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ABSTRACT

Dining is a common phenomenon in major cities and towns, especially in modern lifestyle where people have limited time due to work and other related engagements. Indigenous restaurants have become a preference for most consumers although their patronage varies, attributed to various push factors such as health, curiosity and variety. Although hygiene is an important aspect in choosing where to dine, most customers are not keen to observe it. This study explored food handlers' hygiene practices as determinants of customers' choice of selected African indigenous restaurants' in Nairobi City County, Kenya. The study adopted a cross-sectional descriptive survey targeting 15 selected African indigenous restaurants. Cochran formula was used to determine a sample size of three hundred and eighty-four (384) customers from a population of 2,560 through convenient sampling. Data collection instruments were two questionnaires, an interview guide and an observation checklist. Qualitative data was ordered, coded and summarized in compilation sheets for easier analysis in addition to inferential

statistics. Quantitative data was analyzed using statistical packages for social sciences with levels of significance established using paired tests with a cut-off point of $P \leq 0.05$, (95%) confidence and significance levels. Chi square Pearson's correlation coefficient tests were calculated to identify the correlation between food handlers' hygiene practices and customers' choice of restaurants. The findings presented a $\chi^2 = 4.244$, $df^* = 2$ and $p = 0.133$ which is > 0.05 . With a significance level > 0.05 (0.133), the alternative hypothesis (H1) was rejected. The findings showed that there was no significant relationship between the two variables. Most customers were not keen on hygiene standards as evidenced in some restaurants where regardless of the poor hygiene practices present, there were still high flows of customers. The study concluded that even though hygiene practices have an effect on the customers' choice of the restaurants, the effect is not significant. The study recommended the public health authorities in the urban centers to educate all restaurant stakeholders on food hygiene regulations and inform consumers about hazards associated with improper handling of food. The study further recommended that restaurants operators to adhere to the food hygiene regulations and similar studies to be done in other localities, in rural restaurants, and to incorporate more restaurants.

Keywords: *Food Handlers', Hygiene Practices, Customer Choice & African Indigenous Restaurants.*

Introduction

Food is a critical and basic necessity for the physical wellbeing and a source of pleasure. However, its preparation, production and consumption play a pivotal role in life sustenance. Customers look up to the food servers to provide safe food and satisfy their physiological and psychological needs.

Background of the Study

Food hygiene is an essential public health problem that affects all countries. Food handlers play an important role in food safety and in the transmission of food poisoning, because they may introduce pathogens into foods during production, processing, distribution and even presentation (Ansari-Lari, Soodbakhsh & Lakzadeh, 2010). An understanding of food hygiene procedures and potential factors that cause food borne illness was found to be very important for all food handlers.

Effective hand washing is therefore of great importance in terms of successful hygienic food preparation, as it prevents the spread of infectious diseases (Magda, Siham, Shuaib & Abdalla, 2012). Improper food handlers' practices contributed to approximately 97% of food borne illness in food service establishments (Scott & Bloom, 2010). A food handler may cross-contaminate raw food and processed foodstuffs as well as inadequately cook and store foods. Food handlers are a source of organisms either during the course of gastrointestinal illness or during and after convalescence, when they no longer have symptoms (Jiang & Doyle, 2009; Kusumaningrum, Van Putten, Rombouts & Beumer, 2012; Scott & Bloom, 2010).

Foodborne diseases outbreak have resulted from improper food handling practices such as use of leftover chicken, improper food storage and unhygienic practices (FAO, 2013; Hejar., NorAfiah, Hayati, Salmiah, Yusma & Titi, 2011; Ryu, Ko, Park, Yang & Kim, 2011).

Safe food handling practices is a means of preventing accidents or illnesses. According to Enz (2014), proper food sanitation and handling are the critical elements in preventing contamination

and food-borne illnesses. While food hygiene is a critical issue in food service industry, many indigenous cuisines restaurants fail to uphold its principles (Kabue, 2015).

Indigenous Food Restaurants

According to Leake (2015), majority of third world countries including Kenya, urban population eat food in street vendors Kiosks and indigenous food outlets regularly due to its availability, affordability and usual freshness. These outlets pose significant health problems due to inadequate basic services and infrastructure like their temporary nature, potable water supplies and poor basic food safety knowledge measures (World Health Organization, 2009). Indigenous restaurants are an integral part of today's life, as a source of income for a vast population, self-employment, and an opportunity for business skills development with less capital investment although most of them are temporary in nature, varying from mobile carts to fixed stalls. (Osagbemi, *et al.*, 2010).

Food Consumption Choices

According to Howell (2015), food consumption choices always have an effect on the decisions that consumers make, which include food that is excellent in taste due to its freshness, identifiable ingredients, spices and flavors. These factors have contributed to the awareness and knowledge of indigenous cuisines, which is rapidly becoming popular especially where the consumers are gastronomically adventurous. Consumers are willing to indulge in much more when it comes to trying out new cultures and diverse cuisines when selecting their food (Bente, 2010). They prefer enhanced eating experiences, such as intense flavors and extreme textures. Despite the presence of internationalized food and eating establishments, opportunities exist for local fanfare to excel in a region of culinary coalescence, such as Southeast Asia as enjoyment for local dishes is currently on the rise.

Unique identity of indigenous food is fascinating due to its traditional food preparation techniques, practiced and inherited from generation to another (Kusumaningrum, Van Putten, Rombouts, & Beumer, 2012). Human behavior change in various ways due to the complex nature when it comes to selecting food and personal factors such as motives and emotions are precursors toward food consumption choices. Eight factors, namely health, mood, convenience, sensory appeal, natural content, price, weight control, and familiarity, are common indicators in many countries when eliciting consumers' eating habits (Jones & Angulo, 2016).

Customers are increasing their knowledge of consuming foods that are nutritious, wholesome, safe, and friendly to the environment (Markovina, Stewart-Knox, Rankin, Gibney, De Almeida, Fischer, Kuznesof, Poínhos, Panzone, & Frewer, 2015). According to Leake (2015), one barrier to food safety in Africa is poor waste disposal and inadequate toilet facilities for the use by customers. According to Wang and Chen (2012), food quality was the most important consideration influencing restaurant selection by consumers. Akbar and Alaudeen (2012) stated that the consumers evaluate factors such as; surroundings, customer turnover, location, price, quality of food, quality of service, and type of food in choosing a restaurant. According to Kafel and Sikora, (2013), seven factors that caused consumers to choose a restaurant included food quality, cleanliness, service, value, menu variety, convenience, and atmosphere. Huang (2007) stated that the consumers evaluate factors such as price, variety of food, parking lot, reservation, and special request in choosing a restaurant.

Kim and Moon, (2009) and Huang (2007) found out that the factors that influence customer choice of a restaurant included prices of meal, past experience with similar types of restaurants, reputation of restaurant among people that respondent know, convenience, memorable advertisement seen, appearance of other customers, whether employee appropriately dressed, manner of employees, and premise. Ungku Fatimah, Boo, Sambasivan and Salleh (2011) also found that customers selected restaurants based on service, quality of food and ambience.

Statement of the Problem

Indigenous restaurant customers are generally composed of individuals from different cultural, ethnic and economic backgrounds and most of whom have definite and conflicting restaurant preferences (Akinyele, 2010). As such, they have different characteristics; hence, they tend to use different criteria in selecting restaurants (Chung & Kim, 2011). A deeper understanding of consumers' selection criteria will provide restaurateurs with valuable information and insights, which enable them to attract and retain more consumers (Jang & Namkung, 2007). Menu price was found as one of the major factors determining consumer decision-making and subsequent behaviors (Chung & Kim, 2011). Kafel and Sikora (2013) assert that restaurant consumers use price as a measure for the quality of the restaurant, assuming that an expensive restaurant serves better food and offers better quality. The relative importance of the restaurant choice factors differs considerably by restaurant price (Massawe, 2013; Josiam & Monteiro, 2014). While hygiene is a key factor in deciding where a customer can dine, (Ungku Fatimah *et. al.*, 2011), most of them do not think of this aspect. The few who do so normally use visible cues such as restroom cleanliness and aesthetic to reflect the environment hygiene. Push factors for customers to visit indigenous restaurants were found to be curiosity, health and to sample the variety of dishes offered (Campos, Cardonha, Pinheiro, Ferreira, Azevedo & Stamford, 2009). There was a gap in Knowledge on whether food handlers' practices play any significant role in customer process and the study aimed at bridging it. (Chapman, MacLaurin, & Powell, 2011; Lee, Niode, Simonne, & Bruhn, 2012). Consumer's knowledge and attitude was noted to influence food hygiene behavior and practice. The fascination with what goes on in restaurant kitchens has made customers grow obsessed with chefs' creativity, the use of fresh and exotic ingredients and how they are combined (Tuttle, 2012).

Research Hypotheses

H1: There is no significant relationship between the food handlers' hygiene practices and customers' choice of African indigenous restaurants in Nairobi City County, Kenya.

H2: There is a significant relationship between the food handlers' hygiene practices and customers' choice of African indigenous restaurants in Nairobi City County, Kenya.

The Conceptual Framework

The conceptual framework shows the relationship between independent variables; Food handlers' hygiene practices and the dependent variable is customer choice of an African indigenous restaurant. Intervening variables were the customer beliefs and confidence in the safety of the food offered in indigenous restaurant and their readiness to patronize them

Independent Variables

Intervening Variable

Dependent Variable

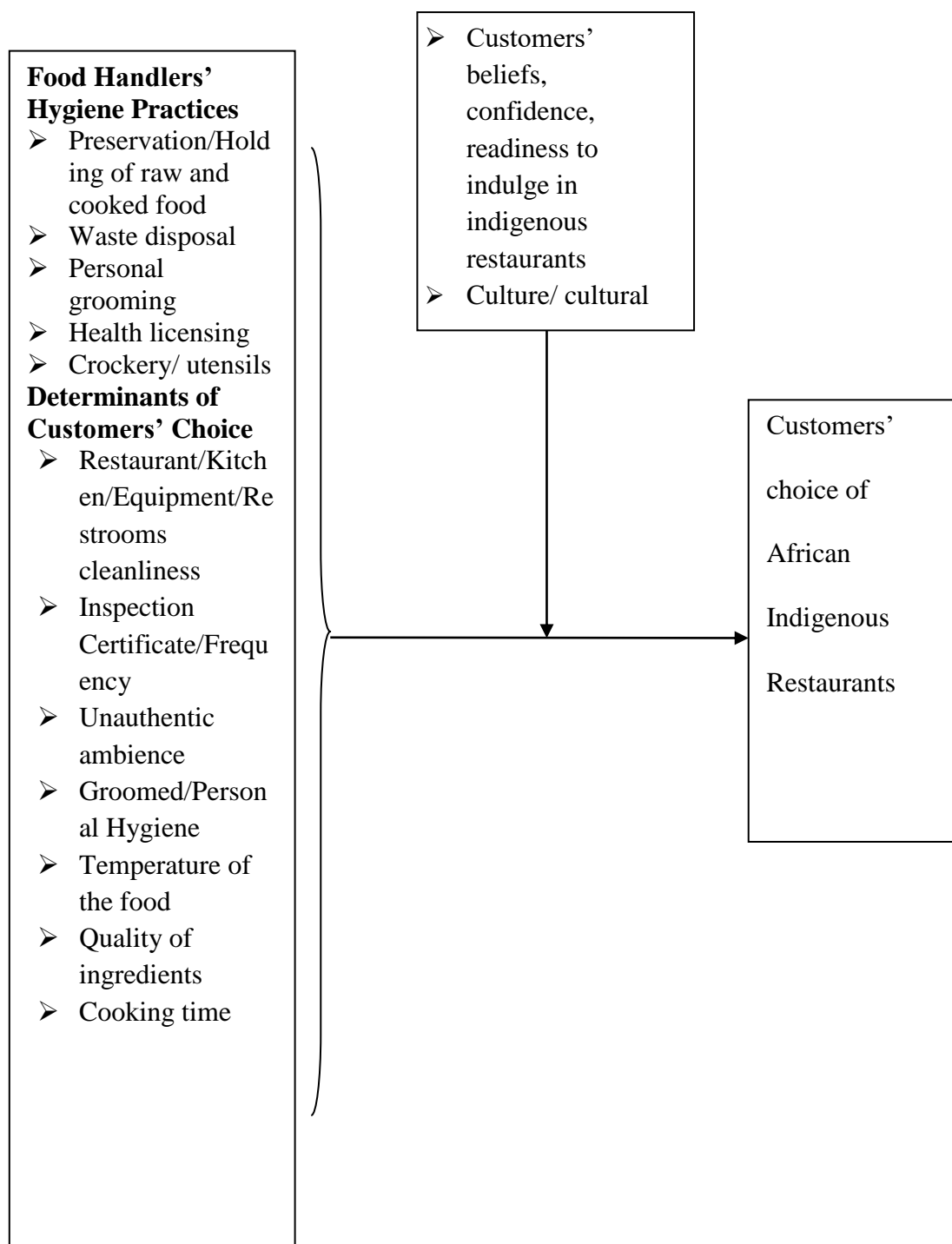


Figure 1.1: Conceptual framework Source: Adapted from Ajzen I. (1991): Theory of Planned Behavior.

LITERATURE REVIEW

Introduction

This chapter reviewed literature on food handlers' hygiene practices as well as determinants of customers' choice of and African indigenous restaurants. The research evaluated the constructs of the theory of planned behavior as applied in this study.

Food Handlers' Hygiene Practices and Customers' choice

According to Isara and Isah, (2009) food handlers are persons involved in either point of preparation, processing or production of food. Thus, food handlers' personal hygiene practices and cleanliness is essential in minimizing the risk of food contamination and hence food poisoning. Food handlers are required to minimize contact with raw and ready to eat food and, observe that health related issues such as illnesses are handled with utmost care (Queensland Government, 2011). Food handlers are potential sources of microorganism that causes illnesses through transmission of bacteria and viruses onto food or food preparation surfaces. This results to food contamination and poisoning, that is eliminated through proper hygiene practices of handling raw and ready to eat food material for safe food provision (FDA, 2009).

Customers' choice of restaurants is based on many varied factors. Several published studies, have investigated key criteria consumers use in choosing a restaurant resulting to a number of varied choice factors. The factors that have been found to influence restaurant decisions are Food Quality, Unique Tastes and Ingredients, Menu Variety Appearance and Presentation as well as healthy food options (Namkung & Jang, 2009). The physical environment of the restaurant such as restaurant's atmosphere, ambience, décor, furniture and other facilities can have a great impact on consumer selection behavior (Kivela et al., 2009). Customers generally feel superior in restaurants with elegant ambience, décor and furniture and they claim that the ambience and style suit their esteem need (Akbar & Alaudeen, 2012).

Theory of Planned Behavior Constructs (TPB)

The theory has three main constructs; Attitude, defined as the degree to which a person appraises or evaluates the behavior in question to favorable or unfavorable in a dimension of pleasant or not pleasant, good or bad, harmful or beneficial, like or dislike (Ajzen, 2001, Bas, Ersun, & Kivanc, 2016). Behavior stem from attitude but not part of it as attitude may suggest and be the primary determinant of intentions. Subjective Norms (SN), the second construct, explained as different social references that exert influence or social pressure to perform a behavior. The theory suggested that one form a belief based on what other people expect them to do based on the observation of their actions. People usually possess favorable attitude towards certain object, but, if the other people pressures them not to do it, they will then have negative attitude towards the behavior (Fishbein & Ajzen, 2010).

Summary of the Literature Review and Research Gap

The term "Indigenous food", has been defined differently in various studies. The Food Marketing Institute (1998) defines indigenous food as a product that a particular ethnic (racial, national) or cultural group favors. Utami (2004) defines indigenous food as a regional specific

cuisine that tends to reflect the particular characteristics of its local origin. Indigenous food is normally considered ethnic, by people, who are in a different area from their origin, often described as the cuisine of the minority immigrants in multicultural societies (Utami, 2004). Today, customers are more concerned about their health, driving a growth in demand for healthy food (Sulek & Hensley, 2004). Namkung and Jang (2009) findings showed significant relationship between healthy food choices and individual behavioural intentions. A large number of local restaurants are adjusting their menus to accommodate and attract consumers who are concerned about health and nutritional value of a meal (Mill, 2007).

Studies have found evidence of consumers' beliefs that particular ethnic foods are healthy. Bailey and Tian (2012) reported that consumers of Indian restaurant in the United States of America viewed Indian food as much healthier than American food. Similarly, health was the most important value of eating Indian food for English consumers in the United Kingdom (White & Kokotsaki, 2004). Food safety and hygiene practice are important factors that promote healthy food service, customers' retention and loyalty in various food and beverage service establishments. The literature review has revealed that customers patronizing food outlets use visible cues such as restaurant cleanliness to judge the hygiene of food and food preparation areas. It is evident that cleanliness of the kitchen and quality of service areas are the main factors investigated by various researchers.

From the study, the customers' perception about food hygiene is limited to fast food and full-service restaurants, with concentration on the service process and factors such as efficiency, timeliness and value for price paid, with little consideration of hygiene as factors that customers consider in eating out. The reviewed literature indicated that no studies has been carried-out locally on the food handlers' hygiene practices as determinants of customers' choice of restaurant, specifically among the African indigenous restaurants in Kenya. According to Roberts *et al.* (2011) indigenous restaurants phenomenon is on upward growth and customer base is enlarging. It was therefore imperative to conduct this study in order to seal the existing gaps in knowledge.

METHODOLOGY

The research study employed a cross-sectional descriptive survey to investigate food handlers' hygiene practices as determinants to customer choice of an indigenous restaurant. The design has quantitative and qualitative approach methods, which helped to unravel the behavior, opinions, knowledge, practices and beliefs of the food handlers towards food hygiene and safety in the indigenous restaurants and their impact on customer choice of an establishment within Nairobi County. This design explored for explanations of the nature of certain relationships (Kubde, Pattankar & Kokiwar, 2016) provided an understanding of the facts that exist between variables by taking care of all measurements and was relatively easy and quick to obtain data that is subjective to statistical analysis (Brotherton, 2008).

The research study was carried out within Nairobi City County because the ethnic composition of the area is large with a majority of the African indigenous restaurants' concentration within the city including classified and unclassified hotels with multi cuisine restaurants (MEACT, 2013). The selected area is an administrative, political and metropolitan capital, with about one million people visiting and working within its urban areas such as the Central Business District (CBD), Westlands and Upper hill in each day (Ogotu, 2012). It is the largest city in Kenya, the capital of

the country with vibrant multi-cultural and multi-national population and corporations, representing both local and international community (GoK, 2009).

The target population comprised of 2560 African Indigenous restaurants customers within the area of the study. According to the World Travel Guide (2014) there are 318 fully serviced restaurants serving food on the premises, with 150 of the establishments specializing in local and African cuisines (Eat Out, 2014; City Council Records Office, 2015, Lists of Restaurants and Data, 2015). The population was heterogenous thus stratified random sampling was done in selecting the 15 African indigenous restaurants and convenient sampling for customers. The 10% of the African indigenous restaurants approximately 15 were used for the research since the study population as less than the ten thousand (Mugenda & Mugenda, 2008).

Table 1: Summary of Sampling Technique

Technique	Area applied	Justification
Stratified sampling	Selected African indigenous restaurants from the Divisions (Strata) in the study area.	Equal Representation of Indigenous restaurants,
Convenient Sampling	Customers within the establishments.	Walk in Customers in hurry

Sample Size

A total of 384 individuals participated in the study as shown in table below on summary distribution of the respondents according to three categories of the targeted institutions.

Table 2: Distribution of the Respondents

Participants	Population	Percentage	Sample Size
Customers	2560	15%	384
Total	2560		384

The sample size of customers was determined using Cochran (1963:75) formula as follows

$$n = \frac{z^2 pq}{(e)^2}$$

Where n = Sample size, z^2 = Desired confidence level (95%) , e = Desired level of precision,
 p = Estimated proportion of customers, $q = 1-p$.

$$\text{For this study, } n = \frac{1.96^2 (0.05)}{(0.05)^2}$$

$$n = (3.8416)100$$

$$n = 384 \text{ customers}$$

Data Collection Instruments

The study used both primary and secondary data collection methods to collect the data. Primary data source utilized a structured questionnaire for customers. Secondary sources of data involved retrieving information from research journals, books and other relevant literature.

Pretesting

All the three instruments for data collection were pretested in three non- participating restaurants within the area of the study to eliminate errors and check on their suitability as research tools. Pretesting helped to establish instruments practicality in achieving the study objectives by eliminating ambiguous questions and establishing an expected response rate e.

Instrument Validity and Reliability.

Content validity of the research instrument was determined by pretesting the instruments and checking the responses against the objectives, conceptual framework and as guided by the supervisor. Pretest was carried-out within the area of the study in non-participating establishments. The research assistants were trained on data collection procedures including clarifying the purpose of the study to the respondents, making suggestions, observation skills and other vital inputs. The instruments were administered to the same respondents (non-participating restaurants) after fifteen days as a test for reliability. Data from pre-testing exercise was coded and analyzed to identify and correct all emerging errors. A reliability coefficient of 0.82 was obtained and this showed the questionnaires were reliable since coefficient of 0.80 or higher is recommended ((Brusse, 2004; Mugenda & Mugenda 2008).

Data Analysis Technique

Both quantitative and qualitative data analysis techniques were used in the study since the data collected was both numerical and narrative.

Table 3: Analysis of Hypotheses

Objective	Analysis Method	Justification
H0: There is no significant relationship between the food handlers' hygiene practices and customers' choice of African indigenous restaurants in Nairobi City County, Kenya. H1: There is a significant relationship between the food handlers' hygiene practices and customers' choice of African indigenous restaurants in Nairobi City County, Kenya.	Inferential analysis (Pearson, Chi-Square test)	Determine any relationship between variables of interest.

RESULTS AND DISCUSSIONS

Introduction

This section gives detailed findings of the data collected using questionnaires, interview guide as well as an observation checklist. As mentioned before, the study sought to establish the food handlers' hygiene practices as determinants of customers' choice of African indigenous restaurants in Nairobi County, Kenya. This section therefore presents the study findings outlined according to objectives the study. The study targeted a total of 384 participants who were the indigenous restaurants customers.

Response Rate

The response rate obtained measured how well the targeted sample size was arrived at. A high response rate obtained minimized the chances of obtaining biased statistics and therefore the study findings valid and reliable as shown in Table 4 below.

Table 4: Response Rate

Category	Expected Response	Actual Response	Percentage Response rate
Customers (Questionnaire)	384	238	62%

Customers (62%) response rates as given above.was significantly adequate for analysis and conclusions as it was above 50% (Babbie, 2002) and further agreed to Brewer and Rojas (2012) that any response of 50% and above is adequate for analysis. It was also in agreement with (Freeset al. 2008) 52.5%; (Olufemi and Agboh-Bakkole, 2012)58.4%. where the above were considered as acceptable representation of a targeted population. A non-response rate of 38% of Customers' questionnaires was due to incompletely filled and hence, left out during data cleaning, attributed to limited time for customers who were in a hurry especially during lunch-time. An acceptable response rate in this study, therefore, implied that the study used instrument and procedures that were clear, precise and within the acceptable number.

Demographic Information of the Customer

The study sought the general demographic information about the customer participants. The findings were presented in the Table 5.

Table 5: Demographic Information of the Customer

	Bracket	Frequency	Percentage
Age	18 – 25	17	7%
	26 – 35	52	22%
	36 – 45	74	31%
	46 – 55	81	34%
	Over55 year	14	6%
Total		238	100%
	Type	Frequency	Percentage
Gender	Male	90	38%
	Female	148	62%
Total		238	100%
Nationality	Kenya	186	78%
	African	29	12%
	Europe	6	3%
	USA	5	2%
	Asia	10	4%
	Others	2	1%
Total		238	100%
Visits to the Restaurants	First Visit	24	10%
	2 – 5	33	14%
	6 – 10	55	23%
	> 10	126	53%
Total		238	100%

Gender and Age of Customer Participants

According to the findings, 18 – 25 age brackets constituted 7%, 26 – 35 age brackets constituted 22%, 36 – 45 age brackets constituted 31%, 46 – 55 age brackets constituted 34% and lastly age bracket rated as over 55 years received a mere 6%. These findings revealed that most of the young people and the elderly do not prefer dinning in the African indigenous restaurants. About 38% of the customers were male and 62% were female. In terms of age Yoo (2012) findings showed 9% of our respondents were below 20 years of age, 14.0% were between 21 and 25, 59.3% been the highest age range, 20.3% of respondents were between 26 and 30 years, and 6.25% were 30 and above.

Nationality of Customer Participants

From the findings, majority (78%) of the customers dining in the restaurants were Kenyan. 12% were from other parts of Africa, 4% were Asians, 3% came from Europe, 2% were from USA while 1 % were from other parts of the world. The findings revealed that most foreigners do not prefer dinning in African indigenous restaurants. This implies that the vast majority of indigenous restaurants customers are local and familiar with the environment. This is an indication that the response given was factual and from real experiences. Getting the highest response from the

Kenyan, gave reasonable ground to dealing with actual customers who have been visiting the restaurants for a long period time. The findings are in line with Yoo (2012) study where male customers visiting local restaurant were (39.1%) and female were (60.9%). This implies that the indigenous restaurants had a special niche in female gender customers as compared to male and as such must be providing high quality service to maintain such a segment of customers.

Number of visits by Customer Participants to the Same Restaurant

Finally, the number of visits the respondents had visited the restaurants were determined. The findings revealed that majority (53%) of the participants had visited the restaurants for more than 10 times. 23% had visited the restaurants for 6-10 times, 14% had visited the restaurants for 2-5 times while a small percentage (10%) had visited the restaurants for the first time. The findings revealed that majority of the participants were regular customers in these restaurants. This implies that the vast majority of indigenous restaurants customers are frequent customers and familiar with the environment hence the response given was factual and had high degree of truth. The findings are in line with Yong, Siang, Lok and Kua (2013) results that majority of the customer respondents (54.2%) had visited the establishment more than 10 times, 25.8% for 8 times and 20% of respondents had less than 5 times visits.

Determinants of Customers' Choice of African Indigenous Restaurants.

The study sought to find out the elements influencing African indigenous restaurants customers' choice. Customers respondent were asked to rate the elements on a scale of 1 to 5 ranging as 1 = strongly disagree, 2 = disagree, 3= neutral, 4 = agree and 5= strongly agree. A Likert scale with five point was used to capture and interpret the responses from respondents.

According to the scale, those elements that were not considered totally were awarded number 1 while those that were extremely influencing choice were awarded number 5, number 4 for the fairly influencing choice, 3 for the neutral and 2 for somewhat influencing choice. The summary of the element tested was as shown in table below.

The elements with a mean between 0.5 and 1.5 were not influencing customer choice of restaurant, while those elements with a mean greater than 1.6 but less than 2.5 were somewhat influencing customer choice of restaurant. From the respondents' summary in table 6 above, there was no score between 0.5 and 1.5 therefore all the elements mentioned above influenced customer choice of a restaurant to a fair extent. The elements with a mean greater than 2.6 but less than 3.5 were neutral and they include Handling of equipment during Service (M=3.28), Behavior of employees/personal hygiene (M=2.87) and lastly Belief that inspections should be more frequent (M=3.22). The elements with a mean greater than 3.6 but less than 4.5 were fairly influencing choice of restaurant as shown in table 6 below.

Table 6: Determinants of Customers' Choice of African Indigenous Restaurants.

Element	N	Mear	St
Restaurant and Open Kitchen cleanliness	238	4.02	0.8
Equipment and Dishes Cleanliness	238	4.01	0.7
Public Health Inspection Certificate	238	3.99	0.7
Presence of Flies/Rodents	238	3.98	0.7
Unauthentic ambience	238	3.89	0.8
Well groomed staff	238	3.77	0.7
Restrooms cleanliness	238	3.77	0.6
Temperature of the food served	238	3.77	0.6
Quality of ingredients in the food	238	3.72	0.7
Cooking time in open kitchen	238	3.72	0.6
Handling of equipment during Service	238	3.28	0.7
Belief that inspections should be more frequent	238	3.22	0.7
Behavior of employees/personal hygiene	238	2.87	0.8

The elements that were found to be fairly influencing customers' choice of restaurants were, presence of flies/rodents (M=3.98), public health inspection certificate (3.99), equipment and dishes Cleanliness (M=4.01), unauthentic ambience (M=3.89), Well groomed staff (M=3.77), Restaurant and Open Kitchen cleanliness (M=4.02), restrooms cleanliness (M=3.77), quality of food ingredients (M=3.72), individualized attention (M=3.72), convenient operating hours (M=3.72), and lastly temperature of the food served (M=3.77).

The elements with a mean greater than 4.6 would be termed as extremely influencing customer choice of the restaurants. There was no mean score greater than 4.6 hence, it was extrapolated that none of the factors listed above were perceived to be extremely influencing customer choice of restaurants. The standard deviation was also used to analyze the responses, where the higher the standard deviation, the higher the level of dispersion among the respondents. The standard deviation for all the elements listed was less than 1 meaning there was general consensus by the respondents. A standard deviation of more than one would mean there was no consensus among the respondents.

According to the above findings, the elements that mostly influenced choice of the restaurants were restaurant and open kitchen cleanliness, equipment and dishes cleanliness, public health inspection certificate, presence of flies and or rodents, unauthentic ambience, well groomed staff, restrooms cleanliness, temperature of the food served, quality of ingredients and cooking time in open kitchen. The findings further revealed the elements that least influenced customers' choice of restaurants as handling of equipment during service, belief that inspections should be more frequent and behavior and personal hygiene of employees.

These results are similar to research performed by Lee et al., (2012) where storage temperature, cooking and quality of food materials, Kitchen and restaurant cleanliness had the biggest influence on food safety and customer choice. Statements with the lowest ranking were two non-kitchen related statements -serving of food by waiters and belief that inspections should be more frequent.

The study further sought clarification on the hygiene aspects the customer most considered while selecting an indigenous restaurant to dine in. Typical comments written on questionnaire were as follows;

“When I go restaurants and places am familiar with...I usually go to the back of the house and check the floor (of kitchen). I also check the Bathrooms” (Customer 1- African indigenous restaurants)

“Bathrooms, chairs, tables, and if I can access to see the kitchen, I’ll always look into the place, walls and floor.” (Customer 2- African indigenous restaurants)

Some customers stated that they use restaurant inspection certificate to determine whether it is safe to eat at the restaurant. Typical comment were;

“If it is not available, I leave. I always check any cues and clues on whether the restaurant has been inspected or not.” (Customer 3- African indigenous restaurants)

Several customers stated as follows;

“Hot food... particularly when it is a buffet arrangement...you will know if they are or are not careful....” (Customer 4- African indigenous restaurants)

The results are similar to Lee, et al. (2012) study finding on customer perception of ethnic Asians and Mexican restaurants where respondents stated major determinants of restaurant choice as kitchen, restrooms and restaurant cleanliness, staff grooming and quality of food ingredients.

Hypothesis: Food Handlers’ Hygiene Practices and Customers’ Choice of African Indigenous Restaurants

The study determined the relationship between food handlers’ hygiene practices and customers’ choice of African indigenous restaurants. The study tested the following hypotheses stated in null and alternative forms;

- i). **H0:** There is no significant relationship between the food handlers’ hygiene practices and customers’ choice of African indigenous restaurants in Nairobi County, Kenya.
- ii). **H1:** There is a significant relationship between the food handlers’ hygiene practices and customers’ choice of African indigenous restaurants in Nairobi County, Kenya.

To test these hypotheses, the hygiene compliance scores of the hotels were analyzed against the average number of customers in the restaurants using the Chi-square analysis. In this research study, chi-square test was done to establish whether there was a significant relationship between the food handlers’ hygiene practices and customers’ choice of African indigenous restaurants in Nairobi County, Kenya. A p-value (level of significance) of less than (0.05) was considered as significant. The chi-square analysis of the results was stated in table 7 below;

Table 7: Chi Square

The Chi-Square Tests	The V	d.	Asymp.Sig. (2-sided tai
Pearson Chi-Square	4.24	1	0.133
Likelihood Ratio	4.63	1	0.104
Association	3.76	1	0.039
N of Valid Cases	238		

The findings presented a $\chi^2 = 4.244$, $df^* = 2$ and $p = 0.133$ which is > 0.05 . With a significance level > 0.05 (0.133), the alternative hypothesis (H1) was rejected. The results showed that there was no significant relationship between the food handlers' hygiene practices and customers' choice of African indigenous restaurants in Nairobi County, Kenya. The implication of this χ^2 test result is that customers' choice of African indigenous restaurants cannot be attributed to the food handlers' hygiene practices in Nairobi County. Even though customers look at hygiene elements, there are other pull factors to these restaurants. As such, they customers have different characteristics; hence, they tend to use different criteria in selecting restaurants (Chung & Kim, 2011).

A deeper understanding of consumers' selection criteria would provide restaurateurs with valuable information and insights which would enable them to attract and retain more consumers (Jang & Namkung, 2007). Thus, the central question for restaurant managers is: what are the major attributes that influence their restaurant choice? The type of restaurant selected by the customers is major factor as recognized by Hensley and Sulek (2004). Kim and Moon (2009) noted that customers hold different expectations and perceptions of their different dining experiences in a different restaurant type and may have different selection criteria. In the available current literature, menu price is one of the major factors determining consumer decision-making and subsequent behaviours (Chung & Kim, 2011; Kafel & Sikora 2013; Massawe, 2013).

Table 8: Summary of Hypothesis Testing

Hypothesis	Level of significance	Acceptance/rejection
H1: There is no significant relationship between the food handlers' hygiene practices and customers' choice of African indigenous restaurants in Nairobi City County, Kenya.	Pearson Chi-Square coefficient = 4.244 P-value = 0.133 p-value > 0.05	Null hypothesis (H0) accepted
H2: There is a significant relationship between the food handlers' hygiene practices and customers' choice of African indigenous restaurants in Nairobi City County, Kenya.	Pearson Chi-Square coefficient = 4.244 P-value = 0.133 p-value > 0.05	Alternative hypothesis (H1) Rejected

The findings presented a p-value of (0.133) which was greater than 0.05 as shown in table above. The null hypothesis was accepted indicating that there was no significant relationship between food handlers' hygienic practices and customers' choice of African indigenous restaurants in Nairobi County. The choice of the restaurants was mostly because of other factors such as health, variety and curiosity.

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

The researcher sought to determine the food handlers' hygiene practices as determinants of customers' choice of African indigenous restaurants in Nairobi County, Kenya. From the analysis of the data collected, the following discussions, conclusion and recommendations were made. These sections were based on the objectives of the study.

Summary

This section presents the summary of the findings in line with the objective of the study.

Customers Choice of African Indigenous Restaurants

This objective sought to determine those elements that influenced customer choice of an African indigenous restaurant. The findings revealed that elements such as handling of equipment during Service, behavior of employees/personal hygiene and Belief that inspections should be more frequent were neutral. The presence of flies/rodents, availability of public health inspection certificate, equipment and dishes Cleanliness, unauthentic ambience, staff grooming, Restaurant, Restrooms and Open Kitchen cleanliness, quality of food ingredients, individualized attention, convenient operating hours and temperature of the food served were fairly influencing customers' choice of an Indigenous restaurants. There were no elements found to be extremely influencing customers' choice of restaurants.

Relationship between Food Handlers' Hygiene Practices and Customers' Choice of Restaurants

This objective determined the relationship between food handlers' hygiene practices and choice of restaurants. The findings presented a $\chi^2 = 4.244$, $df = 2$ and $p = 0.133$ which is > 0.05 . With a significance level > 0.05 (0.133), a conclusion was made that there is no significant relationship between the food handlers' hygiene practices and customers' choice of African indigenous restaurants in Nairobi County, Kenya. The implication of this χ^2 test result is that customers' choice of African indigenous restaurants cannot be attributed to the food handlers' hygiene practices. Customers come to these restaurants due to some other factors not included in this study.

Recommendations

Based on the study findings, the following recommendations were made.

1. The public health authorities and county government in the urban centers ought to inform all food handlers, restaurant owners and managers, and other stakeholders on food hygiene guidelines and enforce them.
2. To ensure food safety, the restaurants' management should ensure that the restaurants comply with the relevant authorities and laws such as the public health office and Public Health Act.
3. A similar study should be replicated to other localities not covered by this study since food safety is a general concern in every locality, in specialty restaurants serving other cuisines such as Indian, Japanese or Korean to see whether the findings tally in general and to settle on more profound conclusions.

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