



Izvestiya Journal of Varna University of Economics 1 (2017)
Contents lists and full text available at RePEc and Google Scholar

IZVESTIYA

Journal of Varna University of Economics

<http://journal.ue-varna.bg>



IMPLEMENTATION OF MANAGEMENT SYSTEMS AS A COMPETITIVE ADVANTAGE

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JEL Q180

Abstract

Keywords:

ISO 22000, food safety management systems, competitive advantage, motives, benefits and barriers.

Production of quality and safe food has become not only a priority requirement for the participants of the food chain but it has also become consumer right. System approaches of organizations to quality management and food safety in the company necessarily require an understanding of the interrelationship of the processes within the system and its continuous improvement through measurement and evaluation. They have strong positive effects on economic growth and competitiveness of the food businesses. Implementation of food safety management systems in practice and their certification according to ISO international standards becomes a precondition for achieving, sustaining, and enhancing the companies' competitiveness.

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Citation: KARKALÍKOVÁ, M, NOSEKOVÁ, D. (2017) Implementation of Management Systems as Competitive Advantage. *Izvestiya Journal of Varna University of Economics*. 61 (1). p. 27-35.

Introduction

Customer care, healthy and safe food as well as environmental performance are some of the requirements that modern business requires from food producers. Food safety management systems are available for all subjects in the food chain, from farm, through processing plants up to the operators of catering facilities. Organizations that are using the systems are considered to be highly reliable and responsible, with a strong commitment to protect the health of the society. Food safety management systems according to *ISO 22000 Food safety management systems. Requirements for any organization in the food chain* present a comprehensive set of tools, methods and procedures that enable the monitoring of foodstuffs and early identification of potential risks throughout the process of their production, processing and distribution to the final consumer. They also present an instrument providing assurance that the organiza-

tion has incorporated the system into the corporate culture, has harmonized it with its policy and takes account of it in the strategic planning. Their implementation leads to a risk reduction that could endanger the health of potential customers. The systems also provide the compliance with the requirements of the audit institutions and government regulations and ensure the security of products during their delivery to the final consumer. The paper analyzes the implementation and certification of food safety systems with regard to the basic companies' information and identification of the main incentives, benefits and barriers arising from the implementation of these management systems.

The globalization of food production and trade, the development of the food industry, the increasing concentration of producers and traders in the market significantly contributes to an increased incidence of risks to food safety (Fernández- Segovia et al. 2014). While requirements increase for food businesses to act in accordance with "due diligence" (corporate social responsibility) arising from legislation in the food safety sphere. Companies are forced to strengthen their commitment to food safety, to be more attentive to social responsibility as a tool of differentiation and improvement of their market position. In this context, the organizations urgently need to eliminate the risks that could result in damage of the sold food products or corporate image and endanger of market position (Escanciano , C. Santos- Vijande , M. L. 2014).

Methodology and data

For the purpose of our survey we used the book publications, scientific and technical journal articles, studies and statistics published electronically. The data were obtained by method of questioning, through questionnaires that were sent to enterprises in printed or online form. The research sample consisted of 100 companies that were divided into two homogeneous groups: group A- 50 companies with established food safety management system according to ISO 22000 and group B - 50 companies using different systems to ensure food safety. We applied similar division in case of the composition of companies' country of origin, where the first half consisted of Slovak companies and the other half of the companies from V4 countries, Sweden, Greece, France, England etc. Other important criteria included the size of holdings composed of 28 micro, 41 small, 19 medium and 12 large enterprises. Categorization of companies by subject of their activities identified 13 groups of activities within the food chain, from farming through processing, to distribution to the final consumer. The obtained data were processed by using the methods of analysis and synthesis.

The data were evaluated by using the method of comparison in which we investigated the similarities or differences in obtained evaluations and results of the partic-

ipants within defined groups A and B. The comparison should serve to confirm or refute the existence of a competitive advantage arising from the implementation and certification of food safety management systems according to *ISO 22000 Food safety management systems. Requirements for any organization in the food chain*.

Through mathematical and statistical methods we summarized analyzed data and transformed them into a chart by upward shifting of individual respondents' answers.

1. Impementation of food safety management systems and their importance

Achievement of the food safety requirements requires complementary effort of all subjects involved in food production. It applies to all companies in the food chain from farmers to catering companies and all companies directly or indirectly associated with this chain, food manufacturers, carriers, equipment manufacturers, packaging materials, additives and the like. Any suspicion concerning food safety is a test of stability in the food chain, including business organizations, with particular responsibility are manufacturers and distributors. In case of failure they retain full economic, criminal, moral and ethical responsibility. For this reason, businesses need a sophisticated and internally coherent system of food safety, which can be achieved through meeting the requirements of the standard ISO 22000 food safety systems that are functional tools protecting the trademark, business name and consumer health (Bilska, A. Kowalski R. 2014).

The requirements of *ISO 22000 Food safety management systems. Requirements for any organization in the food chain* are applicable throughout the whole food chain, with regards to all stakeholders involved into this chain, who are interested in building an effective functioning of the system. The standard specifies requirements for company system management that is focused on food safety. It contains objective criteria for assessing natural or legal person established in some part of the food chain and if it effectively controls risks of food safety, i.e. if the product care and the conditions of its implementation is sufficient to produce food that is safe and meeting the requirements of food law, established processes, which may lead to maintain and grow customer confidence in the safety of food offered and delivered.

One of the benefits of food safety systems implementation is also increased legal protection of the entire organization, as well as the brand itself, which is one of the main objects of interest of senior management or company owners. It helps to ensure successful presentation of the company or product line on the market. It also contributes to more effective creation and maintenance of marketing the company's position in the segment, easier penetration on new markets and facilitates the introduction and enforcing of new products in these markets (Karkalíková , M. 2014).

On the other hand, some companies refuse to implement and certify their food safety systems beyond the obligatory requirements set by the legislation. The reason of this attitude can be caused by barriers of their application and use, for example increased costs of implementation and certification system; missing control instruments; verification whether after the introduction of the system its principles are fulfilled; lack of necessary equipment, materials for education, training, personnel training in the field of food safety; lack of knowledge and low awareness of employees and management leading to low interest in food safety; variety of food and culinary procedures used; human resources issues- the level of education and high staff turnover; time-consuming that affects the company decision to introduce the system in a negative way (the system will not be applied in the company), respectively if the system is established, managers do not pay sufficient attention to its maintenance (Sharma, A. et al. 2011).

Constantly increasing consumers' requirements, stricter legal requirements and the globalization of food production evoked the need to develop a uniform quality assurance and food safety (Newslow, D. 2013).

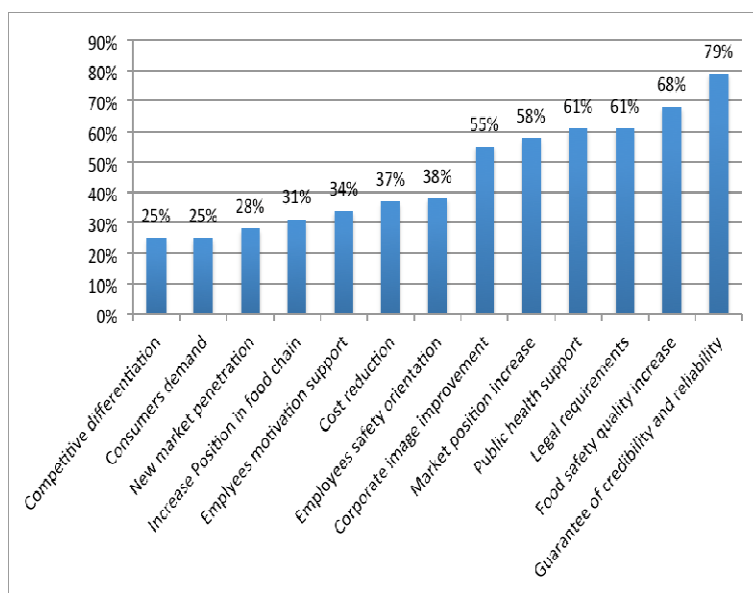
2. Food safety management systems implementation in practice

Not only globalization of the world market, accompanied by increasing requirements for quality and safety of food products, but especially the benefits arising from the use of food safety management systems lead to the fact that many businesses are adjusting their production according to specified requirements and apply for certification according to *ISO 22000 Food Safety Management systems. Requirements for any organization in the food chain*.

Implementation of food safety management systems according to ISO 22000 appeared characteristic especially for larger organizations that have demonstrated 100% of the application systems. Micro and small enterprises have shown in this case, low values - 5 and 14 companies benefiting from the management of the total 40 respondents. Regarding the implementation of food safety management systems according to ISO 22000 in territorial terms, clearly higher frequency was found in foreign companies, with 70% share of the total and the strongest representation of Sweden, Greece and France. When identifying competitive advantage based on the scope of activities of organizations held a leading position in the area of catering, distribution, transportation and storage. After analyzing the introduction of food safety management systems according to ISO 22000 with respect to general corporate information, we will focus on identifying the motives of their applications in 100 selected food businesses.

From the results considered in Fig. 1 we can see that from a total of 100 enterprises for up to 79% of respondents the most important aspect is guarantee of prod-

ucts credibility and reliability for their customers. 68% of voters set as the main motive for systems application the quality and safety enhancement of food produced. 61% of research participants introduced the systems into their corporate culture in order to meet obligatory legal requirements.

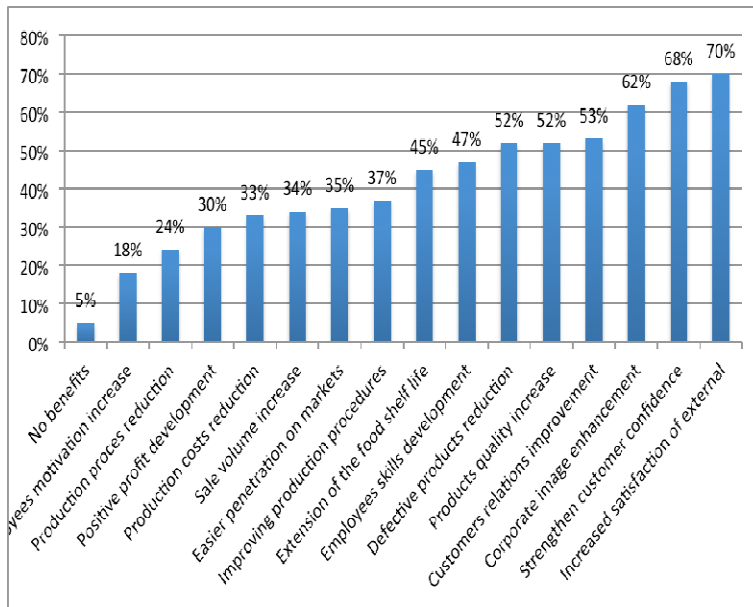


Source: Author's own studies.

Fig. 1. Motives for introducing food safety management systems in enterprises

61% of survey participants have chosen promotion of public health as the main motivator. Other important stimuli to the implementation of food safety management systems included the market position strengthening (58%), strengthening of corporate image (55%), strengthening the orientation of workers on food safety (38%), cost reduction (37%). A surprising finding was the low proportion of companies (25%), identifying the implementation of food safety management systems as tools for competitive differentiation.

Benefits of food safety management systems application have been assessed on a sample of 100 food businesses. Fig. 2 presents the 15 most commonly defined benefits of these systems. For 71% respondents the most significant advantage of management systems in food safety was increased satisfaction of external subjects - suppliers, customers, regulators and supervisors, and others.

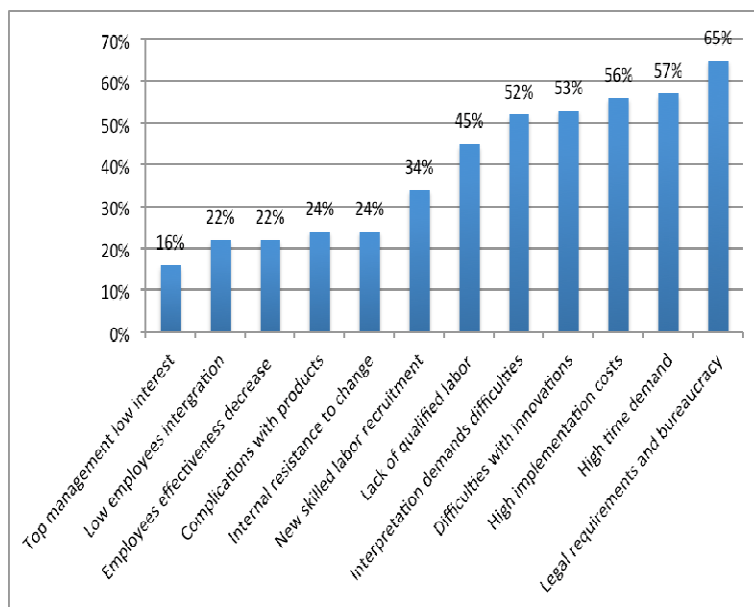


Source: Author's own studies.

Fig. 2. The benefits of the introduction of food safety management systems for enterprises

With a tight lead of 2% followed by strengthening customer confidence, which leads to the improved image of the company, ranking, recognized as the third most significant benefit - 62% of votes. Further followed group benefits with roughly the same percentage value - customer relations improvement (53%), increased quality of manufactured products (52%) and reduction of defective products (52%). The least significant benefits that food safety management systems bring to the companies were identified as an increased employee motivation (18%), production process reduction (24%) and positive profit development (30%).

The usage of food safety management systems brings many benefits not only for firms, but their implementation into the company is also accompanied by certain difficulties. Fig. 3 shows the 12 barriers that were identified as most serious by survey sample of 100 respondents in total.



Source: Author's own studies.

Fig. 3. Barriers to food safety management systems implementation in enterprises

As the most serious barrier of systems application the burdensome legal requirements and time-consuming bureaucracy was considered by 65% of participants. In 57% of enterprises, significant complications were caused by high time demand and high implementation costs (56% of companies). Other barriers were difficulties in the implementation of new tools, processes and methods for food safety management systems (53%) and difficulties with the interpretation and understanding of the requirements placed on implementation and certification systems (52%). Last barriers were mainly related to human resources in the company, namely the low integration of employees into the process (22%) and lack of interest and commitment of the company management (16%).

Implementation of food safety management systems according to ISO 22000 appeared characteristic especially for larger organizations that have demonstrated 100% of systems applied. Micro and small enterprises have shown low values - 5 and 14 organizations using these management systems, from 40 respondents in total. Regarding the implementation of food safety management systems according to ISO 22000 in territorial terms, clearly higher frequency was found in foreign companies, with

70% share in total and the strongest representation of Sweden, Greece and France. When identifying competitive advantage based on the scope of activities of organizations held a leading position organizations established and operating in the area of catering, distribution, transportation and storage. The most significant motivator for application and certification of food safety management systems according to ISO 22000, for 79% of respondents, was strengthened credibility and confidence among their consumers. 68% of participants chose as the main motive quality and safety of produced food. 61% of research participants introduced the systems into their corporate culture in order to meet legal requirements. The three most important benefits of food safety management systems included an increased satisfaction of external entities (70% of companies), strengthening customer confidence (68% of respondents) and improving corporate image (62% of organizations). 65% of participants considered the most serious barrier of the systems application burdensome legal requirements and tedious bureaucracy. For 57% of enterprises the reasons of considerable complications were also high demands on time and implementation costs (56% of firms).

Conclusions

Safety and quality have become central notions within the food sector and they determine the success and prosperity of the organizations. In order to build competitive advantage, the food businesses began to apply their own voluntary schemes that add value beyond the basic legislation that secure the production of healthy and safe goods.

The current trend in this area is becoming the introduction and certification of food safety management systems according to ISO 22000, which sets requirements for food products safety for all operators in the food chain. It is an instrument that provides assurance that the organization has integrated the system into the corporate culture, unified with its policy and take account into its strategic plans. Its implementation also leads to a reduction of risk to the customers' health. The use of ISO 2200 is also useful for ensuring compliance with the requirements of the audit institutions and government regulations, and for ensuring safety of food products during their delivery to the final consumer.

The most effective food safety system can be created and managed in the framework of a structured management system that will be linked with other management activities of the company and so an integrated management system will be implemented. ISO 22000 is aligned with *ISO 9001 Quality Management Systems Requirements* and with other management systems in order to increase their mutual compatibility.

Businesses are realizing that application of standards of corporate management in the comprehensive integrated form brings significant benefits. Before implementing an integrated management system it is important to generally determine the organization's effectiveness and efficiency and assess the various management systems that will be integrated. It is also important to specify the extent to which integration should be implemented, to assess the legal requirements and set the necessary competence and long-term objectives in the context of integration.

Acknowledgments

The paper is an output of the project VEGA number 1/0670/16 Evaluation of integrated management systems in the context of improvement of business entities competitiveness in the Slovak Republic.

References

1. BILSKA, A., KOWALSKI, R. (2014) Food quality and safety management. *Scientific Journal of Logistics*. 10 (3). p. 351- 361.
2. ESCANCIANO, C., SANTOS- VIJANDE, M. L. (2014) Reasons and constraints to implementing an ISO 22000 food safety management system: Evidence from Spain. *Food Control*. 40 (5). p. 50- 57.
3. FERNÁNDEZ-SEGOVIA ET AL. (2014) Implementation of a food safety management system according to ISO 22000 in the food supplement industry: A case study. *Food Control*. 43 (2). p. 28- 34.
4. KARKALÍKOVÁ, M. (2014) Systémy manažérstva vzťahujúce sa na bezpečnosť a kvalitu potravín: Management systems related to food safety and quality. *Vedecké state Obchodnej fakulty 2014 : zborník vedeckých statí*. Bratislava: EKONÓM.
5. LACKOVÁ, A. (2014) Kontrola bezpečnosti potravín na Slovensku. In *Studia commercialia Bratislavensia : scientific journal of Faculty of Commerce. University of Economics in Bratislava*. - Bratislava : Obchodná fakulta. Ekonomická univerzita v Bratislave, 7 (27). p. 394-406.
6. SHARMA, A. et al. (2011) HACCP Cost Analysis in Retail Food Establishments. *Food Protection Trends*. 31 (12). p. 834- 844.