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KNOWLEDGE OF EMPLOYEES IN RESTAURANTS ABOUT THE MEANS AND APPLICATION OF HACCP

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Abstract: This paper presents the results of a survey carried out in 89 operating objects with food (restaurants, fast food restaurants, distribution centers, stores, etc.) in Bosnia and Herzegovina. The questions that the employees have been asked (owners, managers, workers) were related to good hygiene practices, good manufacturing practices and HACCP principles, and general knowledge about the production and preparation of food. The survey covered 520 people. Displayed knowledge level requires fast actions in taking a series of measures to improve it. The best and quickest results will be achieved by organizing a series of seminars tailored to the needs of individual sectors in the field of catering services.

Keywords: HACCP, catering, restaurants, the knowledge of employees.

Introduction

In the total tourist offer, restaurants have a significant role. Very often the national cuisine is something that is offered as specific and as part of the overall tourism package. On the other hand, the restaurants have a wider role: ensuring food production, assisting in the treatment and rehabilitation of patients in the spa and recreation centers, and helping to strengthen the body of the young athletes in the sport and recreation and wellness centers.

According to current regulations, restaurants must meet certain requirements in terms of safety/security of offered dishes (previously required programs and HACCP system). Convergence of new technologies in food production and requirements in terms of food safety with traditional national cuisine, tourism contributes to strengthening the satisfaction of guests and tourists.

The essence of the HACCP system in restaurants and other facilities that provide serving and selling food is the staff that works with food. These people need to be motivated to operate in compliance with applicable regulations in the area of hygiene and food safety. In all of this it is very important to provide practical training and provide ongoing training of staff working with food (Savović and Ćurčić, 2008). Many researchers investigated the knowledge of employees in the food industry (Grujić et al., 2010, a, b, c) and the ability of the education of employees in order to improve the level of expertise, knowledge of employees related to product safety, hygiene and HACCP. Specificity, which should be taken into account in the application of HACCP system in the hospitality industry in relation to the food industry, is related to the following facts: a large number of inputs and finished products, a large number of complex formulas, the application of different technologies for the production of various range of products, a significant proportion of manual labor in the making products on a small area, additional procedure of food serving and high turnover of workers (Jurčević et al., 2005; Savović and Ćurčić, 2008).

Holford (2010) stands for the establishment of special schools where one would acquire knowledge in the field of food safety. Bolton et al. (2008) have surveyed the management employed in catering and

other restaurants and have come to the conclusion that the necessary additional training should be done for most of them. Seaman and Eves (2006) have seen the training of employees in restaurants as part of a strategy to improve food safety and human health.

HACCP system in catering facilities will function successfully only with the full realization of pre-requisite (pre-requisite practices, PRP). It is a common term used to describe all activities that apply to the company, which together with the HACCP plan, health insurance contributes to the safety of food products (good hygiene practices - GHP, good manufacturing practice - GMP, pest control, training and knowledge of people). Pahor et al. (2005) say that three main prerequisites for the implementation of the HACCP system and parts of the GHP and GPP are: cleaning and disinfection, equipment maintenance and pest control, and training of staff on how to do so. According to the research on the problems in the application of HACCP system in catering facilities in Croatia (Jurčević et al., 2005; Puhač and Bogati, 2005; Savović and Čurčić, 2008) they cite understanding of the need to meet PRP in old and dilapidated buildings, where they expect someone from the outside to implement and enforce the system instead of employees. These authors also point out the positive sense of the attitudes of new restaurants and high-class hotel facilities, which are fully accepted as its HACCP system. As an obstacle to the implementation of HACCP system in catering Jurčević et al. (2005) emphasize the lack of trained staff to independently implement security measures (food processing technology engineers, sanitary engineers, etc.) and often worn out facilities and equipment, which hamper the application of PRP, and the indifference of management to work alone on the implementation of PRP and HACCP. Mogořović (2005); Savović and Čurčić (2008) cite a number of weaknesses in the implementation of the HACCP system in catering and hotel facilities: a large labor turnover, varying degrees of education and habits of people who work with food, a lot of manual work and too many employees in the kitchens, a large number of suppliers, a large number of recipes, the combination of a number of technological procedures during food preparation, use of different raw materials of plant and animal origin, and different ways of presenting and serving meals (buffet tables, individual serving plates, integral table with show-cooking, etc.).

Very common questions are about the ability to meet the requirements of the regulations, the cost of introducing new standards and knowledge required to adequately perform the implementation of standards. That was the reason for doing the extensive research on knowledge level of catering workers, especially those responsible for the preparation, quality and safety of food offered in restaurants and other establishments that operate with food in Bosnia and Herzegovina.

Materials and methods

Questions contained in the questionnaire are designed and based on similar questionnaires that were used during previous researches (Taylor, 2001; Jevšnik, 2008; Grujić et al., 2010, a,b,c) or similar researches that the author had in companies to produce food products in Bosnia and Herzegovina (Grujić et al., 2010, a, b) and Serbia (Grujić et al., 2010, c). During the preparation of the questionnaire we used the knowledge and experience that the authors of the studies had to work with companies that do business with food, and good knowledge of HACCP principles and the answers that were expected. Questions were open, clear and interrelated questions, adapted putative knowledge and education of respondents. The questionnaire included questions related to the work processes in which respondents participate and who really need to know the answers.

The questionnaire that was offered to workers consisted of four parts (general information about the employees and the company, knowledge of food safety in practice, the application of hygienic practices in enterprises and knowledge of HACCP systems) and had a total of 36 questions. For all the issues raised in the questionnaire there were offered multiple answers, and the respondents were expected to tick a number or letter in front of the text to give their answer. Each of the respondents answered the questions alone. The total time that subjects had available to complete the questionnaire was 45 minutes. The survey was anonymous. (*NOTE: The names of companies are known only to the authors of this paper!*)

The research was conducted in collaboration with health and sanitary inspectors in several towns in Bosnia and Herzegovina (Banja Luka, Bijeljina, Bratunac, Brčko, Gračanica, Milići, Srebrenica, Ugljevik, Vlasenica, Tuzla and Zvornik). The survey covered 89 facilities that operate with food (restaurants, fast food restaurants, distribution centers, stores, etc.) in Bosnia and Herzegovina. The questions that the employees have been asked (owners, managers, workers) were related to good hygiene practices, good manufacturing practices and HACCP principles, and general knowledge about the production and preparation of food. The survey covered 520 people. The survey was conducted in 2009 and 2010. Following the survey, an analysis of the answers was received.

Results and Discussion

Results which have been conducted during the study are given in 18 tables. Viewing and discussion of the results are divided into four sections: (1) general information about the company and the respondent, (2) knowledge of food safety in practice, (3) application of hygienic practices in the company, and (4) knowledge of HACCP system.

The reaction of the respondents generally was positive, but there were workers who refused to participate in the survey. The problems that were encountered during the survey were mainly related to the lack of time or the current inability of the respondents to give answers.

More than a half of respondents (61.92%) were persons with technical authority, 19.04% of the respondents were workers in the kitchen who prepare meals, waiters, food deliverers, 15.38% of the respondents were owners who have performed duties as directors, 1.35% of the respondents were directors and 2.31% were workers responsible for food safety (Table 1).

Most firms (29), which are surveyed in this paper are classified as restaurants (31.46% of respondents). They are followed by retail (sales final - consumer 22 companies) - 22.47% of respondents, distributors (import, wholesale and distribution) 10 companies with 15.73% of the respondents and restaurants in the hotel (13 companies with 14.61% of respondents). The smallest number of companies related to restaurants in the company (3.37% of respondents) and the company is engaged in the delivery of food to the requested address (4.49% of respondents). The survey covered a total of 89 companies with 520 workers (Table 1).

Table 1: General information about the companies and respondents

	Category	Number of respondents	%
Position of the respondent in company	Technical person with authorization	322	61.92
	A worker in the kitchen, waiter, delivery of food, etc.	99	19.04
	Owner - Director	80	15.38
	The person responsible for the safety and quality of food	12	2.31
	Director, different than the owner	7	1.35
Type of company	Restaurants (29 companies)	164	31.46
	Retail stores (22 companies)	117	22.47
	Wholesale distributors (10 companies)	82	15.73
	Restaurants at hotel (13 companies)	76	14.61
	Fast food (7 companies)	41	7.87
	Companies that deliver food (4 companies)	23	4.49
	Restaurants in companies (4 companies)	18	3.37
Company size	<5 employees (23 companies)	134	25.84
	5-10 employees (26 companies)	152	29.21
	11-50 employees (25 companies)	146	28.09
	51-200 employees (15 companies)	88	16.85
	> 200 employees (0 companies)	0	0.00

Categorization of companies according to the number of employees was conducted using internationally accepted classification (Grujić et al., 2010, a). Based on this classification, the most of companies, which were included in the survey, belong to the small and micro enterprises. The survey collected the following data: 23 enterprises employing less than 5 workers (of 134 respondents), 26 enterprises employing 5-10 employees (a total of 152 respondents), 25 enterprises employing 11-50 workers (of 146 respondents), 15 companies employing 51-200 workers (total of 88 respondents). None of the surveyed companies has more than 200 workers (Table 1). All companies that are included in the survey are majority privately owned, and the owners, in most companies, are also the directors of these companies.

Most respondents (42.70%) said that the company works with food for more than 6 and less than 15 years (Table 2). When this is brought together with the number of workers who are working in the company for less than 5 years (34.83%), it can be seen that in this sector employers prefer to employ young or younger people. However, the age distribution of persons interviewed is somewhat less favorable, but it confirms the fact that the population in B&H gets their first job after a certain number of years of waiting for the Employment Office. As for the qualification structure, a high school education dominated among the workers (62.93%), as this sector has a very good educational structure. Number of people with a college or high school degree (20.22% and 14.61%) confirms this statement.

Table 2: Age structure, education level and work experience of the respondents (in absolute values and in percentages)

	Age of respondents (years)			Education level of respondents				Work experience (years)			
	< 30	31-50	> 50	Elementary education	Secondary education	Higher education	High education	< 5	6-15	16-25	> 25
Absolute number	93	345	82	12	327	105	76	181	222	70	47
%	17.98	66.29	15.73	2.25	62.92	20.22	14.61	34.83	42.7	13.48	8.99

As it can be seen from Table 3 a great number of the surveyed workers are aware of their responsibilities in matters relating to food safety (89.81%), but they are not considered the most responsible persons in the matter (24.83%). Interviewed workers stated that in practice they apply existing procedures related to food safety (82.02%), although only a third of the respondents (34.83%) said they have a written procedure on hygiene.

Table 3: Understanding of food safety as a personal responsibility by the respondents

Question	YES		NO	
	number of respondents	%	number of respondents	%
Do you feel responsible for food safety?	467	89.81	53	10.19
Can you tell us whether executing procedures to avoid any appearance of problems regarding the safety of food?	427	82.02	93	17.98
Have you heard for the term "hazard analysis" and critical control points?	356	68.54	164	31.46
Are you the most responsible person in the company in matters of food safety?	181	34.83	339	65.17
Do you have a written document about hygiene in the company?	181	34.83	339	65.17

Respondents were asked to rank the level of risk of 13 kinds of foods. For each question there are offered 3 levels of risk. Ranking of foods according to their level of risk (Table 4), the respondents mark ice cream as food of the highest risk (473 the respondent or 91.01%). The high-risk foods were classified into the following foods: fish (450 respondents or 86.52%), mayonnaise (444 respondents (or 85.39%), milk (438 respondents or 84.27%), meat (397 respondents, or 76, 40%), and cakes (386 respondents or 76.40%). Interestingly, 56.18% of the participants marked water as a foodstuff with a high risk to the health of consumers. Other offered foods were grouped into medium-risk foods by the test persons (Table 4).

Table 4: Ranking of foods according to their level of risk

Type of food	High risk		Medium risk		Low risk	
	No.	%	No.	%	No.	%
Ice cream	473	91.01	29	5.62	18	3.37
Fish	450	86.52	47	8.99	23	4.49
Mayonnaise	444	85.39	64	12.36	12	2.25

Milk	438	84.27	47	8.99	35	6.74
Meat	397	76.40	88	16.85	35	6.74
Cakes	386	74.16	117	22.47	82	15.73
Water	292	56.18	205	39.33	23	4.49
Fruit juice	164	31.46	263	50.56	93	17.98
Processed fruits	123	23.6	315	60.67	18	3.37
Flour	88	16.85	263	50.56	169	32.58
Waffle	82	15.73	286	55.06	152	29.21
Cookie	76	14.61	269	51.69	175	33.71
Bread	70	13.48	304	58.43	146	28.09

Respondents were offered a list of six types of microorganisms - causative agents of infectious diseases and asked to rank them in 4 levels of danger. Respondents largely identified in *Salmonella*, *Staphylococcus*, *E. coli*, *C. jejuni*, and *Clostridium botulinum*, a high level of risk. The results are shown in Table 5.

Table 5: Ranking of microbiological hazards in foods according to their level of risk

Microbiological hazards according to their level of risk	HIGH		MEDIUM		LOW		POSES NO THREAT	
	No.	%	No.	%	No.	%	No.	%
Salmonella	462	88.85	29	5.58	18	3.46	12	2.31
Staphylococcus	386	74.23	111	21.35	18	3.46	6	1.15
E.coli	333	64.04	158	30.38	23	4.42	6	1.15
C.jejuni	228	43.85	152	29.23	82	15.77	58	11.15
Clostridium botulinum	222	42.69	169	32.50	70	13.46	58	11.15
M.O. that cause food spoilage	228	43.85	158	30.38	88	16.92	47	9.04

The respondents were asked to rank the level of the chemical threat agents. The largest number of respondents indicated that mycotoxins (368), the resources used in agriculture (269) and residues of veterinary drugs (175) represent a high level of risk, while food additives are seen as medium or low level of risk (Table 6).

Table 6: Ranking of chemical hazards in foods according to their level of risk

Chemical hazards according to their level of risk	HIGH		MEDIUM		LOW		POSES NO THREAT	
	No.	%	No.	%	No.	%	No.	%
Mycotoxins	368	70.77	123	23.65	12	2.31	12	2.31
Agents used in agriculture.	269	51.73	146	28.08	82	15.77	18	3.46
Residues of veterinary drugs	175	33.65	257	49.42	58	11.15	29	5.58
Food additives	0	0.00	76	14.62	23	4.42	12	2.31

Physical hazards were ranked as high levels of risk by 345 respondents, as middle level by 82 respondents, as low risk by 64, while 29 respondents said that the physical danger poses no risk to human health (Table 7).

Table 7: Ranking of physical hazards in foods according to their level of risk

Physical hazards according to their level of risk	HIGH		MEDIUM		LOW		POSES NO THREAT	
	No.	%	No.	%	No.	%	No.	%
Bits of metal, glass, stones, bones	345	66.35	82	15.77	64	12.31	29	5.58

To the question “*What is the lowest temperature of cooking,*” 245 respondents (47.12%) responded 83°C, 187 (35.96%) of respondents indicated the lowest temperature of 63°C, 29 subjects said 53°C, and 58 respondents opted for a temperature of 37°C (Table 11).

Table 8: Knowledge of the temperature of the heat treatment of foods

Question	No.	Percentage
83 degree C	245	47.12
63 degree C	187	35.96
53 degree C	29	5.58
37 degree i C	58	11.15

Respondents were sure that the food is contaminated by bacteria (respondents were able to give an affirmative answer to more questions): When you feel a bad odor (310 respondents), if there is acid taste (140 participants), if moldy (187 respondents), the response “*it is not possible to determine on the basis of appearance*” was chosen by 187 respondents, while 12 respondents gave the answer “I do not know” (Table 9).

Table 9: Answers to the question: “When will you be sure that the food is contaminated with the bacteria that cause food poisoning?”

Question	Answer
If I feel bad smell	310
If food has a tart taste	140
If food is moldy	187
It can not be described on the basis of appearance	187
I do not know	12

Most respondents did not know the procedure for washing dishes and accessories for work. When asked how to wash the knife after cutting raw meat (Table 10) 415 respondents or 79.81% indicated it is thoroughly washed and disinfected periodically, 199 or 38.27% that it is washed thoroughly with hot water, and 23 or 4.42% that it is washed with running water. None of the respondents indicated other ways or detergent and warm water.

Table 10: Way of washing the kitchen knife after use

ANSWER	Answer	Percentage
Fundamentally washed and disinfected periodically	415	79.81
To wash with hot water	199	38.27
To wash with running water	23	4.42
Wipe off with kitchen towel	6	1.15
Wipe off with paper towel	6	1.15
Another way	0	0.00
I do not know	0	0.00

If the measurement indicates a low temperature, 146 respondents or 28.08% will immediately implement the necessary measures to rectify the situation, 222 respondents, or 42.69%, to carefully consider the issue and find the best solution, while 70 respondents or 13.46% will consult the predicted (Table 11). None of the respondents would consult colleagues about it. Such a response may indicate the relationships in the enterprise or micro-location.

Table 11: Way of solving problems in a company related to food safety

The answer to the question: "What will you do if the measure shows a lower temperature heat treatment of food than needed?"	No.	%
Carefully consider what I do and I will find the best solution	222	42.69
I will immediately implement the necessary measures to remedy the situation	146	28.08
I will call maintenance to repair the instrument	70	13.46
I will consult a supervisor	53	10.19
I do not know	17	3.27
I will not do anything	12	2.31
I will consult my colleagues	0	0.00

When delivering fruit and vegetables, it is important to control the hygienic conditions in the commercial vehicle, said 199 or 38.27% of the respondents, 175 or 33.65% indicated that they would control the quality of fruits and vegetables, 64 or 12.31% would control the GAP, and 47 or 9.04% the fruit temperature (Table 12).

Table 12: Answers to the question: "What is the most important thing about food safety during the delivery of fruit and vegetables?"

Answers to the question	No.	%
Controlled hygienic conditions in the commercial vehicle	199	38.27
Control the quality of fruit and vegetables	175	33.65
Respect to control requirements of good agricultural practice	64	12.31
Control the temperature of fruit and grains	47	9.04
Check whether the driver observes the principles of personal hygiene	23	4.42
I do not know	12	2.31
Other	0	0.00

“Temperature measurement is important to know that we destroyed pathogenic microorganisms,” stated 42.70% of the respondents. “It is important to be adjusted during the thermal process,” was the answer of 28.08% of the respondents, that the food doesn’t lose its nutritional value was said by 15.772% of the respondents. 10.19 % of the respondents do not know why, and 3.27% said that it does not matter whether there are standardized procedures or not (Table 13).

Table 13: Answers to the question of how important it is to measure internal temperature during thermal processing of food

Answers to the question	No.	%
It’s important to know that pathogenic microorganisms are destroyed	222	42.70
It’s important to set a time during the heat treatment	146	28.08
It’s important that food doesn’t lose its nutritional value	82	15.77
I do not know	53	10.19
It does not matter whether there are standardized procedures and measures or not	17	3.27
It does not matter	0	0.00

321 or 61.73% of respondents stated that all microorganisms in food are killed during thermal processing of food, 65 or 12.36% of respondents said that they don’t grow, 35 respondents or 6.74% said that they grow slowly, 41 respondents or 142.50% said that they grow fast, and 5.58% of the respondents stated that they don’t know anything about it (Table 14). There is a great number of those who reported that microorganisms grow, grow very fast, grow slowly, they don’t know (29 respondents or 5.58%). This means that these respondents do not know what is cooking.

Table 14: Answers to the question of how thermal processing of food affects the growth of microorganisms

Answers to the question	No.	%
All are killed	321	61.73
They do not grow	65	12.50
They grow very slowly	35	6.73
They grow very fast	41	7.88
Other	29	5.58
I do not know	29	5.58

A large number of respondents recognized microbiological hazards that certain conditions or symptoms of infectious diseases may affect the safety of food. Severe symptoms or conditions that indicate the presence of infectious disease are signs for workers to stop working with food in the following situations: 2.31% of the respondents indicated that you can’t work with food when you have diarrhea or fever, when you vomit or have wounds on your hands. 7.88% of respondents believe that you can’t work with food when you cough even if you wear a protective mask (Table 15).

Table 15: Answers to the question in which cases the respondent / employee may not operate with food

Answers to the question	No.	%
When I have wounds on hands	0	0.00
When I vomit	0	0.00
When I have a cold	6	1.15
When I have diarrhea	12	2.31
When I have fever	12	2.31
When I cut myself	12	2.31
When I cough, even if I wear a protective mask	41	7.88
When I have a toothache	199	38.27
When I have high blood pressure	339	65.19
When I'm in a bad mood	351	67.50

Although a small number of companies in the field of catering and commerce has certified HACCP system (or standard ISO 22000), responses indicate that nearly a half of workers isn't familiar with the basic principles of the HACCP. The workers gave different answers to this question. 397 or 76.35% of the respondents reported that all workers who handle with food are trained regarding hygiene, while only 164 or 31.54% of the respondents said that they were trained in connection with the HACCP principles. 275 or 49.42 % of the respondents said that the company keeps records obtained during the monitoring. 216 or 41.54% of the respondents have heard of HACCP principles. According to the survey in 37 companies there is a HACCP team (210 respondents) (Table 16).

Table 16: The level of knowledge of respondents about the principles of HACCP

Question	No.		%	
	yes	no	yes	no
Are all employees who handle with food trained in relation to hygiene?	397	123	76.35	23.65
Do you keep records obtained during monitoring?	257	263	49.42	50.58
Is there a HACCP team?	216	304	41.54	58.46
Have you heard of HACCP?	216	304	41.54	58.46
Are you familiar with the principles of HACCP?	210	310	40.38	59.62
Do you have a system for food quality security?	175	345	33.65	66.35
Is there a written statement of respect for hygiene?	169	351	32.50	67.50
Are all employees who handle with food trained in relation with HACCP?	164	356	31.54	68.46

The greatest benefit from the implementation of HACCP is to prevent food poisoning (520 or 100% respondents) (Table 17). Other benefits are: improving consumer confidence (292 or 56.15%), agreement with rules (210 or 40.38%), increasing labor discipline (193 or 37.12%), reduction in the number of appeals (102 or 20.19%), and legal protection from lawsuits (47 or 9.04%).

Table 17: The benefits of HACCP implementation

Answers to the question	No.	%
Preventing food poisoning	520	100.00
Improving consumer confidence	292	56.15
Compliance with regulations	210	40.38
Increasing labor discipline	193	37.12
Reducing the number of complaints	105	20.19
Legal protection of the appeals	47	9.04

The question “*How can a manager improve food safety in the company?*” offered a list of 11 options (Table 18). The following answers were received: to follow the HACCP prompting system (345 or 66.35%), to apply the basic principles of food hygiene (315 or 60.58%), to provide additional training (298 or 57.31%), to conduct routine control (269 or 51.731%), to organize seminars (234 or 45.00%), always be aware of the new improvements (216 or 41.54%), be sure to have produced only good products (25 or 28.09%), to control the temperature (234 or 45.00%), give simple directions (117 or 22, 50%), reduce the change of employees (88 or 16.85%).

Table 18: Answers to the question: “How can a manager improve food safety in the company?”

Answers to the question	No.	%
Follow the HACCP system	345.00	66.35
Apply basic principles of food hygiene	315.00	60.58
Provide additional training	298.00	57.31
Conduct routine control	269.00	51.73
Organize seminars and lectures for employees	234.00	45.00
Always be aware of the new improvements	216.00	41.54
Be sure to have produced only good products	146.00	28.08
Temperature control	140.00	26.92
Avoid cross-contamination	123.00	23.65
Give simple directions	117.00	22.50
Reduce of staff changes	88.00	16.92

Hazard Analysis and Critical Control Points (HACCP) is a systematic preventive system for ensuring food safety, which is based on the use of appropriate technological processes and control of the application of these procedures, and control of the whole system. This system is totally applicable in all the processes of preparing, serving and distribution of food. High standards of hygiene are imperative to prevent food poisoning, food spoilage, losses in production and trade. The management of each company, which operates with food, and the addition of restaurants and other food service establishments that serve food to the end user is to implement the policies and systems related to their activities. Ensuring food safety in catering is imperative that on the one hand needs to ensure customer satisfaction, and on the other hand to ensure profits and visibility of companies in the market. Regardless of the total cost to meet the standards and regulations related to the GHP, GMP and implementation of HACCP systems, enterprises in the cater-

ing need to invest some funds in the renovation of facilities, purchase of efficient cleaning and disinfection and should not skimp on the use of other programs within these systems.

Knowledge and training of employees and managers in companies that do business with food, especially the restaurants, is very important for the efficient application of the HACCP system. In essence, the application of the HACCP system is not possible without the staff that has the relevant knowledge. This applies to all employees, but should emphasize the need for any company to hire experts in the field of food technology and sanitary engineering, because the company can only that way independently conduct complex systems for monitoring, control and system improvement.

The survey conducted among employees in companies that do business with food showed that enterprises in B&H need to work seriously on a systematic training of their workers, to reduce the fluctuation of workers and to influence the level of motivation to really apply policies and programs in the field of food safety.

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