISO/IEC, 2004b, p.8). From the aspect of industry “A standard can be of any form or type. A standard is also one of the agents used to bring about market change” (IEC, 2007)

Standards are produced for many different products and services, and may be created for company, national, regional or global application. They may be used on a voluntary basis, or made mandatory by company policy, national or international regulation, or by law (ETSI,2014).

In Europe there are three different categories of standard (ETSI,2014):

- international standard – a standard adopted by an international standardization organization
- European standard – a standard adopted by a European standardization body
- national standard – a standard adopted by a national standardization body and made available to the public

Standards are by nature associated with the sustainability of the business system and the environment in which it operates, simply because the standards are trying to meet the criteria of sustainability arises. The environmental stewardship and social responsibility values of sustainability are reflected in the missions of

the participating organizations. In addition, many of the systems have developed environmental vision statements that articulate an organizational commitment to sustainability (Boone, Jayaraman, Ganeshan, 2012)

1.2. Relationship between standardization and sustainability

A mission is also public affirmation about how the organization defines itself. Public promotion of an organization's sustainability must be carefully managed. On the one hand, sustainability may help to bolster the organization's brand and reputation. Research has indicated that intangible assets such as reputation may provide a more enduring competitive advantage than other business assets and support long-term success. Signaling the strategic value of sustainability conveys a powerful message to communities and customers (Boone, Jayaraman, Ganeshan, 2012). Authors Darcy Hitchcock and Marsha Willard (2006) in their book "The business guide to sustainability practical strategies and tools for organizations" on sustainability told : " Unless you want to be buffered by each change you need framework for making sense what is happening in world, so that you can foresee changes and take actions before they happen. Sustainability is that kind of framework. It doesn't encompass everything you'll need to track to be successful and it's not a crystal ball. However sustainability helps you to see relationships between issues and more accurately forecast what may you occur in the future. It examines our world as a whole system revealing threats and opportunities. It forces you to see relationship between social, economic and environmental trends."

Hitchcock and Willard (2006) recognize the following Benefits of pursuing sustainability:

- Reduce energy, waste and cost
- Differentiate yourself
- Sidestep future regulations
- Create innovative product or process
- Open new markets
- Attract and retain best employees
- Improve your image with shareholders and public
- Reduce legal risk and insurance costs
- Provide a higher quality of life

After these advantages pursuing sustainability it is unavoidable mentioning definition of economic sustainability. The widely accepted definition of economic sustainability is maintenance of capital, or keeping capital intact. Thus Hicks's definition of income—the amount one can consume during a period and still be as well off at the end of the period—can define economic sustainability, as it devolves on consuming value-added (interest), rather than capital (Goodland, 2002). "Economic sustainability is the word used to pinpoint numerous strategies that make it conceivable to use accessible resources to their best advantage. The idea is to uphold the use of those resources in a way that is both skillful and responsible, and likely to deliver long-term benefits"(Ask.com, 2014). Every society can be described as comprising four dimensions, the economic, social, environmental and institutional. "Each of them is a complex, dynamic, self-organizing and evolving entity in its own right, making the coupled system one of tremendous complexity. For this system to be sustainable, each of the four subsystems has to maintain its capability to survive and evolve while the interlink ages of the subsystems must enable a permanent co-evolution. In the macro-economic debate, few other economic sustainability criteria are mentioned, like innovativeness, competitiveness or public debt, while criteria like inflation or trade imbalances are politically prominent, but hardly ever located in a sustainability context with its broader perspective and the need to balance different interests. Again, other, partly more traditional criteria like aggregate demand, consumption levels and savings rates play a minor role in the current debate. So whereas there are ideas to be found in the economics literature regarding the environmental, social and sometimes also the institutional sustainability of the economic system, there is hardly any information available on the economic sustainability of the economy (and thus not on the overall sustainability of the economy, which comprises all four components). Even less so, criteria of economic sustainability have been developed for the other dimensions. This is all the more surprising, as the economic sustainability of social security systems or environmental protection legislation is a prominent issue of the policy debate." (Spangenberg J., 2005)

Close connection between standardization and sustainability is recognized in numbered benefits of standardization. It can be seen that some benefits of pursuing sustainability and sustainable development, are also some of the benefits of standardization by ISO. International Standards bring technological, economic and societal benefits. They help to harmonize technical specifications of products and services

making industry more efficient and breaking down barriers to international trade. Conformity to International Standards helps reassure consumers that products are safe, efficient and good for the environment. ISO recognize standardization benefits for business, society and government. For business main benefits is ensuring that business operations are as efficient as possible, increase productivity and help companies access new markets. (ISO,2014)

According to ISO (2014) benefits include :

- Cost savings - International Standards help optimize operations and therefore improve the bottom line
- Enhanced customer satisfaction - International Standards help improve quality, enhance customer satisfaction and increase sales
- Access to new markets - International Standards help prevent trade barriers and open up global markets
- Increased market share - International Standards help increase productivity and competitive advantage
- Environmental benefits - International Standards help reduce negative impacts on the environment

Majority of stated benefits can be linked with the economic improvement of one organization in direct or indirect way.

2. ISO METHODOLOGY FOR MEASURING ECONOMIC BENEFITS OF STANDARDS

“ISO has developed a simple, step-by-step methodology and a robust set of tools to measure the economic benefits of standards. The methodology can be applied to all companies and industry sectors in order to identify the contribution that standards make to their performance.” This is introduction line in the book published by International organization for standardization “Economic benefits of standard-ISO methodology 2.0”, which can be used to measure economic impact of standards involved in organization.

In a few steps using certain methodology suggested in this publication organization can easily measure improvement expressed in money. The primary scope of the ISO Methodology is assessing the economic benefits of standards (i.e. the contribution of standards to the creation of economic value) for a company.

ISO methodology is explained in Figure 1 with all necessary steps.

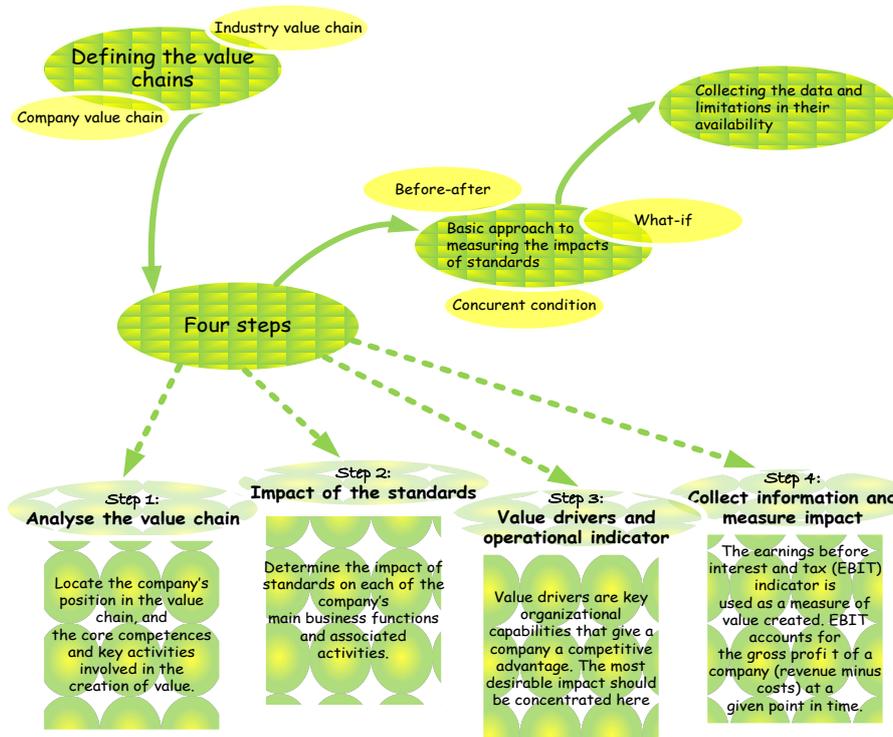


Figure 1: ISO methodology (Modified in accordance to Economic benefits of standard-ISO methodology 2.0)

There are two types of value chain explained in methodology, company value chain and industry value chain. A company value chain represents the chain of activities conducted inside a company. Those chains represent internal processes of every company and it explains their relationships.(ISO Methodology,2013)

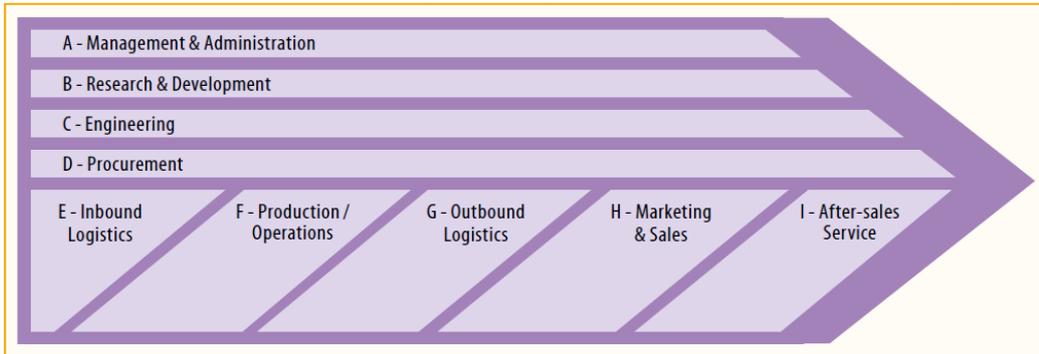


Figure 2: The value chain of manufacturing company (ISO Methodology,2013)

On the other hand value chain model can be extended to a whole industry sector, in which case the various stages of production and services and the network of suppliers and customers are included in the perspective. This is referred to as the “ industry value chain ” (ISO Methodology,2013)

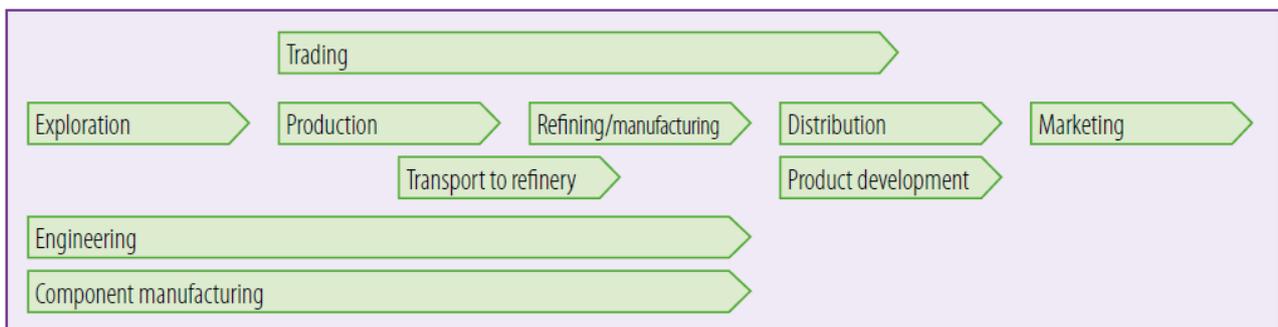


Figure 3: Oil and gas engineering industry value chain and scope (according to ISO methodology,2013)

After those steps company should have all required information needed for measuring benefits of standards. There are some techniques that organization can use for analyzing impact of standard before and after their introduction in certain company. It can be used before-after comparison, comparison of concurrent condition and what if analysis. Technique that ISO methodology recommends is before-after comparison because of information that are clearly stated after assessment. (ISO Methodology,2013)

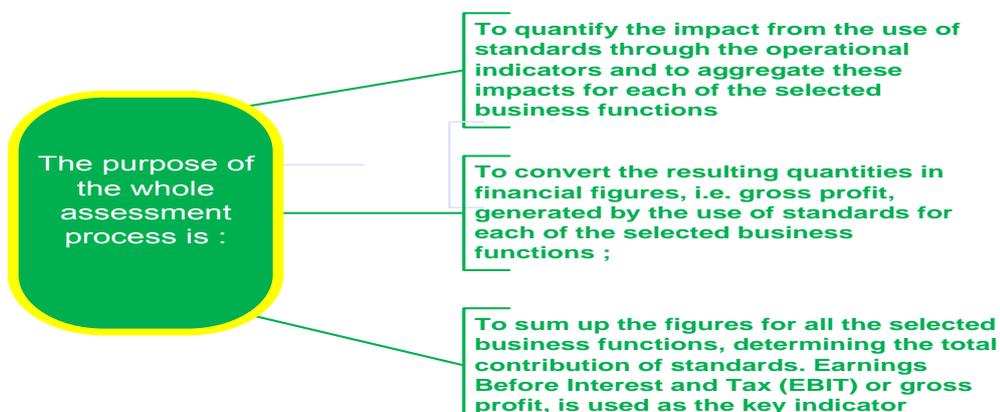


Figure 4: Purpose of assessment (Modified according to ISO Methodology,2013)

Organization after the measurement and data collection use the main indicator. The main indicator in ISO methodology is EBIT."EBIT is an indicator of a company's profitability, calculated as revenue minus expenses, excluding tax and interest. EBIT is also referred to as "operating earnings", "operating profit" and "operating income".

Income Statement for the Year Ending December 31, 2009	
Sales Revenue	\$1,000,000
Salaries	(100,000)
Rent & Utilities	(100,000)
Depreciation	(50,000)
Operating Profit (EBIT)	\$ 750,000
Interest Expense	(50,000)
Earnings Before Taxes (EBT)	\$ 700,000
Taxes	(100,000)
Net Income	\$ 600,000

Figure 5: Example of EBIT calculation (Investopedia, 2014)

$$\text{EBIT} = \text{Operating Revenue} - \text{Operating Expenses (OPEX)} + \text{Non-operating Income}$$

Also known as Profit Before Interest & Taxes (PBIT), EBIT equals Net Income with interest and taxes added back to it.

In other words, EBIT is all profits before taking into account interest payments and income taxes. An important factor contributing to the widespread use of EBIT is the way in which it nulls the effects of the different capital structures and tax rates used by different companies. By excluding both taxes and interest expenses, the figure hones in on the company's ability to profit and thus makes for easier cross-company comparisons." (Investopedia US, A Division of IAC,2014)

3. DOES ISO METHODOLOGY WORK?

According to ISO methodology with steps explained in this publication organization can easily measure impact of every standard introduced in system. It is also explained how organization should measure and distinguish every impact that is not caused by standard implementation and advised to be very careful in order to calculate impacts properly. (ISO Methodology,2013)

In order to implement such a methodology proposed by the ISO, the organization must meet certain requirements. One of the conditions is that the organization must be certified by a recognized standard for at least three years (ISO Methodology,2013). If organization wants to examine the impact of standards in the last three years, it needs to analyze the data at least for past three years for the sake of accuracy and relevance of the results. The question that arises is whether small and medium enterprises keep records of all operational indicators that are needed to calculate progress in accordance with ISO publication. Information system should provide information that will be easy to monitor the effect of standard. Most companies their information systems about operational indicators that has influence on economic aspect of standard, established after the introduction of relevant standards so that information from previous periods are generally useless or does not exist. Such an approach, which is present in most of the companies that have a need for an assessment of the economic effects of standards, hampers the analysis proposed by the ISO.

Determine the operational indicators is another problem that arises in ISO methodology. Operational indicators referred in this publication should not be taken for granted simply because the impact on a particular part of the organizational unit can not be measured only through the standard and its impact on the process. It also depends of all others factors that have influence on certain process. In company operational indicators point to improvement or deterioration which occur due to the influence of various factors on the process. Some operational indicators such as employee morale, which in some cases significantly affects productivity, is immeasurable. It is impossible to determine that implementation of certain standard is credited for raised staff morale .It's just another reason why you can not accurately gauge the impact of standards on entire organization. If one can not accurately determine the impact on individual organizational levels, each error is multiplied by switching to the next hierarchical level in the organization.

While introducing generic type of standard in organization it is very difficult to determine what direct impact of standard is and what is a impact of some others factor involved. Other factor includes political, economic, social and technical changes in business environment. For example, a productivity increase is achieved for certain activities after the introduction of standards. This improvement is determined by changes in the work practices that have been driven by the new standards – but also by organizational changes and the use of newly introduced technology. Also improvement of organization can be caused by various market developments that could lead to weakened competition, and thus increase organization market share.

4. CONCLUSION

According to ISO methodology with steps explained in this publication organization can easily measure impact of every standard introduced in system. It is also explained how organization should measure and distinguish every impact that is not caused by standard implementation and advised to be very careful in order to calculate impacts properly. However, in business practice it is not always easy to define performance measures, obtain data related to performance indicators and make reliable conclusion about economic effects of standards. There are many issues that should be clear:

- ISO methodology is retrospective in meaning that for adequate implementation of this methodology need at least three years of standard' implementation for first conclusion about economic effects
- Operational indicators referred in this publication should not be taken for granted simply because effects of standard can not be isolated from other influential factors as well as changes in business environment.
- Some operational indicators are immeasurable
- ISO methodology is not taking into account dynamics of performance measures and influence of others factors on particular performance measures during the measuring period (e.g. three years).

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EXPERIENCES IN THE IMPLEMENTATION OF ISO 20000

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Abstract: This article discusses the topic of ISO 20000 standard implementation, which is very important for an organization in order to achieve continuous improvement and growth. ISO 20000 standard is a subject of numerous studies which highlight its importance as well as its main purpose. This paper presents briefly the development and structure of ISO 20000 standard and summarizes its implementation in Serbian companies.

Keywords: ISO 20000 standard, IT service, ISO 20000 standard implementation

1. INTRODUCTION

In today's business organizations are constantly trying to be better and better by improving their products and their way of work, which made a huge space for new companies to enter the market. In this manner, small changes can make a big difference. The same goes with usage of ISO/IEC 20000. There is a thesis that organizations that are using standards do a better business. This paper discusses the development and structure of ISO 20000 standard in order to stress the importance of having well defined goals and implementation of standards as a step towards stable growth. Afterwards, the successful implementation of ISO 20000 standard in Serbia has been presented by giving the description and basic information about certified companies.

Development of ISO/IEC 20000 is shown in second paragraph, explaining its roots and extensions afterwards. It also shows division of standard into 13 IT processes. The third paragraph shows the structure of the standard divided into 8 areas. The next paragraph suggests implementation steps. First of them is to answer several questions of high importance. Besides, there is a growing trend of companies being certified, also presented in the benefits that organizations can gain by attaining the certificate. Fifth paragraph presents current state of usage of ISO/IEC 20000 in companies in Serbia with examples of their certificates. The last paragraph is conclusion of information given and thoughts about certification and use of standard.

2. DEVELOPMENT OF ISO 20000

ISO/IEC 20000 is the first International Standard for IT Service Management processes. It was developed in 2005 by ISO JTC 1/SC 7 Technical Committee. It was based on BS15000 standard (published in 2000) which was retreated later. ISO/IEC 20000 helps organizations to effectively manage services to meet business and customer requirements.

In June 2011 comes the first update to ISO/IEC 20000, called ISO/IEC 20000-1:2011. (Part 1: Service management system requirements) It describes systems for managing services (SMS – Service Management System). It includes all requirements company should fulfil in terms of planning, establishment, application, implementation, monitoring, review, maintenance and improvement of Service Management System. This standard contains 256 requests, divided in 6 groups, which relate to design, change, delivery and service improvement. Also, it can be divided into 13 IT processes (from four key service management processes)(source: <http://www.standards.org>):

1. Service Delivery Processes – includes Service Level Management, Availability Management, Capacity Management
2. Relationship Processes – involves interfaces between the service provider and customers and suppliers
3. Resolution Processes – focuses on incidents being resolved or prevented
4. Control Processes – involves managing changes, assets and configurations

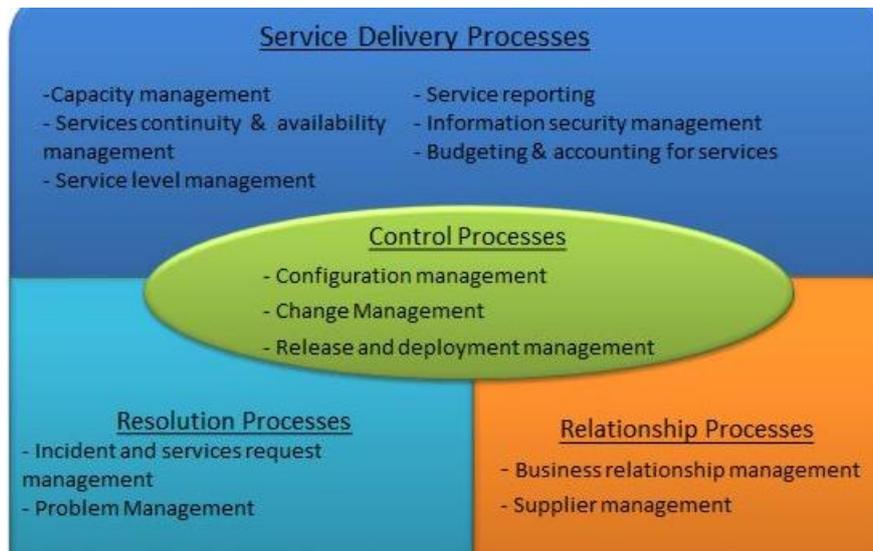


Figure 1: Key service management processes

In 2012, a new version was introduced – ISO/IEC 20000-2:2012 (Part 2: Guidance on the application of service management systems) Includes instructions for application of SMS based on the requirements in ISO/IEC 20000-1. It includes examples and suggestions for system usage. ISO/IEC 20000-2:2012 gives organizations an opportunity to interpret and apply ISO/IEC 20000-1:2011 more accurately and to use it more effectively.

ISO/IEC TR 20000-3:2009 (Part 3: Guidance on scope definition and applicability of ISO/IEC 20000-1) Provides guidance on scope definition and applicability of ISO/IEC 20000-1. It can help organizations that are considering implementing a Service Management System into their business.

ISO/IEC TR 20000-4:2010 (Part 4: Process reference model) Facilitates the development of a process assessment model according to ISO/IEC 15504 process assessment principles. Model described by this standard is a logical representation of the process' elements within the service management that can be performed at a basic level. It describes all the processes on the abstract level, including the SMS processes described in ISO/IEC 20000-1, as a primary purpose and output elements.

ISO/IEC TR 20000-5:2010 (Part 5: Exemplar implementation plan for ISO/IEC 20000-1) Is an example of implementation plan providing guidance to service providers on how to implement a SMS to fulfil requirements of ISO/20000-1 or those intending to use ISO/20000 as a business goal. ISO/IEC TR 20000-5:2010 is only for guidance. The service provider has the option of choosing their own implementation sequence to implement a service management system.

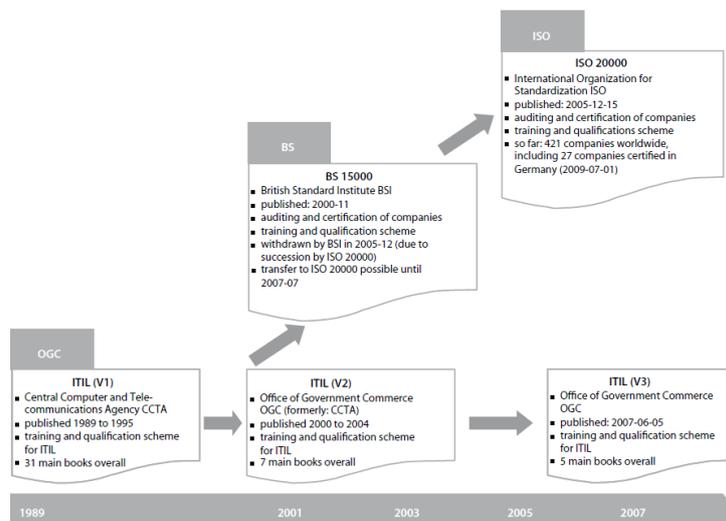


Figure 2 shows the origin and development of ISO 20000.

Figure 2: Origin and development of ISO 2000

3. THE STRUCTURE OF ISO 20000 STANDARD

ISO 20000 standard is codified into two documents:

1. ISO 20000–1 (2005)
2. ISO 20000–2 (2005).

The first document is known as “mandatory criteria” (Buchsein et al., 2007; Greb et al., 2006) because it represents the formal specification of the standard, where all the requirements that one organization needs to comply with in order to attain certificate are precisely described. In other words, this document provides an absolute set of standards that a company must meet for successful accreditation. The second document represents an addition to the first one, in which all of the requirements are classified and the recommendations for successful implementation are provided for verification of conformity with the standard (MacFarlane and Dugmore, 2006). This means that here a company can consider wider optional set of best practice approaches and decide which of them to include in order to obtain better assessment.

The superordinate management processes are supposed to secure a strategic alignment of IT services, in particular an alignment to the objectives of (internal and external) customers as well as economic and quality objectives.

The structure of ISO/IEC 20000 can be divided in several areas (source: <http://www.barclayrae.com>):

1. Requirements for a management system – this area describes that the management of a company must deploy all suitable processes and policies on a regular basis in order to be able to manage IT services in line with the business needs.
2. Planning and implementing service management – this area describes that the organization must plan and manage all service activity. Within ISO/IEC 20000 this implies the use of Deming’s famous PDCA (Plan, Do, Check, Act) approach.
3. Planning and implementing new or changed services – this area describes that the organization should plan any new or changed activities carefully in terms of decreasing their impact on business and maximising the expected service quality benefits as soon as possible.
4. Service Delivery processes
 - a. Service Level management – this section describes that a company must have defined, agreed level of services in order to be able to record and manage it.
 - b. Service Reporting – this section describes the importance of producing agreed, timely, reliable and accurate reports in order to realise informed decision making and effective communication.
 - c. Service continuity and availability management – this section describes that a company should be able to meet agreed obligations to customers in all circumstances.
 - d. Budgeting and accounting for IT services – this section describes that a company should budget and account for the cost of service provision.
 - e. Capacity management – this section describes that a company must have at all times, sufficient capacity to meet the current and future agreed demands of the business.
 - f. Information security management – this section describes the importance of managing information security effectively within all service activities.
5. Relationship Processes
 - a. Business relationship management – this section describes the importance of establishing and maintaining a good relationship between the service provider and the customer.
 - b. Supplier management – this section describes the importance of managing third party suppliers to ensure the provision of quality services.
6. Resolution Processes
 - a. Incident management – this section describes that a company should have the ability to restore agreed service to the business or to respond to service requests as soon as possible.
 - b. Problem management – this section describes the importance of proactive identification and analysis of the cause of service incidents, as well as the importance of managing problems to closure in order to minimise disruption to the business.
7. Control Processes
 - a. Configuration management – this section describes that a company should maintain accurate configuration information, but also define and control the components of the service and infrastructure.
 - b. Change management – this section describes that all changes should be assessed, approved, implemented and reviewed in a controlled manner.
8. Release Process
 - a. Release management – this section describes that a company should deliver, distribute and track one or more changes in a release into the live environment.

Figure 3 shows the structure of ISO 20000 standard, described above.

ISO/IEC 20000

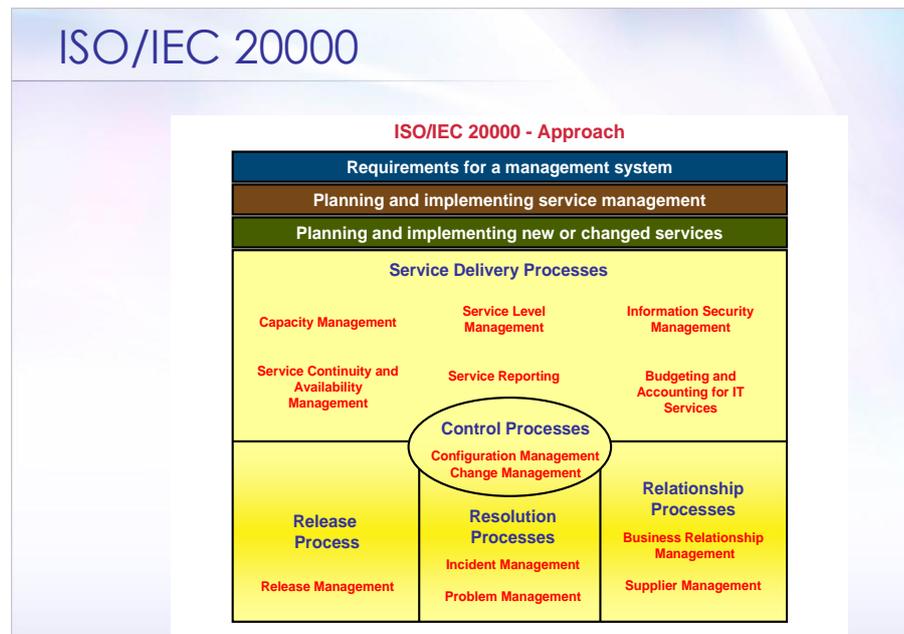


Figure 3: Structure of ISO 20000

4. IMPLEMENTATION EXPERIENCES

When considering the implementation of ISO/IEC 20000 standard, a company should seriously answer the following key questions:

- Is this right for us? – are we eligible, is this a mandatory business need, will we get clear benefits
- Where do we stand currently against the standards? – how actually are we ready for implementation and what are the current problems that need to be solved
- What benefits do we expect from ISO/IEC 20000? – what are the industry standing, cost and quality benefits of ISO 20000 standard implementation
- What work is involved? – how much planning, costs, time and resources are required to achieve ISO/IEC 20000 accreditation

The implementation of ISO 20000 has different internal and external effects on organization as a whole (Disterer, 2009). From an internal perspective, before organization becomes ISO 20000 certified, the anchoring of continuous improvement processes for IT services within the organization intensifies while pursuing the certificate. The employees that are involved in continuous improvement become more motivated and when the goal is reached it represents an impulse and reinforcement by highlighting the achievement of the certificate. For the senior management certification can serve as a relatively clear-cut objective of a complex transformation process. The success of implementation can be easily observed by means of the attained certificate and the position and reputation of organization on the market that improves and becomes more trustworthy and recognized by certain level of service quality. Since the certificate represents a proof of conformity with implemented standards, it is clear that it can serve the company as a marketing tool. This is closely related to an external perspective of standard implementation impacts on organization. Emphasizing that an independent body has certificated the company by using well defined procedures, customers are provided with evidence that all the conditions and requirements of ISO 20000 standard are met. This is extremely important when customers tend to choose IT providers based on their compliance with the standard.

Figure 4 shows the number of ISO 20000 certified companies in Europe, Asia and the rest of the world (RoW) (Disterer, 2009).

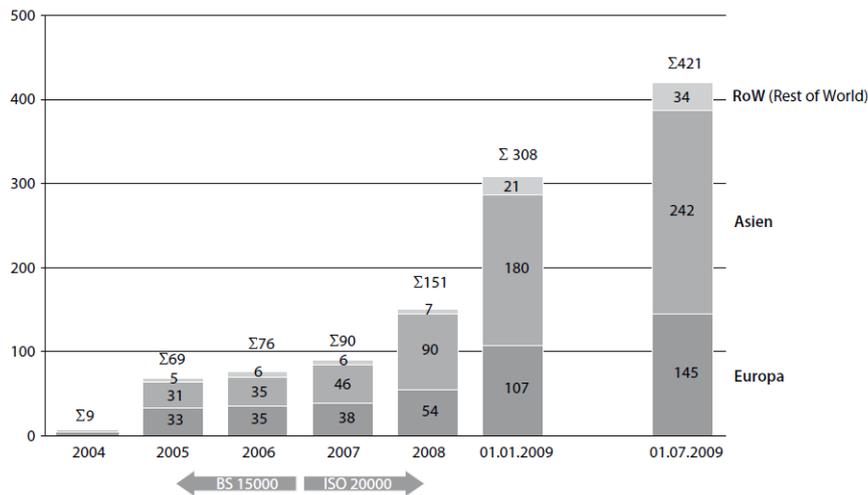


Figure 4: Certified companies

Benefits

Usage of ISO/IEC 20000 benefits organization in many ways. It reduces costs, risk and time spent to introduce products/services to the market. All of this contributes to company's competitiveness. It changes way of doing services from technology driven to business driven, which makes service provides more responsive. IT becomes pro-active rather than re-active, and it brings KPI measurement criteria. Company using ISO/IEC 20000 shows service reliability and consistency, and it is more preferable to be chosen over one without this standard. "Certification audits are continual and should be treated as a mechanism for educating and raising awareness of employees. Certification can also reduce the amount of supplier audits thereby reducing costs. Finally, the use of qualified and independent auditors can be used as a benchmark" (Menken, 2009).

5. IMPLEMENTATION OF ISO 20000 IN COMPANIES IN SERBIA

ASW Engineering

Company ASW Engineering was founded in 1990 and now it operates on large IT service market in Serbia, Slovenia and Bosnia and Herzegovina (source: <http://www.asw.eu>). The services, that company ASW Engineering offers, include implementation, customer support and consulting. Company's most important products are shown in figure 5.



Figure 5: ASW Engineering products

Having the goal to broaden the range of solutions, company growth and expansion in region and in EU, ASW company started with serious planning and decision making regarding the regarding standardization of processes in quality management system and the quality of its products. Before making a final decision the following reason for standards implementation were identified:

- the trend of growing needs for services in IT sector
- the key income sources are services

Because of these reason it has been decided to implement first ISO 9001 (QMS) in 2005 and then ISO 20000 (SMS) in 2013. The implementation of ISO/IEC 20000 in ASW lasted over 3 months and over 50 persons participated.

Basic processes improved and implemented while attaining ISO/IEC 20000-1 include:

- Service provision processes
 - capacity management
 - managing the level of services
 - reporting about provided services
 - managing the continuity and accessibility of services
 - budgeting and accounting for services
 - managing the security of information
- Connection processes
 - managing business relationships
 - managing the suppliers
- Problem solving processes (diagnosing the source of problems and decreasing the number of incidents):
 - managing the incidents and needs for services
 - managing problems
- Control processes (controlling the change, managing new versions):
 - managing configuration
 - managing changes
 - managing versions

The changes and improvements in capacity management were made in recording the knowledge of employees, increasing the independency of individuals, creating the catalogue of products and services, company's responsiveness to short deadlines. When it comes to managing the continuity and accessibility of service handling of irregular situations in providing services become more efficient and the business continuity plan was created. Managing the level of services and reporting about provided services was improved by enriching and specifying the content of service, speeding up answering to customer needs, performing calculation on used time, creating a team for customer support, providing the customers with asw:officius–tool for customer support and asw:portal.

The expected and achieved benefits from implementing ISO/IEC 20000-1 can be summarized with the following:

- increasing the client's satisfaction by increasing the level of IT services
- optimal resource usage
- continuous service provision
- participating in projects that require ISO/IEC 20000 standard implementation
- better position on IT market
- integration with existing system ISO/IEC 9001, which leads to Integrated management system

Figure 6 shows ASW Engineering's ISO/IEC 20000-1 certificate.



Figure 6:ASW Engineering's ISO/IEC 20000-1certificate

Other ISO 2000 certified companies in Serbia

The PREMIUM Software doo company has attained ISO/IEC 20000 certificate on 11 Nov 2013 (source:<http://www.isoiec20000certification.com>). The company has been certified under the APM group ISO/IEC 20000certification scheme. This certificate guarantees IT Service Management that includes the provision of enterprise and internet applications services to all external clients within the technical and organizational boundaries of PREMIUM Software doo, Serbia.

Societe Generale deSurveillance, Swiss has provided the PARALLEL d.o.o. company with ISO/IEC 20000 on 07 Oct 2013 (source: <http://parallel.rs/>). PARALLEL d.o.o. company is engaged in consulting and implementation of IT solutions, technical support and administration, Oracle training and licencing Oracle softwares.

On 12 Dec 2012 the Xpro companyhas attained ISO/IEC 20000 certificate concerning the areas of sales, implementation and managed print services provision, creation and integration of document management system, application development, processing and providing services in the area of variable and transactional printing and mail packaging (source: <http://www.xpro.rs>). Xpro company is the Xerox corporation exclusive distributor, which means that the organization and the quality of sales and servicing are in compliance with the standards of Xerox corporation. Figure 7 shows their ISO/IEC 20000 certificate.



Figure 7: Xpro's ISO/IEC 20000 certificate.

6. CONCLUSION

There is a growing trend in using standards, especially ISO/IEC 20000. Today, we are all witnesses to market globalization. That is why companies from Europe and other continents started introducing standard to their business. Every organization, considering whether to implement ISO/IEC 20000 standard or not, should review all the benefits that can be gained from attaining the certificate as well as the costs of implementation and assessment. In Serbia, not many companies have attained ISO/IEC 20000 certificate, but those who have, prove its good practice. The question regarding the lack of ISO 20000 standard implementation in Serbian companies remains opened. Reasons for such behaviour may lie in the low awareness of the importance of obtaining standard certificate and therefore standardizing all key processes of one company and taking a stable place on the market by providing customers with products of high guaranteed quality. Exploring these reasons will be our focus in future work.

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