IMPORTANCE OF FOOD SAFETY KNOWLEDGE, ATTITUDES AND PRACTICES IN FLOATING HOTELS

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ABSTRACT
The research aims at illustrate the importance of food safety knowledge, attitudes and practices (KAP) in Floating hotels. Because Food is a basic human need that plays a vital role in the sustenance of life. Its safety, however, has become a major concern to the food industry given that the consumption of contaminated food and water contributes to a myriad of health problems the world over. Although food prepared and served at the restaurants may look clean and taste delicious, it may have been contaminated by biological, chemical or physical hazards during the preparation procedures from the source through to service. The Kitchens are viewed as the major sources of contaminations from poor sourcing and handling practices which include undercooking, poor personal hygiene, and use of unclean equipment, inappropriate storage and incorrect holding temperatures. Despite extensive investment in training of food handling personnel, food-borne eases remain a contentious problem to both developed and developing nations
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KEYWORDS: Food Safety Knowledge, Food Safety Attitudes and Food Safety Practices.

INTRODUCTION

In recent years Hotels are more careful about food hygiene in order to have a good image in the market. They train their staff about food hygiene and set out rules for transforming this training to the application. It has been reported that food-borne illnesses are caused by unsuitable or improper applications at the processing, production or cooking stages of food (Clayton et.al, 2002; WHO, 2014), and poor personnel hygiene of staff who contact with food is one of the leading factors in the development of food borne illnesses.

2) LITERATURE REVIEW

2.1 IMPORTANCE OF FOOD SAFETY

There is no doubt that the food safety is very important because it provides supplied food safety and secures the conditions and actions through the production, processing, storage or distribution of food to ensure its safety or suitability for human consumption Safe Food is free from contaminants and risk and that does not cause injury or damage or disease of the human food in the long term or the short. Consumers' concerns and new food safety issues are the drivers for this heightened awareness although training alone may not be sufficient to improve food handler's safe food practices. Despite food safety training requirements 59% of reported foods borne illnesses have been traced back to commercial foodservice operations. (Gormley et al., (2011)

2.2FOOD SAFETY KNOWLEDGE

Persons supervising or conducting food handling operations must possess the skills and knowledge in food safety and hygiene matters required to handle food safely. A skill is defined as the ability to do something. In this context it means that a food handler or the supervisor of a food handler has the ability to perform those tasks that are necessary to ensure the safety of the food being handled. (M. Al-Ghazali, et al ., "2020,)

(Sumner J, et al 2004) reported that Food workers must have the required skills and knowledge to ensure implementation of good hygiene practices and the safety of food concepts within the healthcare facilities. Both prior food-based work experience and education are important inputs towards ensuring workers implement healthy food-based handling tasks.

2.3 FOOD SAFETY ATTITUDES

The cooking and storage of food at incorrect temperatures and the cross-contamination of food due to unhygienic handling practices are regarded as the main causes of many foodborne disease outbreaks in food preparation and service facilities, Factors such as poor personal hygiene and the procurement of food from unreliable sources have been found to contribute to foodborne disease outbreaks in food preparation and service facilities. (Kaynak, H. (2003**)**

The Food Safety Attitudes by food handlers can translate in low level of food safety consciousness during food handling, Therefore, all food handlers are required to possess adequate FSA and food handling skills to handle food hygienically during preparation and serving of to ensure that food is safe by the time it reaches the consumer .(Limon ,MR. 2021)

(Kaynak, H. (2003) reported that Food handlers are required to avoid the contamination of food by microbes by maintaining high standards of food hygiene and sanitation at all times ,This regulation lays the framework for the implementation of food safety and makes provision for health inspectors

to ascertain that food services premises comply with the law by having the necessary resources, conditions and infrastructure to ensure the safe handling of food and are handling food safely.

2.4 FOOD SAFETY PRACTICES

Safe practices are vital in food safety. Practice according to Cho et al., (2012) is the actual doing of something to do or engage frequently to make the habit of or to perform repeated to proficient. by not practicing appropriate attitudes in food handling it creates unpleasant consequences such as foodborne illness and injury or at worst a fatal case .Food safety practice is an important Public Health issue to prevent or control food-borne illnesses. Evidence shows that 10 to 20% of food-borne diseases outbreaks are because of contamination by food handlers in restaurants, butcher shops, markets, etc.

2.5 HAZARD ANALYSIS AND CRITICAL CONTROL POINTS (HACCP)

Rooney and Wall (2003) reported that Food safety in the early twenty-first century is an international challenge requiring close cooperation between countries in agreeing on standards and in setting up transnational surveillance systems. The lessons of the past two decades are plain to those engaged in the food industry. No longer can farmers grow just what they want or use technical aids to farming without taking into account the effect on the quality of the food produced.

Vela and Fernandez (2003) explained that the Hazard Analysis and Critical Control Points (HACCP) system is a science-based system created to identify specific hazards and actions to control them in order to ensure food safety and quality. It can be considered an efficient tool for both the food industry and health authorities in preventing food borne diseases. A hazard is a biological, chemical or physical agent in, or condition of, food with the potential to cause an adverse health effect. HACCP system should be developed for every food production line and adapted for the individual products and processes. HACCP systems have become mandatory for the food industry in the European Union.

2.5.1 HACCP CONCEPT

Griffith (2006) stated that (HACCP) has been defined by the WHO as "a scientific, rational and systematic approach for the identification, assessment and control of hazards. Originally developed to focus on food safety hazards; the HACCP system has been successfully applied to other applications and other industries. The intent of HACCP is to help prevent known hazards and to reduce the risks that they will occur at any point in a process through the execution of seven principles

HACCP, as defined by Motarjemi (2003), is an internationally recognized and recommended system of food safety management. It focuses on identifying "critical points" in the process where food safety problems (or

hazards) could arise, and putting steps in place to prevent things going wrong.

2.6 FLOATING HOTELS

Floating hotels are intricately designed buildings that can accommodate most of the needs and wants of its passengers, including 24-hour food service, housing, and recreational activities, in coastal and marine cities, (Granit et al., 2017).

Floating Hotels from Luxor to Aswan offer visitors to Egypt an supreme opportunity to live and explore many of Egypt's most treasured ancient relics located along the Nile's shores between Luxor and Aswan, Archetypally, cruise sails from Luxor to Aswan and back, with stops for tourism along the way. (El-latief and Fathey (2020)

According to (Fahmy & Hekal, 2022), Floating hotels are large boats/ships with multiple storeys that transport and accommodate people on their journeys along rivers and seas. There are numerous applications for floating hotels. People use them for tourist cruising along rivers and visiting tourist attractions, particularly those near riverbanks. They are also used to house working people, particularly those in the offshore oil industry and ocean bathymetry surveys who are required to stay away from lansurveys who are required to stay away from land for extended periods of time.

2.6.1 FOOD SAFETY IN FLOATING HOTELS

Food safety is an increasing trend due to an increase in consumer demand, developments in food science and technology. the food and beverage industry is the largest manufacturing However, Floating hotels faced challenges due to lack of knowledge, skills, resources, and low product quality and a majority of them did not have an effective food safety system in place (Yapp & Fairman, 2006).

According to (Poelman MP,et al 2021), Food safety is one of the most important steps in the floating hotels profit which influences the food quality and increases profitability for the floating hotels . The food preparation must meet or exceed guests' expectations, because guest satisfaction is the overall goal of food service management. Food safety can be successful when it focuses on guest needs and expectations.

2.7 FLOATING HOTEL PERFORMANCE MEASUREMENT

Performance Measurement (PM) has been used in the hospitality industry for a long time as an important component of the decision-making process. It offers hotel management the possibility to make decisions that could ensure the best possible results, taking into account the special characteristics of the hotel business. Although there are several reasons for using the performance measures (to indicate the level of eff ort, to monitor activities in units, continuous improvement, motivating employees etc.),

overall, it is considered to be an integral part of the management processes, which means it identifies the areas of poor performance or opportunities so that better plans can be developed. Traditional performance measurement has been strongly .(Hesford and Potter (2010)

3) METHODOLOGY

QUESTIONNAIRE DESIGN

The Research aims to know importance of Food Safety Knowledge, Attitudes and Practices (KAP) in Floating Hotels for the purposes of ensuring that food is produced under appropriately hygienic conditions in a sample of Luxor and Aswan floating Hotels to examine the food safety knowledge , attitudes , and practices that influenced on these Research.

Floating hotels have been chosen as they accommodate middle class guests that represent an important segment of incoming tourists. To obtain results that achieve the desired purpose of this research, it was conducted on five and four star floating hotels in Luxor and Aswan. According to the guide of Egyptian Hotel Association (EHA) (2012 –2016).

The floating hotels in Luxor and Aswan which chosen are 21 floating hotels in Luxor and Aswan . The prime reason for choosing these floating hotels is that the selected hotels belong to international and local chains; these hotels follow modern management and also follow practices and policies of food safety management more than any other type of hotels.

3.1 RELIABILITY

Table (3): Reliability Analysis of Study Variables.

The Axes	No. of statements	Alpha Coefficient
Food safety knowledge	14	.83
Food safety attitudes	7	.65
Food safety practices	13	.649
Benefits of Food safety	17	.635
Hotel Performance	13	.672
The Overall Cronbach's Alpha	64	.786

According to Sürücü and Maslakçi (2020) reliability is the used measuring instrument stability and its consistency. Gliem and Gliem (2003) pointed that Cronbach‘s α reliability coefficient usually ranges between 0 and 1; they also referred to variables more than 0.6 were acceptable. Reliability of current study variables were tested by Cronbach's alpha coefficient; all axes were acceptable. The Overall Cronbach’s Alpha exceeded 0.6 for the

variables; this means that all variables were acceptable and reliable (see table,).

FOOD SAFETY KNOWLEDGE

Table (4): Factor Analysis of Food safety knowledge

Food safety knowledge	Loading
Wash hands for 1 min using water and soap before touching food	.601
A similar chopping board should be used for uncooked and prepared foods if it appears to wash	.752
A cooked meal should stay hot before serving (more than 60°C)	.667
An excess meal should be kept at zone temperature and eat for the following mealtime	.702
Food cooking utensils should be cleaned using tap water only	.704
An uncooked meal should be kept individually from the prepared meal	.688
Fresh meat should be stowed anyplace in the fridge once it is cool	.6003
Treated water should be used for cooking	.61
Cockroach and house flies should be allowed into the kitchen	.681
Wiping cloths can spread microorganisms and cause diseases	.622
Leftover food smelling good is still safe to eat Food borne illness can be acquired from consumption of contaminated food	.602
Microorganisms can be found on the surface of human skin, nose and mouth of healthy handlers	.682
Personal hygiene can prevent food contamination	.611
Inadequate cooking of raw food like meat, chicken and vegetable can cause outbreak of food borne illness	.622
Sums of Squared Loadings	0.718

The factor analysis shown in Table (4) stated that all the all statements (14 statements) were responsible for Food safety knowledge with a percentage of (71.8)%

Table (5): Statistics for the food safety knowledge

Food safety knowledge	Mean	SD	Sig.	Rank
Wash hands for 1 min using water and soap before touching food	3.56	1.147	.000	2
A similar chopping board should be used for uncooked and prepared foods if it appears to wash	3.45	1.258	.000	3

A cooked meal should stay hot before serving (more than 60°C)	3.33	1.269	.000	5
An excess meal should be kept at zone temperature and eat for the following mealtime	3.24	1.335	.000	6
Food cooking utensils should be cleaned using tap water only	2.36	1.257	.000	10
An uncooked meal should be kept individually from the prepared meal	3.33	1.325	.000	5
Fresh meat should be stowed anyplace in the fridge once it is cool	2.33	1.273	.000	12
Treated water should be used for cooking	2.67	1.397	.000	8
Cockroach and house flies should be allowed into the kitchen	2.14	1.208	.000	13
Wiping cloths can spread microorganisms and cause diseases	2.34	1.264	.000	11
Leftoverfood smelling good is still safe to eat Food borne illness can be acquired from consumption of contaminated food	2.47	1.392	.000	9
Microorganisms can be found on the surface of human skin, nose and mouth of healthy handlers	3.71	1.180	.000	1
Personal hygiene can prevent food contamination	3.17	1.376	.000	7
Inadequate cooking of raw food like meat, chicken and vegetable can cause outbreak of food borne illness	3.40	1.339	.000	4
Overall	2.9381	.32265	.000	-

Table(5) viewed that concerning food safety knowledge, the first variable was “Microorganisms can be found on the surface of human skin, nose and mouth of healthy handlers", where the mean value was (3.71) and the standard deviation was(1.18). On the other hand, the least variable was “Cockroach and house flies should be allowed into the kitchen ", where the mean value was(2.14) and the standard deviation was(1.20). The overall

mean of the variables was(2.93), the standard deviation of means values was(.32). The p-value of the one-sample T-test is (0.000) which indicates that there are significant differences between food safety knowledge and the test value (4). In other words, respondents' awareness of all statements is less than the test value.

FOOD SAFETY ATTITUDES

Table (6): Factor Analysis of food safety attitudes

Food safety attitudes	Loading
Washing hands after going to toilet prevents cross contamination	.649
Knowledge about food safety is important to you	.686
Consumption of expired food can cause foodborne illness	.639
Defrosted food should not be frozen again	.638
It is not safe to store raw and cooked food together	.634
Cooking cutlery should be properly sanitized to prevent cross contamination	.694
Food and personal hygiene training is important to you.	.695
Sums of Squared Loadings	.845

The factor analysis shown in Table (6) stated that all the all statements (7 statements) were responsible for Food safety knowledge with a percentage of(84.5%).

Table (7): Statistics for food safety attitudes

Food safety attitudes	Mean*	SD	Sig.	Rank
Washing hands after going to toilet prevents cross contamination	3.31	1.265	.000	3
Knowledge about food safety is important to you	3.67	1.176	.000	1
Consumption of expired food can cause foodborne illness	3.43	1.248	.000	2
Defrosted food should not be frozen again	3.19	1.375	.000	5
It is not safe to store raw and cooked food together	3.31	1.375	.000	3
Cooking cutlery should be properly sanitized to prevent cross contamination	3.17	1.332	.000	6
Food and personal hygiene training is important to you.	3.24	1.383	.000	4
Overall	3.3388	.48810	.000	-

Table(7) viewed that concerning food safety attitudes, the first variable was "Knowledge about food safety is important to you ", where the mean value was (3.67) and the standard deviation was(1.17). On the other hand, the least variable was "Cooking cutlery should be properly sanitized to prevent cross contamination ", where the mean value was(3.17) and the standard deviation was(1.33). The overall mean of the variables was(3.33), the standard deviation of means values was(.48).

The p-value of the one-sample T-test is (0.000) which indicates that there are significant differences between food safety attitudes and the test value (4). In other words, respondents' awareness of all statements is less than the test value.

Table (8): Factor Analysis of the food safety practices

Food safety practices	Loading
Smoking in designed area only	.930
keep cooked food covered in the kitchen	.955
serve ready to eat food at a temperature above 60 Dc	.982
choose fresh and safe food before food preparation	.673
Food cooking utensils should be cleaned using tap water only	.638
An uncooked meal should be kept individually from the prepared meal	.673
Fresh meat should be stowed anyplace in the fridge once it is cool	.930
Treated water should be used for cooking	.955
Cockroach and house flies should be allowed into the kitchen	.982
Wiping cloths can spread microorganisms and cause diseases	.664
Leftover food smelling good is still safe to eat Food borne illness can be acquired from consumption of contaminated food	.658
Microorganisms can be found on the surface of human skin, nose and mouth of healthy handlers	.665
Personal hygiene can prevent food contamination	.618
Sums of Squared Loadings	.789

The factor analysis shown in Table (8) stated that all the all statements (13 statements) were responsible for Food safety knowledge with a percentage of(84.5%).Table (8): Statistics for the Food safety practices

Table(8) viewed that concerning Food safety practices, the first variable was "choose fresh and safe food before food preparation", where the mean value was (3.65) and the standard deviation was(1.21). On the other hand, the least variable was "Wiping cloths can spread microorganisms and cause

diseases ", where the mean value was(3.23) and the standard deviation was(1.42). The overall mean of the variables was(3.49), the standard deviation of means values was(.43).

The p-value of the one-sample T-test is (0.000) which indicates that there are significant differences between Food safety practices and the test value (4). In other words, respondents' awareness of all statements is less than the test value.

BENEFITS OF FOOD SAFETY

Table (9): Factor Analysis of the Benefits of Food safety

Benefits of Food safety	Loading
Cleaning The kitchen counters well after all preparation activities	0.602
Using separate knives for meat, vegetables and fruits	0.992
Clean and sanitize preparing boards and utensils before using	0.988
During tasting of food do you make sure to use clean and dry spoon each	0.984
Separate between raw food and cooked food contact surfaces time.	0.955
Reduced product wastage	0.684
Increased product shelf life	0.644
Prevent food poisoning	0.976
Increased product sales	0.624
Reduced production costs	0.667
Reduction in complaints	0.677
Increased ability to retain existing customers	0.729
Increased ability to access new overseas markets	0.659
Improved image with customers	0.987
Increased customer confidence	0.984
Increased product quality	0.984
Improved relations with communities	0.958
Increased market share	0.61
Maintained/increased profit margin	0.992
Increased productivity	0.988
Sums of Squared Loadings	0.994

The factor analysis shown in Table (9) stated that all the all statements (20 statements) were responsible for Benefits of Food safety with a percentage of (99.4%).

FINDINGS

According to previous analysis, it has been conveyed that food safety KAP of staff are poor due to the following:

- Most of visited hotels do not have food safety policy or even a written food safety operation standard since executive chefs ignore the significance of such system. Consequently, food safety practices executed haphazardly with no system.
- Chefs of visited hotels have poor food safety attitudes and practices. This is exemplified in the following critical food safety mistakes:

_ No regular checking of incoming food items
_ No use of thermometer to check and control food temperature
_ No use of separate equipment for handling uncooked food items
_ No regular cleaning and sanitization of surfaces
_ Rubbing and scratching heads and nose while preparing food
_ Incorrect thawing process that causes spoilage of raw food
_ No covering of cooked food that make it exposed to insects and dust

Food safety preventive measures appear to be related to the perceptions of food handlers. The most effective means of adjusting attitudes with respect to food safety and, ultimately, the frequency of practice is participation in continuing education activities. As a legal mandate within the food processing industry, effective hygiene training (or supervision) should be of priority concern in a food safety management strategy. Training improves food safety if acquired knowledge leads to desired changes in workplace behavior. An effective business can increase production quality, comply with consumer expectations, maintain and foster consumer trust in food production quality, as well as increase the competitiveness of food manufactories. Additionally, method development and training strategy in assessing the performance of food quality systems provide insight into how technological and managerial aspects are related, as well as into factors that influence product quality to achieve the desired level of quality management.

RECOMMENDATIONS

The management should educate and persuade food handlers of the potential benefits of food safety practices adoption and to spread food safety management knowledge and technology to the food industry. educate,giving counseling, encouragement, and incentives.

Hotels managers should consider giving one or two employees primary responsibility for HACCP implementation since this reduces challenges to improving food safety practices. all individuals involved in food production will need to have training in food safety and HACCP.

Money and time were resource challenges identified by hotel managers. managers need to examine how resources are allocated in their district and may need to reallocate funds for food safety practices and HACCP because this is a critical health and safety issue. These challenges also may have policy implications.

All food-services staff should be aware that high standards of personal hygiene, such as effective hand washing and use of gloves, are of paramount importance in terms of preventing food contamination and further in preventing the spread of infectious diseases with the regular use of gloves

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