

The Relationship Between Healthy Eating Products On Offer In Restaurants and Customer Needs

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Abstract - Previous studies focused on food labels as well as sugar, salt, fat and calorie levels in food as main concerns for customers whenever they dined out. It is not however clear, whether the products on offer reflected the healthy eating customer needs. The purpose of this study was to establish the relationship between healthy eating products on offer and customer needs. The study is based on the Elaborate Likelihood Product Evaluation Model of the Expectancy Value theory by Richard, Petty and John Cassiopolis. This theory is used to explain how customers select products by identifying and evaluating characteristics of products on offer in an outlet in relation to their individualized needs. Research administered questionnaires were used to collect data from 296 heads of department and 401 customers sampled from 74 healthy eating restaurants in Nairobi City County Kenya. This yielded a total of 697 respondents. Observation checklists were also used to establish healthy eating products listed on menus in comparison with customer needs. Results of the study show that products on offer in restaurants perceived by restaurant customers as healthy were: traditional foods, medicinal, products cooked using healthy cooking methods (59%); vegetarian food products (19.2%); gluten free products (12.2%) and sea food (9.6%). Healthy eating product customer needs on the other hand entailed traditional, medicinal and healthy cooked foods (53.6%); non genetically modified products (20.7%); low fat food products (7.8%) and organic food products (6.5%). Findings on the relationship between healthy eating products on offer and market needs for healthy eating products yielded the following: a Pearson correlation r value of -0.093 , a regression p value of 0.001 , t test value of 0.000 and a chi-square value of 0.443 . Based on p values attained from regression (0.001) and t test (0.000) analysis, the study concludes that there is a significant relationship between healthy eating products on offer in restaurants in Nairobi city county and customer needs.

Key words: Healthy eating, Healthy eating products, customer needs for healthy eating products.

I. INTRODUCTION

1.1 Background Information to the Study

Research evidence shows that, since the earlier years of eating out, restaurant customers utilised every available opportunity to sample food that they perceived to be healthy. Angell and Silver (2008) aver that when restaurant guests were presented with items labeled with and without

a healthy choice label, a reasonable number of customers chose the healthy choice menu items (Galliciano, Blomme & Rheede, 2012). Most restaurants were, however, said to be unfamiliar with the healthy eating concept (Hwang & Lorenzen, 2008).

Detter et al., (2008) argue that sugar, salt, fat and calorie levels in food were the major concerns for customers whenever they dined out. Josiah and Foster (2009) on their part argue that healthy eating was about fat and energy content in food. Moreover, there are disparities in the consumer perspectives of what is healthy and what is not which is a source of misunderstanding among staff in eating outlets concerning what should be regarded as healthy food. It is not, therefore clear, which healthy eating products customer seek in eating outlets and whether the healthy eating products on offer in restaurants represent the perceived customer needs. This study sought to establish the relationship between healthy eating products on offer in restaurants and customer needs.

1.2 Purpose of the Study

The purpose of this study was to investigate the relationship between healthy eating products and market needs.

1.3 Specific Objectives of the Study

The specific objectives of the study were to;

1. Identify the healthy eating products on offer in restaurants in Nairobi City County, Kenya.
2. Determine the market needs for healthy eating products in restaurants in Nairobi City County, Kenya.
3. Establish the relationship between healthy eating products on offer in restaurants and customer needs

II. LITERATURE REVIEW

2.1 Healthy Eating Concept Products on Offer in Restaurants

Healthy eating concept products are among the most sought after in restaurants today. These products, according to the study are products produced by

restaurants based on customers' ideas or perspectives of eating food that enables them to stay in good health or food that is perceived to prevent illnesses. Apparently, consumers who seek long term services from restaurants considered the provision of healthy eating concept products that suit their needs as a motivation in dining out.

In the earlier years, low-fat foods and non-genetically modified ingredients were thought to be the main concern when consumers select healthy meals whenever they dine out (Josiam & Foster, 2009). Research findings however indicate that healthy eating is a wider concept and that restaurants may not be familiar with the varied customer needs that may change from time to time or from one person to the other.

Davies, G.J., Smith, J.L. (2004) argue that among the factors which determine the healthy eating concept products on offer in eating outlets are "Lifestyles which demand fast foods" (p.81). Products which were referred to as fast foods were those products on which customers spend less time consuming as opposed to elaborate meals that required customers to allocate or use substantial time to consume. These are foods which even though may be a "risk factor for gastrointestinal disturbances through eating quickly as opposed to eating fast foods per se" (Davies & Smith, 2004, p.82.). Eating outlets prepare and group these foods under the healthy eating concept products (Legrand & Sloan, 2006).

Apparently, a sizeable proportion of consumers sample fast foods (those consumed quickly while standing) that are presumed to fall under healthy eating products. The duo were also concerned that most customers who sought low-fat foods and non-genetically modified ingredient foods when eating out were misled by eating outlets whose main objective was to sale what they would have prepared. Legrand and Sloan (2006) argue that restaurants took advantage of the vulnerability of the consumer to give false assurances on the attributes of their products, especially those grouped under the healthy eating concept product category. More research findings on healthy eating concept products that consumers sought when dining out in restaurants globally indicate consumer focus on organic food products. Findings on the USA eating out trends indicate a shift towards preference for healthier food products and particularly organic food products (Josiam & Foster, 2009).

Zick, Wake and Reeves (2010) posit that apart from fat and energy components of food that consumers sought when dining out, there were other healthy benefits sought. The benefits sought after by consumers, according to these scholars entail information on saturated fat levels, polyunsaturated fat components, and fiber and sodium levels in food. Research finding by earlier scholars on

healthy eating products on offer in hotels show that consumers seek for, apart from calorie content of food, the salt level and saturated fat contents in the foods they sample while eating out (Mackison, Wrieden & Anderson, 2009). Customers, therefore, expected that products on offer in restaurants were in terms of what they perceived to be healthy food. According to customers, these products included disease preventive products, products that helped manage illnesses, low fat/salt/sugar/calorie products, organic products, indigenous products, high fiber products, healthy cooked products as well as products that were healthy but required less time to eat among other customer perspectives.

Hwang & Lorenzen (2008) argue that most eating outlets in the global set up are unfamiliar with healthy eating products. It is, therefore, not clear which products restaurants offer under the healthy eating concept product category or even the basis of the healthy eating products prepared in restaurants if there was any. Apparently, restaurants at the global level have many disparities in regard to products prepared and presented to the consumer under the healthy eating product category. Investigating the relationship between healthy eating products on offer in restaurants and market needs was thus viable.

2.2 Customer Needs for Healthy Eating Products

Claims that enjoyment was the core objective for eating out among people in the past years and that considering nutritional content of food would divert their objective have long been overtaken by time. Benalam (2009) argues that eating out has changed over the years and that currently, most people have increased their frequency of eating out whereby nutritional benefits are their key motivator. Similar views are echoed by other scholars who established that there existed a shift towards a preference of healthier and particularly low fat choices (Josiah & Foster, 2009). This is in agreement with observations made on dining out trends whereby Angel and silver (2008) reported that calorie labeling of food assists guests to reduce calorie and fat intake and that such labels enable guests to eat more fruit and vegetables and generally have a healthier diet than those who do not use food labels (Detter et al., 2008).

Evidently, most of the research findings concur on the increase in the need for healthy eating products given that consumers have taken every available opportunity to utilise nutritional information presented on restaurant menus. Various changes have however taken place in eating out trends among restaurant customers and that consumers have gone beyond the need for nutritional information and now seek complete meals that meet their healthy eating product ideas with the expectation that restaurants would interpret and appropriately respond. These ideas go beyond fat, salt, sugar and energy levels to

encompass fiber content, products from unprocessed ingredients, low carcinogen products nutrient preserved products, food combinations, and portion sizes among other ideas. This study thus identified the market need for healthy eating products as it endeavored to ascertain the relationship between healthy eating products on offer in restaurants and customer needs in restaurants in Nairobi City County.

III. METHODOLOGY

The study was a cross-sectional analytical survey research carried out healthy eating restaurants of Nairobi City County. The target population entailed restaurants, heads of department (service, kitchen, public relations and procurement/stores) and customers to restaurants in Nairobi City County. Sampling was carried out in two phases.

Phase one targeted restaurants and service managers whereby all the 317 restaurants in Nairobi City County as listed by Trip Advisor.com were sampled. This enabled the researcher to identify restaurants that offered healthy

eating products. Out of the 317 restaurants, 147 offered healthy eating products out which, 74 were sampled and included in the study

The second phase of sampled involved restaurant heads of department for the four sections (service, kitchen, public relations and procurement/stores) and healthy eating product customers in the seventy four restaurants selected for the study. The combined sample of heads of department (296) and customers (401) was a total of six hundred and ninety seven (697) respondents. The study used structured questionnaires and observation checklist were used to collect data form respondents and the cites of data collection. Out of the 697 questionnaires issued, six hundred and seventy six (676) respondents returned complete questionnaires yielding 97% response. Observation data on the other hand was drawn from sixty two (62) healthy eating product restaurants. Table 3.1 shows the sampling criteria for restaurants, restaurant supervisor, heads of department and healthy eating product customers sampled for the study.

Table 3.1. Sampling criteria for restaurants and respondents

Phase of the study	Healthy Eating Product restaurants Sampled in Nairobi City County	Heads of Department sampled for the study	Healthy eating product customers sampled for the study
First phase	317 restaurants	317 restaurant service section supervisors	
Second Phase	74 out of 147 healthy eating restaurants	296 (Kitchen, service, public relations and procurement/stores)	401

IV. RESULTS

4.1 Healthy Eating Products on Offer in Restaurants

The study sought to establish products on offer that customers perceived as healthy in the sampled restaurants. Product categories identified by respondents as healthy eating products were—traditional, medicinal, products cooked using healthy cooking methods, vegetarian products, gluten free and sea food products as presented in table 4.01.

Table 4.01: Healthy eating products on offer in restaurants

Healthy Eating Product on Offer in Restaurants	N=385	% proportion
1.Traditional ^{1a} Medicinal ^{1b} and Foods cooked using healthy cooking methods ^{1c}	227	59%
2.Vegetarian products ^{2a}	74	19.2%
3. Gluten free products ^{3a}	47	12.2%
4. Seafood ^{4a}	37	9.6%

Key:

Traditional^{1a} : A food product domesticated to a certain community

Medicinal^{1b} : a food product believed to prevent or cure an illness(s)

Foods cooked using healthy cooking methods^{1c} : Are food products cooked using minimal fat or no fat

Vegetarian products^{2a} : Are food products prepared from plant materials

Gluten free products^{3a} : food products prepared from non gluten food materials

Seafood^{4a} : Food products prepared from sea food raw materials, for example, fish, crabs, oysters, sea weeds, crabs and other food sea materials

4.2 Market Needs for Healthy Eating Products

Secondly, the study sought to establish the market needs for healthy eating product customers. Table 4.02, thus, presents the findings on customer needs for healthy eating products in proportional percentages of each as per the respondents.

Table 4.02. Customer needs for healthy eating products

Customer needs	N= 385	% of customers selecting each category
1.Traditional, Medicinal, Foods cooked using healthy cooking methods	206	53.6
2. Non Genetically Modified Products	80	20.7
3. Low fat Foods	30	7.8
4. Organic Foods	25	6.5
5. All categories of HEP	10	2.6
6. Traditional, Organic, Low 7. Sugar Food	9	2.3
8. Traditional, Non Gen Modified, Low salt	6	1.6
9. Low salt foods	4	1.0
10. Traditional, Non Gen. Modified	3	0.8
11. Most of the HEP categories	3	0.8
12. Traditional, Non Gen. Modified, Organic	2	0.5
13. Traditional, Low fat foods	2	0.5
14. None	2	0.5
15. Traditional, Organic Foods	1	0.3
16. Low fat, Organic Food	1	0.3

4.3. Relationship between Healthy Eating Products and Customer Needs for Healthy Eating Products

A comparison of healthy eating products on offer and market needs for healthy eating products was important in establishing whether products on offer were a reflection of healthy eating product customers' expectation. Regression significance has been used to establish the association between healthy eating products on offer and customer needs for healthy eating products. The study used *Cronbach's alpha* (α) which is a measure of the inter-correlation of variables to establish the correlation of healthy eating products and the perceived market needs for healthy eating products among customers. The alpha value for the study was set at 0.05, such that, if the computed value could be less than or equal to 0.05, then the variables would be considered correlated (Finn et al., 2000). Table 4.03 shows that the study yielded regression significance of 0.093, t test value of 0.000 and a chi-square value of 0.443. Although the correlated t value was

0.000, the chi-square value of (χ^2) 0.443 means that the probability of products on offer being associated with healthy eating product market needs was not guaranteed.

Table 4.03: Relationship between healthy eating products on offer and customer needs

Products on Offer in Restaurants	%	Customer needs	%	Products*customer needs P values
Traditional ^{1a} Medicinal ^{1b} and Foods cooked using healthy cooking methods ^{1c}	59	1.Traditional,Medicinal,Foods cooked using healthy cooking methods	53.6	Pearson correlation r value - 0.093 Regression p value 0.001 T test sig. 0.000 Chi-square 0.443
Vegetarian products ^{2a}	19.2	2. Non Genetically Modified Products	20.7	
Gluten free products ^{3a}	12.2	3. Low fat Foods	7.8	
Seafood ^{4a}	9.6	4. Organic Foods	6.5	
		5. All categories of HEP	2.6	
		6.Traditional, Organic, Low	2.3	
		7. Sugar Food	2.3	
		8. Traditional/Non Gen Modified/Low salt	1.6	
		9. Low salt foods	1.0	
		10. Traditional, Non Genetically modified	0.8	
		11. Most of the HEP categories	0.8	
		12. Traditional, on Gen. Modified, Organic	0.5	
		13. Traditional, Low fat foods	0.5	
		14. None	0.5	
		15.Traditional,Organic Foods	0.3	
		16. Low fat, Organic Food	0.3	

V. DISCUSSION

5.1 Healthy Eating Products on Offer in Restaurants

Healthy eating products on offer in restaurants were identified based on customers perceptions of what healthy eating entailed. Data on this was collected from 296 heads of department (of the kitchen, service, public relations and procurement/ stores) and 401 healthy eating product customers. Observation checklists were also used to establish products offered under the healthy eating product

category in the selected restaurants of Nairobi City County.

5.1.1 Traditional, Medicinal and Healthy cooking Method food Products.

A variety of products were grouped under each sub-category of healthy eating products on offer in eating outlets. In the traditional food category, African traditional foods formed the largest proportion of healthy food products on offer in restaurants. Products in the African traditional food sub-category were—*Inyama*

Isiche/Omuranda, Ingokho, Ngege, Amenjera/Bambara, Eshitiani, Karanga, Athola, Omushene, Muchicha, Kunde, Lisebebe, Mukimo, Githeri, Matoke, Biriani, Minji, Nduma, Pilau, Njahi, Mbosho, Managu, and Ugali among others. The traditional product category was further divided into sub-categories in terms of compound nutrient food products (a mixture of various nutrient ingredients), carbohydrates, proteins and vitamin food product sub-categories. Examples of compound food products on offer in restaurants were *Amenjera, Githeri* and *Mukimo* and *pilau*.

Amenjera, a Luhya community compound food product was prepared from *Bambara* nuts, green shelled maize, peanuts and red beans. The ingredients were separately softened by partially boiling them then added to a concoction of shallow fried herbs, condiments and seasonings to finish. *Amenjera* was packaged as a special traditional compound product sought after by general healthy eating product customers and vegetarian food product customers. *Githeri* (a mixture of maize and beans boiled and presented as a compound meal at any time of the day) was another compound traditional food product domesticated to the Kikuyu community. *Mukimo*, prepared from green peas, green maize, pumpkin leaves and Irish potatoes was another *traditional* compound healthy eating product domesticated to the Kikuyu community was. *Pilau* (composed of long grain rice and beef, chicken, or fish prepared in a mixture of spices such as of which pilau is a major spice) on the other hand was a compound food product domesticated to the Swahili community.

Other traditional product sub categories prepared and presented in the healthy eating product category were carbohydrates, protein dishes or vegetables. Popular carbohydrates offered under the African traditional products category were *Matoke, Ugali, Biriani, Nduma, Omwoko, Pilau, Amaindi, and Amapwoni* among others. These products were prepared from one carbohydrate ingredient. *Matoke* prepared from boiled mashed green bananas. *Ugali* on the other hand was prepared from maize, sorghum or millet flour mixed and stirred in boiling water until it formed a thick sticky paste. Other traditional carbohydrate food products were: *Biriani*—a Swahili *spicy* rice product that has *Biriani* as a major spice; *Nduma* (boiled or roast yams) domesticated to the kikuyu community whereas *Amaindi* were boiled green maize domesticated to the Luhya community. Another carbohydrate product under this traditional category was *Omwoko* (boiled, baked or roast cassava) and *Amapwoni* (boiled or baked sweet potatoes) - both the products were affiliated to the Luhya community. Apparently, foods in the carbohydrate sub-category offered in traditional food product category were prepared using indigenous cooking methods that involved the use of minimal or no fat at all. Zick et al., (2010) recommends that eating outlets should

consider traditional cooking styles and recipes as major components of healthy eating products. They advise outlets to re-asses products in the healthy eating category in relation to the market trends that shift to little or no fat addition during cooking.

Traditional vegetables on offer in restaurants were mostly used to accompany traditional carbohydrate foods. Apart from their use as a vitamin and fibre component of a meal, they were also believed to be medicinal. Popular traditional vegetables on offer in restaurants in Nairobi included *Managu* (night shade or *solanum pseedocapsicum leaves*), *Terere* (*Amaranthus*), *Saget* (*Spider plant*) and *Miro* (*Crotalaria*) *vegetables*. *Cowpeas* (*Kunde*), *murenda* (Jews Mallow) and *Lisebebe* (pumpkin leaves) were also grouped under this category. Koech (2013) encourages Kenyans to sample indigenous foods to keep lifestyle diseases at bay.

The study established that traditional protein food product sub-category were *Inyama Isiche/ Omuranda* (dried beef prepared in traditional magadi soda, peanut sauce and milk) domesticated to the Luhya community; *Ingokho* (traditional African chicken/road-runner prepared as stew) affiliated to the Luhya community while *Ngege* (Tilapia fish that was either freshly fished or sun dried prepared as stew) was a traditional protein product domesticated to the Luo community. Products under the African traditional products were: *njahi* (black beans with a white rim also believed to be medicinal), *mbosho* (boiled beans), *minji* (green peas) all of which were domesticated to the Kikuyu community. *Ndengu* (green grams) was a stew prepared to accompany carbohydrate foods-products generally used by healthy eating product customers.

Medicinal foods as a healthy eating product sub-category formed portion of the largest healthy eating products (53.6%) on offer in the sampled restaurants. Medicinal products were believed to contain components that cleanse the body, boost the immune system, treat or control illnesses or all of the above. Products in this category were made by combining various medicinal materials to form concoctions that would be presented to customers. These, the study established contained natural herbs, honey and fruits in substantial quantities as part of the major ingredients of various products grouped in the medicinal product category.

Another product category that formed part of the larger traditional, medicinal or healthy cooked foods were healthy cooked food products. These were food products cooked using methods that involved the use of limited addition of fat or no fat added during cooking. The cooking methods included boiling, poaching, steaming, roasting, grilling, baking methods among others. Advanced healthy cooking methods, however, included pot roasting, pressure cooking as well as braising.

Similar to African traditional foods on offer in restaurants, Japanese, Italian, Asian, Indian, Thai and Chinese foods were grouped under the healthy food product category in restaurants. The study established that these products were also prepared using indigenous materials as well as cooking methods. Legrand and Sloan (2006) argue that the main concern for customers when selecting a healthy meal when they dine out is “low-fat and non-genetically modified ingredients” (p. 267).

5.1.2 Vegetarian Food Products

Vegetarian products were the second largest category (19.2%) of healthy eating products on offer in restaurants in Nairobi City County. In one of the restaurants one customer wrote “I sample vegetarian foods because animal foods and products with animal materials cause lifestyle diseases”. An increase in the proportion of customers using vegetarian products was said to be “a healthy eating trend among restaurant goers” by one of the cooks. Whereas vegetarian diet was previously adopted through family lineage as a medical prescription, a religious or cultural practice, the current trend of adopting a vegetarian diet is a lifestyle. According to Angelfire (2013), young people were increasingly adopting vegetarian diets which they referred to as the ‘in thing’ (Anglefire, 2013, para.2). Schools and colleges had also adopted vegetarian diet for most of their meals as requested by their students to help fight obesity and the healthy problems associated with meat in terms of saturated fats and cholesterol (American National Center for Health Statistics, 2003). Carla (2003) views vegetarianism as a food consumption ideology that has been increasingly adopted and practiced by people from the developed areas of the globe rather than those from less developed countries. Carla (2003) agrees with the study findings that view the vegetarian food concept as a mentalist rather than a materialistic food consumption approach. Wiston (2003) posits that the need to lead a healthy lifestyle was the reason for the increase for the increase in the number of people who adopted the vegetarian diet. Winston (2009) avers that benefits from vegetarianism were: lower risk of cardiovascular disease; an improved glycemic control for individuals with type 2 diabetes; thinner or lean bodies with lower serum cholesterol; and lower blood pressure. The glycemic response in this case refers to the measurable increase in blood sugar after consuming carbohydrate foods. The greater the postprandial spike in glucose a food generates, the greater that food’s glycemic index. Findings of this study agree with earlier studies that found vegetarian diet as a well thought out eating trend among healthy eating product customers whose desire was to lead a healthy lifestyle.

5.1.3 Gluten Free Food Products

Gluten free products came third in proportion of healthy eating products on offer in restaurants. Gluten is a protein from wheat that the digestive system of some consumers was allergic to. It, therefore, presents an allergic reaction whenever this group of people ingests it. Products which contain gluten are also believed to be refined, and as such, persons who do not prefer refined foods select gluten free products. Major foods that contain gluten protein component are wheat, barley (malt, malt flavoring and malt vinegar), rye and triticale (a cross between wheat and rye). Lee, Ng, Zivin and Green (2007) argue that gluten free diet is adopted by persons with celiac disease whose treatment was adherence to a gluten free diet. Food materials that did not contain gluten component were: Arrowroot, buckwheat, corn and cornmeal, flax, Gluten-free flours (rice, soy, corn, potato, and beans), Hominy (corn), millet, quinoa, rice, sorghum, soy, tapioca and teff.

Based on the proportion of customers who sampled gluten free products (12.2%) as shown (table 4.01), it may not be as a result of body reaction to gluten component of food, but also as a lifestyle trend. The Harvard Medical School (2013) posits that more people have adopted gluten free diets to lead a healthy lifestyle. The school argues that gluten free diets control obesity; and prevent diabetes such as cardiovascular diseases and other lifestyle illnesses.

Green and Rory (2016) report that in the USA, the demand for gluten free diets had surpassed all the other diets sought after in eating outlets. According to the duo, the demand for gluten free diets in the USA was so high that it was the topic in cartoons and late night comedies. It was also reported that famous personalities connected with their fans by testifying that gluten free diets made them healthier, stronger and happier.

5.1.4 Sea Food Products

These were the least represented healthy eating product category at 9.6% (table 4.01). This was because of the high cost of products in this category. The high price of products was a result of transfer of production cost including the sourcing cost to consumers. Raw materials for sea food were also seasonal and, therefore, extremely expensive during some of the periods of the year. Kearny (2010) shows a tremendous rise in the consumption of sea food. According to Kearny (2010), the rise in the consumption of sea food is bound to continue at a faster rate towards 2050s compared to any other protein sources. This rise was associated to the fact that most people considered sea food as a healthy protein because fish, especially the pelagic type, was described as rich in long chain omega -3 fatty acids essential for cardiovascular health.

Mwirigi and Theuri (2016) aver that the heightened demand of sea food among Kenyans had resulted to increased pressure on sea resources, overharvesting of fish from water bodies and environmental degradation. According to the duo, increased demand of fish has initiated an increase in farm grown fish to mitigate shortage of sea food sources. This study established that, indeed, increased demand of sea food, especially fresh water fish, occasioned the rise in the selling price of these products in restaurants. This study further established that the high demand of sea food among restaurant goers led to shortage of fish from water bodies leading to an increase in the proportion of farm fish sources.

5.2 Market Needs for Healthy Eating Products

This section covers market needs for healthy eating product customers (table 4.02). These were based on respondents' views of the perceived food products they required to consume in order to lead a healthy life. According to respondents, their needs for healthy eating products entailed: traditional, medicinal or foods cooked using healthy cooking methods (53.6%), non genetically modified food products (20.7%), low fat foods (7.8%) and organic foods products (6.5%). Other customer needs included low salt foods (1.0 %), low fat, organic food products (0.3%) among other customer healthy eating product needs.

Traditional foods as a product under the healthy eating product category formed the largest proportion (53.6%). In one restaurant, a customer wrote "I always come here because they sale traditional foods". The choice of traditional foods by customers as the major component of products under the healthy eating product category was because of the indigenous nature of this category of products. This was also attributed to the perception that traditional products were grown in natural environments with fewer alterations in terms of farming chemicals. Traditional products were also selected as healthy by most customers because of the indigenous cooking methods used to cook these food products. These methods were generally perceived to be healthier. Indeed, Zick et al., (2010) argue that eating outlets need to rethink and consider traditional cooking styles and recipes as major components of healthy eating products.

Non genetically modified food products were second in rank of food components considered healthy by healthy eating product customers. Based on the very nature of this category of products, customers perceived them as safe for human consumption given that they were thought to be farmed on environments that were free from alteration. Low fat foods were selected as healthy by 7.8% of healthy eating product customers. This is because most lifestyle diseases were associated with consumption of foods that had high levels of fat. Another product category that was

selected as healthy by a significant proportion of customers was organic foods at 6.5%. Organic foods are grown using natural materials. Products grown in natural environments are perceived by customers as healthy. Legrand and Sloan (2006) argue that low-fat and non-genetically modified ingredients are the main concerns when respondents select a healthy meal. Josiam and Foster (2009) agree that there is a shift towards preference for healthier and particularly low fat food products. Findings of this study show that, apart from low-fat and non-genetically modified ingredients, the highest proportion of healthy eating product customers identified traditional foods as a major product of the healthy eating products category (53.6%). More findings in the study established that organic foods also formed a significant proportion (6.5%) of healthy eating products on offer in the sampled restaurants. Organic foods were considered by customers to grown in natural environments and that they were free from modification.

5.3.1 Relationship between Healthy Eating Products and Customer Needs for Healthy Eating Products

Various tests were used to establish the relationship between healthy eating products and customer needs for these products (table 4.04). Tests that were used included: Pearson correlation tests, regression significance and t test values. The study achieved a Pearson correlation r value of -0.093, a regression p value of 0.001, t test value of 0.000 and a chi-square value of 0.443 as shown (table 4.03). Whereas Pearson correlation value (-0.093) indicates a weak negative relationship, regression r value (0.001) and t test value of 0.000 shows that there was a significant relationship between healthy eating products on offer and customer needs (table 4.03). Finn et al., (2000) avers that correlation coefficient is an informative measure on the strength of relationship between two variables. Regression (0.001) and t test analysis (0.000) values are, however, inferential statistics. Based on p values attained from regression (0.001) and t test (0.000) analysis, the researcher concludes that there was a significant relationship between healthy eating products on offer and customer needs for healthy eating products. The study thus rejects the null hypothesis H_0 —that there was no significant relationship between healthy eating products on offer and customer needs for healthy eating products. Legrand and Sloam (2006) report that although eating outlets had a selection of healthy eating products on offer, there was need to include more product categories especially non-genetically modified and organic food products. The findings of the duo show that although healthy eating products on offer were associated with customer needs, expanding product categories to include more variety was an important issue. Zick et al., (2010) on their part recommend that there was need for eating outlets

to expand product categories in the healthy eating product section to include traditional cooking styles and recipes.

VI. REFERENCES

- [1] Angell, S.Y., and Silver, G.P. (2008). Calorie labelling in New York city restaurants: an approach to inform consumers, available at: www.cspinet.org/reports/generationexcess/nycdh.pdf (accessed 3 August 2009).
- [2] Angelfire, (2013). Beef...and why it Shouldn't be What's for Dinner. America: American Diabetic Association, parag. 2. <http://www.angelfire.com/pe2/johnandbecca/vegpaper.htm>
- [3] Benelam, B. (2009). Calories on the menu, *Nutrition Bulletin*, Vol. 34 No.3, pp.289-90.
- [4] Carla, S., and Wartson, J. (2003). Privilege, protest, and changing worldview: A look at veganism through the Dudley Co-op., Havard, USA.
- [5] Davies, G.J., and Smith, J.L. (2004). Nutrition and food science, *Bradford* 34(2), 80-82.
- [6] Detter, H.A., Driskell, J.A., and Schake, M.C. (2008), Using nutrition labeling as a potential tool for changing eating habits of university dining hall patrons, *Journal of the American Dietetic Association*, Vol. 108 No.12, pp.2071-6.
- [7] Finn, M., White, E. W., and Walton, M. (2000). *Tourism & Leisure Research Methods; Data Collection Analysis and Interpretation*. London: Pearson Education.
- [8] Fisher, A., Laing J., and Stoeckel J. (1998). *Handbook for Family Planning Operations*
- [9] *Research Design*. New York: The Population Council.
- [10] Galliciano, R., Blomme, J. R., and Rheede, V. A., (2012). Consumer response to nutrition information menu labeling in full-service restaurants: Making the healthy choice. In Joseph S. C. (ed.) *Advances in Hospitality and Leisure (Advances in Hospitality and Leisure, Volume 8)*, Emerald Group Publishing Limited, pp.109-125, DOI: 10.1108/S1745-3542(2012) 0000008010.
- [11] Green, P., and Rory, J., (2016). *Gluten Exposed: The Science Behind the Hype*. Los Angeles: Celiac Disease Foundation.
- [12] Hwang, J., and Lorenzen, C.L. (2008). Effective nutrition labelling of restaurant menu and pricing of health menu. *Journal of Food Service*, Vol. 19 No.5, pp.270-6.
- [13] Josiam, B.M., and Foster, C.R. (2009). Nutritional information on restaurant menus: Who cares and why restaurants should bother. *International Journal of Contemporary Hospitality Management*, Vol. 21 No.7, pp.876-91.
- [14] Kearney, J. (2010). *Food consumption trends and drivers*. The Royal Society, *Philosophical Transactions B*. DOI: 10.1098/rstb.2010.0149.
- [15] Kenya National Bureau of Statistics. (2012). *Vision 2030 Economic Survey 2012 Highlights*; Ministry of Planning, National Development and Vision 2030, Kenya.
- [16] Lee, R.A., Ng d. L., and Zivin, J. (2007). *Economic Burden of a Gluten-Free Diet*. New York: Columbia University.
- [17] Legrand, W., and Sloam, P. (2006). Customers' preferences to healthy meals. In Joseph S. Chen (ed.) *2 Advances in Hospitality and Leisure*, Volume 2, Emerald Group Publishing Limited, pp.265-273. DOI: 10.1016/S1745-3542(05)02014-X.
- [18] Lin, B., and Frazao, E. (1997). Nutritional quality of foods at and away from home. *Food Review*. Vol. 20 No. 2, pp. 33-40.
- [19] Lindell, M.K., and Whitney, D.J. (2001). Accounting for common method variance in cross-sectional research designs. *Journal of Applied Psychology*. Vol 86(1), Feb 2001, 114-121. DOI: 10.1037/0021-9010.86.1.114.
- [20] Mackison, D., Wrieden, W.L., and Anderson, A.S. (2009). Making an informed choice in the catering environment: what do consumers want to know?. *Journal of Human Nutrition and Dietetics*, Vol. 22 No.5, pp.567-73.
- [21] Mwirigi, M. F., and Theuri, S. F. (2016). The challenge of value addition in the seafood value chain along the Kenyan north coast. *International Journal of Business and Public Management*. 2223-6244, Vol. 2(2): 51-56.
- [22] Koech L. (2013, November 17). Eat indigenous vegetables to curb lifestyle diseases. *Sunday Nation*.
- [23] Winston, J. (2009). Health Effects of Vegan Diets American Nutrition Society. America: ADA.
- [24] Witzel, M., and Warner, M. (2013). *The Oxford Handbook of Management Theorists*. London: Oxford University
- [25] Zick, A., Wake, Y., and Reeves, S. (2010). Nutrition labelling in restaurants: a UK-based case study, *Nutrition & Food Science*, Vol. 40 Iss: 6, pp.557 – 565; DOI: 10.1108/eb058808

VII. INTERNET SOURCES

- [1] <http://www.angelfire.com/pe2/johnandbecca/vegpaper.htm>
- [2] www.Tripadvisor.com