FOOD SAFETY SYSTEMS' FUNCTIONING IN POLISH NETWORKS OF GROCERY STORES

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Abstract:
This article shows the way how the food safety systems are functioning in Polish networks of grocery stores. The study was conducted in the fourth quarter of 2012 in the south-eastern Poland. There were chosen three organizations that meet certain conditions: medium size Polish grocery network without participation of foreign capital and up to 30 retail locations within the group. Studies based on a case study model.

The research found that regular and unannounced inspections carried out to each store's, impact on increasing safety of food offered and the verification of GHP requirements on the headquarters level has a significant impact on the safety of food offered as well as on the knowledge and behavior of employees. In addition it was found that the verification and analysis of food safety management system is an effective tool for improving food safety. It was also shown that in most cases there is no formal crisis management system for the food protection in the surveyed companies and employees are only informed of what to do in case of an emergency.

Key words: GMP, GHP, HACCP, food safety, grocery stores, retail

INTRODUCTION

With the increasing importance of food safety, there can be observed growing interest in the retail and service operators with the issue of food safety management [2, 3, 4, 5]. According to the fact, that main target for every company is getting enough profit for its to stay and keep a good market position, it`s not always enough to implement a quality management systems and integrate them to all other business systems and solutions in the company [18]. Over the years, the HACCP system in Poland has been implemented by most of the big enterprises, but the level of implementation in a medium-sized companies was larger than among small ones and this dependence on the size of the company has been confirmed by foreign and domestic researches [1, 7, 12, 16]. Small and medium-sized enterprises justify completely different motives for starting the implementation of the HACCP system in their establishments. The reasons for small businesses do not arise from the basic idea of the HACCP system, which ensure the health and safety in food production. The main reason for the implementation of this system is the Law requirements [15, 17]. To meet this increasing requirements of law among food safety is one of the biggest challenges for the food industry. Operators of the food chain, including grocery chains, implement systems to ensure food safety while minimizing the risk of hazards [6]. For several years in Poland it can be seen an increasing trend to implement food safety systems such as GMP / GHP and HACCP by the trade and service retailers, including grocery stores [11]. This is mainly due to the change in regulations under which the above systems has become mandatory [17], as well as increasing customer awareness and knowledge on hygiene and quality in the retail and service sectors [10], who increasingly pay attention to the way of offering and displaying food products.

Polish grocery chains wishing to be successful in a market dominated by the network with the foreign capital, in the company's strategy must take into account the client's requirements and to implement an appropriate system to ensure food safety. Appropriate food quality and safety of products guarantees regular customers and offer the opportunity to develop its business and make a profit [8].

THE RESEARCH DESCRIPTION

The study was conducted in the fourth quarter of 2012 in the south-eastern Poland. There were chosen three organizations that meet certain specified conditions: Polish grocery chain of medium size without the participation of foreign capital and up to 30 retail locations within the group. Studies were case studies. In each of the organizations there were interviewed persons responsible for the operation of management systems, which are representatives of the leadership of the organization in this area as well as with the employees responsible for purchases. The study was conducted in the form of in-depth interviews on the basis of pre-prepared script. In addition, a random selection of two retail outlets occurred within all three networks, and the confirmation of collected data during interviews was done. Characteristics of organizations contains Table 1.

Table 1
Characteristics of the selected organizations

Organization	Characteristics
Organization 1.	Network of 26 stores ranging in size from 40 to 1000 m^2. Average store size: 200 m^2. More than 60 thousand. indexes. All the shops are in the network's own stores, without franchising option. The network also sells online. Average number of employees in the whole organization is about 330 employees. Legal form: joint-stock company.
Organization 2.	Network of 15 stores ranging in size from 35 to 800 m^2. Average store size: 150 m^2. All the shops are in the network's own stores, without franchising option. Average number of employees in the organization is 200 employees. Legal form: cooperative.
Organization 3.	A network of 9 food retailers ranging in size from 80 to 850 m^2. Average store size is approximately 300 m^2. In large stores about 17,000 indexes of products are sold while in a small ones thera are about 5000 index of products. All the shops are in the network's own stores, without franchising option. The network employs about 190 emplyees. Legal form: a partnership.

RESULTS OF THE RESEARCHES

Scenario of an interview in the functioning of the food safety systems in the Polish grocery networks has been divided into three groups of questions relating to the following areas:

− functioning of the systems,
− verification of systems,
− food defense.

All GMP/GHP principles and HACCP system has been implemented, documented and maintained in the surveyed networks of grocery stores. In the network number 1. and 3. the employees responsible for GMP/GHP and HACCP systems are full time workers of the company – in the first instance by store manager and then by an employee of headquarters, while in the network number 2. this obligations are done by external company, which oversees the functioning of the system. Monitoring of the HACCP system in these networks is just one of many responsibilities belonging to the store managers and headquarters staff. In network number 1. and 3. HACCP teams were established in each store, and the chairman at each location is the store manager. Completely different this issue has been solved in the network number 2, where there was established only one HACCP team at the company's headquarters, that included a third-party employee dealing with checks/audits on single stores as well as headquarters' staff.

In the area of the functioning systems in each networks, the representatives of the surveyed organizations were asked if implemented systems were developed together for the entire network or individually for each store. In all three networks, system's documentation and hazard analysis was developed jointly for the entire network, but in the case of network number 1. and 3. was adapted to the conditions in an individual locations and is physically available in each store. In the network number 2 documentation and functioning of the system is more centralized, while in every store only instructions and hazard analysis that take into account the conditions in a particular location were adjusted and are available at each store physically. Another question related to the care of the high level of food safety offered in the particular stores for specific actions the company's headquarters was asked.

In all networks within this action checks are carried out with a varied frequency that depends on the network The checks in network number 2. and 3. are carried out approximately 2 times a month, while in network number 1 on average once a week. In all cases these inspections are not announced. All of them shall be carried during the opening hours of the store. Considering the issue of the consequences of non-compliance for individual employees resulting from their mistakes, in all networks penalize actions have not been formalized. In the case of non-compliance there shall be carried an individual investigation by the store manager and based on this the penalties for the guilty employees has been undertaken.

Another question in the survey from this area was the verification of the HACCP system. None of the organization's implemented a management system according to the requirements of ISO 22000 [9], nevertheless they undertook actions to verify the HACCP system. In all examined networks verification of the food safety management system is carried out at least once a year. However, in the case of network number 3. the influence on the frequency of verification has a size of the store, where in large locations it is at least two times a year. Verification in network number 1. and 2. is performed at the headquarters level and is being led by HACCP team, while in the network number 3, verification has been performed individually by store managers and then they provide verification report to the headquarters.

Verifications reports are analyzed by headquarters employees of particular network, and the results and information about non-compliance is made available to individual locations. Such action has not only the nature of the correction, but at the same time prevention, as stores within a network are aware of the inadequacies found in any other store, and then can be prepared for a potential danger. It can therefore be concluded that the surveyed networks lead the HACCP system verification in accordance to the requirements of Regulation 852/2004 [14]. According to PN-EN ISO 22000:2006 standard, which is the voluntary guidelines of the HACCP system implementation in organizations operating in the food industry, during verification process the organization should conduct internal audits at planned intervals to determine whether a food safety management system conforms to planned arrangements, with the requirements of food safety management system established by the organization and is effectively implemented and maintained [13]. Based on the survey, it can be concluded that in the analyzed networks of grocery stores, the requirements of verification are not fully implemented, as defined in ISO 22000.

In last surveyed area referred to the "Food Defense", the representatives of the companies were asked about issues related to crisis management plans and the existence of procedures for food protection. The gained information

shows that only in the organization number 3. there are formal crisis management plans, but they are not in the management procedure form. The development of a formal plan of action in the case of a crisis situation was a result of flooding in the area in which one of the shops is situated, where the staff and management of the company had to react very quickly to the dangerous situation. After this, the risk analysis had been conducted and based on that the method of conduct had been developed. In other networks, these issues are carried out in an informal way and the representatives explained it by the low risk of occurrence of this type of hazards (flood, fire, lack of water and electricity). Totally different looks the issue of crisis management during regular trainings, where in all tested networks trainers discuss this issue, but only in the network number 3. this is done on the basis of an emergency management plan.

CONCLUSIONS

Implemented solutions for the functioning and supervision of food safety management systems in the studied grocery networks are not uniform.

Regular and unannounced inspections of particular stores in the surveyed companies significantly influence the increase the safety of offered food.

Verification and analysis of food safety management system is an effective tool for improving food safety.

Verification of GHP requirements on the headquarters level has a significant influence on the safety of offered food as well as the knowledge and behavior of employees.

In most cases, in the surveyed networks of grocery stores there is no formal crisis management system for the food protection.

The requirements of verification defined in ISO 22000 are not fully implemented by surveyed companies, however some of them has been fulfilled correctly.

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