

INVESTIGATING HOTELS FOOD HANDLERS' AWARENESS OF FOOD SAFETY REGULATIONS IN BAUCHI METROPOLIS OF NIGERIA

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Abstract

A hotel has the major role of providing among other things, nutritious and wholesome food for its guests. Foods eaten by guests in the hotel are expected to be safe and without any form of contamination. In order to dissuade food handlers from sharp practices of food hygiene infractions, there exist several food hygiene and food safety regulations which food handlers are expected to abide with. Previous investigations show however that in some hotels, food is handled and prepared unhygienically and in unhygienic environment. This provokes question of whether employers of and food handlers in these hotels are aware of these existing food safety laws or not since it is assumed that people are more likely to obey a law that they are cognizant of. Thus the main objective of this study was to find out if food handlers and their employers possess basic prerequisite professional qualifications and if they are aware of the food safety guidelines that guide food operations in Bauchi. Two semi-structured questionnaires were administered to 150 respondents of which 24 were found to be unsuitable for analysis. Data from remaining 126 (84%) respondents made up of hotels' units heads, cooks and waiters were analyzed and described using frequency distribution tables, percentages and diagrams. Results reveal that most employers and employees do not possess required professional qualifications; that they are scarcely aware of the food safety laws guiding the food business activities and that employers do not fulfill their statutory obligation of training their employees in safe food preparation. The study recommended among other things that basic training in food safety and hygiene should compulsorily form part of the essential preconditions for licensing a food business and food business entrepreneur.

Key words: *Food Safety, Food Hygiene, Food Safety Act (1990), Food Safety Regulations*

Background to the Study

The food industry, of which the hotel is an integral part, falls into the sector of the economy that is highly sensitive and crucial to the healthy living of the populace. Food is one of the basic human needs. Food, as Eastham, Sharples and Ball (2001) puts it, is central to life, and as fuel, underpins all that we do. In as much as food is eaten primarily to sustain life, McLauchlin and Little (2007) opines food should be nourishing, attractive and free from noxious substances such as poisonous chemicals, toxins and pathogenic micro organisms. To achieve the above described food status that is fit for sustaining life, the food provider, needs in addition to preparing and presenting the food in an attractive way, take absolute care to reduce the occurrence of food contamination during the different stages of food processing. Food, if not meticulously guarded against contaminations can do much harm to the eater than the good it is intended to do. This is because contaminated food can, and does result in food poisoning, and depending on the severity of the poisoning, can result in either illness or death.

Good standards of hygiene are essential in all food premises no matter what type of food is sold. A food business' activities no matter its size will always entail procuring, processing and service of food and the same hygiene regulations and requirements applies to all (Alcock, 1986). Food hygiene requirements are

being put in place to safeguard the health of those who consume the foods especially at public eating places. Food hygiene requirements provide guidelines for minimum best practices concerning the production, preparation and service of safe foods in the four major areas of food handling which according to McLauchlin and Little (2007) include the equipment used in the food process of procurement, transportation, storage, processing, holding and service of food and drinks; the food premises where food and drinks items are stored, processed and served; the personnel involved in every stage of the food process; as well as the quality of the raw food material used in the food and drinks production.

Since health and safety is a global issue of concern, and in order to safeguard customers' health against the risk of food poisoning arising from unhygienic conditions of preparation, especially at public eating places like restaurants and cafeterias, certain health and safety laws are put in place by governments to regulate hotel and restaurant business operations (WHO, 2007). As significant and needful as these food safety rules, regulations and requirements are, it is apparent that these on their own are incapable of ensuring safe food preparations. An indispensable factor in food preparation and processing is the human factor. No matter how highly automated a food processing kitchen is, humans are still very indispensable in the food preparation and processing series of action. It is in the recognition of the vital role that food play in the attainment of safe food that adequate knowledge in food hygiene and food safety guidelines is advocated for all food handlers before being engaged especially in places where food meant for public consumption are being prepared and processed. As asserted by Blanch (2003:33), 'all food handlers are responsible to some extent, for controlling or eliminating food hazards to ensure that the food they prepare and serve is fit for human consumption'. This is just as Worsfold and Griffith (2003) observes that compliance with food hygiene regulations could be achieved by only engaging staff qualified in food hygiene.

Statement of Research Problem

The WHO fact sheet number 237 (2007) reveals that food-borne diseases are a widespread and growing public health problem, both in developed and developing countries with over 1.8 million deaths recorded globally in 2005 alone which had resulted from food contamination. In Bauchi state of Nigeria, data from the Microbiology Department of the State Specialist Hospital indicated a near epidemic re-occurrence of E. coli infection which is traceable to the consumption of contaminated food (Aliboh, 2009). Field reports presented by students of the Hospitality and Tourism Management Department of the Federal Polytechnic Bauchi, who were returning from Industrial Training in many hotel establishments in the Bauchi metropolis, indicate observed unhygienic practices of food handlers especially in the food and beverage production and service areas of, the hotels where they were attached, (Adediran, 2003; Dimfwina, 2004; Idowu, 2005). This condition can undoubtedly result in food contamination and if ingested in appreciable quantity may lead to food borne-diseases. This situation arouses the curiosity of the researchers into investigating if food handlers in these food operations have appropriate training on food safety best practices or not.

Objectives of the Study

The objectives of this study were;

1. To find out if hotel operators and their food handler employees possess appropriate professional qualifications for the job of food handling;
2. To establish if hotel operators and their food handler employees are aware of the hygiene and sanitation regulations which guide their operations in Bauchi metropolis and

3. To ascertain if food handler employers conduct food hygiene training for their food handler employees.

Literature Review

Food Safety

The food industry is made up of several sectors which form the food continuum (McLauchlin and Little, 2007). At each stage of the food continuum, Food must not be allowed to cause harm to the eater. As much as food should be nourishing and attractive, it must be protected from contamination. Food is said to be contaminated when it contains any unacceptable matter which can be in the form of micro organisms, poisons, or physical contaminants such as pieces of glass or metal which according to Eastham, Sharples and Ball (2001), if eaten can result in food poisoning characterized by stomach pains and diarrhea, and sometimes vomiting which generally develops within 1-36 hours after eating affected foods.

Food poisoning could either be bacterial, Chemical or metallic. Food contaminated by pathogenic bacteria (germs) is by far the most common cause of food poisoning. Knowles, (2002). Careless or inappropriate food handling may add bacteria to food for example from unwashed hands. Food hygiene is what ensures that food is safe to eat. Safe food is food that is free of dangerous or diseased substances. Food safety is the protection of consumer health and well-being by safeguarding food from anything that could cause harm. **It** is a scientific discipline describing handling, preparation, and storage of food in ways that prevent illness practicing food safety involves preventing foods from becoming contaminated (Alcock, 1986). While it may be impossible to ensure that everything we eat is 100% safe, it is important to maintain safe food handling practices and remain informed about **food safety** issues in order to avoid foodborne illnesses. Food can transmit disease from person to person as well as serve as a growth medium for bacteria that can cause food poisoning. Knowles, (2002) observes however, that every food handler has a 'duty of care' to protect consumers.

Food Hygiene Education

McLauchlin and Little (2007:313) defines food hygiene education as the 'process of acquiring knowledge and training for the prevention and control of food-borne disease'. The Food Safety Act (FSA, 1990) specifies that trainings and instructions received by food handlers and their supervisors be commensurate with and related to the type of work activities they carry out. Training as explained by Knowles (2002:252) 'implies that the recipient will have a greater level of understanding at the end of the process'. Managers have a legal obligation to ensure that all food handlers in their employment are trained to appropriate levels, using methods suited to the staff being trained as well as keeping records of the level, coverage and date of training for each member of staff. Of importance to note, is Knowles (2002)'s recommendation that training should transcend even to senior supervisors and managers who may not actually handle food but have direct influence on the hygienic operations of the food business. WHO (2007) identifies the training of food handlers in safe food handling as one of the most indispensable interventions in the prevention of Food-borne diseases. To buttress this is the recommendation emanating from the research carried out by Leach, Mercer, Stew and Denyer (2001). The research advocated for the inclusion of food safety in the National Curriculum as well as the re-evaluation of the priority the catering industry attaches to food hygiene. Equally indispensable is the supervision of food handlers while performing their job. This is critical in ensuring that food hygiene is not compromised in any way and for any reason.

Employees in the food production section particularly are expected to be under constant supervision to ensure hygiene quality control. For example, during the course of work, supervisors are to ensure that food handlers are hygienic in themselves and work hygienically, wear clean clothes and uniforms, handle food as little as possible, wash hands before and during work and after using the toilet, keep hair clean and do not handle, keep fingernails clean and short, do not touch nose and mouth with hands, do not cough or sneeze over food, do not wear rings, earrings, jewelries or watches, do not smoke in food areas, taste food only with clean spoons, do not sit on work surfaces, and that they cover all open cuts and burns with blue or any detectable waterproof dressing (Tricket,2001; Blanch, 2003;Fosket and Ceserani, 2007).

Furthermore, supervisors must make efforts to ensure that cooked foods remain covered to prevent foreign objects falling in them and that clean dishes and utensils are used for serving as recommended by Duyff (2006). However, In the event that the numbers of staff in a food establishment are very few and employing a supervisor is unrealistic, Knowles (2002) advises that the staff must be adequately trained that they would not require a supervisor while carrying out their food processing duties. Food handlers are also expected to be given written and verbal instructions in the essentials of food hygiene before they start work (Blanch, 2003; Fosket and Ceserani, 2007; McLauchlin and Little 2007). Education and training is believed to get the trainee informed so as to be able to perform given tasks effectively and with understanding. As avowed by Blanch, staff are more likely to follow procedures if they have an understanding of the reasons behind them. With adequate education and training, a food handler should be able to maintain a high hygiene standard which is a critical element in the prevention of contamination by food handlers.

Hospitality based education and training can be obtained either on-the-job (in-house) or at training institutions (Tricket, 2001). As recommended by McLauchlin and Little (2007) training and instruction in the principles of food and personal hygiene and how to prevent food-borne diseases should be on-going, coupled with adequate supervision (to ensure compliance with hygiene requirements). In Nigeria, education and professional training in hospitality, hotel and catering management are available at different levels (Basic Certificate, Advanced Certificate, National Diploma [ND], Higher National Diploma [HND] and Post Graduate Diploma [PGD]), and in different types of accredited education and training institutions such as Institutes, Colleges and Polytechnics. The Basic Certificate and Advanced Certificate courses qualify a student as an operational staff. Operational staff are the employees who perform the everyday practical operations. These are the staff that cook and serve food to the customers in the food and beverage sections of the hotel. A completed Diploma course qualifies the student for supervisory posts in the industry. Supervisory staff are more experienced than, and oversee the work and performance of operational staff. The graduate professional with a Higher National Diploma and/or Post Graduate Diploma has been prepared for managerial positions in relevant fields of study as specified in the National Board for Technical Education (NBTE) syllabi.

Food Safety Regulations

Some of the main international food hygiene regulations of importance to the caterer are the Food Safety (general food hygiene) Regulation of 1990, 1995 and 2002; and the Food Safety (Temperature Control) Regulations, 1995. There are also the Hazard Analysis and Critical Control Point (HACCP), the FAO/WHO Codex Alimentarius Commission's standards, the Health and Safety Act of 1974, the Public Health Act of 1936, and the Food and Drugs Act among others (Boella and Pannett, 1999). In Nigeria, the National Environmental Health Practice Regulations (NEHPR) of 2007 (Revised) which the Bauchi State

has adopted contains all the requirements for food safety and hygiene which include among other things, the requirement for appropriate training of the food handler. As put forward by Fosket and Ceserani (2007), almost all food poisoning can be prevented by complying with rules of hygiene, unfortunately, Aibor and Olorunda (2006) asserts that in Nigeria most food handlers are not aware of common hygiene rules. The attendant repercussion of this is that these food handlers, through their perceived ignorance of hygienic food production activities are unwittingly contributing significantly to the etiology of food-borne diseases which in most cases result in epidemic outbreaks.

Methodology

The study adopted the diagnostic survey design as a process of data collection in order to achieve the research objective. The study area was Bauchi Metropolis which is an urban city, situated in the north-east geographical zone of Nigeria. As at the time of this research, there were thirty-seven registered hotels in Bauchi classified as either 'International', 'National', 'Urban', 'Sub-urban', 'Rural', or is 'Unclassified'. Unclassified implies that these do not meet the minimum requirements for any form of classification (NTDC Bauchi, 2008).

Urban and Sub-urban classified hotels totaling ten were used for this reach. The target population comprised two strata. The first strata was of the hotels' units' heads of the Urban and Sub-urban classified hotels and the second strata is made up of staff of the production and service departments of the hotels. The hotels' units' heads stratum comprised the General Manager, Operations/Food and Beverage Manager, Chef, Restaurant Manager and Storekeeper of each hotel and these summed up to be five unit heads per hotel. The reason for the choice of these respondents was that they were the administrative heads of the units which this research was concerned with, and who were responsible for ensuring sanitation standards in their different units.

The second stratum comprised of five staff each from the production (cooks) and service (waiters) departments as a representative sample of all the staff in these departments in each hotel. Their selection was random from among those who were physically present at work on the day the researchers went to administer the questionnaires and these also summed up to be ten production and service staff from each hotel. These were included because they are directly involved in the preparation, cooking and service of food. The number of respondents for the research thus totals one hundred and fifty.

For ethical purposes concerning confidentiality, all ten hotels used for this study were arranged alphabetically irrespective of their classifications and then coded as Hotel A, B, C, D, E, F, G, H, I, and J. One hotel each of the Urban and Sub-urban classified hotels were used to pre-test the questionnaires for validity and reliability. These hotels were the ones the researchers were able to without prejudice, access first. These happened to be hotel E (in the urban classified hotels category) and hotel H (in the sub-urban hotels category). Two semi-structured questionnaires were used to collect data from all the respondents. The first questionnaire, containing seven questions was for the hotels' unit heads while the second containing ten questions was for hotels' food and beverage staff. The questionnaires were drawn based on the food safety requirements of the Food Safety Act (1990) and the National Environmental Health Practice Regulations (Revised) of 2007. Of the one hundred and fifty questionnaires distributed, only one hundred and twenty six (126) representing 84% were found to be suitable for analysis. Twenty six (16%) of the questionnaires were either not returned or were improperly filled out.

Quantitative data collected were analyzed and described using frequency distribution tables, percentages and diagrams. Qualitative data were analyzed using the method prescribed by Mugenda and Mugenda, (2003) which include organizing the data, categorizing data into themes and patterns, analyzing and interpreting of information, and writing the report in an analytical and interpretative manner.

Results and Discussions

The following were the results of investigations carried out

Respondents' Highest Qualifications

This was investigated using open-ended questions contained in the two strata's questionnaires. The aim was to ascertain if the food handlers and their employers have any formal hospitality professional education or training which should serve as a basis for acquiring instructions in food hygiene and sanitation. Formal hospitality education and training have been identified as the most authentic medium of getting informed about food hygiene and safety regulations requirements and principles.

It is assumed that every formal institution offering hospitality training will have this in its curriculum. Being an open-ended question, there were varied responses. For the purpose of analysis, these responses have been grouped into those that are actual hospitality courses and those that are of related fields such as Food Technology, Tourism, and those that are neither hospitality nor of related fields as presented in Table 1.1.

Table 1.1: Respondents' Academic Qualifications

professional Qualifications	Hotels' units' heads		Production and Service Staff	
	Number	%	Number	%
Higher National Diploma (HND) Public Health management	-	-	-	-
Post Graduate Diploma (PGD) Tourism Management	-	-	-	-
Post Graduate Diploma (PGD) Hospitality Management	4	9.52	-	-
HND Hospitality Management	2	4.76	4	4.8
HND, Food Science and Technology	2	4.76	-	-
Diploma, Hospitality	2	4.76	14	16.6
Diploma, Leisure and Tourism Management	2	4.76	2	2.4
Certificate, Catering mgt	4	9.52	8	9.5
Qualifications in other fields (notably Diplomas)	16	38.11	18	21.45
Senior Secondary School Certificate	10	23.81	36	42.85
Primary School Certificate	-	-	2	2.4
Total	42	100	84	100

Data presented in Table 1.1 shows that a worrisome collective 61.92% and 66.7% of units' heads and production/service staff respectively are non professionals working in the urban and sub-urban hotels in Bauchi state. Only 8 (38.11%) of the total units' heads respondents had any formal training in hospitality, Food Science and Technology or Tourism Management. Others (61.89%) have training in either other unrelated fields or have just secondary (and two primary) school formal education. Similarly, of the 84 production/service staff respondents, only 28 (33.3%) had formal training in hospitality and related fields.

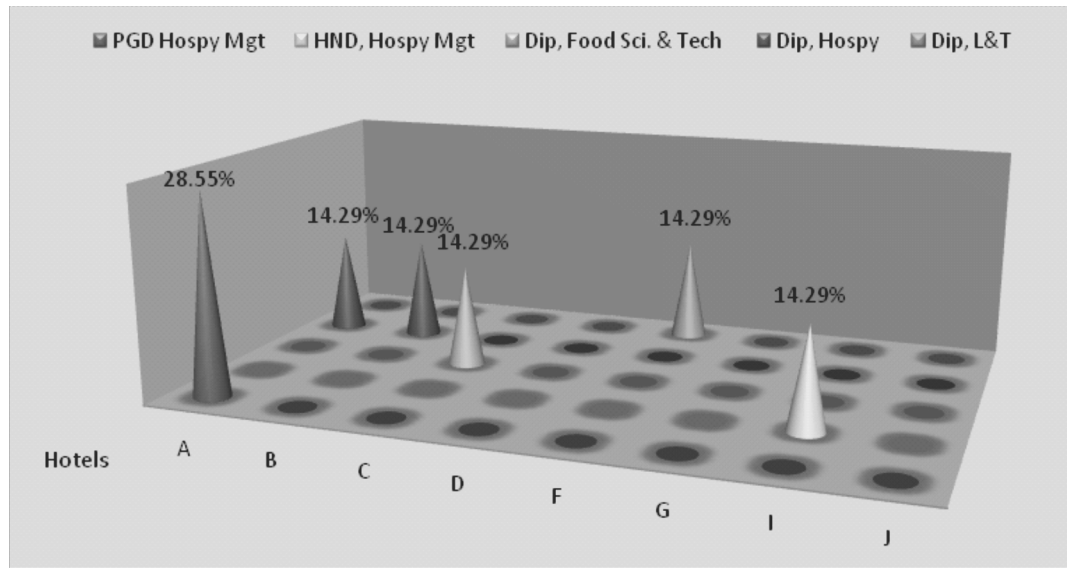


Figure 1.1: Percentage Distribution of Hotels' Units' Heads Professional Qualifications

The implication of this result is that those without formal professional education or training in hospitality may not be informed enough on hygiene requirements or hygiene best practices. These may thus be ignorant of the critical issues that surround food contamination or poisoning such as how bacteria multiply, conditions for bacterial growth, prevention of food poisoning, personal health and hygiene, and pest control among other critical food hygiene training areas. This poses as a hindrance to these staff in the performance of safe food production practices. Interestingly, the researchers discovered that those units' heads with the highest qualification in hospitality management are concentrated in the same hotel (Hotel A) as presented in Figure 1.1.

The hotels' units' heads stratum is made up of the hotel manager, operations manager, chef, restaurant manager and store keeper of each of the eight hotels. In Nigeria, as at the time of this research, the Post Graduate Diploma (PGD) is the highest professional qualification obtainable in hospitality management. Other qualifications in descending order are the Higher National Diploma (HND), National Diploma (ND) Advanced Certificate and Basic Certificate. As specified in the National Board for Technical Education (NBTE) syllabus, Diploma graduates are trained to be supervisors and HND graduates to be managers.

Figure 1.1 shows that as at the time of data collection, only Hotel A had six (28.55%) personnel occupying supervisory and/or managerial positions and who are in possession of relevant supervisory/managerial qualifications, with four units' heads possessing Post Graduate Diploma in Hospitality, and one (14.29%) with a Diploma in Hospitality Management. The only unit head in Hotel I has a HND qualification in hospitality. Hotels C, F and B all have units' heads having Diploma qualifications in food Science and Technology, Tourism Management, and Hospitality Management respectively. Qualifications in Food Science and Technology and Tourism Management is considered by this study as 'related fields' of study to hospitality in that Food Science encompasses food hygiene, and students taking Tourism Management courses are mandated to take food production courses in hospitality management where various aspects on

food hygiene and safety are also taught. As gathered from the data collected, Hotels D, G and J's units' heads are headed by non hospitality professionals. Rather, these had qualifications in unrelated fields such as Diplomas in Business Administration, Computer, Accounting, Agric and Extension, Insurance or possess just the Senior Secondary School Certificate (see Table 1.1).

Supervisors and managers of food businesses have legal obligations both to be trained and to train food handlers in their food premises to appropriate levels (Knowles, 2002; Blanch, 2003; Fosket and Ceserani, 2007). The units' heads are expected to set the ambiance for hygiene good practices in their various units or departments, ensuring that hygiene rules are followed strictly and that sanitation requirements are made available for their department staff. However, data presented on Table 1.1 show that these legal obligations are not being fulfilled by hotel operators in Bauchi and as such operational supervisors and managers in their hotels can be described as unqualified for the managerial/supervisory positions they occupy. This tallies with the survey by Mortlock et al (2000) and Worsfold and Griffith (2003) which shows that less than one-fifth of the managers in the survey were trained to supervisory levels and that in most food businesses, refresher courses were neither planned nor implemented.

Likewise, the professional qualifications of the hotels' production and service staff have been represented graphically on Figure 1.2.

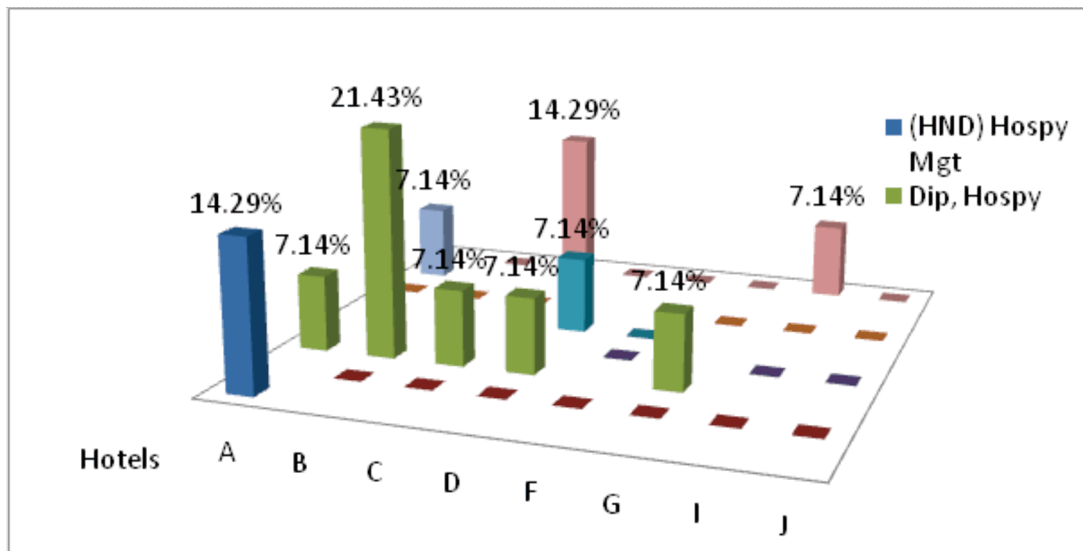


Figure 1.2: Percentage Distribution of Hotels' Production/Service Staff Professional Qualifications

Figure 1.2 shows that of the 28 staff respondents that had professional qualifications in hospitality (Table 1.1), Hotel A had the highest number of qualified food handlers, having four staff with HND, two with Diploma and two with Certificate in Hospitality Management qualifications. This was followed by hotels B and C with six qualified food handlers each and hotels D, G and I having only two qualified food handlers each. Hotels F's and J's food handlers did not possess any forms of professional qualifications. This negates Worsfold and Griffith (2003) observation that compliance with food hygiene regulations could be achieved by only engaging staff qualified in food hygiene among other observations.

It can be noted that in contrast to the impressive percentage of both qualified units' heads and production/service staff of Hotel A, neither the units' heads nor the production/service staff of hotel J has any professional qualifications. (Figures 1.1 and 1.2). This situation is considered to be of grave health consequences since it contradicts Knowles, (2002)'s recommendations that supervisors and managers who have direct influence on the hygienic operations of food businesses should have received qualifying training as a matter of good practice.

Food Handler Employers' and Employees' Awareness of the Food Hygiene Regulations Which Guide their Operations in Bauchi Metropolis

The purpose of this research objective was to ascertain if those managing the hotels and the food handlers they employ are cognizant of the food hygiene and sanitation regulations guiding their operations in Bauchi state as stipulated in the Food Safety Act of 1990 and the National Environmental Health Practice Regulations (NEHPR) (2007, Revised) of Nigeria. This stems from the fact that a person will only be conscious of the existence, importance and implications of what he or she is aware of. The hotel operators as well as the food handlers they employ are more likely to adhere to the contents of these Act and Regulations if they know that these exist, and they understand the contents. The hotel operators and food handlers can be informed about these Act and Regulations formally at hospitality training institutions. Food handlers in particular can in addition get further awareness through the regular training on food hygiene given to them by their employers as pointed by Blanch, (2003); Fosket and Ceserani, (2007) and McLauchlin and Little (2007).

It has been observed by Knowles (2002); Leach, Mercer, Stew and Denyer (2001) that the FSA (1990) was formulated primarily for the European Union (EU) member states, to address prevalent food hygiene problems of that region of the world. As would be expected, the content and requirements are tailored to suit both the technology and climate of that region. Even though this study adjudges the content and requirements of the FSA (1990) to be universally adaptable, certain differing climatic and socio-economic conditions make it imperative for individual regions and countries to develop their own local food safety legislations which will take care of the uniqueness that food safety needs which the FSA(1990) may not be to provide or sufficiently addressed. This is in line with Knowles's (2002); Leach, Mercer, Stew and Denyer (2001) view on same and the NEHPR (2007) of Nigeria is one such document that supposedly was to address the peculiar food safety requirements of Nigeria.

In order to establish whether the hotel operators and the food handlers were aware of food hygiene and sanitation requirements guiding their operations, the respondents were enquired of their awareness of either the FSA (1990) or the NEHPR (2007) of Nigeria.

Respondents from both the Hotels' Units' Heads and the Production/Service staff strata were asked if they were aware of either the FSA (1990) or NEHPR (2007). A total of 126 respondents comprising of 42 units' heads and 84 food handlers responded to this question. The 'Yes' or 'No' responses of the respondents are presented in Figure 1.3.

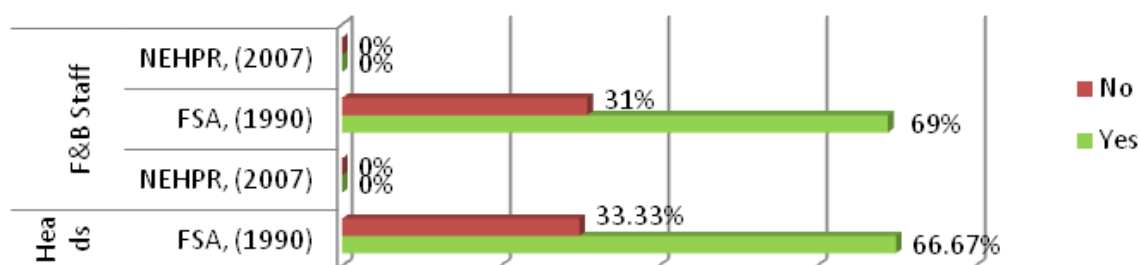


Figure 1.3: Heads and Staff Awareness of the FSA, (1990) or NEHPR (2007) of Nigeria.

From the illustrated results in Figure 1.3, 28 out of 42 units' heads and 58 out of the production/service staff respondents, representing 66.67% and 69% respectively are aware of the FSA but none of the respondents in the two strata has any knowledge about the NEHPR, (2007). However, an awareness of the FSA, (1990) is considered by this study to be sufficient in guiding hotel operators and food handlers in Bauchi on safe food production since the NEHPR is actually an adaptation of, and contains virtually all the requirements for safe food production as contained in the FSA.

Still trying to establish if hotel operators and food handlers are aware of the hygiene and sanitation responsibilities that they have, food and beverage production/service staff were asked if their employers conduct trainings for them as required by the FSA (1990) and the regularity of such trainings, if any. The results are presented in Table 1.2.

Training Conducted			Regularity of Training		
	Number	%		Number	%
Yes	32	38.1	Every 3 months	12	37.5
No	52	61.9	Every 6 months	4	12.5
Total	84	100	Every 9 months	8	25
			Every 12 months	8	25
			Total	32	100

Table 1.2: Employers conducting trainings for food handlers and the regularity of such training

From Table 1.2, only 32 (38.1%) of the 84 food handlers responded in the affirmative that their employers do conduct hygiene training for them. Of this number, 12 (37.5%) get this training every three months. Four (12.5%) get the training every six months and 8 (25%) each get to be trained every 9 and 12 months respectively. This means that 52 (61%) of food handlers never get any hygiene training from their superiors. This is in disharmony with the FAS chapter X which states that the proprietors of a food business must ensure that the food handlers engaged in the food business are supervised and instructed or trained in food hygiene matters commensurate with their work activities. The reason for this disharmony was explained by Worsfold and Griffith (2003) to stem from the fact that food hygiene issues were viewed in terms of aesthetics rather than food safety and that managers will take it serious only when something serious has gone wrong.

Table 1.3: Employers making food safety and hygiene requirements available to food handlers and the regularity of making such requirements available

Health/safety requirements made available			Regularity making health/safety requirements available		
	Freq.	%		Freq.	%
Yes	22	26.2	Every 3 months	14	63.64
No	62	73.8	Every 6 months	6	27.27
			Every 9 months	2	9.09
			Every 12 months	-	-
Total	84	100	Total	22	100

Data presented above shows that only a meager 22 (or 26.2%) of the food handlers ever have their units' heads or employers make available to them, hygiene and safety requirements. Out of this number, fourteen indicate that the requirements are made available to them every 3 months, six indicated every 6 months and two indicated a regularity of every nine months. This is conclusive evidence that the FSA (1990) obligation for employers to make health and safety requirements available to food handlers is being flaunted. This means that food handlers are grossly ignorant of their hygiene and sanitation commissions meaning also that they are not be keen about observing what they do not know about, creating a laissez faire attitude towards hygiene and sanitation practices. Regularly making these hygiene and safety requirements available to staff is a way of establishing the organizational hygiene best practices, a culture which if uncompromised, upholds an organization's reputation as pointed out by Eastham et al. (2001).

Conclusion

From the findings of this study, it can be concluded that a significant number of hotel operators and food handlers are aware of the FSA (1990) but not of the existence of the NEHPR (2007) of Nigeria. This agrees with Aibor and Olorunda, (2006)'s assertion that in Nigeria most food handlers are not aware of common hygiene rules. It is concluded that a higher percentage of units' heads including hotel managers and food handlers lack appropriate supervisory/managerial or operational professional qualifications as demanded in the FSA (1990).

The study also concluded that there is a perceived flaw in the hospitality education and training course content of the NBTE syllabus especially with regards to food safety as no mention is made of, and no emphasis is placed on the NEHPR (2007) in the syllabus. The NEHPR (2007) expectedly will be more relevant to meet the hygiene and sanitation expectations of the Nigerian situation.

Recommendations

Four areas of policy have been suggested from the study findings as follows;

1. Drawing from the study findings that the current hospitality course syllabi in Nigeria does not contain any mention of the National Environmental Health Practices Regulations (2007) which supposedly should guide hotel operations in Nigeria, it is hereby recommended that the current hospitality syllabi be reviewed and this Regulation document be given prominence. This will ensure that as many as have acquired professional qualifications in hospitality are able to receive relevant and adequate training in food hygiene and safety.
2. A critical review of the professional qualification and legal requirements for granting approval for the establishment and running of a food business in Nigeria is hereby recommended. A prospective hotel entrepreneur should be required to have acquired a basic training and qualification in food hygiene and safety before being granted the license to operate a food business. This, which should be strictly adhered to should also form a criterion for the grading and classification of hotels and restaurants.
3. Furthermore, introduction of Degree Programmes such as Bachelors of Science (BSc) in Hospitality Management is recommended to complement the present professional qualifications obtainable in hospitality management in Nigeria. It is believed that this will breed intellectuals in the hospitality industry who will be instrumental in formulating ideal food safety policies for the country. It is also believed that such higher academic ventures will heighten researches especially in the areas of food safety which will in turn enhance the formulation of the suggested (indigenous) food safety policy suggested above.

Since by the time of the study there were hotel operators who were ignorant of the hygiene and sanitation regulations that guide their food operations, It is recommended that regular symposia on the existence, requirements and implications of the food hygiene and sanitation regulations that guide hotel operations in Bauchi be organized for the benefit of the hotel operators.

4. In the same vein, it is recommended that copies of the food hygiene and sanitation requirements that guide hotel operations in Bauchi be printed and made abundantly available to all hotel operators and the content adequately interpreted if possible in Hausa language which is the predominant language spoken in Bauchi state.

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