

NEEDS AND SOLUTIONS IN APPLYING EUROPEAN NORMS ON QUALITY AND FOOD SAFETY IN THE ROMANIAN AGRIFOOD FIELD

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Abstract

This paper aims to identify and analyze the types of needs that confront professionals in the agri-food field during the process of taking over and implementation of European rules related to food quality and safety, respectively the nomination of practical and concrete solutions. Methodologically, the direct research was used, through questionnaires-based survey followed by results analysis and interpretation; the survey was conducted nationally by the participation of 100 organizations, the main target group was represented by small and medium enterprises (SMEs) located in 22 counties. The achieved results reveal that, though most enterprises have started to implement quality and food safety rules, only 46% of them use the guidelines of good practices during day by day activity. Regarding the dysfunctions noticed, it is estimated they due to insufficient knowledge of the European norms application methodology. In conclusion, due to financial facilities limitations or to insufficient educational programs, the SMEs need support in implementing quality management and food safety systems. WINDAIR (Leonardo da Vinci international project, co-granted with UASVM Iasi as partner) answers this field-related situation by providing a tool for training in food quality and safety (practical training, leaflet and CD ROM) in the enterprises producing wine and cheese.

Key words: quality, food safety, European norms, survey

INTRODUCTION

The European politic on quality disseminates the so called "MADE in EUROPE" concept, which will become the modern logo of the products and services provided by the Europeans to the whole worldwide trade community. This concept represents a philosophy of the quality and of the respect given to the customer and to its protection, through the European product or service offered on the market. All these aspects impose all the companies to entertain a competitiveness condition within the European or the worldwide economical environment. [4]

The modern management systems which mainly interfere with the competitiveness mainly focus on the processes' quality (quality management system), on the environment (environment management

system) and on food safety (food safety management system, according to the HACCP principles - Hazard Analysis and Critical Control Points).

The HACCP is a scientific system for the management of food safety. The system is used for the planning and insertion of the procedures necessary for the prevention, elimination or reduction to acceptable levels of the risks that could affect food safety (any biological, chemical or physical agent that in certain conditions may produce negative effects on the health of the consumer) [1].

The application of HACCP system is compatible with the implementation of quality management systems, such as the ISO 9001 referential. Associating HACCP principles with quality systems according to ISO 9000 standards is a characteristic feature of application of total quality systems in

alimentary production in the countries of the EU). The approach of the two systems (HACCP and ISO 9000 standards) by organizations in the food industry is an action of industrial civilization, contributing to the enhancement of the quality of life and also being a solid foundation on which the TQM systems can be developed (*Total Quality Management*) [3].

Since the 1st of October 2006, in Romania, a governmental decision states that every organization within the food chain should implement a food safety management system, according to the HACCP (Hazard Analysis. Critical Control Points) principles.[6] The decision transposes the requirements of the European Parliament and of the European Council regulation no. 852/2004/CE (The Hygiene of Foodstuff). certification of these systems is ISO 22000 standard referential [5].

In this context, emerged the need for the *WINDAIR project, set up by Leonardo da Vinci program transfer of innovation* that has taken place in some European countries (*France, Belgium, Czech Republic*) and is now put into action by Romania and Hungary. The project deals with improving the capacity of the latter countries of developing formation programs for food safety certification in wine and cheese production firms. Within this project, which is a partner and UASVM Iasi, the three member countries (France, Romania and Hungary) are pooling their knowledge and skills in the field of food quality and safety to develop a working tool to meet training needs and training of operators in the agrifood.

The objective of this project is to create self-sustained European food branches by exchanging good-practices in the viticulture and cheese sector; thanks to this project, the same working tool will be accessible in 7 European countries (France, Belgium, Portugal, Poland, the Czech Republic, Hungary and Romania). To construct strong branches, especially in the food domain, it is extremely important that all the stages of a production process respect a set of already existent rules in hygiene and food safety. European experience shows us that, on a long term, SMEs are more competitive and

economically viable than their giant partners, due to the fact that respecting all the levels of quality requests is realized with more consistence in conditions of smaller dimensions; this truth also has major implications on rural development.

MATERIAL AND METHOD

This project needs, in its first stage, the organization of case studies for evaluating the situation of quality and food safety management implementation in agrifood domain in Romania. In terms of methodology, was used to direct research, sample surveys and question-based analysis and interpretation of results [2]; the survey was conducted nationally by the participation of 100 organizations, the main target group is represented by small and medium enterprises located in 22 counties. The approach was to cover as many as possible counties with different degree of development in order to get an overall image of the specific needs of the companies both in highly developed counties and in the less developed ones.

Regarding the profile of participants, noted that industry was dominant, in this add with some educational and research organizations. The average business size was approx. 74 employees with a range of 2-710 and the number of qualified personnel working in quality department the average size was 3, range 1-14; 79 % are small and medium enterprises, 12% are large enterprises; 4% are associations with activities in the field of agrifood; 5% are universities in the field.

The questionnaires used were composed of 60 questions of which 50 were free response questions and 10 questions with responses limited. Results were calculated as a percentage of the total responses for a question. For close-ended questions, we studied response frequencies; open-ended responses were collected, normalized and counted.

RESULTS AND DISCUSSIONS

The main key elements of study are concerned to knowledge the official rules and norms in food quality and safety (table 1) and quality management systems and food safety (table 2).

Table 1
Knowledge the official regulations and norms on food safety

Subject question	% respondents
Knowledge of national guides on food safety	
National guides are known	60
Companies using national guides	46
Guide utility: improving quality of products/services	94
National Guides are very useful for the specific field of activity	84
National guides might be used as working manuals	71
Knowledge of EU guides on food safety	
EU guides are known	44
Guides are insufficiently promoted	49
Guide utility: commercial advantage, more power on market	71
Knowledge of food safety regulations	
Knowing regulations must be an internal wish of the company	83
Problems appear due to insufficient knowledge of regulations	69
Training on Food safety regulations	
Creation of a responsible and qualified quality team	57
More knowledge on food safety	54
Skills to overcome problems	71

The results obtained reveal that more than half of the interviewed companies (60%) have good knowledge about European legislation on quality and food safety. This is very important mainly because 79% of the interviewees are from small and medium enterprises which means that, this result may be viewed as encouraging. Though most enterprises have started to implement quality and food safety rules, only 46% of them use the guidelines of good manufacturing practices and hygiene in daily work; also, though almost all respondents (94%) consider that guides are improving the quality of products/services only 36% consider that guides might bring commercial advantages. Based on the answer received only a very small percentage (8%) of the respondents took part in drafting National Good Practices Guides on Food Safety.

Concerning the EU Good Practices Guides on Food Safety 44% of the respondents know the EU Guides; the other respondents mentioned that they do not know them, for the following reasons: the way of preparation is unknown (13%), the dissemination strategy is not appropriate (27%), insufficient promotion and dissemination of their (49%).

The answers given reveal that 40% of organizations using the European guidelines

and 85% appreciate the necessity of such an instrument in their branch of activity; 71% of the respondents consider that EU guides might bring commercial advantages, 41% declared that their use might limit the frauds, and 38% consider that import-export trade will be more homogenous and transparent. Only 7% of the respondents took part in the elaboration of EU guides; in general, persons involved in guides' elaboration belong to large companies or universities.

Regarding dysfunctions noticed to ensure quality and food safety, 69% of respondents consider that this is due to insufficient knowledge and understanding of the application of EU rules and regulations; therefore, 71% of firms in the survey considered necessary training through practical application and development of study materials available for understanding and applying European standards.

Release of difficulties starting implementing a food safety management system (HACCP) 50% of respondents considered that information and motivation of staff was the major problem encountered during the process; 47% mentioned that financial aspects were the main barrier and 42% the organisation of the quality team.

Implementation of HACCP

Table 2
HACCP implementation

Subject question	% respondents
Launching stage	
The most difficult issue: to inform and motivate personnel	50
Production plan/diagrams in the organization exist	81
Have written and validated procedures	79
Initiation of the implementation: general manager	46
Preparation stage	
Food risk Control systems already exist	60
Dysfunctions are noted	73
Preventive measures to limit dysfunctions taken	70
Persons responsible are trained in quality management	51
The organization has a quality team responsible	58
Quality team is structured by competencies	50
Internal auditor assessing the system	39
Implementation stage	
Internal quality control exists	71
Evaluation system of suppliers exists	60
Evaluation of Economic impact of dysfunctions is done	32
Have Quality management follow-up documents	56
Have Quality manuals	60
Have documents registering corrective actions	57
Verification stage	
Supplier audit requested	28
Internal audit performed	46
External audit performed	24
Corrective actions taken	72
Finalization and maintenance stage	
Maintenance help control dysfunctions	94
Person responsible with maintenance exists	53

More than half of the companies surveyed claimed to have a quality and food safety management system and they have an associated food safety procedure (60% of the companies already have a Quality manual). Examining the food safety management system in more detail only 56% of those who said they had a system kept/control records of monitoring data.

Implementation of HACCP was in general decided by the general manager, in few cases companies used an external consultant. Concerning the qualification of the persons working in quality department, more than half said they have such a department and declared that the team is structured based on staff competencies.

Concerning about knowledge, behavioural and confidence change of consumer, last years, as a consequence of food safety regulation, 67% of the

respondents are convinced that clients became more exigent in their requirements concerning food safety. Most consumers report that they are knowledgeable about food safety and use certain safe handling practices such as keeping hands and surfaces clean, taking steps to prevent cross-contamination when cooking, etc.

CONCLUSIONS

Following the results of analysis of questionnaires, we conclude that the Romanian food safety system must meet the following requirements:

- need to be made more aware of their legal obligation in relation to food safety regulation in force since many dysfunctions are caused by a lack of knowledge of these regulations;

- need to be assisted in overcoming the barriers they encounter in terms of acquiring knowledge through intensive training on legal aspects;

- need to be improved as to try to motivate all employees in order to maintain a quality and safe food environment;

- is requiring assistance for monitoring the food environment and the critical limits in which the management systems of food quality and safety exist.

Small businesses need the greatest assistance since due to lack of knowledge and financial possibilities they pose the greatest risk on food safety; the respondents said that collegial monitoring is more efficient than an inspection by external controls. This can be supported by food safety training, on-the job coaching and engaging interactive training for executive staff.

WINDAIR project answers this situation sustained by local tests, creating a training tool in HACCP quality standards domain in food SMEs (Brochure and CD ROM). Its aim is to transmit the working methodology through practical cases using two modules [4]:

- methodological module contains integration of the food quality and food safety system, objectives and legal context;

- practical module represents the essential part of the tool, developing application examples of quality and food safety management (HACCP) implementation in wine and cheese making industries.

The project results are measured by the number of target users that beneficiate from demonstrations and are convinced to use the project's resources or those that manifest any interest of disseminating the quality and HACCP strategy.

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[7] www.windair.org