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QUALITY CONTROL SYSTEM AS AN IMPORTANT MANAGEMENT TOOL OF CATERING ESTABLISHMENT

The paper defines theoretical approaches to the control as a basic management function of the company. The aim of this paper is to show the importance of general inspection and control with emphasis on the application of the principles of hygiene when preparing food. Neglect and underestimation of control in these cases can lead to damage or threaten the health of customers. Food service must meet the requirements that ensure the health of customers. The frequent result of failure in complying with general hygiene requirements in catering establishments is the microbial contamination of food and the subsequent devaluation of dishes.

Keywords: *Control, control system HACCP (hazard analysis and critical control points), catering, hygiene requirements.*

Introduction

Undertakings engaged in the provision of catering services fulfill, among other functions, specific functions that are nutritional function and health function. To get these functions adequate in qualitative terms, it requires a responsible approach starting with the primary producers, suppliers and ending with food service. Medically safe food production depends on all intermediaries with the contents not endangering the health of consumers, on the contrary contributing to its improvement. Therefore, the control system is particularly important and necessary.

General food legislation is an essential element for the establishment of controls aimed at food security. Its observance especially general hygiene requirements, is a prerequisite for the introduction of the HACCP system and thus overall safety of health and meals served. The level of hygiene in catering establishments reflects corporate management responsibility for ensuring food safety and also the will of management to gain the favour of customers. Tools for ensuring food quality and meals served are the introduction of good manufacturing practices, sanitation programme and HACCP system in practice.

1. Theoretical analysis of research problems - control

An important management function is to promote inspection that includes many activities through which managers guide and coordinate activities to achieve objectives. Inspection is a process that compares the objective with achieved real results in compliance with the established plan, standards or norms. Control results are actions that lead to the elimination of any deviations from standards or norms within the shortest term or immediately.

The general meaning of control consists of measuring the actual development of the company and finding the final result, in comparison with the actual and planned progress, in identifying possible deviations and their causes, and in drawing conclusions for further decisions. The control process deals with drawing up and setting of standards, measuring actual performance, evaluating actual performance against the benchmark and removing shortcomings.

If control of the company leads to the achievement of its objectives, there must be met certain requirements among which we include economic efficiency, flexibility, objectivity and timeliness. If the check is to be effective, it must meet certain requirements:

- correspond to the nature of activities and their needs;
- quickly inform about deviations, ideally before their occurance;
- look ahead (attention to possible fluctuations in advance);
- emphasize the strategically important deviations;
- be operational (the results should be based on objective standards);
- be flexible, a means for the achievement of flexible control is flexible plan;
- be consistent with the business organization (duties and responsibilities);
- be cost effective;
- be understandable (methods of control cannot be based on mathematics, detailed analysis and complicated techniques because of the time and workload complexity for managers);
- indicate defect activities (also reveals shortcomings of officials and indicate what is to be executed) (www.euroekonom.sk).

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Table 1: Classification of control

According to management levels	- strategic, tactical, operational;
According to period	- regular, irregular, ex ante, interim, final;
According to the object of control	- direct supervision, technical control, administrative control, self-control;
According to origin of controlling staff	- indoor, outdoor.

Table 2: Main control methods

Method	Standards	Information	Remedy
Personnel Selection	Eligibility Requirements: knowledge, experience, education	Qualification test results, references, personal characteristics	Hire / Reject, Staff training
Placing of personnel	Job specification: knowledge, skills, practice, education	Qualification test results, references, personal characteristics	Place / not to place, staff training
Material quality control	Rate of allowable defects	Results of selected sample testing	Accept / reject, recheck
Investment budget	Payback period, rate of return, internal rate of return on investment	Projected income, expenditure and comprehensive commercial and technical information	To accept, to implement
Financial budget	Requirements arising from the strategic plans	Projected income, expenditure and comprehensive commercial and technical data	Accept / reject, revise
Guidance	Required working behaviour and its results	Plans and specifications of the work	Change of the plan or job specification, dismissal of the employee
Analysis of the financial statements	Standardized or commonly achieved values of financial indicators	Balance sheet and profit and loss accounts	Revision of input information, review of guidance
Cost analysis	Material, labour and cost norms	Accounting	Revision of inputs, review of guidance
Quality Control	Share of allowable defects	Accounting	Revision of input, review of guidance
Staff performance evaluation	Criteria for performance evaluation	Rating by superior, self-employee rating	Retraining, employee compensation, transfer to other work

2. The control system HACCP (hazard analysis and critical control points), good manufacturing practice and its benefits to stakeholders

The HACCP system was developed at the request of the American Bureau of NASA Space Administration by the research company Pillsbury Co. in early 1959. NASA required such food that, when consumed by astronauts in zero gravity did not crumble and pollute the environment. They also asked food guarantee with the absence of microorganisms which might be pathogenic and toxic. It was necessary to carry out extensive research in this area, which led to the fact that monitoring the quality of the finished products was not enough. Therefore, Dr. Howard Bauman (1990) in this regard said, "*Very soon we found out that the use of classical methods of quality control would not bring us to the goal. If we had to use extensively destructive testing of samples of raw materials and finished products for evidence of the palatability of products, there would remain virtually nothing for the astronauts. Based on careful examination of quality control methods, we concluded that we must establish control over the whole process of production and handling of raw materials used, as well as the production environment and the people who carry out processes* "(Kerekréty 2000).

According to Bystrický et al. (2000) an organizational HACCP system is one through which is ensured the production of safe food via inspection and analysis of physical, biological and chemical factors threatening the safety of food health in the whole process, starting with the recovery of raw materials, their processing, to consumption of finished foodstuffs.

HACCP involves the general conditions of production, warehouse management, technological equipment, staff training, sanitation system of product recalls and product labeling. This system was enshrined in the legislation of the Council of Europe in the Directive 93/43 EEC on the hygiene of foodstuffs from 14 July 1993. This directive replaces Regulation No.852 / 2004 of the European Parliament and of the Council of 29 April 2004 on the hygiene of foodstuffs and entered into force on 1 January 2006. In accordance with the requirement of harmonization of the Slovak legislation with the EU legislation, the system HACCP is built into the Codex Alimentarius of the SR. *In 1998, the Ministry of Agriculture and Ministry of Health issued the eighth head, the second part of the PK SR (CA SR), § 257 and 258 under the title "The principles of good manufacturing practice" (GMP) with effect from 1 January 2000.* Codex Alimentarius - Part 2, Head 8 (2004): *Good Manufacturing Practice is a set of measures on the method of production in terms of its optimization and minimizing health risks.*

For the introduction of HACCP and good manufacturing practice (GMP), the Directive by the Ministry of Health of the Slovak Republic No. 533/2007 was released on 16 August 2007 with the entry into force from 1 December 2007. The Directive contains details on the requirements for mass caterers, which indicate the specific criteria for carrying out preventive activities and record keeping of GMP, as well as technical, technological and construction requirements for providers of catering.

Documentation of good manufacturing practice includes: operations, technical and technological processes, manufacturing processes, standard operating machinery and review on technological equipment, hygienic regime, Metrology programme, project of the system ensuring food hygiene control, additional orders, directives and regulations of the manufacturer of food. When preparing foods there are implemented high demands on cleanliness and hygiene faultless of kitchen space, storage space, distribution space and its surroundings. The hygienic quality of food is specified by raw material, technological processes, the human factor and the environment.

This includes compliance with all hygienic processes and principles in the production process of foodstuffs, putting them into circulation as well as in their processing, the application of hygienic principles, which correspond to the instantaneous knowledge about food safety. Quality production and hygienic practice allows operators to control the safety risks of consumption and demonstrate compliance without having to immediately proceed to a formal HACCP. Good practice involves significant risks, risk control and defines a procedure to repair a risk. Good application of adequate practices can facilitate the implementation of HACCP. This is especially true in small operational units, where it can be easier to implement HACCP requirements without having to implement the so-called "full" set of HACCP (Voldřich et al. 2006).

For the business practice, HACCP system seems to be difficult in terms of examining all the factors that are included in the system. The system provides control points and critical control to detect possible hazards throughout the process. Hazard analysis is one of the most important steps of implementation of the HACCP system. The danger lies in infection, contamination, survival or reproduction of pathogenic bacteria. Danger also includes terms that allow the reproduction of microorganisms, such as improper storage conditions, temperature abuse of food during expeditions and the like. HACCP provides CP - control points, this means managing control parameters of technological operations in general and CCP - Critical Control Points, which achievement can cause direct significant hygienic and health risks. CCP may be the space, locations, step or procedure which can be controlled or managed, avoided, preventing the emergence of hygiene risks and threats to health safety. It analyzes received raw materials and products, recipes, foodstuffs characteristics before and after processing, technology, methods of packaging, a packaging material, distribution conditions, methods of treatment and the treatment of the products in the common catering, whether being eaten raw or after heat treatment or used for the preparation of other dishes.

Whithin HACCP we can hear of the "critical limit", which is the value of what is permissible and what is not permissible. When this limit is exceeded, it means that the food is unsafe. It helps us identify errors that can occur and, through it is determined whether the selected foodstuff is in order or is harmful to our health (Kerekréty 2000).

HCCP system allows elimination of risks in the area concerned while pointing out the benefits from the implementation of HACCP for consumers, business and the general benefits, which include all stakeholders (see the Tab. 3 and Tab. 4).

Tab. 3: Areas of risk elimination

Area	Risk elimination
Staff	- via careful personal hygiene and manufacturing practices.
Objects	- work surfaces smooth and without gaps, from materials complying with the requirements, enabling easy cleaning and resistant to disinfectants used; - Strict observance of the principles of operational hygiene; - Chemistry used for food approved by the Chief Hygienist; - Proper construction solution of premises; - A suitable solution of ventilation and heating; - The correct layout without crossing paths with separate working areas according to the nature of food.
Raw material	- Primary contamination of raw materials and ready meals out of operation; - Careful control of raw materials and ready meals at the entrance; - Contamination during storage, appropriate storage area with separate storage of incompatible foods, adherence to proper storage conditions; - Secondary cross-contamination in the processing and expenditure, a strict separation of clean and dirty areas.
Technological procedures	- Compliance with good technological practice in gross and net raw material preparation; - Compliance with refrigeration and cold chain, keeping the temperature, humidity and storage time according to standards; - Management heat of cooking, keeping the pasteurizer factor in all parts of the dishes; - Compliance with the maximum temperature for the fat and oil 180 ° C; - Chilling, freezing and thawing, using appropriate technological equipment and administrative procedures.

Table 4: Benefits from the implementation of HACCP

BENEFITS from the implementation of HACCP systems for:		
CONSUMERS	**ENTREPRENEURS**	**GENERAL**
- **i**ncrease of the safety of consumer products; - protection against health and financial damage; - higher level of satisfying consumer requirements.	- the satisfaction and trust of customers, transparency of production and process control; - improvement of order and hygiene; - improvement of the product properties, reducing wasters; - professional image; - - cost savings, minimizing losses to improve cooperation among personnel and management; - clear competence.	- shift of control into prevention; - an overall increase in quality; - rationalization of production processes.

Entrepreneurs can build their own HACCP plan or operate under a quality system according to ISO 9000. The actual building phase requires the preparation team from cleaners to the supreme chief, who must be personally convinced that this programme is effective and useful. In applications where it is not possible to introduce the HACCP system now, there should be introduced the support programme before the HACCP implementation. The HACCP system determines fulfillment of certain conditions relating to hygiene requirements for storage, building design, internal breakdown, equipment sanitation programmes, employee training and the like. For small operating units it may be unrealistic.

The HACCP can be introduced through the ISO standards as part of the quality system. ISO 9001: 1994 can be applied separately to suppliers, according to what the customer requests (ISO 9002) as well as for the output and input control (ISO 9003) (Kerekréty 2000).

Summary

Author Kerekréty (2004) on the introduction of HACCP aptly says: HACCP is not a goal that you

have achieved, but a tool that will serve to make you consider all the negative factors - hazards that affect food safety and health of foods. It should be recognized that even the highest degree of hygienic food safety is not a guarantee of quality or a guarantee of competitiveness. Guarantee is the control system HACCP or other own control system in the operational units providing catering services. It is in the hands of the management of a company to comply with proper hygiene, appropriate preparation of foods, prescribed storage of food products and active interest in science-based information towards a conscious choice of quality products with positive effects on the human body.

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