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Article · October 2017

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Management Culture and Commitment towards Food Safety Management Systems in Hotels

Reda M. A. Gadelrab and **Mostafa M. M. Hussein**
Faculty of Tourism and Hotel Management, Helwan University
Faculty of Tourism and Hotels, Minia University

Abstract:

The study aims to investigate the hotel management culture and commitment towards the application of ISO 22000 and its training policies in four and five star hotels in Greater Cairo in Egypt. A total of 71 structured interviews with people in charge of food safety management in 15 five star hotels and eight four star hotels were conducted to demonstrate management food safety culture and commitment in practice. The study provides a detailed and practical response to identify food safety culture and its impact on hotel food handlers from managers' perspectives. The findings indicate that five star hotels are implementing proper and effective food safety management systems better than four star hotels.

Key words: Food Safety and Hygiene, Foodborn Disease; ISO 22000; Food Risk Assessment; Management Culture.

Introduction:

Food safety and quality impacts a company's productivity due to its consumer loyalty and client esteem. To satisfy clients' desires and to market items viably, it is vital for the business to know which quality attributes are applicable and available to clients and to examine which parameters impact their purchase decisions (Grebitus, 2008). As indicated by Verhe et al. (2006) food safety and quality assessment must be considered from alternate

points of view and their improvement requires the assembled endeavors of multidisciplinary research. Verhe et al. (2006) also emphasized that expenses of foodborne illness incorporate the cost of medical treatment, productivity loss, pain and suffering of affected individuals, industry losses, and losses within the public health sector. Since in 1991 alone, nearly 23,000 instances of salmonellosis cost £40–£50 million in England and Wales. Health Canada gauges 2.2 million instances of foodborne sickness every year in Canada, bringing about a social cost of $1.3 billion every year. In United States, every year, foodborne ailments influence somewhere around 6.5 and 33 million individuals, with medical expenses and productivity losses that have been evaluated at 9.3 to US $12.9 billion(Verhe et al., 2006).

According to Luning et al. (2012) Food Service Establishments (FSE) are critical sources of foodborne outbreak, with a reported occurrence of 29% in industrialized nations. Catering businesses are the most foodborne disease outbreak sources in England and Wales. In Spain, 37% of the gastroenteritis outbreaks in 2004-2005 were because of collective catering. They also confirmed that in the US, the developing number of foodborne sickness outbreaks and sporadic gastrointestinal ailments resulting from eating food in restaurants which represent the main source of the infection. Food Service Establishments in Europe must comply with strict food legislations which oblige them to have a Food Safety Management System in place, thus different stressed the usage of FSMS in FSE which undoubtedly enhances the safety of meals served (Luning et al., 2012).

Griffith (2006) announced that epidemiological information gathering systems are vital to understand the nature and degree of the foodborne sickness issue. For instance, he mentioned that Egypt typically reports just

around three cases per 100,000 populations, while in Sweden, it has been reported 5770, thus the difference is not due to better cleanliness, in reality, but due to better reporting and data collection.

The significance of the research emerges from the necessity of properly applicable food safety management systems (HACCP or ISO 22000) in Egyptian hotels to ensure safety of meals served, reduce the occurrence of foodborne diseases outbreaks and protect hoteliers from paying much compensation for infected guests. Thus, the study evaluates the hotel management culture and commitment to the application of HACCP or ISO 22000 and training policies on these systems through conducting a structured interview with personnel in charge of food safety management in four and five star hotels.

Literature Review:

Food Safety and Hygiene:

According to McEachern et al. (2001) food safety represent a sub-division of food quality describing it as ensuring that the food is free of health hazards during preparation and consumption. Food safety is defined as "*the state of acceptable and tolerable risks of illness, disease, or injury from the consumption of foods. It is achieved through policies, regulations, standards, research, engineering designs and technology, surveillance and monitoring, and other applicable measures to reduce the risks or control hazards in the food supply chain*". (Knechtges, 2012:36). According to Food and Agriculture Organization, food safety referred to ensuring non occurrence of harm to consumers when food is prepared or eaten (Raspor and Jevšnik, 2008; FAO/WHO, 2009). Food safety referred to the scientific term which describing handling, preparation, and storage of food ensuring non

occurrence of foodborne illnesses (Shiklomanov, 2000). Additionally, food safety represents conditions and practices that preserve the quality of food to prevent contamination and food borne disease (Redmond and Griffith, 2003; Anderson et al., 2004).

Food hygiene is defined as *"all conditions and measures necessary to ensure the safety and suitability of food at all stages of the food chain"* (Food and Agriculture Organization, Fisheries and Aquaculture Department, 2012:4). Additionally, Food hygiene and control referred to "*a mandatory regulatory activity of enforcement by national or local authorities to provide consumer protection and ensure that all foods during production, handling, storage, processing, and distribution are safe, wholesome and fit for human consumption; conform to safety and quality requirements; and are honestly and accurately labeled as prescribed by law*" (Food and Agriculture Organization of the United Nations and World Health Organization, 2013:3).

Foodborne Diseases:

Food and Drug Administration (2012:3) defined Foodborne disease outbreak as "*the occurrence of two or more cases of a similar illness resulting from the ingestion of a common food*". In the last decade, microorganisms were responsible for about 85% cases of reported foodborne disease outbreaks (Food and Drug Administration, 2012). Occupational Safety and Health Administration (OSHA) (2013:2) referred Foodborne diseases to "*the illnesses contracted from eating contaminated food or beverages*", since there are more than 250 different foodborne diseases are caused by viruses, bacteria, molds, yeasts, parasites, toxins, metals, and prions. Symptoms of foodborne illness range from mild gastroenteritis to life-threatening

neurologic, hepatic, and renal syndromes, Nausea, vomiting, abdominal cramps (Occupational Safety and Health Administration (OSHA), 2013).

In addition to previous symptoms, Encyclopedia Britannica (2013) listed mild stomach upset; headache; muscle aches; fever and diarrhea which are frequent in foodborne diseases. Symptoms may develop within hours or days after eating contaminated food, and they are not always easy to distinguish from influenza or other illnesses. Drinking clear liquids (such as chicken broth, juices, and water) helps replace fluids lost during a mild infection, but immediate medical attention is required when symptoms are severe (Encyclopedia Britannica, 2013).

Hospitality Institute of Technology and Management (2006) identified pathogen as **"***a microorganism in food and water that is capable of causing disease or illness in humans*". Shewfelt (2009:9) declared that these pathogens may be grouped into two basic categories a:

1- *Infection:* it is caused by eating food that contains living disease-causing microorganisms. Infective pathogens cause illness when they multiply within the body. Examples include Salmonella spp., Campylobacter jejuni and hepatitis A virus. They cause illness, at least diarrhea, no sooner than 8 hours after ingestion. The time period for onset of symptoms may be many days.
2- *Intoxication:* It is caused by eating food that contains a harmful chemical or toxin produced by bacteria or other source. Toxin-producing pathogens produce toxins when they multiply in food. These toxins are not usually inactivated by cooking. Examples of pathogenic bacteria that produce toxins include Staphylococcus aureus, Clostridium botulinum and Bacillus cereus. Illness from

intoxication can result in at least vomiting, in less than 30 minutes. It might be delayed up to 8 hours (Hospitality Institute of Technology and Management, 2006).

Food Risk Assessment and Management in Food Service Operations:

According to Matias et al. (2013) all aspects of catering should be controlled to reduce or eliminate contamination of foods during storage and preparation. They also emphasized that control is achieved if prerequisite programs and HACCP plan are met. The risk assessment is done based on the hazard analysis (according to the probability of occurrence and severity of identified hazards) and the preventive measure established for its control (FDA, 2001; Jones Angulo, 2006). The hazards can be divided into four groups according to their severity to human health or concerning its probability of occurrence: A: High (4): Severe consequences for consumer health; M: Medium (3): Serious consequences for consumer health; B: Low (2): Zero or very small effects for consumer health; D: Neglectable (1): Without consequences for consumer health (Matias et al., 2013). Risk assessments considers review of customer complaints, return of lots or shipments, results of laboratory tests, and data from monitoring programs of agents of foodborne illness (American Food Safety Institute, 2007).

ISO 22000 and Management Responsibility:

According to Vapneck and Spreij (2005) that in September, 2005, ISO published the ISO 22000, which outlines the requirements for implementing food safety management systems in all types of organizations along the food chain. These organizations range from feed producers, primary producers, food manufacturers, transport and storage operators to retail and food service establishments-plus related organizations such as producers of equipment, packaging material, additives and ingredients. Relevant national and

international food safety standards harmonize and incorporate HAACP principles (Vapneck and Spreij, 2005).

Arvanitoyannis and Varzakas (2009) confirmed that processors should develop written prerequisite program for the following operations: raw material receipt and storage; wash water quality; equipment maintenance; production controls for grading, washing, cutting, drying and packaging. These programs also include temperature and microbiological controls; chemical control; sanitary control for the facility, equipment and employees; product coding and traceability; recall procedure control; finished product storage and distribution control. ISO 22000 creates a uniform and homogeneous platform of requirements, acceptable to all authorities worldwide (Vapneck and Spreij, 2005).

International Organization of Standardization (ISO) (2005) emphasized that top management should communicate to the organization the importance of meeting the requirements of this International Standard, any statutory and regulatory requirements, as well as customer requirements relating to food safety, and ensure the availability of resources. Top management should also ensure that responsibilities and authorities are defined and communicated within the organization to ensure the effective operation and maintenance of the FSMS. Furthermore, they should designate a food safety team leader who manage a food safety team and organize its work, ensure relevant training and education is taken for the food safety team members (International Organization of Standardization, 2005).

Methodology:

Population of the research includes four and five star hotels at Greater Cairo in Egypt. Respondents are managers in charge of food safety in the approached hotels. Four and five star hotels were selected in research methodology because they are applying the food safety management systems (ISO 22000 or HACCP system). The purposive sampling technique is applied in selecting the sample of four and five star hotels. Teddlie and Yu (2007) confirmed that the purposive sampling technique, also called judgment sampling, is the deliberate choice of an informant due to the qualities the informant possesses. It is a nonrandom technique that does not need underlying theories or a set number of informants.

In terms of the five star hotels' sample, the total number is 34 hotels (Egyptian Hotel Association, 2012:60). Two hotels of them are under renovation. They are Sheraton Cairo Hotel and Ritz Carlton Hotel. Therefore, the population of the research consisted of 32 five star hotels. The sample was 15 five star hotels. It represented 47% of the population. The other 17 five star hotels (53 % of the population) refused to cooperate with the study. Regarding the four star hotels' sample used in the study, the total number was 17 hotels (Egyptian Hotel Association, 2012:63). Shepherd hotel was under renovation. Therefore, the population of the research consisted of 16 four star hotels. The sample consisted of eight out of sixteen four star hotels which represented 50 % of the population. The other eight four star hotels (50 % from the population) refused to cooperate in applying the research tools.

In the five star hotels' sample (15 hotels), 57 structured interviews have been conducted to all managers in charge of food safety in F&B sector. The

number of received and valid structured interviews was 57 forms. They represented 100 % from the distributed forms. In the four star hotels' sample (eight hotels), 14 structured interviews have been conducted to all managers in charge of food safety in F&B sector. The number of received and valid structured interviews was 14 forms. They represented 100 % from the distributed forms.

According to Public Service Commission of Canada (2015) the structured interview (a standardized interview) entails for all interviewees to be given exactly the same context of questioning. The goal of this style of interviewing is to ensure that interviewees' response can be aggregated and this can be achieved reliably only if those replies are in response to identical cues. Questions are usually very specific and very often offer the interviewee a fixed range of answers (Arksey and Knight, 1999).

The research instrument pre-test, i.e. an examination of the data collection instruments by potential respondents has been conducted through a series of interviews for data capture with 15 Managers who are responsible for food safety management system application (10 managers in five star hotels and five managers in four star hotels).

Findings and Discussion:

The structured interview investigates the impact of food and beverage management culture and commitment towards food safety management systems training, implementation and audit on the effectiveness and efficiency of their application.

Table 1: Reliability statistics for 71 structured interviews conducted with mangers

Research Tools	Cronbach's Alpha
Structured interview	0.87

Bryman and Bell (2007:40) stated that *"reliability is concerned with the question whether the results of the study are repeatable"*. Pallant (2005) confirmed that if the Cronbach's Alpha is above 0.7, the scale of the sample will be reliable. The reliability test has been conducted using SPSS program and the Cronbach's Alpha coefficient that is 0.87 as illustrated in Table 1 for all structured interviews in the hotels approached. This means that the reliability has been achieved and the scale has been recognized reliable with the sample.

Information about Managers who are Responsible for Food Safety:

In the 15 five star hotels investigated, the participated managers were as follows: seven (12.3%) F&B Managers; nine (15.8%) Assistant F&B Managers; seven (12.3%) Executive Chefs; 15 (28.07%) Assistant Executive Chefs; one Training Manager (1.8%); two Quality Managers (3.5%); four Food Safety Managers (7.01%) and one F&B Trainer (1.8%); two F&B Supervisor (3.5 %) ; two Head Dept. of Pastry Kitchen (3.5 %); three Head Dept. of hot Kitchen (5.3%); three Chef Steward (5.3%). Whereas in the eight four star hotels approached, the mangers participated in the study were categorized as follows: two F&B Managers (14.3%); two Assistant F&B Managers (14.3%); six Executive Chefs (42.9 %); one Assistant Executive Chef (7.1%); one Head Dept. of Pastry Kitchen, one Head Dept. of Hot Kitchen (7.1 %); one Chef Steward (7.1 %).

Implementation of Food Safety Management Systems:

In the five star hotels, 18 (31.6%) respondents apply Good Hygienic Practices and 17 ((29.8%) apply Good Manufacturing Practices. There are also 49 (86%) of them apply HACCP system. ISO 22000 is applied by only eight (14%) and ISO 9001 is applied by only five (8.8 %) of the respondents. Whereas in the four star hotels, five (35.7%) respondents apply Good Hygienic Practices and four (28.6%) of them apply Good Manufacturing Practices. There are also 12 (85.7%) of them apply HACCP system.

With regards to certified food safety system, in the five star hotels 50 (87.7%) of the respondents mentioned that their hotels have HACCP certification; eight (14%) of the respondents mentioned that their hotels have ISO 22000 certification; three (5.3%) of them mentioned that their hotels have ISO 9001 certification; two (3.5%) mentioned that their hotels have Good Food Safety Practices certification. Whereas in the four star hotels, 13 (92.9%) of the respondents mentioned that their hotels have HACCP certification.

Internal and External Food Safety Management System Audit Implementation:

In the five star hotels, 55 (96.5%) respondents mentioned that their hotels implement internal audit and 56 (98.2 %) of them conduct external audit of HACCP or ISO 22000 systems. Whereas in the four star hotels, 14 (100 %) respondents mentioned that their hotels make internal audit and 10 (71.4 %) of them declared that they conduct external audit of HACCP or ISO 22000 systems. Additionally, 56 (98.2 %) respondents in five star hotels and 13 (92.9 %) in four star hotels follow up the remarks of internal and external audit of HACCP or ISO 22000 systems respectively.

In the five star hotels 11 (19.3 %) of the respondents conduct a preventive or corrective action plan after internal or external food safety audit. There are also ten (17.5 %) of the respondents review HACCP plan and implement correct procedures effectively. Moreover, nine (15.9 %) of them train on or off the job food safety training for food handlers. Whereas in the four star hotels, three (21.4 %) of the respondents solve problem immediately and produce high quality food; three (21.4 %) conduct a preventive or corrective action plan after internal or external food safety audit.

51 (89.5 %) of the respondents in five star hotels reported that their food suppliers are certified in HACCP, or ISO 22000, or ISO 9001. There are also 46 (80.7 %) of them visit suppliers' manufacturers or sales areas periodically. In four star hotels, there are nine (64.3 %) respondents declared that their food suppliers are certified in HACCP, or ISO 22000, or ISO 9001. There are also five (35.7 %) of them visit suppliers' manufacturers or sales areas periodically.

Food Safety training for Food Handlers:

54 (94.7%) respondents in the five star hotels and 12 (92.9%) respondents in the four star hotels agree that they give accredited food safety training courses for food handlers. Additionally, in five star hotels 52 (91.2%) of the respondents revealed that their food service personnel took accredited food safety training courses. Whereas, in four star hotels, 14 (100%) of the respondents choose that food service personnel took accredited food safety training courses. This percent is divided to: 6 (42.9%) of the respondents choose that food service personnel took induction and basics levels. There are 48 (84.2%) respondents in the five star hotels reported that their food

service personnel were given non accredited food safety training courses. Whereas in four star hotels, 14 (100%) respondents revealed that their food service personnel were provided non accredited food safety training courses.

In the five star hotels, there are 25 (43.9%) respondents declared that the food safety training occurs during and after working hours; 22 (38.6 %) respondents chose during working hours; seven (12.3 %) respondents chose after working hours. Additionally, three (5.3 %) respondents don't arrange food safety training schedule. Whereas in four star hotels there are seven (50 %) respondents arrange food safety training during and after working hours; four (28.6 %) respondents chose that their food safety training occurs after working hours; two (14.3 %) respondents arrange food safety training during working hours; one (7.4 %) respondent doesn't arrange for the food safety training.

Food Safety Training Policies and Practices for Food Handlers:

In the five star hotels, 54 (94.7 %) respondents have a written food safety training plan for food safety programs (HACCP or ISO 22000). Ten (17.5 %) respondents have training records for food safety programs for some personnel, while 44 (77.2 %) of them have these records for all personnel. There are also 18 (31.6 %) respondents repeat food safety programs for some personnel and 37 (64.9 %) of them repeat these courses for all personnel.

In four star hotels, ten (71.4 %) respondents have a written food safety training plan for food safety programs (HACCP or ISO 22000). Four (28.6 %) respondents have training records for food safety programs for some personnel and ten (71.4 %) of them have these records for all personnel. There are five (35.7 %) of the respondents repeat food safety training

programs for some personnel and six (42.9 %) of them repeat these training programs for all personnel.

With regard to training intervals, 35 (61.4 %) respondents of the five star hotels don't retrain food handlers on food safety programs in regular intervals; 22 (38.6 %) respondents retrain food handlers on food safety programs in regular intervals. Whereas in four star hotels, 11 (78.6 %) respondents do not retrain food handlers on food safety programs in regular intervals; three (21.4%) respondents retrain food handlers on food safety programs annually as a regular interval.

Relating to constraints which prevent food handlers from applying food safety knowledge after training, 21 (36.8 %) respondents in the five star hotels declared that there are no constraints at all; 36 respondents reported that there are constraints as illustrated in Table 2. Whereas in four star hotels, there are 12 (85.7 %) respondents revealed that there are no constraints for applying the food safety training; two respondents (14.3) declared that there are constraints.

With regard to benefits of food safety training, 54 (94.7 %) and 55 (96.5 %) respondents of the five star hotels reported that food safety training ensures food safety, and protect their guests respectively. Food safety training meets legal obligations; improves and maintains business performance are chosen by 52 (91.3 %) and 51 (89.5 %) of the respondents respectively. There are 51 (89.5 %), 49 (86 %) of the respondents mention that food safety training helps them to perform business requirements much better, solves specific work problems respectively. Encouraging and improving food handlers' skills for future jobs, reducing turnover of personnel, losing much working

time, and increase business costs are chosen by 48 (84.2 %), 34 (59.7 %), 17 (29.8 %), and 9 (15.8 %) of the respondents respectively.

Table 2: Constraints preventing food handlers from applying food safety knowledge

Constraints preventing food handlers from applying food safety knowledge after training	Five star hotels (N= 57 Managers)		Four star hotels (N= 14 Managers)	
	Frequency	Percent	Frequency	Percent
There are no constraints	21	36.8 %	12	85.7 %
Food handlers don't know HACCP requirements	1	1.8 %	----	----
Food handlers don't understand training and the management repeats the training	1	1.8 %	----	----
Lack of equipment, tools, and materials that help to apply the training	11	19.3 %	----	----
Too much work and the management doesn't take food handlers holidays	6	10.5 %	1	7.1 %
The large number of tables applied in the HACCP system	1	1.8 %	----	----
Food handlers don't interest in applying HACCP	2	3.5 %	----	----
Food handlers don't know how to use updated equipment	1	1.8 %	----	----
Negative culture and bad food safety behavior of food handlers	3	5.3 %	----	----
F&B Management doesn't follow up the effective application of food safety systems (e.g. HACCP)	2	3.5 %	----	----
The lack of a reward and punishment policy to effective implementation of food safety systems	1	1.8 %	----	----
Increasing the cost of HACCP implementation	1	1.8 %	----	----
Food handlers don't interest in food safety reading and feeling that education is a burden	1	1.8 %	----	----
Lack of food handlers number	1	1.8 %	----	----
Increasing the staff turn over	----	----	1	7.1 %
Total	**57**	**100 %**	**14**	**100 %**

In four star hotels, 12 (85.7 %) of the respondents declared that food safety training ensures food safety, and 12 (85.7 %) of them reported that these

training courses protect their guests. Food safety training meets legal obligations; improves and maintains business performance are undertaken by nine (64.3 %) and 12 (85.7 %) of the respondents respectively. There are 10 (71.5 %), 11 (78.6 %) of the respondents mention that food safety training helps them to perform business requirements much better, solves specific work problems respectively. Encouraging and improving food handlers' skills for future jobs, reducing turnover of personnel, losing much working time, are highlighted by 13 (92.9 %), 5 (35.7 %), and 3 (21.4 %) of the respondents respectively. None of them agree that food safety training increases business costs.

Conclusion and Recommendations:

It has been remarkable that there is a various wide range of designating managers who are responsible for food safety in five star hotels. This leads to integration among managers to effective implementation of HACCP or ISO 22000. On the other hand, there is a lack managers designated for food safety responsibilities in four star hotels. This leads improper and ineffective implementation of HACCP or ISO 22000. In five star hotels, the managers in charge of food safety do not understand HACCP plan and the prerequisite programs properly. ISO 22000 is applied by only 14 % and ISO 9001 by 8.8% of the respondents. In four star hotels the management culture does not recognize application of ISO 22000.

Five star hotels have awareness with HACCP more than ISO 22000. It has been noticed that four star hotels have the certification of HACCP only, thus they have aware with HACCP system only. Management culture does not consider the certification of ISO 22000. The findings also revealed that 51 (89.5 %) of the respondents in five star hotels and 12 (85.7 %) in four star

hotels revealed that their hotels have a member or a team responsible for food safety. The insufficiency application of external audit is 28.6 % in four star hotels. This leads to improper application of HACCP or ISO 22000. In terms of internal audits, it has been reported that the five and four star hotels adopt them effectively monthly, quarterly and every two months through 89.4% and 85.7% of the respondents in five and four star hotels respectively.

Relating to solutions of food safety problems that depend on HACCP, ISO 22000, and prerequisite programs implementation represent 98.3 % in five star hotels and 71.4 % of the respondents in the four star hotels. This indicates that there is insufficiency in the solutions of food safety problems by 28.6 % in four star hotels. Thus, there is insufficiency of the effective outcomes of the procedures undertaking to solve food safety problems by 21.2 % in four star hotels only.

Five star hotels are better than four star hotels in dealing with certified food suppliers in HACCP or ISO 22000 by 25.2 % and in visiting food suppliers by 45%. These insufficiencies in four star hotels affect negatively on HACCP or ISO 22000 applications. There are also 96.5 % and 92.9 % of the respondents in five and four star hotels don't treat with the suppliers till they commit with food safety standards or change them with others who are committed to food safety standards. These procedures support the application of HACCP or ISO 22000 effectively in five and four star hotels.

It has been noted that the percentage of managers who do not provide food handlers with internal food safety training courses ranges from 14% to 31.6% in five star hotels and from 14.3% to 28.6 % in four star hotels. This reduces the food safety knowledge and skills that food handlers obtain from

these courses in five and four star hotels. The dissatisfaction degree of internal food safety training courses also ranges from 5.3 % to 10.6 % in five star hotels and from 14.2 % to 28.6 % in four star hotels of the respondents. This indicates that the internal food safety training courses in four star hotels need to be reviewed and modified to enhance food handlers' efficiencies.

In terms of training policy, it has been remarkable that four star hotels are lower than five star hotels in having a written training policy for food safety programs by 23.3 %. It has been noticed also that five star hotels are higher than four star hotels in having training records for food safety training programs for all personnel with 5.8%. Five star hotels are also higher than four star hotels by 22 % in repeating food safety training programs. This leads to that five and four star hotels should repeat food safety training programs for food handlers to improve their food safety knowledge and behaviors. The results also show absence of effective strategy for food safety retraining for food handlers by 61.4 % in five star hotels and by 78.6% in four star hotels. Thus, four star hotels were worse than five star hotels in recognizing the importance of food safety retraining for food handlers. There are also 38 (66.7%) respondents in five star hotels and five respondents (35.7%) in four star hotels often or always review the training needs for food handlers. This indicates that five star hotels are better than four star hotels in reviewing the food safety training needs for food handlers by 31 % of the respondents.

Based upon the research findings and the literature review, the following recommendations are highlighted: 1- all personnel in charge of food safety management in hotels should ensure that appropriate food safety management control systems are implemented and maintained at all levels of

the organization and are in place; 2- all mangers should ensure that information, policies and procedures are effectively communicated, complied with the requirements of the International Standards and easily accessible to all staff; 3- management should designate a food safety team leader who manages a food safety team and organizes its work to ensure relevant training and education is taken for the food safety team members; 4- all members in food production areas in hotels should be trained to a level appropriate to their responsibilities.

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