

XVII International Scientific Conference on Industrial Systems (IS'17) Novi Sad, Serbia, October 4. – 6. 2017.

University of Novi Sad, Faculty of Technical Sciences, Department for Industrial Engineering and Management Available online at http://www.iim.ftn.uns.ac.rs/is17



The Impact of the ISO 9001:2008 Application on the Business Ability Improvement and Development in the Pension and Disability Insurance Fund of the Republic of Srpska

Mladen Milić PhD

(Director, Pension and Disability Insurance Fund of the Republic of Srpska, Bijeljina, Republic of Srpska, Bosnia and Herzegovina *mladen.milic@fondpiors.org)

Abstract

This paper is written to determine the impact of the implementation of ISO 9001:2008 and 9001:2015, as well as the Integrated Management System (IMS), on the improvement of business ability in the Pension and Disability Insurance Fund (Fund) of the Republic of Srpska. This business ability is manifested by increase of efficiency, promptness, and quality improvement of the service provision. Finally, the results obtained in this research should promote and highlight the benefits of applying the standards and the IMS to those organizations that are yet to implement them. Particularly, the advantages of applying the ISO 9001:2008 and 9001:2015 can become the main motive for these organizations, in order to initiate activities on the introduction of the standards in the near future.

Key words: promptness, efficiency, quality, benefits of application, standard, quality management

1. INTRODUCTION

This research is conducted by gathering the relevant data and demonstrates the level in which the application of the ISO 9001:2015 and the IMS in the Fund has affected the quality of service delivery and other performances.

Management, as well as the Fund's employees, has been applying the ISO 9001:2008 for seven years, in order to perform their tasks in an easier and more efficient manner. Simultaneously, all the employees continuously strive to improve and develop the quality of service delivery. This standard is highly convenient and applicable in organizations of various sizes and activities, both small and medium sized, as well as large complex systems, such as the Fund. In addition, this standard is characterized by exceptional consistency with other quality management system standards, and therefore it is admittedly the basis for the introduction and application of any standard, in this case the IMS. The application of this standard is reflected in the gradual improvement of efficiency, effectiveness, and quality. As part of the regular recertification check in 2016, the Fund implemented the latest version of the standard 9000, ISO 9001:2015, in addition to the already implemented ISO 27001:2013 and OHSAS 18001:2007.[1]

In contemporary business conditions, the application of international quality standards is implied. It is almost unthinkable for any organization not to follow, regardless of their size and the type of activities they engage into. One could, quite freely, compare it with the use of advanced electronic communications. As it is

inconceivable, for any organization nowadays, to function without the use of advanced electronic communications, the same goes for the application of the ISO. Accordingly, one of the key strategic decisions of any organization should be the introduction of the IMS, bearing in mind that it provides easier, faster, and more efficient cooperation with the business environment on one side, while it increases customers and the service users' satisfaction.

Among other things, it should be noted that in the previous period, as in the present case, the relationship between ISO 9001 and the organization's performance has been the subject of many research aimed at improving the organization's operations in all fields.

2. QUALITY MANAGEMENT - THE ROLE AND IMPORTANCE

The term quality[2] derives from the Latin word *qualitas*, which represents feature, ability, value, fitness for purpose. There are many definitions of quality. According to the ISO 9000, 'quality' is the extent to which a set of inherent characteristics meets the requirements.[2] Perhaps quality can be simply defined as the satisfaction of the customer or the service user. It is important to emphasize that the quality system strives for continuous improvement and development of the business performances within an organization.

In addition to quality, in the opinion of manu authors, it is considered that standardization as a means of

achieving order in certain areas is as old as humanity [3]

Quality control in the Fund refers to the supervision of the process implemented to provide services in the field of pension and disability insurance, and it can be both internal and external.

The key function of an organization for achieving the desirable level of quality is its protection. This means that the organization is planning and systematically executing all the activities embedded in the Quality Management System (QMS) and it improves the way in which the organization performs its business. In addition, the QMS anticipates an increase in business volume, making the organization more efficient, more effective, and therefore more profitable. The QMS contains all the necessary information concerning the organizational structure of an organization. This includes the planning, processes, resources, and documentation used to achieve the quality goals, hence ensuring the improvement of their products or services, and finally meeting with the demands of their clients.[4] The quality management that determines the quality policy, goals, and responsibilities, are of essential importance for each organization. This is achieved within the framework of the quality system, through planning, monitoring, securing, and continuous improvement of quality.

The benefits from the implementation of the ISO 9001: 2008 standard are various. They are reflected through the improvement of [5]:

- · realization of the product or service,
- management organizations,
- · communication, planning, and administration,
- management of suppliers and subcontractors, and
- competitiveness, as an important marketing tool.

At the same time, quality is understood and interpreted differently, depending on whether it is observed by [2]:

- · consumers or users of the services,
- manufacturers, or
- the market.

For consumers, quality represents a certain level of value of the product or service that meets their need. Conversely, for the manufacturer, it is a function of demand, or how well a particular product or service sells in the market. Finally, for the market, quality represents the level of customer satisfaction for a particular product or service, in relation to the same product or service provided by the competition.

In the contemporary market, the organizations comprehend the quality from the aspect of management as well, since managing the quality should enable the improvement of business ability, hence the competitiveness of the organization itself. For this reason in particular, quality is within the competence of managers at the greatest extent and as such they are chiefly responsible for its level.

2.1 ISO 9001 – The Concept and the Meaning

The International Organization for Standardization's (ISO) Technical Committee has identified and specified the requirements of the international standard ISO 9001, which had been used by the organizations to create the QMS. [5]

ISO 9001 is a general organizational-management standard applicable in production, services, public organizations, government authorities, education ... [6] An organization that implements the QMS in accordance with the requirements of the ISO 9001 sends a clear and unequivocal message to existing and potential customers or users that the goal of its business is to identify and satisfy their needs and expectations, by an effective and efficient application of the QMS. In this way, the organization shows to its customers or users the ability to continuously secure the product or service it provides - adding to their satisfaction - also meets the appropriate, legally binding requirements. Moreover, by doing so the organization achieves satisfaction of its users, through the quality of services and products.[5]

The five dimensions of achieving customer satisfaction, as perceived by the users, are: reliability, trust, visual impression, compatibility, and responsibility.[7]

A large number of organizations have accepted the certification system according to the ISO 9001 as a good quality management system tool; confirmed by the exceptionally large number of issued certificates worldwide. This standard is an excellent, successful tool in introducing and improving all business processes in an organization. However, achieving the certificate for its own sake, merely to put a label of standards on their memorandums, official documents, or advertising material, might easily be turned into a complete failure, especially when some of the requirements are not strictly applied, and norms are not constantly reviewed and improved.

At the beginning of the 21st century, it is believed that integration is a key word. It is also believed that the Integrated Management System (IMS) is the best management approach to simultaneously achieve: customer satisfaction, restructuring the organization, lowering costs, increasing productivity and profit, and finally guaranteeing the organization's long-term sustainability. So the IMS represents the right way for effective and efficient management of an organization.[1]

IMS is a "system of systems" [8]

Integration requires, different standards for management systems, to obtain a wider, stronger and more comprehensive IMS, which is managed in a prompt, efficient, and cost-effective manner.

The most widely accepted definition of the IMS from the standpoint of the top management of the organization contends that: "The integrated system of intermanagement is a comprehensive management tool that links all the elements of the business system into a unique and complete system of organization processes, in order to satisfy the demands of stakeholders and achieve business Objectives in accordance with the

vision and mission of the organization." IMS is the way in which the Fund manages the quality, where the term quality refers not only to the quality of services provided to contributors (the insured persons and the users of the rights), but also to the quality of service in relations with suppliers and other partners. On the other hand, the quality of the Fund itself, as an organization, is reflected in relation to employees and resources, organizational culture, and other stakeholders.

The QMS enables monitoring of all the processes and activities in the Fund. All the processes in this chain are covered by the IMS through procedures and records that might become beneficial for developing new ideas and services, as well as business advancement, marketing activities, etc. In the process of QMS implementation, all employees in the Fund are involved, so each individual in the system carries part of the responsibility for all the duties she or he performs. In this way, part of the responsibility for the quality of the services provided from the Fund is being transferred from the management to the employees. This process results in a better efficiency, thus the participation of each individual is determined according to her or his position and participation in the defined processes. In order for the employees to be involved in the successful QMS process, their continuous education is required. In prescribed accordance with the and adopted procedures, employees are expected to develop and strengthen their personal qualities such as systematics, responsibility, planning, work discipline, team work, etc.

This manner of work, within the business process of the Fund, implies that the occurrence of any errors will be identified and corrected in timely fashion, thus preventing its escalation and negative effect on the quality of the services provided. By introducing the ISO 9001:2008 quality management system, the Fund sent a message to service providers, in a clear and unambiguous manner, that it has been continuously and timely providing a service of a prescribed quality.

The organization must plan and implement the processes of monitoring, measurement, analysis and improvement that are needed to:

- demonstrated compliance with service requirements
- Ensure the quality of the quality management system is upgraded
- continuously improved the effectiveness of the quality management system. [9]

The advantage of this type of business management is apparently securing a certain level of cohesion and coherence between different processes and sectors, whereby defining the parameters of all processes and resources required. Furthermore, it creates the basis for planning and obtaining feedback on the satisfaction of service users and increasing their confidence in the pension system of the Republic of Srpska, as well as the Fund itself.

2.2 ISO 9001: 2008 – Advantages of the Application

In accordance with the requirements of the ISO 9001: 2008, the Fund has developed and implemented the IMS, thus informing both its users and suppliers, that it is willing to identify and meet their needs, demands, and expectations. The satisfaction of the users, suppliers, and the employees, is achieved through an effective and efficient application of the IMS. Therefore, the Fund clearly and decisively demonstrates its own:

- ability to continuously provide services that, in addition to satisfying the requirements, needs, and expectations of the users, are fully compliant with the positive legal regulations
- commitment to continuous development, improvement, and improvement of the existing IMS, thus raising the level of quality of services provided, while giving users the same, feeling of satisfaction with even higher quality than expected

By applying the ISO 9001:2015 standard aptly and consistently, the Fund significantly facilitates its operations resulting to certain advantages as follows[1]:

- · increased efficiency,
- · increased morale of the employees,
- · international recognition,
- · factual approach to decision-making,
- availability of forms and documentation necessary for work,
- increased consistency in business,
- · increased customer satisfaction,
- improvement and development of the work process, etc.

Clearly, the implementation and application of the ISO 9001:2015 provides the Fund with significant benefits and advantages. In order to maintain these benefits and advantages, the Fund has to continue working systematically and ceaselessly educating management and the employees about the application of quality management tools and techniques. Education through various types of lectures and trainings enables comprehensive quality management. In this sense, through education and training, the management team acquires the necessary knowledge, skills, abilities, and personal qualities to enhance its products and services. Management of an organization is considered to be fully equipped if it possesses certain skills and necessary levels of knowledge for the realization of certain business processes.

3. RESEARCH AND METHODS

The main objective of this research is to determine the impact of the implementation of the ISO 9001: 2015 and the IMS on improving business ability and the quality of

services provided by the Fund. The identified target groups of this research were:

- · beneficiaries of the Fund's services,
- · management, and
- the employees of the Fund.

The research was carried out accordingly.

3.1 Research Goal, Task, and the Hypothesis

The main goal of this research is to determine the impact on the Fund's organizational performance in the implementation of the ISO 9001:2015 and to what extent its implementation through IMS influences the improvement of the quality of the services provided, as well as the users' satisfaction with these services.

The task of the research is to try to influence organizations that are yet to implement the QMS to take up necessary activities for its implementation as soon as possible. This is based on the results obtained, which clearly indicate the benefits gained by the Fund since the application of the ISO 9001:2015 and the IMS.

with the requirements of the ISO 9001: 2015, the Fund is continuously developing and implementing the IMS.

3.2 Methods

The survey was carried out by an e-mail questionnaire sent to 60 employees of the Fund. The questionnaire contained 10 questions formulated in such way that the answers might indicate the improvement in the quality of the Fund's provided services, and identify these improvements as the result of the implementation of the ISO 9001:2015. Consequently, based on the answers obtained, it is possible to determine the increase of the Fund's public perception, and finally, determine the degree of interest and motivation of other organizations for implementing the QMS. Participants were given three possible answers regarding the impact of the application: low, medium, and high.

4. RESULTS AND DISCUSSION

Table 1. Benefit from the application of the ISO 9001:2015

No.	Question	Low	Medium	High
1.	General impact on the performance of the Fund	-	12	48
2.	The impact of the application of the certification on the Fund's public perception	4	18	38
3.	Management control improvement	-	10	50
4.	Improving the awareness of procedures and difficulties	4	30	26
5.	Improving the relationship with the users of the service	2	30	28
6.	Increasing efficiency	-	14	46
7.	Easier solution for procedural problems	-	18	42
8.	Improving the quality of services provided	-	22	38
9.	Improving customer satisfaction	-	38	22
10.	Continuity of the improvement	2	8	50

Source: Pension and Disability Insurance Fund of the Republic of Srpska (March, 2016)

A significant number of the respondents (80%) believe that the ISO 9001:2015 certificate has a major impact on the Fund's business performance, while 20% of them think that the impact is medium. Some 63.33% think that the possession of the certificate has a major influence on the Fund's public perception, while 30% and 6.67% respectively think that the impact is medium or low. Furthermore, 83.33% of the respondents believe that the possession of the certificate and the implementation of the ISO 9001:2015 had a high impact in enabling the Fund's management for better control over business processes (16.67% thinks that the impact is medium). Around 45% of respondents find a hypothesis of the research is as follows: in accordance

great impact of this standard on improving awareness of procedural difficulties and improving relationships with service users. Exactly half of them think that the impact is medium, while 5% think that the impact is low. As much as 75% of the respondents think that the application of the ISO 9001:2015 had a crucial influence on the overall efficiency and easier solutions for procedural problems, while rest of them believe that the impact of the application is moderate. In addition, 63.33% of the respondents consider that the quality of the services provided is highly influenced by the standard application, while 36.67% of them consider that the influence is only medium. The application of the ISO 9001:2015 greatly influences the increase in

customer service satisfaction believe 36.67% of the respondents, while 63.33% of them assert that the impact is medium. Finally, only 0.33% of the respondents consider the impact on the continuity of improvement is low. At the same time, 13.33% respondents think that the impact is medium, while the vast majority (83.34%) think the impact of the standard application on the continuity of improvement is high.

The conducted research unambiguously shows that most of the respondents (64.66%), in this case the employees of the Fund, are fully aware of the following concerns:

- how important is the possession of certificates and the application of the ISO 9001:2015 in everyday business, and
- what are the potential benefits and advantages of applying the ISO 9001:2015.

Table 2. Assessment of the User's satisfaction with the

Fund's services

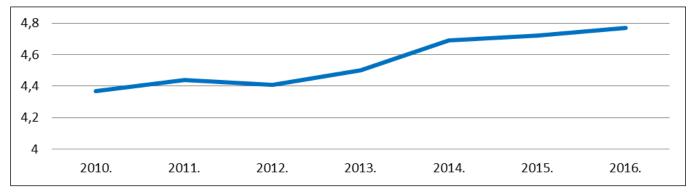
the consistent acceptance of this standard, the result is the continuous improvement of the quality of business and satisfaction of the users of the Fund's services. This is true for both the Republic of Srpska and the countries the social security agreement is in force.

In this light, Table 2 shows the movement of the assessment for the period 2010-2016, regarding the users' satisfaction with the Fund's services. The conclusion is that nearly two thirds (64.66%) of respondents use the certificate and application of the ISO 9001:2015 in the Fund as one of the most important factors; the one that affects both the ongoing improvement of the quality of service provision and the business ability in general.

Year	2010.	2011.	2012.	2013.	2014.	2015.	2016.
Grade	4 37	4 44	Δ Δ1	4 50	4 69	4 72	4 77

Chart 1 shows the trend of growth in the assessment of the User's satisfaction with the Fund's services, yearly. Certainly, the consistent application of the ISO 9001: 2015 had a significant impact.

Chart 1. Trend of growth in the assessment of the User's satisfaction with the Fund's services



Source: Pension and Disability Insurance Fund of the Republic of Srpska (March, 2016)

The research data indicate that the implementation of ISO 9001:2015 has resulted to both the improvement of the business quality and to the increase of efficiency. As efficiency is considered a basic business goal in general, its increase need not only be applied for the Therefore, the Fund achieved the aforementioned important business goals by:

- · excellent organization of business processes,
- · excellent work organization,
- consistent application of the QMS.

By certification of the Quality Management System according to the ISO 9001:2015, the Fund provided a key condition for the realization of the set goals. It has simultaneously ameliorated its As a direct consequence As a direct consequence of the certification, as well as

level, because only through constant improvement it can be possible to achieve the desired level of efficiency, promptness, and quality.

5. CONCLUSIONS

The Rationale behind the Fund's decision to implement and certify the ISO 9001:2015 refers to the following reasons:

- · improving the quality of business,
- · improving the quality of services provided,
- · increasing efficiency in business processes,
- increasing the promptness in solving the received requests,

- reducing the costs, or increase the economy of operations, and
- increasing customer satisfaction.

The reasons stated above and the results obtained by the application of this status, represent the greatest stimulation and motivation, not only for funds, but also for other organizations to move toward preparation, launching, and implementation of the ISO 9001:2015 in the near future.

This research and its findings obtained unambiguously conformed that the management and the employees of the Fund, i.e. the subject of this research, are fully aware of the benefits of consistent implementation of the ISO 9001:2015. These benefits are evident through:

- increasing customer satisfaction,
- improving the quality of services provided,
- increasing the efficiency and productivity,
- increase of promptness and cost-effectiveness,
- better control of management over business processes.

Finally, it is important to point out the fact that, during the implementation of this standard, the most common might be a certain resistance of the employees in changing the ways they work under the ISO 9001: 2015. This is, however, a problem of formal nature that manifests itself as a result of the fear of new, the fear of change. During the implementation, the Fund met with problem might be a certain resistance of the employees in changing the ways they work under the ISO 9001: 2015. this problem, as the other organizations did too. Responding to the change in organization is addressed in a relatively straightforward way through enhanced and continuous training and management education: at least 10% of the employees should be fully qualified to start applying the ISO 9001:2015, and ready to share the acquired knowledge and skills with the other employees in the organization. In this way, all employees, in a relatively short period of time, can realize the benefits and advantages in carrying out their day-to-day tasks, brought by the implementation of the standard. This is expected to further motivate them for the subsequent implementation of the standard.

The application of the ISM with the application of the Integrated Information System (IIS) and the Document Management System (DMS) in the Fund over the past six years yielded very easily measurable results that improved the overall performance of the system. This improvement is most evident through the reduction in the number of requests for entitlement to a pension from 30,000 in October 2011 to 3,000 in September-March 2017. Along with the regular resolution of all received requests during the year, about 100,000 administrative procedures are being conducted and, besides, the number of unresolved requests is reduced to, we can freely say the minimum, because it is necessary to solve the balance of 3,000 for about 30 days, although the law prescribed deadline of 60 days.

This should be added to the fact that 2/3 or around 2,000 claims relate to the component, where certain information is expected from the insurance provider, so that, in practice, until they are obtained, they are not solvable.

Unlike the earlier period when claimants waited for months and years to get a solution, it is now a matter of weeks. All this has influenced and has an impact on increasing the satisfaction of the users of the Fund services, improving the quality of services provided, increasing efficiency, productivity, up-to-date and cost-effective, reducing operating costs and better control of management over business flows.

This research and the obtained results certainly support the fact that organizations that implement ISO 9001: 2008 standard in their business improve and improve the system of each organization. If the application of standards is added to the application of modern technological achievements in the IT field, then we can talk about a completely new concept of business that will satisfy users of services and customers with the highest rating.

6. LIST OF REFERENCES

- [1] http://www.fondpiors.org/standardi/, dostupno 23.03.2017.
- [2] https://hr.wikipedia.org/wiki/Kvaliteta, dostupno 05.02.2017.
- [3] Grupa autora, Prevod "THE AIMS AND PRINCIPLES OF STANDARDIZATION, Sanders T.R.B." Jugoslovenski zavod za standardizaciju, Beograd, 1974
- [4] http://www.itcns.rs/index.php?option=com_content&view=article&id=51&Itemid=61,dostupno 28.03.2017.
- [5] https://www.eurostandard.rs/eqs-blog/pojam-i-znacenje-iso-9001-sistema-menadzmenta-kvalitetom/, dostupno 17.02.2017.
- [6] Vulanovic, V., Stanivukovic, D., Kamberovic, B., Maksimovic, M., Radakovic, N., Radlovački, V., Beker, I., Šević, D., Morača, S., Šilobad, M., Vulanović, S., Milisavljević, S., Kesić, I., Delić, M., Brkljač, N., Sistem menadžmenta kvalitetom, IIS, Univerzitet u Novom Sadu FTN,2012., pp.20
- [7] http://www.akademijaoxford.com/integrisani-sistemi-menadzmenta-ims.php, dostupno 30.03.2017.
 a-ims.php, dostupno 30.03.2017.
- [8] Karapetrovic, S., "Strategies for the integration of management systems and standards", TQM Magazine, 14(1), pp. 61-67., 2002.
- [9] Vulanovic, V., Stanivukovic, D., Kamberovic, B., Maksimovic, M., Radakovic, N., Radlovački, V., Beker, I., Šević, D., Morača, S., Šilobad, M., Vulanović, S., Milisavljević, S., Kesić, I., Delić, M., Brkljač, N., Sistem menadžmenta kvalitetom, IIS, Univerzitet u Novom Sadu, FTN, 2012., pp.253