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Abstract

Today, consumers are more cautious about the food that they eat due to the prevalence of non-communicable diseases such as obesity, cancer, and diabetes. The prevalence of these diseases has sensitized many on the need for healthy eating, which has shifted food approaches and is reflected in the selection of menu items in restaurants. The study sought to establish how consumers' knowledge about food nutrition influences their menu choices in restaurants based on the Engel-Blackwell-Kollat model. A descriptive research design based on quantitative approach was adapted. A sample size of 330 guests and 15 Food and beverage managers were drawn from the fifteen Three-star hotels in Nairobi County. The primary data was collected using questionnaires and semi-structured interviews. The findings indicated that there was a statistically significant and positive relationship between consumer knowledge and food menu selection ($r(284) = 0.227, p < 0.01$). These findings are beneficial to food eatery owners and managers in terms of understanding how changing food approaches influence consumer choice of eateries; thus how they need to address consumers' needs.

Keywords: *Nutritional value of foods, traditional food, food nutrition knowledge, menu choice*

1.1 Background to the Study

As one of the basic needs, food is not just meant to keep us alive but also nourish the body, boost the immune system, and add life into our days. The nutrients that are found in food are essential for helping the body to fight diseases by enhancing its immune system (Skerrett & Willett, 2010). Traditional cuisines helped entrench the nutritional values of food and protect generations from food-related non-communicable diseases. Notably, these traditional cuisines were largely organic and prepared with simple cooking methods such as boiling and steaming. However, the absorption of western culture changed all that ranging from the ingredients used for dishes and how each dish was prepared (Kemmer, 2000). Currently, apart from dry cooking methods, which require the use of fat or oil, most food products are either semi or fully processed using preservatives or artificial additives that may pose serious health risks (Linke, Casagrande & Cardoso, 2018). This has seen the upsurge of lifestyle diseases such as cancer, diabetes, and obesity amongst all age groups (Santosha, Geetanjalia, & Naik, 2010).

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Food approach is a phenomenon that is experienced in all cultures across the globe. It is characterized by attitudes that determine how, and when food is prepared and consumed (Grunert 2002). Food attitudes have been changing over time (Urala and Lähteenmäki, 2007), a trend that is occasioned by the need to adopt safe eating habits in a bid to counter diseases to adapting to the changing lifestyles amongst various age groups (Private Label Manufacturers Association [PLMA], 2016). Food quality is not only tinged on taste but also of its healthiness. According to Mehmet (2019) 21 percent of Britons describe themselves as flexitarian preferring vegetable-based diets that are occasionally supplemented with meat. In Malaysia, most people are now focused on having nutritious diets (Hai, Asbollah, Kamari, & Latif, 2017). Many of them seek health and wellness in response to the increase in the disease burden amongst the population and the healthcare cost.

In Kenya, customers' choice of meals away from home has become a major concern. There is a switch from the traditional food to diets that are influenced by western styles of cooking and ingredients. This has increased the rate of lifestyle diseases such as obesity, diabetes, cancer, and hypertension. Though initiatives have been put in place to reverse these negative trend, the prevalence of lifestyle diseases has persisted. Mugo, (2018) notes that 50 percent of hospital admissions in Kenya are of patients suffering from non-communicable diseases such as cancer, hypertension, strokes, chronic respiratory diseases, and diabetes, which are attributed to lifestyle choices such as unhealthy diets. It is therefore not clear whether consumers' increasing knowledge of foods, have an impact on their choice of menus when they eat out, more so in star-rated hotels.

Various empirical studies carried out relating to food choice have centred on special interest groups (Birkenhead & Slater, 2015; Brimblecombe et al., 2014; Ignatov and Smith, 2006, Long, 2004), local food consumption (Ryu & Jang, 2006, Torres, 2002), food and gastronomic experiences in tourism (Chang *et al.*, 2011, Kivela & Crotts, 2006). Closer to the present study, Nguyen (2016) focused on a combination of service quality, product quality, pricing, and the environment as key considerations for customer choice of fast-food restaurants in Vietnam while Wasike and Fwaya (2018) delved on the relationship between healthy food products and customer outcomes such as the increase in customer numbers, increase in the request for more products, customer satisfaction, and loyalty to the restaurants was sought. Through these two studies are closely related to the present study, they did not link the food product choices by consumers to the selection of the menus when eating out. A study by Kimberly and Remould (2020) relating to menu choice observed the effect of combination of ingredients, menu item attributes and food involvement levels. However, it did not capture the consumers' nutritional knowledge. This study sought to fill this gap.

2.1 Literature Review

This study was premised on Engel-Blackwell-Kollat's theory which consists of four components; information processing, central control unit, decision-making process, and external environment influences (Osei & Abenyin, 2016). The model states that consumer behaviour involves five steps: problem recognition, information search, alternative evaluation, choice, and outcome (Prasad and Jha 2014). The information-processing component is reliant on factors that affect consumer stimuli, including exposure, attention, comprehension, and retention (Prasad & Jha 2014). The food approaches, in this case, are mainly informed by the exposure to information about the prevalence of non-communicable lifestyle diseases and also the information on healthy eating alternatives that may curb the spread of these diseases. Restaurant consumers, therefore, look for menus with nutritious diets based on their knowledge of nutrition, which they are exposed to.

The central control unit component involves psychological factors such as customer's acquaintances with the product or their previous experience with it (Prasad & Jha 2014). In this case, health-conscious consumers may select an eatery based on the healthy value of the food provided. Consumers are looking for information on healthy eating, which is helping them to evaluate alternative options in a bid to change their eating habits, which affect their choice of restaurant. Besides, environmental influence involves all the factors that may either favour or disfavour the consumers' purchasing decisions. These include the income levels of the consumers; their social class and financial status. Environmental influence also includes family and societal factors (Prasad and Jha 2014). In this study, the environmental influence is largely related to the consumer group preference variable, which influences the eating habits of the consumer in particular reference groups and their subsequent selection of restaurants. Therefore, the model was helpful in this study to understand the relationship between restaurant selection and the consumers' nutritional knowledge, consumers' preference for nutritional diet, and their peer group preference, which are the key variables in the study.

Studies examining the relationship between consumer knowledge of food nutrition and the selection of eateries have been carried out. Dina, Zaharib & Shariffb, (2012) noted an awakening in terms of nutritional awareness amongst Malaysian restaurant customers and that customers expect to find a combination of nutrients including; proteins, fat, calories, and dietary fibre in restaurant menus. Jun et al., (2014) established that perceived health values positively affected customers' attitudes towards low calories and low-fat food items. Mhlanga & Tichaawa, (2016) found that food ingredients and their unique tastes significantly affect customers' selection of restaurants. The restaurants develop new menus frequently and provide different menu items in a bid to increase the frequency of their customer visit. This makes it imperative for restaurateurs to understand the critical role that food quality play in the customer selection criteria of their restaurants.

3.1 Methodology

A descriptive research design was used in the study based on quantitative approach. It was conducted in restaurants within 3-star hotels in Nairobi, Kenya's capital city and commercial hub of the region which attracts both leisure and business tourists. The study targeted 330 customers and 15 Food and Beverages Managers found in the 3-star hotels in Nairobi County. Simple random sampling and purposive sampling were used to select restaurant customers and restaurant managers respectively, while a questionnaire and interview were used to collect data from the two populations respectively. The questionnaire was pretested with six participants from two of the 3-star hotels before being used in the field to help identify vague questions, deficiencies, and further develop the tool. The participants involved in pretesting were exempted from actual data collection.

The reliability of the research instruments was guaranteed through 5 respondents who were randomly selected and served with the questionnaire. The Cronbach's coefficient alpha was used to test the correlation of the results. A coefficient reliability of 0.807 was yielded. In addition, a face validity and content validity were conducted to ensure that the questionnaire items were based on all the possible items for measuring consumer food approach and menu items selected, returning a remarkable feedback. Permission was sought from the hotel management to administer the questionnaire. Two approaches were used in identifying the respondents. Either they were approached in the restaurants and request to participate in the study directly with the assistance of the researcher or they were given the questionnaires to fill by themselves then hand them over to the researcher before they left the restaurant. This approach ensured a high response rate for those who accepted to participate in the study.

4.1 Results

A total of 330 questionnaires were distributed to customers of the 3-star hotels based in Nairobi County, whereby 86% representing a total of 284 questionnaires were returned. Most of the respondents were aged between 33 – 46 years accounting for 53%. Whereas 24% of the respondents were aged 19 – 32 years; 18% were aged between 47 – 59 years and 5% were aged above 60 years. As such the age bracket that constitute a significant clientele of the three-star hotels in Nairobi County is persons aged between 33 – 46 years

In addition, most of the customers of the eateries were drawn from various economic segments. Of them, 3% belonged to the income bracket of KSH 0-19, 000; 24% earned between KSH 20,000 – 49,000 every month; 34% earned between KSH 50,000-99,000 every month whereas 40% earned more than KSH 100,000 per month. This implies that the greatest proportion of the customers had a high disposable income.

Further, the findings showed that 1% claimed that they never visited the eateries; 31% said they rarely visited the eateries; 47% claimed that they occasionally visited the eateries; 14% said they frequently visited the eateries whereas 8% claimed that visited the eateries very frequently. An indication that there was potential of increasing turn over with well positioning of the menu choices of these restaurants.

The respondents were asked to indicate their preferences in terms of the meals that they take at the three-star restaurants. The findings showed that 26% of the respondents preferred breakfast; 52% preferred lunch; 16% preferred dinner whereas 7% preferred snacks. The results indicate that most of the customers go to the three-star hotel restaurants for lunch.

Consumer Knowledge on Food Nutrition

The study sought establish the knowledge of the respondents regarding food nutrition and how this influenced their selection of food on the menu. The customers were very specific about the food that they order; they avoid junk food that may bring them health complications. Most of the respondents strongly agreed that they selected food on the menu because they were prepared using fresh authentic ingredients ($M=1.9261$; $SD=1.11439$). They also selected food on the menu if it was gluten free ($M=2.5775$; $SD=1.23164$), and the method in which the food was cooked ($M=2.3944$; $SD=1.24666$). These findings concurred with those by Mhlanga & Tichaawa, (2016) who established that food ingredients and their unique tastes significantly affect customers' selection of food items on the menu; therefore, develop new menus frequently and provide different menu items in a bid to increase the frequency of their customers.

External influence also played a key role. Most of respondents selected the food on the menu based on the recommendation by their doctors or nutritionists ($M=2.9611$; $SD=1.14324$). For a long time patients suffering from lifestyle conditions have relied on doctors' advice on choice of their diet (Fan & Jin, 2014). It is not clear whether this is an indication of most restaurant guests suffering from lifestyle conditions.

The respondent's knowledge of food constituents had an influence too. While most of them selected food on the menu based on the requirements of their changing diet ($M=2.0813$; $SD=1.00906$), others were keen on its vegan component ($M=2.8375$; $SD=1.38958$) and or its richness in fibre ($M=2.4452$; $SD=1.18486$), while others' menu choice reflected the region's traditional cuisine ($M=2.8905$; $SD=1.47028$).

These findings concurred with those by Dina, Zaharib & Shariffb (2012) who established that nutritional awareness amongst Malaysian restaurant customers influenced customers to consider menu items in terms of their nutritional components such as proteins, fat, calories, and

dietary fibre. It is paramount that restaurateurs plan their menus keenly to ensure that customers' nutritional needs are addressed. These findings are presented in Table 1.

Table: 1 Descriptive Statistics for Consumer Knowledge on Food Nutrition

I select the food on the menu	N	Mean	Std. Deviation
If it is gluten free.	284	2.5775	1.23164
Based on its cooking method.	284	2.3944	1.24666
Based on the oil that is used to cook it.	283	3.0777	1.16432
Based on the recommendation by my doctor/ nutritionist.	283	2.9611	1.14324
That reflects familiar traditional cuisine.	283	2.8905	1.47028
Based on requirements of my changing diet.	283	2.0813	1.00906
Based on my vegetarian diet requirements.	283	3.8163	1.33481
Based on my vegan diet requirements.	283	2.8375	1.38958
Because they are rich in fibre which helps in my digestion.	283	2.4452	1.18486
Because they are prepared using fresh authentic ingredients.	284	1.9261	1.11439
Valid N (listwise)	284		

However, the respondents were neutral when it came to selecting food items on the menu based on the oil that was used to cook it (M= 3.0777; SD =1.16432). Unlike in Dina et al. Case, there is a likelihood that the type of oil used in cookery is not indicated on the menu. As such, patrons may not have an opportunity to rang it as a factor

A correlation analysis was conducted to establish the degree of the relationship between consumer knowledge of food nutrition and menu choice.

Table 1: Correlation Analysis between Consumer Knowledge and Food Menu Selection

		Consumer Knowledge	Food Selection	Menu
Consumer Knowledge	Pearson Correlation	1	.227**	
	Sig. (2-tailed)		.000	
	N	283	284	
Food Menu Selection	Pearson Correlation	.227**	1	
	Sig. (2-tailed)	.000		
	N	282	284	

**. Correlation is significant at the 0.01 level (2-tailed).

Results of the correlation analysis indicated in table 2 demonstrate that there was a statistically significant and positive relationship between consumer knowledge and food menu selection (r (284) =0.227, p < 0.01).

The findings showed that an increase in the consumer knowledge about food nutrition influenced their selection of food on the menu. Therefore, the null hypothesis that there is no relationship between the customers' knowledge on food nutrition and food menu selection is rejected in favour of the alternative.

This demonstrated that as the consumer knowledge about food nutrition amongst the customers increased so did their sensitivity in terms of selecting food on menus increase. These

findings agree with Dina, Zaharib, & Shariffb, (2012) who found that increased knowledge on food nutrition influenced the selection of food items by customers in Malaysian restaurants.

The Food and Beverage Managers acknowledged that the knowledge of the customers about food nutrition influenced the selection of food items on the menus. For instance, M1 said that “some customers are very specific about the food that they order; they avoid junk food that may bring them health complications”. M3 claimed that “the quest for seeking nutritious food has led some customer to specifically order for menu items that have less fat and those that are considered as traditional cuisine”. M5 observed that “some customers were curious to ask what a particular food item on the menu was composed of before they made their orders; they want to be sure that the food will not interfere with their nutritional diet”. M2 noted that “not all customers were nutrition conscious; some were just out to ‘spoil themselves’ with junk food even though that did not mean that they were not aware of the nutritional deficit in such food; the interviewee also noted that as more people become conscious of the link between food and non-communicable diseases such as cancer, so have their choices become very distinct when selecting food items on the menu even as they seek to promote their health prospects”. M4 also agreed that “the increase in the number of cases of lifestyle diseases was a cause for many customers to revert back to menu items that reflected nutritious choices rather than junk food”.

The findings showed that the restaurant customers were drawn from various age groups though most of them were aged between 33 to 46 years. These eateries customers were drawn from various economic segments, with the lowest earners making Ksh. 19 000 per month and the highest earners making Ksh. 100 000 and above per month. Most of them earned between Ksh. 20 000 and Ksh. 49 000. Most of these customers visited the three-star restaurants for lunch as compared to other meals. They also visited the restaurants occasionally rather than frequently.

5.0 Recommendations

The restaurant managers and chefs in three-star hotels should seek to establish the levels of their consumer knowledge on food nutrition so that they can provide them with dishes that will serve their nutritional interests. This can be achieved by them working closely with nutritionists when formulating their menus. This will enable them not only retain but also attract more customers. Though nutrition as established in the present study is a key component of menu choice, how this may be combined with taste and palatability of the menu items is equally important. Future research should explore whether a combination of these factors may have an influence of menu choice not only in restaurants but also in other forms of eateries.

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