



HACCP and OHS: Can each one help improve the other in the catering sector?

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ABSTRACT

The hotel and catering sector is an important source of employment in the services sector and contributes to Portuguese economic growth. Some of these organizations have little experience in dealing with Occupational, Health and Safety (OHS) and devote more attention to issues related to HACCP (Hazard Analysis Critical Control Points) and the prohibition of smoking. Although it is a complex subject, Food Safety and OHS should then be seen not only as a burden, but also as means of sustainability, expansion and social responsibility. The aim of this study is to verify if HACCP and OHS can each one help improve the other in the catering sector. Using a methodology that followed three steps: data collection, data processing and data analysis in 35 kitchens of different types of catering establishments, it was found throughout this research that HACCP contributes to internal improvements in prevention of occupational risks and also that through some control and prevention measures taken by the OHS services, one is contributing to the defense of food safety.

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1. Introduction

Safety and health problems have always occupied a noticeable place in the concerns of human beings, as can be seen when looking at the Maslow human needs scale. A risk analysis, in food safety and in work safety is a key tool for implementing self-regulation systems in the production of safe food for consumers and in the implementation of systems and measures to ensure the welfare of workers with a common goal: to enhance prevention. The risk analysis is a key tool for implementing self-regulation systems in the production of safe food for consumers, either in food safety or safety at work, and implementation of systems and measures to ensure the welfare of workers as well, with a common aim: to value prevention. On the other hand, society in recent decades has been increasingly vigilant in all that relates to food safety and health controls by the authorities, which has helped raise awareness and improvement of the sector of hotels and restaurants to the

importance of conditions that are produced foods that come to the table of customers.

It is true that there is a need to live and work safely and with health. It is clear that the quality of food goes through hygiene and freshness of our food and that unsafe conditions at work adversely affect health, safety and professional welfare, and negatively affect productivity, quality and efficiency of work (OSHA, 2008a; Saari, 2001; Sesé et al., 2002). The hotel and catering sector, which comprises hotels, restaurants, fast food establishments, catering companies, cafés and bars, is an important source of employment in the services sector and contributes to Portuguese economic growth (OSHA, 2008b).

Some of these organizations have little experience in dealing with Occupational, Health and Safety (OHS) and just solve workplace accidents, absenteeism and occupational diseases as they arise because the OHS is not integrated in the organization management process (Iong-Yu, Chung-Li, Wen-Yu, & Chung-Yi, 2004; OSHA, 2008b; UNIHSNOR, 2005).

On the other hand, these organizations devote more attention to issues related to HACCP (Hazard Analysis Critical Control Points) and the prohibition of smoking. Nevertheless, to the possible extent, these organizations must ensure an enough level of hygiene in order to guarantee that food prepared and produced by them do not constitute a health hazard (Amorim, 2006). The reasons are easy to spot: more oversight by the responsible entities, public

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health, customer expectations on product quality and productivity and competitiveness to ensure organization's market growth (Raspor & Jevnik, 2008; Santos, Nogueira, Patarata, & Mayan, 2008; Tapia, Gómez-López, & Olaizola, 2009). On the other hand, mandatory standards and legislation are developed to guarantee the better work conditions. The range of success and benefits of their implementation may depend however on the thoroughness of inspection activities. Inspection can be decisive in reaching the objectives underlying the development of laws and regulations in Occupational Health and Safety (OHS). In this sense, the EU recognizes that inspectors have a crucial role to play as agents of change to promote better compliance.

Countries, organizations and employees have innumerable tools at hand for promoting health and safety at the workplace. Some of these are laws and regulations, which are mandatory and enforced by government agencies. Complementarily, standards can guide organizations in complying with legislation, or in attaining performance levels in OHS above minimum legal requirements.

Because the legislative systems covering safety and health at the workplace differed widely among the individual member states, and needed improvement, the Council of the European Union adopted, by means of directives, minimum requirements for encouraging improvements to guarantee the protection of the health and safety of workers. The adoption of these directives was not intended to permit any reduction in levels of the protection already achieved in individual member states prior to the transposition of the directives. They aimed, rather, at harmonizing national provisions on the subject, which often included technical specifications and self-regulatory standards, resulting in different levels of safety and health protection and permitting competition at the expense of safety and health. Hence, EU countries are committed to encouraging improvements in OHS conditions and to harmonize OHS conditions across member states. Directive 89/391/EEC is the European OHS framework directive that lays down the principles for the introduction of measures to encourage improvements in the safety and health of workers and provides a framework for specific workplace environments, developed in individual directives (Matias, Coelho, & Barata, 2008).

Although it is a complex subject, the sector of hotels and restaurants has to recognize that the OHS is a good investment because it demonstrates that a company is socially responsible and the workmanship is competent and healthy. The result of this investment is to ensure customer confidence, greater control over costs, higher profits and ensuing market growth (ARESP, 2005; Travassos, 1987). In this sense, Food Safety and OHS should then be seen not only as a burden, but also as means of sustainability, expansion and social responsibility. The aim of this study is to answer the two following questions in the catering sector: the implementation of a food hygiene and safety system based on HACCP principles contributes to the prevention of occupational hazards and the prevention of occupational hazards contributes to the implementation of a food hygiene and safety system based on HACCP principles?

2. Catering sector

2.1. Catering professional

Strict personal hygiene is required to professionals working in the sectors of food and beverage, since it is an important factor to keep food in sanitary conditions. Food handlers are the main vehicle of contamination by microorganisms that live and thrive in the human body, including hair, nose, mouth, throat, intestines, skin and nails (Amorim, 2006; ARESP, 2006; OSHA, 2008a).

Any employee that handles food must submit medical evidence attesting his good health. These professionals must know that certain diseases can cause contamination of food and consequently lead to food poisoning. Besides the state of health, these professionals must wear clean clothes and footwear suitable to the tasks they perform, should protect the hair during work, as well as strictly comply with the standards of hands hygiene, since they are the main transmitters of contamination (ARESP, 2006; Tapia et al., 2009).

From a technical standpoint, these professionals must have knowledge to correctly use facilities and equipment, since they have to know how to apply techniques such as cutting, stripping, cleaning, washing, as well as processing raw products, using for this purpose processes like baking, grilling, roasting, braising, stewing, amongst others. On the other hand, they must know how to use hand tools and the equipment used in the production of food, e.g., peeling and cutting machines, meat grinders, electric saws and knives, vegetable cutting machines, juicers, ice machines, ovens, stoves, grills, pressure pans, knives, mixers, pans, worktables, cutting bases; trays, washing tanks, among others (Amorim, 2006; ARESP, 2006; Quintas, 1988).

In general the tasks associated with catering establishments are the following:

- (a) Reception and storage of goods: The reception is the counting, weighing and checking of the storage status and ensuing transport of goods to the interior of the premises, including the warehouses and chambers/freezers, and keeping records of all incoming goods. The storage includes packaging, placement and organization of the goods at the designated places according to their characteristics.
- (b) Food preparation: The preparation includes all operations needed to prepare raw food before cooking (chopping, grating, gutting, mincing, and washing, among others). In this task several tools (machines and appliances) are used. Before preparation, the food is transported from storage to the cuisine and many of them weighed before proceeding to their preparation.
- (c) Manufacture of food: In cooking, the raw food is prepared or treated to be served to the customer. The preparation can be cold or hot. After cooking, the food is plated or packaged depending on final destination.
- (d) Customer service: The customer service is done over the counter or in the room. Employees who take care of the room (waiters) are there to welcome guests, receive the orders, serve the meals and collect the tables. The counter staff receives requests and serves meals behind the counter.
- (e) Washing and cleaning: Cleaning is essentially a physical process, whose objective is the separation or detachment of all kinds of dirt clinging to surfaces, objects and tools and the subsequent removal of the detergent solution during the final rinse. During the process of washing and cleaning, the type of dirt to remove should be taken into account. From that depends the type and amount of cleaning product to use.

The cleaning products used differ depending on the type of soil and surface to clean. Basically, three cleaning processes are used: neutral cleaning (generic cleaning, which uses neutral detergents), acid cleaning (used to remove inorganic matter, where acid detergents with descaling or deoxidizing characteristics are used) and alkaline cleaning (used to remove waste of organic origin, including fats, where are used chlorinated detergents due to their degreasing nature) (Amorim, 2006; ARESP, 2006; Rodgers, 2011).

The cleaning of the facilities includes all the places of the establishment and disinfection of some of them, namely of sanitary

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