EFFECT OF KNOWLEDGE IN FOOD CHOICE ON CUSTOMER SATISFACTION IN RESTAURANTS WITHIN ELDORET CENTRAL BUSINESS DISTRICT, KENYA

## BY

ISABELAOMARIBA

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## DECLARATION

## Declaration by the candidate

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## Omariba Isabela Kerubo

SBM/S/PGHM/2005/15
Date

## Declaration by the Supervisors

This research thesis has been submitted with our approval as University supervisors.

Dr. Wambui E. Ng'ang'a
Department of Hotel and Hospitality Management
University of Eldoret

## Dr. Rachel Karei

Department of Hotel and Hospitality Management
University of Eldoret

## DEDICATION

I dedicate this research thesis to my dear husband for his encouragement.


#### Abstract

Social psychology enhances customer satisfaction and positively moderates the relationship between food menu and customer satisfaction.Though satisfaction has been widely studied, little is still known about satisfaction derived from the knowledge of food choice. The main purpose of the study was to determine effect of level of knowledge in food choice on customer satisfaction in restaurants within Eldoret Central Business District (CBD). Additionally the moderation effect of social psychology was tested. The study was guided by the following objectives; to determine the effect of food quality knowledge, nutrition knowledge, food menu knowledge and investigate the moderating effect of social psychology on the relationship between knowledge of food choice on customer satisfaction in restaurants within Eldoret CBD. Explanatory research design was used in the study. The study was informed by Expectancy Disconfirmation Theory and the Theory of Planned Behavior.The target population was 3610 customers from 36 restaurants within Eldoret Central Business District. Stratified and simple random sampling techniques were used to select 360 restaurant customers. The researcher used questionnaires as a tool for data collection. The data collected was analyzed using Statistical Package for Social Sciences (SPSS) version 23. Descriptive statistics were used to describe data, while inferential tests specifically multiple linear regressions were used to establish the relationship between independent and dependent variables. The study findings showed that nutrition knowledge ( $\beta_{2}=.319, \rho<0.05$ ) had the highest significant and positive effect, followed by knowledge of food menu ( $\beta_{3}=.278, \rho<0.05$ ) and knowledge of food quality ( $\beta_{1}=.243, \rho<0.05$ ) on customer satisfaction respectively. Findings show that the three levels of knowledge of food choice enhance customer satisfaction in restaurants, and that social psychology positively moderates the relationship between knowledge of food menu and customer satisfaction ( $\beta=2.466$, $\rho<0.05$ ), and negatively moderate relationship between nutrition knowledge and customer satisfaction ( $\beta=-1.888, \rho<0.05$ ), however, does not moderate the relationship between knowledge of food quality and customer satisfaction ( $\beta=-.839, \rho>0.05$. In conclusion high social psychology, customer's knowledge of food menu will increase customer satisfaction but their knowledge on nutrition and food quality will reduce satisfaction. Nutritional knowledge is a key ingredient in enhancing customer satisfaction. Based on these findings the study recommends that restaurants improve on the food nutrition and food quality, create awareness to customers on food nutrients they offer, and make the food menu clear and understandable to all customers.


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Figure 1. 1.: Conceptual Framework

## OPERATIONAL DEFINITION OF TERMS

Cover is thes eating space per customer in the restaurant.
Customer satisfaction is a measure of how well products and services meet or exceed the customer's expectations

Food is dishes on offer in restaurants for nourishment

Food choice refers to how customers select food from a given menu

Food menu is a list of foods items on offer in a restaurant with measures and selling price indicated.

Food neophobia isdislike or fear of unfamiliar foods or new foods.

Food quality refers to Specialcharacteristics in food that are linked to their geographical area, traditional composition or traditional production method they fulfill above standard quality criteria, or they offer organic origin, healthy benefit.

Novel food refers to Food that is new to the customers
Nutrition knowledge refers to knowledge of concepts and processes related to nutrition and health including knowledge of diet and health, diet and disease, foods representing major sources of nutrients, and dietary guidelines.

Restaurantis a food service operation that provides food and drink to customers following the order taken.

Social psychology refers to psychology that deals with social interactions including their origins and their effects on the individual.

# ABBREVIATIONS AND ACRONYMS 

| TRA | Theory of Reasoned Action |
| :--- | :--- |
| TPB | Theory of Planned Behavior |
| SP | Social Psychology |
| SPSS | Statistical Package for Social Sciences |
| NACOSTI | National Commission for Science, Technology and Innovation |
| KFM | Knowledge on Food Menu |
| KFQ | Nutrients Knowledge |
| NK | Kaiser-Meyer-Olkin |
| KMO | Central Business District |
| CBD | Analysis of variance |

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## CHAPTER ONE

## INTRODUCTION

### 1.1 Overview

This chapter presents background information, the statement of research problem, objectives of the study, hypothesis, significance, scope, limitations and assumptions of the study.

### 1.2 Background of the Study

Food service providers should understand customer satisfaction derived from knowledge in food choices. These will help maintain competitive advantage by delivering high quality services to satisfy their customers (Hu et al., 2009). Satisfied customers can bring lot of other advantages for the service providers as a ripple effect including loyalty to service provider, engagement in positive word-of-mouth promotion and paying premium prices (Amin et al., 2013; Dominici\&Guzzo, 2010; Kim \& Lee, 2010; Ryu\& Han, 2010).

In order to ensure high levels of customer satisfaction, the organization must first of all know the expectations of the customers and how they can meet such expectations. The organizations must have the ability to read the customers mind in terms of what they expect from the company, assess these expectations against what the company is offering and be able to provide a coherent means of meeting such expectations Ojo (2010). Therefore, customer satisfaction has caught considerable attention from the academicians, and the practitioners (Hu et al., 2009).To achieve customer satisfaction, a restaurant management should focus on food presentation, tasty food, spatial seating
arrangement, fascinating interior design, pleasing background music, reliable service, responsive service and competent employees (Namkung, \& Jang, 2008).

It has been shown that complementary services standards help boost customer satisfaction. (Khan\&Shaikh, 2011). From the customer point of view, starting with the decision making process (Pedraja, \&Yague, 2001), the consumers are first choosing the food type and the food quality of the restaurant.

Food is not just food; the selection and consumption of food has always been a matter to a complex network of cultural and individual factors. Today, consumers have developed more dynamic, complex and differentiated demands (Grunert, 2011). Food choice is a very complicated process and people make several food choices every day based on more or less conscious decisions. In fact, it might seem that most food choices are based on intuitive thinking, resulting in effortless and fast decisions often based on habits that are not consciously monitored (Köster, 2009). Our food choices cannot be seen only as a result of individual preferences but as complex social constructions. These choices are cumulative in the sense that they develop throughout people's lives and integrate people's experiences with food (Franchi, 2012).

Humans are faced with several food choices each day and make decisions on what food to eat based on several criteria. The need for food is a basic physiological need with a clear and simple goal and a seemingly straight forward solution on how to be satisfied (Mela, 2009). As simple as it may seem, food choices are multifaceted and are not necessarily straight forward. It can be considered as common knowledge that people have
different food preferences. For example some people prefer bell peppers,somelike a variety of foods while others might be picky eaters.

On one hand, preference in the context of food can indicate a consumers' choice of one food product over another. Liking, on the other hand, reflects the assessment of the quality of a product (Franchi, 2012).Choosing what to eat and negotiating food risks has become a continuous challenge exacerbated by inaccurate expert scientific knowledge (Yadavali\& Jones, 2014). Knowledge has been credited with providing the power to perform these key cognitive processes. True, clear, and understandable sources of knowledge are crucial to correctly orient consumers.

### 1.3 Statement of the Research Problem

Knowledge in food choice on customer satisfaction is very important. Though customer satisfaction has been widely studied in hospitality and tourism literature, little is still known about satisfaction derived from the knowledge on food choices and has provided limited documentation on the role of social psychological factors on food choice towards meeting customer satisfaction(Kim \& Lee, 2010).

Consumers have become more exacting, informed and critical in their food choices now than they were in recent past(Ryu\& Han, 2010).In the wake of globalization, every sector in the economy is now facing new challenges, the greatest of which it has to contend with new competition emanating from various countries across the globe, with the hospitality sector strongly affected (Hu et al., 2009). Most researches have also focused the service provider while ignoring customer perspective(Grunert,2011).Food processors claim that consumers act irrationally or even at random when choosing food products(Franchi,
2012).Thus, there is need to study the level of knowledge the customers have on food choice and how social psychologyaffectstheirchoices.

### 1.4 Main Objective

The main purpose of the study was to determine effect of knowledge in food choice on customer satisfaction in restaurants within Eldoret Central Business District

### 1.4.1 Specific Objectives

The specific objectives of studywere;
i. To determine the effect of knowledge in food quality on customer satisfaction in restaurants within Eldoret (CBD).
ii. To establish the effect of nutrition knowledge on customer satisfaction in restaurants within Eldoret (CBD).
iii. To assess the effect of knowledge in food menu on customer satisfaction in restaurants within Eldoret (CBD).
iv. To determine the moderating effect of social psychology on the relationship between the knowledge in food choice and customer satisfaction in restaurants within Eldoret (CBD.

### 1.5 Research Hypothesis

The research tested the following null hypothesis:
$\mathrm{H}_{\mathrm{O} 1}$ : There is no significant effect of knowledge in food quality on customer satisfaction in restaurants within Eldoret (CBD).
$\mathrm{SH}_{\mathrm{o} 2}$ : There is no significant effect of nutrition knowledge on customer satisfaction in restaurants within Eldoret (CBD).
$\mathrm{H}_{03}$ : There is no significant effect of knowledge in food menu on customer satisfaction in restaurants within Eldoret (CBD).
$\mathrm{H}_{04}$ : There is no significant moderating effect of social psychology on relationship between knowledge in food choice and customer satisfactionin restaurants within Eldoret (CBD

### 1.6 Significance of the Study

The study is important to the hospitality industry stakeholders to review their food provisions to suit the needs of the customers. The results of the study are expected to provide documentation on the level of knowledge customer have on food choices especially Kenyan hospitality industry where there is little documentation on the experiences. The study may also lead to a better understanding of operations and quality dynamics involved in the hotel industry in Kenya and ultimately lead to customer satisfaction.

Scholars and academicians are expected to identify further areas for research on knowledge of food choices in restaurants in Kenya that would enhance better customer satisfaction and hence organizational performance. Academicians will also make
references and deductions from the findings and conclusions of the study since it provides additional information to the body of literature in the field of knowledge of food choices.

The findings could provide insights to the management of restaurants in re-examining their services strategy development particularly in the context of increasing customer satisfaction and service loyalty, restructuring or general overhaul of the strategies used in food choices and customer satisfaction and recommendations enable policy makers formulate policies that relate to the hotel industry in Kenya.

### 1.7 Scope of the Study

The study focused on the level of knowledge of food choice on customer satisfaction in restaurant within Eldoret CBD. It was also delimited on knowledge in food quality, nutrition knowledge, food menu and effect of social psychology. The study targeted customers drawn from all the restaurants within Eldoret CBD (County Government records 2016), who were conveniently sampled from those in the restaurant at the time of the study. Data was collected by use of structured questionnaire between July and August 2018.

### 1.8 Limitation of the Study

The study anticipated inadequate local literature on the knowledge on food choices concept. Some respondents held vital information for fear victimization, which is also against the hotel policy. Respondents were unwilling to supply the right response or felt that there was no benefit in giving the right answers to the questions. However, the
researcher assured all the participants privacy and confidentiality of information they provided for the purposes of the study

### 1.9 Assumptions of the Study

The study assumed that the respondents were cooperative and that the information they gave was truthful. It also assumed that customers know how to choose their foods in the restaurant.

## CHAPTER TWO

## LITERATURE REVIEW

### 2.1 Introduction

These chapter reviews literature on existing studies and its relation to the variables identified by the study objectives. It gives an overview on the level of knowledge of food choice on customer satisfaction by various authors in the food service industry.

### 2.2 Customer Satisfaction

Customer satisfaction can be defined in terms of meeting the expectations of the customers and also in terms of parameters associated with satisfaction (Malik \&Ghaffor, 2012).As found by Thorsten and Alexander (1997),customer satisfaction with the product and services of company is the strategic factor for competitive advantage. In the context of relationship marketing, customer satisfaction is the way that leads to long term customer retention because unsatisfied customers have very high switching rate (Lin \& Wu, 2011).

According to Zairi (2008) the feeling of accomplishment of inner desires is called satisfaction. Customer satisfaction has direct effect on customer loyalty (Mittal \& Lassar, 1998). If product or service fulfils the needs and demand of customer he will become satisfied. It is important to note that this concept is an intricate paradigm. Fecikova (2004)notes that researchers have various ways of defining the concept. Consequently, Veloutsouet al. (2005) notes that the concept is derived from and influenced by different factors and should be treated as a completely separate or different or independent aspect.

Many researchers have shown clearly that service quality and customer satisfaction are independent concepts.

Customer satisfaction concerns a high assessment of personal experience and is greatly influenced by the individual's expectations Klassen,.(2002).This essentially implies that a service provider is not inclined to determine exactly the level of satisfaction ofcustomers but rather the whole aspect of satisfaction is completely within the domain of individual customers.

Based on these explanations, there exists some challenges and some experts urge concentration on a goal level that will be more closely linked and related to the aspect of customer fairness. Therefore instead of assessing the level of satisfaction of the consumer, experts encourage businesses to assess how customers hold them accountable as service and product providers and through this they may have clear view on the levels of satisfaction of the customers.

Measuring customer satisfaction goes beyond the structure of happy customers and provides a wide-ranging comprehension to the customer's pre-purchase and postpurchase behavior. To achieve long term success, a firm should monitor its customer satisfaction indicators and pointers in relation to product, service and customer care. Cite Thus, business experts have made every effort to identify the structures of organizations that consistently attempt to satisfy their customers, so as to develop instruments for the same over pre-determined period of time in order to make changes to the existing strategies in line with changing expectations that shift satisfaction levels.This is also to build continuous quality improvement systems that meet the expectations.

Therefore, the level of knowledge of the customer on food choice, perceptions and attitudes will significantly augment the organizations opportunity to make better business decisions that would have a positive mark.Millana (2000) points out that these organizations or firms will be able to know their customer requirements, needs or prospects and will be in a better position to know if they are meeting those requirements and how this would impact on the overall performance of the firm.

Customer satisfaction is basically a feeling that arises from evaluation, Kotleret al. (2009). This is when the consumer of particular goods or services compares what is received against their expectations from the consumption of those goods or services as indicated.

To provide a means of gaining clear understanding, Liu et al. (2008) developed criteria that can be used for measuring satisfaction: First; Satisfaction ,all about the perceptions established by the consumers on the acceptability of the goods or services, secondly; content, which is ideally the characteristics of goods or services and the fundamental benefits that gives the consumer a positive experience hence a good reputation about the establishment, thirdly; relieved, mainly concerns the mitigation of the negativity state of the customers about the goods or services, fourth; novelty ,the new goods or services and how they are able to motivate and excite customers thus creating a better outlook and lastly; surprise, the wonder and unexpected pleasure that is brought about by goods or services consumed.

The most common way of quantifying satisfaction is to compare customer perception of experiences, with their expectations based on the Expectation-Disconfirmation Model of customer satisfaction (Elkhani\&Bakri, 2012) as shown in Table 2.1 below.

## Table2.1Levels of Expected Satisfaction

| Poor Quality | Adequate Quality | High Quality |
| :--- | :--- | :--- |
| Dissatisfaction | Satisfaction | Extreme Satisfaction |

Sources: (Elkhani\&Bakri, 2012)
This model suggests that if customers perceive their expectation as met, they are satisfied. If their expectations are disappointed, this is a negative disconfirmation and they will be dissatisfied. The degree of services expected will be based on the customers' knowledge of what they are provided with such as quality of food offered, prices, availability among other aspects. The knowledge regarding food choices is reconstructed through prior experiences, experiences with other restaurants and investment in marketing efforts (Elkhani\&Bakri, 2012).

The service industry should be in position to anticipate the customer expectation and fulfill them at maximum level in order to reach the satisfaction of their customer. It is true that poor quality leads to dissatisfaction, adequate quality lead to satisfaction and high quality service result into the extremely satisfaction and customerbecomesacontinuous buyer of the services from the restaurants.

### 2.3 Food Choices

Food and eating are part of our everyday life. Although its primary function is to fulfill biological needs, food plays an important role in many activities in our lives that are unrelated to nutrition Rozin(2006). Food choice has become a central part of symbolic, economic and social aspects of life by conveying information concerning preferences, identities and cultural meanings (Sobal, Bisogni, Devine\&Jastran 2006).

Food choice is a very complicated process and we make several food choices every day based on more or less conscious decisions. In fact, it might seem that most food choices are based on intuitive thinking, resulting in effortless and fast decisions often based on habits that are not consciously monitored Köster(2009). These choices are cumulative in the sense that they develop throughout people's lives and integrate people's experiences with food Franchi( 2012).

There are several other factors influencing food choice, such as health, price, convenience, mood, sensory appeal, natural content, weight control, familiarity and ethical concerns (Steptoe et al., 1995). Cultural values, perceptions, beliefs, attitudes and social psychology are important to food choices (Nestle et al., 2010). In addition, consumers' attitude or perception of extrinsic product cues is also of importance Chreaet al., (2011). Food choices are dynamic, complex and situational, and change over a person's life course Franchi(2012).

Studies have shown that sensory appeal is one of the most important factors affecting food choice together with health, convenience and price; Franchi(2012); Scheibehenneet al., (2007). There are different ways to categorize the different factors affecting food choice, and different disciplines may concentrate on various areas. Shepherd (2001) divides food choice factors into three main groups; first; product or food related factors which rely on the physical or chemical properties of the food, sensory attributes, functional factors and nutrient content, secondly; the consumer related factors including personality, social psychological factors, and physiological factors and thirdly, environmentally related factors including economic, cultural and social issues (Shepherd, 2001; Wądołowskaetal(2008).

Many of the mentioned factors are mediated by beliefs and attitudes held by the individual. For instance, the beliefs about the nutritional quality of a food product may be more important than the actual nutritional value of the food when consumers determine their food choice.

The division of food choice factors do not prioritize culture as an important factor as argued by Franchi (2012), who also suggests that we must not overlook the importance of the "feeling" consumers have that makes some foods seem "better" than other foods.Choosing a food productrequires a decision making process considering different factors. This process may be more or less conscious and includes both cognitive and emotional dimensions; all of which involve past experiences, present needs, sentiments and values.

Food choice cannot be translated into a rational or cognitive exercise as it involves several emotional dimensions Franchi(2012). Since people repeatedly make food choices, they develop personal systems for food choice which have two main components: Conscious value negotiations and strategies involving choice patterns based on habits. Values that are negotiated are sensory perceptions, monetary considerations, convenience, health/nutrition and quality. The strategies people develop become heuristics that guide food choices. While these strategies may be unique for every food choice, they can have a similar pattern and tend to be stable but flexible.

Food choice is also a highly complex process with variation both within and between individuals, and choices are often very reflective or habitual and automatic in nature.

Furstet al. (1996), (Sobal\&Bisogni2009) have stated that food choices are frequent, multifaceted, situational, dynamic and complex.

In making a decision regarding the consumption of a type of food, consumers face two types of uncertainty: the health attributes of a specific food and future health outcomes. Given the information asymmetry and credence nature inherent in type of foods, labeling (for example health claims) plays a key role in allowing consumers to make informed choices Hailu, et al.(2009); Garretson and Burton, (2000); Wansink, (2003); Kozup, Creyer and Burton, (2003). People consider other important and influential components besides health benefits, such as the taste and preference when making food choices as suggested by Dorms (2006).However, use of presented nutritional information may be influenced by consumers' individual characteristics, such as motivation to perform healthy behavior, health consciousness, nutritional knowledge, and health status Moorman, (1990).

The finding common to the studies was that consumers are more likely to have a favorable attitude towards purchasing healthy food when they have high nutritional knowledge and motivation to process nutritional information.However, despite the significant role nutritional knowledge and motivation play in food decisions, subsequent studies have not investigated how these traits may affect consumer food choices in restaurants. Accordingly, it should be determined how nutritional knowledge and motivation to process information can affect evaluations of menu items in restaurants.

### 2.4 Knowledge ofQuality Food on Customer Satisfaction

Quality of food products has often been discussed and destination marketers and policy makers are also recognizing the importance of local and typical food products as a
leverage to promote the authenticity of their region and related economy (Presenza and Del Chiappa,. 2013). Qualities of food characteristics that are offered by a restaurant determine the level of customer satisfaction. (Khan\&Afsheen, 2012).

Many food products exhibit special characteristics linked to; their geographical area, traditional composition or traditional production method they fulfill above standard quality criteria, or they offer organic origin, healthy benefit. These characteristics have an impact on consumers' food perception and purchase decision making and their importance has increased as a result of the crises that have shaken the European food market over the past few years, leading to a decline in consumer confidence in the safety and quality of food products Jahnet al,. (2005).The number of consumers interested in quality of food products has grown significantly. What constitutes quality in the mind of the consumer, and especially their weights, may change over time Grunert, (2005). Furthermore, it is difficult to understand the consumer behavior when it comes to the differences of each individual underlying cognitive determinant on food quality (Rijswijk \&Frewer, 2008).Consumers have become more exacting, informed and critical in their food choices now than they were in recent past.

According to Grunert, (2005), consumers are often poor at predicting quality and are dissatisfied despite the fact that they act in a situation where they are unable to confirm on their own expectations for a particular product. As mentioned byAcebron\&Dopico, (2000); one of the vital signs of quality is the freshness of food.

Fresh food is relatively a current phenomenon in parallel with the consumers' growing awareness of nutrition and quality Whitehall, Kerkhoven, Freeling, \&Villarino, (2008),. It is therefore an important aspect to be learned by all parties who are involved in the food
industries such as cruise ships, themed restaurant, food courts and many others in order to satisfy the need and wants of their customers.

It is compulsory for corporations to maintain their own excellence in quality mainly because everyone is a lot more attentive to quality excellence as compared to priceSatya, (2011). The consumers sometimes buy better brand in terms of quality instead of thinking about of the price issue Rajput et al., (2012).

### 2.5 Nutritional Knowledge of Food Choice on Customer Satisfaction

Food attitude and purchase intention decrease when unclear nutritional information is provided (Burton \&Creyer, 2004); (Kozup, et al., 2003). Additionally, consumers tend to underestimate the number of calories or the amount of fat contained in food offered inrestaurants (Chandon\&Wansink, 2007). There is evidence that consumers' expectations of the number of calories, amount of saturated fats, and sodium levels are significantly different from the actual levels contained in restaurant food; this difference may be even greater for less healthy foods than for healthier foods.

A consumer survey was conducted on 611 college/university students with ages between 18-25, aimed to reveal items like type of food awareness, eating habits, health consciousness and acceptance of novel foods of consumers. Likert scale and two different scales designed by other researchers were used to assess the participants' responds.Resultsshowedpresence of low tendency through type of foods and weak link between health benefits and type of foods among the students.Participants also had uncertain thoughts if the information about type of foods was true or not. These
parameters had meaningful differences when compared across the cultures. In addition, foodneophobia was seen as the only factor that affected students' behavior towards the nutrition.

The older generation is more concerned about their health and will be more willing to buy health oriented food products. (Shiuet al,.2004).When nutritional information is presented, consumers tend to make healthier menu item choices (Burton, Creyer, Kees, \& Huggins, 2006). Providing nutritional information affects healthy eating behavior. Other studies have shown that providing nutritional information has no effect on the evaluation of food or consumer food choices in a restaurant setting (Droms, 2006; Stubenitsky.,et al., 2007). The lack of effect was explained by suggesting that people consider eating out a special event where they are allowed to eat any food, regardless of health Stubenitsky, et al., (2007). Dorms (2006) also suggested that, when making food choices, people consider other influential components such as the taste of the food and their food preferences.

Andrews, et al. (2000) conducted a similar study to examine the direct effects of nutritional knowledge on consumers' nutrition evaluations of products and the moderating effects on the relationship between knowledge onfoodchoice and customer satisfaction. Dorms (2006) examined the role nutritional knowledge plays in dietary decision making in a restaurant setting. The first study, which sought to discover the effects nutritional information has on consumer food choices, did not obtain significant result.

Consumers are believed to be more interested to use the nutrition information to make healthier food choices when this information is presented to them in a simplified way that
is easily seen (Front-of-Pack) and understandable (Dumanovskyet al., 2010). However, variations in label formats are reported to more likely influence the level of understanding of the information but have limited or no effects on consumption patterns (Fernandez \&Grunert, 2012). The evidence that posting simple and understandable nutrition information on menu boards increases the interest and the number of consumers who see and use this information, is weak (Dumanovskyet al., 2010).

Although earlier studies have not found a close connection betweennutrition knowledge and food intake (Shepherd \&Stockley, 1987); Stafleuet al.,(1996); Wardle et al., (2000) found that nutrition knowledge correlated significantlywith vegetable (0.36), fruit (0.23) and fat (-0.21) intake. In addition, theydemonstrated that people in the highest nutrition knowledge category werealmost 25 times more likely than those in the lowest nutrition knowledge categoryto be eating a healthy diet which is in accordance with current dietary recommendations.

However, the knowledge of different health behaviors does not haven effect on behavior if a person is not motivated to change (Moorman \&Matulich, 1993). In the study of( Steptoe \& Wardle 1992), respondents who wereaware of their low health status tried to eat healthily.

### 2.6 Knowledge of Food Menus on Customer Satisfaction

According to (Kershaw's 2009) research, the menu is considered as a primary marketing and sales tool by directing attention and increasing profit in restaurants.

Since most restaurant menus have limited space to provide a great deal of information and that too much information may lead to complications and confusion to the guests, more efforts should be made by restaurants to offer a clear menu with an appropriate and
effective amount of nutrition information, which helps customers make healthier food choices. A menu card is the most important tangible element and the main marketing tool of the restaurant as is shows what the restaurant has to offer. It is the principal means by which the provider influences consumer choice.

Menus in small restaurants should be kept simple to make it easily readable. In higher scale restaurants it should be kept more informative but should not include nutritional factors which might offend some guests Auchinclosset al., (2013). While you cannot do everything a customer may ask for, having a flexible menu will make customers happy Mensah and Amuquandoh, (2014).

Lack of knowledge leads to making less nutritious choices when dining in restaurants compared to preparing meals at home Morrison et al., (2011). Unlike the packaged food items that provide detailed nutrient information due to the enactment of Nutrition Labeling and Education Act of 1990, the nutrient content of food provided in restaurants is difficult for customers to compare since restaurants fail to disclose standard nutrition content at the point of purchase (Fielding, Jarosz, Kuo, \& Simon, 2009).

Numerous researchers conducted their experiments in the fast food stores, by observing the real customers' food choices on menu or menu board with and without Calorie information, or distributing a survey about Calorie information on menus. For instance, a survey conducted at 45 fast food restaurants in New York City indicated that $72 \%$ of participants noticed the Calorie information being posted on the menu or menu board, whereas only $27 \%$ of them took the Calorie information into considerations when making their decisions Dumanovsky, Huang, Bassett, \& Silver, (2010) The findings of the studies
on full service restaurants reflected an obvious reduction in sales of the items with high Calories Auchinclosset al., (2013); (Pulos\&Leng, 2010).

### 2.7 SocialPsychological Influences on Food Choices

Research on relationship between customer's food choices, conduct and attitude has concentrated on preventing the negative aspects of certain foods. For instance, BabiczZielińska (2006) discovered that psychological factors such as the attitude, personality and motive of the customers contributed towards various forms of food and their consumption. Gibson (2006) also reviewed the intellectual, physiological and psychological mechanisms which affect the food choice .With respect to human beings, he discovered that the psychological features influenced how foods were selected for example, restrained consumption, emotional intake and stress which reinforced the adverse effects of certain nutrition .Among factors that determine the quantity and sort of food consumed, the psychological factors play very important roles. Motives, attitudes and personality are considered as the key factors (Woś, 2003).

Within consumer and food studies, attitude objects are often attributes such as fat, odour, texture or defined brands, or general product categories (Olsen, 1999).(Eagly\&Chaiken1993) in turn defined attitude as a psychological tendency that isexpressed by evaluating a particular entity with some degree of favor or disfavor. They also agree with the multi-component definition of attitude advanced by (Rosenberg \&Hovland1960). This conceptualization suggested that attitude has three components: cognitive; which represents a person's information orbeliefs about the object; affective; which deals with a person's feelings of likeordislike towards the object and behavioral; which refers to aperson's tendency to behave in a certain way towards the object.

One of the dominant motives of food choice is the wish to obtain a certain psychical comfort after eating specific foods prepared in a specific way(Babicz-Zielińska, 1999). The rational motives do not always result in proper food patterns. For example, the desire to be healthy, slim or conserve the youth can result in improper food behavior referred to as "food faddism". Their sources are most often explained bybeliefs in properties of some foods which prevent illnesses, some foods are especially unhealthy and should be eliminated, that only natural food without any preservatives or preparations is healthy (Fieldhouse, 1995)

Attitude, which also influences food choice is defined as an entity composed of a heterogeneous array of thoughts and other responses relevant to expressing the relatively stable meaning and feeling to objects such as products, persons, slogans or ideas toward which people differ as regards positive and negative effect Olsen, (1999); (Jachnis\&Terelak, 1998). Shanks et al. (2017) discovered that physiological, emotional, socio-economic, and mental elements influenced customers' foodchoice and their consumption rate. Unfortunately, they failed to substantiate how the physiological factors affected food choices among customers.

Earlierresearch has provided limited documentation on the role of psychological factors on food choice towards meeting customer satisfaction. Therefore, it is critical in this research to determine the effect of psychological factors of food choices on customer satisfaction.

### 2.8 Theoretical Framework

In order to understand the influence of food choice on customer satisfaction, the study employed the Expectancy Disconfirmation Theory, Oliver (1980), Kano's Customer

Satisfaction Model (Kano, 1995), and the Theory of Planned Behavior Petrovici, Ritson \& Ness, (2004)

### 2.8.1Expectancy Disconfirmation Theory

The most widely accepted conceptualization of the customer satisfaction concept is the expectancy disconfirmation theory developed by Oliver (1980), who proposed that satisfaction level is a result of the difference between expected and perceived performance (Oliver, 1980). Satisfaction (positive disconfirmation) occurs when a product or service is better than expected. On the other hand, a performance worse than expected results into dissatisfaction (negative disconfirmation). The disconfirmation theory argues that "satisfaction is related to the size and direction of the disconfirmation experience that occurs as a result of comparing service performance against expectations" (Ekinci\&Sirakaya, 2004,). This study was mainly guided by this theory to achieve its objectives by employing the elements of positive and negative disconfirmation to establish customer satisfaction The theory also helped inform the understanding of the concept of satisfaction more accurately and comprehensively. This, in turn, assisted in decision making in regard to the development of the conceptual framework that fitted the research problem by applying the constructs of customer expectation and customer perception as used in the theory. .

The theory proposed that satisfaction level is a result of the difference between expected and perceived performance. Satisfaction (positive disconfirmation) occurs when product or service is better than expected. On the other hand, a performance worse than expected results with dissatisfaction (negative disconfirmation).Disconfirmation theory indicates that customers compare a new service experience with a standard they have developed.

Their belief about the service is determined by how well it measures up to this standard. The theory presumes that customers make purchases based on their expectations, attitudes, and intentions (Oliver 1980). Later, during or after consumption, a perception of performance occurs as customers evaluate the experience. The process is completed when customers compare the actual service performance with their pre-experience standard (Beardon\& Teel 1993, Cardozo 1965, Day 1977, Oliver 1980) or expectation. Theresult is confirmation, satisfaction, or dissatisfaction.

### 2.8.2Kano's Customer Satisfaction Model

The study will be guided by Kano's Customer Satisfaction Model(1995). According to Kano the model (1995) classifies product attributes based on how they are perceived by customers and their effect on customer satisfaction. These classifications are used as a guide to design decisions in that they indicate when good is good enough, and when more is better. The model has been found useful in identifying customer needs; determining functional requirements; concept development and analyzing competitive products. The model divides product attributes into three categories: threshold, performance, and excitement. A competitive product meets basic attributes, maximizes performances attributes, and includes as many "excitement" attributes as possible at a cost which the market can bear. Threshold or need fulfillment attributes are the expected attributes or "musts" of a product, and do not provide an opportunity for product differentiation.cite Increasing the performance of these attributes provides diminishing returns in terms of customer satisfaction; however, the absence or poor performance of these attributes results in extreme customer dissatisfaction. An example of a threshold attribute would be the provision of a meal such as breakfast to customers, the attribute is either satisfied or
not. Performance attributes are those for which more is generally better, and will improve customer satisfaction.

Conversely, an absent or weak performance attribute reduces customer satisfaction. The needs that customers verbalize most will fall into the category of performance attributes. These attributes will form the weighted needs against which product concepts will be evaluated. The price for which a customer is willing to pay for a product is closely tied to performance attributes. For example, customers would be willing to pay more for a room/meal that provides them with better comfort or a more elaborate meal.

Excitement attributes are unspoken and unexpected by customers but can result in high levels of customer satisfaction, however their absence does not lead to dissatisfaction; cite Excitement attributes often satisfy latent needs which customers are currently unaware of, for example, the provision of a breakfast item that a customer has never experiences before. Kano (1995) also posits thatin a competitive market, the industry provides similar performance, providing excitement attributes that address "unknown needs" can provide a competitive advantage. Other products often have attributes that cannot be classified in the Kano Model.cite

### 2.8.3The Theory of Planned Behavior (TPB)

Theory of Planned Behavior (TPB) (Petrovici, Ritson\& Ness, 2004) is based on an earlier version of Theory of Reasoned Action (TRA) that is commonly used to understand the conduct of an individual regarding their food choices McDermott et al., (2015). These models offer a conceptual imperative which permit the developers and policy makers to recognize the essential factors that reinforce a particular conduct and selection of particular interventions. The TPB is based on the determination of individual's intent to
portray a particular behavior. Which in turn isdetermined by an individual's attitude towards a particular aspect, their thoughts and the perceived behavioral control. TPB mirrors the psychological factors which influence the behavior of an individual. Some of the dimensions of knowledge include food quality, nutritive knowledge, and knowledge on food menus. The models classify product attributes based on how they are perceived by customers and their effect on customer satisfaction. These classifications are used as a guide to design decisions. The theories have been found useful in identifying customer need, determining functional requirements, concept development and analyzing competitive products. A competitive product meets basic attributes, maximizes performances attributes, and includes as many "excitement" attributes as possible at a cost which the market can bear. Threshold or need fulfillment attributes are the expected attributes or "musts" of a product, and do not provide an opportunity for product differentiation.

However, the absence or poor performance of these attributes results in extreme customer dissatisfaction. Cite. These attributes are often of little or no consequence to the customer, and do not factor into consumer decision. This suggests that the impact of nonmonetary factors could enhance the role of reasoned action behind food choice and customer's conduct in a developing economy. These factors include knowledge regarding foods and its quality aspects, customers' behavior, intention, habit and food preference among othersdespite the fact that the impact of these factors may still be confined to economic factors.

These conclude that satisfaction is not a universal phenomenon, and not everyone gets the same satisfaction out of a hospitality experience. Customers usually have different needs,
objectives, past experiences and knowledge. All these influence expectations. It is therefore important to understand customer needs and objectives that correspond with different kinds of satisfaction.

### 2.9 Conceptual Framework

The independent variables are composed of knowledge dimensions regarding foodchoices from the customer's perspective. These include knowledge on quality of food (freshness, hygiene and safety), nutritive knowledge (balanced diet, nutrition information and lifestyle eating) and food menus (menu items, menu language and menu combination.Customer satisfaction is considered as the only dependent variable measured by the level of satisfaction among customers, If a customer is likely to choose a particular food the second time, they are more likely to be satisfied. This does not necessary translate to the knowledge held by the customers. The research sought to determine the extent to which the intervening variable affects the outcome when selecting food in the restaurants as shown in Figure 1.1 below.


Source: adopted from(Ryu\& Han, 2010)and modified by author (2018).

Figure1.1: Moderating effect of social psychology on the relationship between knowledge of food choice and customer satisfaction.

## CHAPTER THREE

## RESEARCH METHODOLOGY

### 3.1 Overview

This section describes research design, study area, target population, sampling design and sample size, data collection methods, validity and reliability of research instruments, data collection procedures and data analysis technique.

### 3.2 Research Design

Explanatory research design was used in this study. According to Cooper and Schindler, (2006) explanatory research seeks to establish the relationship variable X and Y . The explanations argue that phenomenon Y (custom satisfaction) is affected by variable X (knowledge on food choice). These designs were chosen because it applied closely to the research objectives of this study.

### 3.3 Target Population

The study targeted restaurants established within EldoretCBD, county government (2016). The respondents were customers targeted with the objective of assessing their satisfaction level in relation to their knowledge on food choice under study. As shown in the Table 3.1 below

Table 3.1: Target Population

| Street | Number of <br> restaurants | Number of <br> Covers |
| :--- | :---: | :---: |
| OgingaOdinga Street | 11 | 1360 |
| Oloo street | 7 | 450 |
| Kenyatta street | 6 | 730 |
| Muliro street | 3 | 400 |
| Ronald Ngala street | 9 | 670 |
| Total | $\mathbf{3 6}$ | $\mathbf{3 6 1 0}$ |

Sources: County Government (2016); Tourism Regulatory Authority North Rift

## Region (2018)

### 3.4 Sample Size and Sampling procedure

Sampling technique is defined as a process of selecting a suitable sample for the purpose of determining the parameters of a description of strategies which the researcher used to select a representation of respondents from the target population (Adams et al.2007).

### 3.4.1 Sample sizes

From the target population of 3610 , Taro (1973) sample size formula was used to select a sample size of 360 customers as shown below;

$$
n=\frac{N}{1+(N) e^{2}}
$$

Where:
$\mathrm{n}=$ Sample size
$\mathrm{N}=$ Population size
$\mathrm{e}=$ the error taken as 0.05
Thus, sample size was as follows:

$$
n=\frac{3610}{1+(3610) 0.05^{2}}=360.099=360
$$

### 3.4.2 Sampling Procedure

The study used the total number of covers in the restaurants and random sampling method to select the customers from each of the 36 restaurants. The researcher usedtotal number of covers in each restaurant then proportionately obtain sample sizeswhichwere distributed according to Neyman allocation formula (1934). The purpose of the method is to maximize survey precision, given a fixed sample size. With Neyman allocation, the best sample size for stratum $h$ would be:

Where, $\mathrm{n}_{\mathrm{h}}$ - The sample size for stratum h ,
n - Total sample size,
$\mathrm{N}_{\mathrm{h}}$-The population size for stratum h ,
N - The total population

Hence, distributions were as follows;

Table3.2: Sampling

| Street | Number of <br> restaurants | Number of <br> Covers | Sample Size |
| :--- | :---: | :---: | :---: |
| OgingaOdinga Street | 11 | 1360 | 135 |
| Oloo street | 7 | 450 | 45 |
| Kenyatta street | 6 | 730 | 73 |
| Muliro street | 3 | 400 | 40 |
| Ronald Ngala street | 9 | 670 | 67 |
| Total | $\mathbf{3 6}$ | $\mathbf{3 6 1 0}$ | $\mathbf{3 6 0}$ |

Sources: County Government (2016);Tourism Regulatory Authority North Rift Region (2018).

### 3.5 Data collection Instruments

The researcher used structured questionnaires as a tool for data collection and also close ended questions.Use of questionnaires is an efficient way of data collection. A research assistant was used to clarify any queries from the questionnaires and this is aimed at increasing the response rate. The questionnaires were administered to respondents who were in the restaurants at the time of the study.

### 3.5.1 Validity of the Research Instrument

According to McMillan and Schumacher (2003) validity is quality attributed to proposition or measures of the degree to which they conform to establish knowledge or truth. An attitude scale is considered valid, for example, to the degree to which its results conform to other measures of possession of the attitude.Validity is determined by
whether the measure predicts thisparticular behavior (Eagly\&Chaiken, 1993).The researcher critically considered each item to see if it contains real representation. The researcher then discussed the items in the instrument with the supervisors and research experts to evaluate the applicability and appropriateness of the content, clarity and adequacy from a research perspective. The advice included suggestions, clarifications and other inputs.

### 3.5.2 Reliability of the Research instrument

The reliability of an instrument is the measure of the degree to which a research instrument yields consistent results or data after repeated trials. In order to test the reliability of the instrument, the Crobanch alpha test which is a measure of internal consistency was used, which closely relates to a set of items taken as a group. A "high" value of alpha often was used as evidence that the items measure an underlying (or latent) construct. Content validity of the instrumentwasdetermined through piloting, where the responses were checked against the research objectives.

The questionnaires were administered twice within an interval of two weeks, to determine the coefficient of stability. Pearson product moment formula was used to establishthe extent to which the questionnaire elicits the same responses every time it is administered. The results obtained from the pilot study assisted the researcher in revising the questionnaire to make sure that it covers the objectives of the study.the pilot study was do in three restaurants in kisii.s

### 3.6 Data Collection Procedures

The researcher obtained a research approval authorization from the university to enable acquire a permission from NACCOSTI to carry out the study. Before the actual data collection exercise, the researcher undertook preliminary survey within the restaurants in order to familiarize with the study area and also make appointments with the management of the restaurants.Theresearcher distributed the questionnaires to the restaurant supervisors and collected them once they were filled. The researcher worked with one research assistantin approaching the respondents and to help them understand and answer the questions in the questionnaire.

### 3.7 Data Analysis

Data was analyzed quantitatively. The analysis of the data was done using statistical package for Social Scientists (SPSS) version 23. The data was then summarized, coded, tabulated and analyzed using both descriptive and inferential statistics in the form of frequencies and percentages.

### 3.7.1 Direct Effect

Descriptive statistics include those of the mean, standard deviation and frequency distribution while inferential statistics involves use of correlations and multiple regression analysis.The significant of each independent variable was tested at a confidence level of $95 \%$.

The regression equation of the study was applied as shown below

$$
\gamma=\alpha+\beta_{1} x_{1}+\beta_{2} x_{2}+\beta_{3} x_{3}+\varepsilon
$$

Where, $\quad \mathrm{Y}=$ customer satisfaction
$\alpha=$ Constant
$\beta_{1} \ldots \beta_{4}=$ the slope representing degree of change in independent variable by one unit variable.
$\mathrm{X}_{1}=$ Knowledge of food quality
$\mathrm{X}_{2}=$ Nutrition knowledge
$X_{3}=$ Knowledge of food menu
$X_{4}=$ Social psychology

### 3.7.2 Moderation Effect

Hierarchical moderated linear regression Baron and Kenny (1986) was used to test the moderator effects. This is a method of regression in which not all the variables are entered simultaneously but one at a time and at each step the correlation of Y , the criterion variable with the current set of the predictors is calculated and evaluated. The hierarchical method was chosen because it would show how the prediction of the independent variables, a moderator, and interactions of the independent variables and a moderator improves the prediction (Leech et al., 2011). At each stage the $\mathrm{R}^{2}$ that is calculated shows the incremental change in variance accounted for in Y with the addition of a new predictor.

$$
y=\beta_{0}+\beta_{1} x_{1}+\beta_{2} x_{2}+\beta_{3} x_{3}+\beta_{4} M+\beta_{5} x_{1} * m+\beta_{6} x_{2} * M+\beta_{7} x_{2} * M+\varepsilon_{5} \ldots
$$

Where, $\quad \mathrm{Y}=$ customer satisfaction

$$
\alpha=\text { Constant }
$$

$\beta_{1} \ldots \beta_{4}=$ the slope representing degree of change in independent variable by one unit variable.
$X_{1}=$ Knowledge of food quality
$\mathrm{X}_{2}=$ Nutrition knowledge
$\mathrm{X}_{3}=$ Knowledge of food menu
$\mathrm{M}=$ Social psychology

### 3.7.3Assumptions of Multiple Regression Analysis Model

Variables are normally distributed,.Williamet al. (2013); Regression assumes that variables have normal distribution; none normally distributed variables can distort relationships and significance tests.

Linear Relationship between Independent VariablesandDependant Variable; Standard multiple regression can only accurately estimate the relationship between Dependant Variable and Independent Variables if the relationships are linear in nature.

Homoscedasticity; Means variance of errors is the same across all levels of the Independent Variables, when variance of errors differ at different values of the Independent Variables, heteroscedacity is indicated.Variables are measured without error (reliably) - unreliable measurement causes relationships to be under-estimated increasing the risk of Type II error.

Normality; The assumption of normality states that the error terms at every level of the model are normally distributed.

Multi-collinearity refers to the presence of high correlations between independent variables (Williams et al., 2013). In this study, multi-collinearity was assessed by means of tolerance and Variance Inflation Factor (VIF) values. Normally, a tolerance value of below 0.01 or a VIF value greater than 10 reveals serious multi-collinearity problem (Hair et al., 2007). Tolerance indicates the amount of variability of the particular independent variable not explained by other independent variables, whereas VIF is the inverse of tolerance statistic.

### 3.8 Ethical Considerations

Ethical considerations are principles that a researcher should abide by when conducting a research as organizations have rules and regulations governing their policies and practices that may require permission before undertaking the research.Permissionwas sort from National Commission for Science, Technology and Innovation (NACOSTI)

The purpose of the study was explained through written introduction and verbally.The researcher purely used the information collected for the purpose of this study and was treated with high degree of confidentially .The respondents were notified of the freedom to withdraw from participation whenever they wish to (Mugenda and Mugenda, 2012) The researcher did not modify anything and was also be very appreciative of all the literature thatcontributed in any way to this research.

## CHAPTER FOUR

## DATA PRESENTATIONANALYSIS, AND INTERPRETATION

### 4.1 Introduction

This chapter presents the results of the study based on the formulated research objectives. The section analyses the variables involved in the study and estimates the conceptual model described in chapter two. In the first two sections, data description and analysis are presented. The model estimation and the analysis of the results are then interpreted.

### 4.2 Responses Rate

Out of the three hundred and sixty respondents who were sampled and the questionnaires were administered, three hundred and one filled the questionnaires, which gave a response rate of $83.6 \%$. Mugenda and Mugenda(2003) posits that a response rate of 50\% is adequate; as shown in Table 4.1 below;

Table 4. 1: Response Rate

| Response | Number | Percentage |
| :--- | :---: | :---: |
| Administered questionnaires | 360 | 100 |
| Returned questionnaires | 301 | 83.6 |

### 4.3 Reliability of the Studyvariables

Reliability analysis was done with the use of Cronbach's Alpha which measures the internal consistency by establishing whether certain items within a scale measure the same construct. Nunnally (1978) recommends that instruments used in research should have reliability of 0.70 and above, thus forming the study's threshold. Knowledge of Food Quality ( $\alpha=0.705$ ), Nutrition Knowledge ( $\alpha=0.741$ ), Knowledge of Food Menu
$(\alpha=0.762)$, followed by Social Psychology $(\alpha=0.772)$, and finally Customer Satisfaction at the highest reliability $(\alpha=0.84)$, In this study, Scales were reliable as their reliability values exceeded the prescribed threshold of 0.7 , as shown in Table 4.2 below;

## Table 4.2: Reliability analysis

|  | Cronbach's |  |  |
| :--- | :---: | :---: | :---: |
|  | Cronbach's | Alpha Based on <br> Standardized | N of |
|  | Alpha | Items | Items |
| Knowledge of Food Quality | 0.705 | 0.701 | 7 |
| Nutrition Knowledge | 0.741 | 0.73 | 7 |
| Knowledge of Food Menu | 0.762 | 0.756 | 7 |
| Social Psychology | 0.772 | 0.774 | 7 |
| Customer Satisfaction | 0.837 | 0.84 | 9 |

### 4.4 Demographic and Personal Information of Respondents

Demographic information of the respondents that includes; gender, age, education level, years as customers of the restaurant and the number of times the respondents eats at the restaurant per month was established. Table 4.3 above presents the distribution of the gender of respondents. The table indicates that the majority (59.1\%) were female while $40.9 \%$ were male. This means that female customers comprised the majority in the targeted restaurants within Eldoret CBD.

In terms of education level, $8.6 \%$ respondents had primary, $31.6 \%$ secondary, while $42.2 \%$ had tertiary level of education. Subsequently, $17.6 \%$ of the respondents had a
university level of education .The well-educated respondents mean that they were well informed and furnished this study with better information which added value.

With respect to the number of years the respondents have been customers of the restaurant, $40.5 \%$ of them affirmed that they have been customers for a period ranging from $0-1$ year, $22.6 \%$ for 1 to 2 years, $28.9 \%$ for 2 to 3 years and $8 \%$ of the respondents have been customers for over 3 years. Since most of the respondents have been customers for a long period of time, they can therefore be relied upon to provide valuable insights to the study. Finally, $10 \%$ of the respondents noted that in a month, they eat at the restaurant at least 1 to 3 times, $34.2 \%$ eat 4 to 6 times, $25.6 \%$ eat 7 to 9 times, $67 \%$ eat 10 to 12 times, while $8 \%$ of the respondents eat at restaurant for 13-15 times in a month respectively. The findings are presented in Table 4.3.below;

Table 4.3: Demographic and Personal Informationof Respondent

|  |  | Frequency | Percent |
| :--- | :--- | :---: | :---: |
| Gender | Male | 123 | 40.9 |
|  | Female | 178 | 59.1 |
|  | Total | 301 | 100 |
| Level of education; | Primary | 26 | 8.6 |
|  | Secondary | 95 | 31.6 |
|  | Tertiary | 127 | 42.2 |
|  | University | 53 | 17.6 |
| Years as customer of the restaurant | Total | 301 | 100 |
|  | $0-1$ years | 122 | 40.5 |
|  | $1-2$ years | 68 | 22.6 |
|  | $2-3$ years | 87 | 28.9 |
|  | above |  |  |
|  | $3 y e a r s$ | 24 | 8 |
|  | Total | 301 | 100 |
| Number of times the customer eat from | $1-3$ times | 30 | 10 |
| the restaurant per month | $4-6 t i m e s$ | 103 | 34.2 |
|  | $7-9$ times | 77 | 25.6 |
|  | $10-12$ times | 67 | 22.3 |
|  | $13-15$ times | 24 | 8 |
|  | Total | 301 | 100 |

### 4.5 Descriptive results of the study variables

### 4.5.1 Knowledge of Food Quality

Respondents were asked different questions with an aim to determine the effect of knowledge in food quality on customer satisfaction in restaurants. Their responses were rated on a 5 points likert-scale in which they either stated strongly disagreed, disagreed, neutral, agreed or strongly agreed.

The results from the study revealed that, 248(82.4\%) strongly agreed that they have knowledge on which food are safe for them, $40(13.3 \%)$ of them agreed while $11(3.7 \%)$ of the respondents were neutral on this item. The mean value for this item was 4.77 and standard deviation was 0.56 a clear indication that the customers possess the required knowledge on what food is safe for them. The study also found that $73(24.3 \%)$ of the respondents strongly agreed that they have knowledge on foods which are a risk to their health, $197(65.4 \%)$ of them agreed, $2(0.7 \%)$ disagreed while $28(9.3 \%)$ of the respondents were neutral. These results summed up to a mean of 4.13 and standard deviation of 0.61 . Evidently, the customers have knowledge on the foods that are a risk to their health.

The study also sought to find out if the respondents have knowledge on quality service and food hygiene. The findings indicated that 77 (25.6\%) strongly agreed, 131 (43.5\%) agreed, $5(1.7 \%)$ disagreed and $88(29.2 \%)$ were uncertain concerning this question. The question had a mean of 3.93 and standard deviation of 0.78 . The implication is that the customers have knowledge on quality service and food hygiene. On whether customers have knowledge on establishing fresh food and stale food, the results indicated that $44(14.6 \%)$ strongly agreed that they can differentiate between fresh and stale food,
$184(61.1 \%)$ agreed, $24(8 \%)$ disagreed while $49(16.3 \%)$ of them were neutral. These results summed up to a mean of 3.82 and standard deviation of 0.77 , meaning that the customers can clearly differentiate between fresh and stale food. Besides, the study probed the respondents whether they have knowledge on types of foods available during the season. The results revealed that $52(17.3 \%)$ of the respondents strongly agreed, 134 ( $44.5 \%$ ) of them agreed, 11 (3.7\%) disagreed while 102 (33.9\%) were neutral. These statistics summed up to a mean of 3.74 and standard deviation of 0.81 . The results suggest that the customers have knowledge on the types of food available in any given season.

Moreover, $42(14 \%)$ of the respondents strongly agreed that they have knowledge on food contamination, $137(45.5 \%)$ agreed, $23(7.6 \%)$ disagreed and $84(27.9 \%)$ of them were neutral. The item realized a mean of 3.56 and standard deviation of 0.99 , revealing that the customers have knowledge on food contamination. The results also indicated that $57(18.9 \%)$ strongly agreed that customers can tell when food is not well cooked, 97 ( $32.2 \%$ ) agreed, $58(19.3 \%$ ) disagreed while $88(29.2 \%)$ of them were neutral. These results summed up to a mean of 3.50 and standard deviation of 1.02 , as shown in Table 4.4 below;

Table 4. 4: Knowledge of Food Quality

|  |  | $\begin{aligned} & \hline \mathbf{S} \\ & \mathbf{D} \end{aligned}$ | D | N | A | SA | Mea n | Std. D | Skewnes <br> s | Kurtosi <br> s |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| I have knowledge on which food are safe for me | F \% | $\begin{gathered} 1 \\ 0 . \\ 3 \end{gathered}$ | 1 0.3 | 11 3.7 | $\begin{gathered} 40 \\ 13 . \\ 3 \end{gathered}$ | $\begin{gathered} 248 \\ 82 . \\ 4 \end{gathered}$ | 4.77 | $\begin{gathered} 0.5 \\ 6 \end{gathered}$ | -2.93 | 1.51 |
| I have knowledge on foods which are a risk to my health | F \% | $\begin{gathered} 1 \\ 0 . \\ 3 \end{gathered}$ | 2 0.7 | 28 9.3 | $\begin{gathered} 197 \\ 65 . \\ 4 \end{gathered}$ | $\begin{gathered} 73 \\ 24 . \\ 3 \end{gathered}$ | 4.13 | $\begin{gathered} 0.6 \\ 1 \end{gathered}$ | -0.60 | 2.32 |
| I have knowledge on quality service and food hygiene | F \% | 0 0 | 5 1.7 | $\begin{gathered} 88 \\ 29 . \\ 2 \end{gathered}$ | $\begin{gathered} 131 \\ 43 . \\ 5 \end{gathered}$ | $\begin{gathered} 77 \\ 25 . \\ 6 \end{gathered}$ | 3.93 | $\begin{gathered} 0.7 \\ 8 \end{gathered}$ | -0.09 | -0.89 |
| I have knowledge on establishing fresh food and stale food | F \% | 0 0 | 24 8 | $\begin{gathered} 49 \\ 16 . \\ 3 \end{gathered}$ | $\begin{gathered} 184 \\ 61 . \\ 1 \end{gathered}$ | $\begin{gathered} 44 \\ 14 . \\ 6 \end{gathered}$ | 3.82 | $\begin{gathered} 0.7 \\ 7 \end{gathered}$ | -0.73 | 0.50 |
| I have knowledge on types of foods available this season | F \% | $\begin{gathered} 2 \\ 0 . \\ 7 \end{gathered}$ | 11 3.7 | $\begin{gathered} 102 \\ 33 . \\ 9 \end{gathered}$ | $\begin{gathered} 134 \\ 44 . \\ 5 \end{gathered}$ | $\begin{gathered} 52 \\ 17 . \\ 3 \end{gathered}$ | 3.74 | $\begin{gathered} 0.8 \\ 1 \end{gathered}$ | -0.22 | -0.03 |
| I have knowledge on food contamination | F \% | 15 5 | 23 7.6 | $\begin{gathered} 84 \\ 27 . \\ 9 \end{gathered}$ | $\begin{gathered} 137 \\ 45 . \\ 5 \end{gathered}$ | 42 14 | 3.56 | $\begin{gathered} 0.9 \\ 9 \end{gathered}$ | -0.74 | 0.41 |
| I can tell when food is not well cooked | F \% | $\begin{gathered} 1 \\ 0 . \\ 3 \end{gathered}$ | $\begin{gathered} 58 \\ 19 . \\ 3 \end{gathered}$ | $\begin{gathered} 88 \\ 29 . \\ 2 \end{gathered}$ | $\begin{gathered} 97 \\ 32 . \\ 2 \end{gathered}$ | $\begin{gathered} 57 \\ 18 . \\ 9 \end{gathered}$ | 3.50 | $\begin{gathered} 1.0 \\ 2 \end{gathered}$ | -0.06 | -1.03 |
| Knowledge in Food quality |  |  |  |  |  |  | 3.84 | $\begin{gathered} 0.4 \\ 8 \\ \hline \end{gathered}$ | 0.37 | -0.06 |

### 4.5.2 Nutrition Knowledge

The respondents were probed on various indicators of nutrition knowledge in food choices. Their responses were rated on a 5 points likert-scale in which they either stated strongly disagreed, disagreed, neutral, agreed or strongly agreed.

The respondents were asked whether they have knowledge on how to balance their foods. The findings were that 211(70.1\%) strongly agreed, 63(20.9\%) agreed, 9(3\%) disagreed and $18(6 \%)$ of them were neutral. The item realized a mean of 4.58 and standard deviation of 0.74 , an indication that customers have knowledge on how to balance their foods. To find out if customers have an understanding on food nutrients, the respondents were asked to comment on the same. From the findings, $51(16.9 \%)$ of the respondents strongly agreed that customers have an awareness on food nutrients, 193(64.1\%) of them agreed, $10(3.3 \%)$ disagreed while $45(15 \%)$ of the respondents were neutral. The mean value of 3.93 was a confirmation that customers have knowledge on food nutrients.

On whether they know which kind of nutrients they are supposed to take, the findings showed that $80(26.6 \%)$ of them strongly agreed, $92(30.6 \%)$ agreed, $15(5 \%)$ disagreed and $108(35.9 \%)$ of the respondents were neutral. The item realized a mean of 3.75 and standard deviation of 0.97 , implying that the customers are aware of the nutrients they are supposed to take. The study also enquired if the foods served in the restaurant have nutritional balance. The findings indicated that $44(14.6 \%)$ of the respondents strongly agreed, 136(45.2\%) of them agreed, 18(6\%) of them disagreed while $97(32.2 \%)$ of the respondents were neutral. The results summed up to a mean of 3.64 and standard
deviation of 0.87 implying that the foods served in the restaurant have nutritional balance.

The study further sought to ascertain whether the restaurants are capable of availing food with a particular nutrient when asked for by customers. The results on this item revealed that $60(19.9 \%)$ of the respondents strongly agreed, $80(26.6 \%)$ of them agreed, $8(2.7 \%)$ strongly disagreed, $11(3.7 \%)$ disagreed while 142 ( $47.2 \%$ ) of the respondents were neutral. This summed up to a mean of 3.57 and standard deviation of 0.94 . The results indicate that the restaurant can avail food with a particular nutrient when requested by customers.

The respondents were also asked if the staff have understanding on food nutrients. 53(17.6\%) strongly agreed, 106(35.2\%) agreed, 35(11.6\%) disagreed while 8(2.7\%) of them disagreed. The item realized a mean of 3.53 and standard deviation of 1.00 , revealing that customers have an understanding on food nutrients. Finally, the results indicated that $54(17.9 \%$ ) strongly agreed that they know the types of nutrients and in which food they are found, $55(18.3 \%)$ agreed, $41(13.6 \%)$ disagreed while 144 ( $47.8 \%$ ) of them were neutral. These results summed up to a mean of 3.36 and standard deviation of 1.00 , meaning that a significant portion of the customers are unaware of the types of nutrients and in what foods they are found. These is shown in Table 4.5 below;

Table 4. 5: Nutrition Knowledge

|  |  | SD | D | N | Std. |  |  |  |  | Kurtosis |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | A |  |  | SA | Mean | D | Skewness |  |
| I have knowledge on how to balance my foods | F |  | 0 | 9 | 18 | 63 | 211 | 4.58 | 0.74 | -1.86 | 3.01 |
|  | \% | 0 | 3 | 6 | 20.9 | 70.1 |  |  |  |  |
| I have understanding on food nutrients | F | 2 | 10 | 45 | 193 | 51 | 3.93 | 0.71 | -0.90 | 2.07 |
|  | \% | 0.7 | 3.3 | 15 | 64.1 | 16.9 |  |  |  |  |
| I know which kind of nutrients am supposed to take | F | 6 | 15 | 108 | 92 | 80 | 3.75 | 0.97 | -0.33 | -0.30 |
|  | \% | 2 | 5 | 35.9 | 30.6 | 26.6 |  |  |  |  |
| Foods served in this restaurant have nutritional balance | F | 6 | 18 | 97 | 136 | 44 | 3.64 | 0.87 | -0.51 | 0.43 |
|  | \% | 2 | 6 | 32.2 | 45.2 | 14.6 |  |  |  |  |
| Whenever I ask for food with a particular nutrient I get it | F | 8 | 11 | 142 | 80 | 60 | 3.57 | 0.94 | -0.11 | -0.01 |
|  | \% | 2.7 | 3.7 | 47.2 | 26.6 | 19.9 |  |  |  |  |
| The staff have understanding on food nutrients | F | 8 | 35 | 99 | 106 | 53 | 3.53 | 1.00 | -0.32 | -0.35 |
|  | \% | 2.7 | 11.6 | 32.9 | 35.2 | 17.6 |  |  |  |  |
| I know the types nutrients and in which foods they are found | F | 7 | 41 | 144 | 55 | 54 | 3.36 | 1.00 | 0.17 | -0.47 |
|  | \% | 2.3 | 13.6 | 47.8 | 18.3 | 17.9 |  |  |  |  |
| Nutrition Knowledge |  |  |  |  |  |  | 3.77 | 0.57 | 0.34 | 0.45 |

### 4.5.3 Knowledge in Food Menu

The respondents were probed on various indicators of knowledge in food menu. Their responses were rated on a 5 points likert-scale in which they either stated strongly disagreed, disagreed, neutral, agreed or strongly agreed.

The study sought to find out if the customers know how to read the food menu, and $217(72.1 \%)$ strongly agreed, $70(23.3 \%)$ agreed, $2(0.7 \%)$ disagreed while12 ( $4 \%$ ) of them were neutral. The item realized a mean of 4.67 and standard deviation of 0.59 , revealing that the customers know how to read the food menu. Regarding whether or not the customers were well oriented on the foods listed in the menu, 62(20.6\%) of the respondents strongly agreed, $191(63.5 \%)$ of them agreed, $2(0.7 \%)$ strongly disagreed while $45(15 \%)$ of the respondents were neutral. These results summed up to a mean of 4.03 and standard deviation of 0.66 , meaning that customers were well oriented on the foods listed in the menu.

The respondents were also asked whether they knew exactly where to look at whenever they are given the menu. The results showed that $67(22.3 \%)$ of the respondents strongly agreed, $132(43.9 \%$ ) of the respondents agreed though $102(33.9 \%)$ of the respondents were neutral on this item. The results summed up to a mean of 3.88 and a standard deviation of 0.74 , implying that the customers know exactly where to look at whenever they are given the menu.

On whether they know how to choose food items on the menu to make a balanced diet, 59(19.6\%) of the respondents strongly agreed,166 (55.1\%) agreed, 12(4\%) strongly
disagreed while $59(19.6 \%)$ were not sure. The results conform to the aggregate mean of 3.85 and standard deviation of 0.89.meaning customers knew how to choose foods to make a balanced diet.Besides, $58(19.3 \%)$ of the respondents strongly agreed that they understand the menu language and terms used on the menu, 108(35.9\%) agreed, 15 (5\%) disagreed while 118(39.2\%) were not sure if they understand the menu language and terms used on the menu. Overall, the item had amean of 3.87 and standard deviation of 0.88 implying that they understand the menu language and terms used on the menu.

Finally, $58(19.3 \%)$ of the respondents strongly agreed that the staff know how to explain the restaurant menu, $108(35.9 \%)$ of the respondents agreed though $118(39.2 \%)$ of the respondents were neutral on this item, while $15(5 \%)$ disagreed. The results summed up to a mean of 3.68 and a standard deviation of 0.86 , implying that the staff knows how to explain the restaurant menu. The results are shown in Table 4.6 below

Table 4.6: Knowledge in food menu


### 4.5.4 Social Psychology

Respondents were asked different questions pertaining social psychology. Their responses were rated on a 5 points likert-scale in which they either stated strongly disagreed, disagreed, neutral, agreed or strongly agreed. The findings indicated that, $219(72.7 \%)$ strongly agreed that they find the food menu at the restaurant appealing and clear, $63(20.9 \%)$ of them agreed, $4(1.3 \%)$ disagreed while 14 (4.7\%) of the respondents were neutral on this item. The mean value for this item was 4.64 and standard deviation was 0.67 a clear indication that the menus at the restaurants are appealing and clear.

The study also found that $31(10.3 \%)$ of the respondents strongly agreed that sensory appeal of the food influences their choice of food, 211 (70.1\%) of them agreed, 15(5\%) disagreed while 35 (11.6\%) of the respondents were neutral. These results summed up to a mean of 3.80 and standard deviation of 0.81 . Indeed, the sensory appeal of the food influences the customers' choice of food.The study sought to find out if the respondents choose what most people have chosen. The findings indicated that 71 (23.6\%) strongly agreed, 87 (28.9\%) agreed, 33(11\%) disagreed and 108 (35.9\%) were uncertain concerning this question. The results had a mean of 3.64 and standard deviation of 0.98 . These suggest that in most cases, customers' choice of food is influenced by what most people have chosen.

The research sought to find out if customers consider their cultural values when choosing food. The results indicated that $68(22.6 \%)$ strongly agreed that they consider their cultural values when choosing food, 138(45.8\%) agreed, 28(9.3\%) disagreed while 67(22.3\%) of them were neutral. These results summed up to a mean of 3.82 and standard
deviation of 0.89 , meaning that cultural values are put into consideration by majority of the customers when choosing food.

The study probed the respondents whether they know how to choose food items suitable for their health and lifestyle. The results revealed that $56(18.6 \%)$ of the respondents strongly agreed, $99(32.9 \%)$ of them agreed, 24 ( $8 \%$ ) disagreed while 118 (39.2\%) were neutral. These statistics summed up to a mean of 3.59 and standard deviation of 0.93 . The results suggest that customers know how to choose foods that are ideal for their health and lifestyle.

However,53(17.6\%) of the respondents strongly agreed that their social class influences their food choices, $142(47.2 \%)$ agreed, $8(2.7 \%)$ disagreed and $97(32.2 \%)$ of them were neutral. The item realized a mean of 3.79 and standard deviation of 0.77 , revealing that social class plays a role in influencing customers' food choice.

The results also indicated that $75(24.9 \%)$ strongly agreed that they only choose foods they are familiar with, $73(24.3 \%)$ agreed, $19(6.3 \%)$ disagreed while $118(39.2 \%)$ of them were neutral. These results summed up to a mean of 3.57 and standard deviation of 1.07, meaning that most customers only choose foods that they are familiar with. Finally, the results indicated that $115(38.2 \%)$ strongly agreed that they only choose foods which they like, 97 ( $32.2 \%$ ) agreed, $26(8.6 \%)$ disagreed while 41 ( $13.6 \%$ ) of them were neutral. These results summed up to a mean of 3.85 and standard deviation of 1.23 . The implication is that the customers only choose foods that they like.Table 4.7 below show the results.

Table 4.7: Social Psychology

|  |  | SD | D | N | A | SA | Mean | Std. <br> D | Skewness | Kurtosis |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| I find the food menu for <br> this restaurant appealing <br> and clear |  |  |  |  |  |  |  |  |  |  |
| Sensory appeal of the <br> food influences my <br> choice of food | F | 1 | 4 | 14 | 63 | 219 | 4.64 | 0.67 | -2.18 | 5.41 |
|  | \% | 0.3 | 1.3 | 4.7 | 20.9 | 72.7 |  |  |  |  |
| I choose what most <br> people have chosen | F | 9 | 15 | 35 | 211 | 31 | 3.80 | 0.81 | -1.58 | 3.33 |

### 4.5.5 Customer Satisfaction

Respondents were asked different questions with an aim to ascertain customer satisfaction. Their responses were rated on a 5 points likert-scale in which they either stated strongly disagreed, disagreed, neutral, agreed or strongly agreed. The study sought to establish whether customers were delighted by the services offered in the restaurant. Results indicated that $159(52.8 \%)$ of the respondents strongly agreed, $95(31.6 \%)$ of them agreed, $4(1.3 \%)$ disagreed while $42(14 \%)$ of the respondents were neutral. The results summed up to a mean of 4.36 and standard deviation of 0.77 , indicating that customers are delighted by the services offered in the restaurant.

To find out if the customers are satisfied with the quality of food, cleanliness and general appearance of the restaurant, the findings revealed that $177(58.8 \%)$ of the respondents strongly agreed that they were satisfied with the quality of food, cleanliness and general appearance of the restaurant, 88 (29.2\%) agreed,4(1.3\%) disagreed while 32(10.6\%) were not sure. The item realized a mean of 4.46 and a standard deviation of 0.74 a clear indication that customers are satisfied with the quality of food, cleanliness and general appearance of the restaurant.

Moreover, $92(30.6 \%)$ of the respondents affirmed that staff always give fast attention to customers problems and complaints, 161 (53.5\%) agreed on the same, 3 (1\%) disagreed while $45(15 \%)$ were not sure if the staff always gives fast attention to customers problems and complaints. The mean for the item was 4.14 and the standard deviation 0.69 implying that the staffs always give fast attention to the customer's problems and complaints. To establish if customers prefer the restaurant because staff are friendly,

98(32.6\%) strongly agreed, 102(33.9\%) agreed, 8(2.7\%) disagreed and 93(30.9\%) of the respondents were neutral respectively. The item realized a 3.96 mean and standard deviation of 0.86 implying that customers prefer the restaurant because staffs are friendly.

In addition, $79(26.2 \%)$ of the respondents strongly agreed that they are satisfied with the variety of foods offered, 136(45.2\%) agreed, 18(6\%) disagreed, while 60(19.9) were neutral. The results suggest that customers are satisfied with the variety of foods offered. This is corroborated by a mean of 3.86 and a standard deviation of 0.96

Asked if they would revisit the restaurant, $51(16.9 \%)$ of the respondents strongly agreed, $102(33.9 \%)$ agreed, $25(8.3 \%)$ disagreed whereas 115 (38.2\%) were neutral. Overall, the item had a mean of 3.54 and standard deviations of 0.96 implying customers are willing to revisit the restaurant. When asked whether they prefer the restaurant, $58(19.3 \%)$ of them strongly agreed, 156 (51.8\%) agreed, 14(4.7\%) disagreed and 65(21.6\%) were neutral. The mean for the item was 3.80 and the standard deviation -0.90 , an indication that customers' needs are always satisfied.

With respect to whether the customers have no complains about the restaurant, $55(18.3 \%)$ of the respondents strongly agreed, 118(39.2\%) agreed, 26(8.6\%) disagreed whereas 94 ( $31.2 \%$ ) were neutral. These realized a mean of 3.62 and a standard deviation of 0.97 , an indication that the customers did not have complaints about the restaurant. Further, $71(23.6 \%)$ of the respondents strongly agreed that the restaurant has never disappointed them so far, $131(43.5 \%)$ strongly agreed, $5(1.7 \%)$ disagreed while 84 (27.9\%) were neutral, giving a mean of 3.82 and a standard deviation of 0.92 .

Results also show that $69(22.9 \%)$ of the respondents strongly agreed that language used on the menu is informative and easy to understand, $95(31.6 \%)$ agreed, 34 (11.3\%) disagreed while $94(31.2 \%)$ of the respondents were neutral. The cumulative mean of 3.60 and standard deviation of 1.05 confirms that language used on the menu is informative and easy to understand. On whether the customers had complaints about the restaurant, 55(18.3\%) strongly agreed, 118(39.2\%) agreed, 26 (8.6\%) disagreed, while 94 (31.2\%) of the respondents were neutral.Giving a mean of 3.62 and a standard deviation of 0.97. The research also sought to find out if customers ever got disappointed, the findings were that,71 (23.6\%)strongly agreed,131(43.5\%) agreed,10(3.3\%) strongly disagreed, while $84(27.9 \%)$ were neutral, with a mean 3.82 and an standard deviation of 0.92 .The results are as shown in Table 4.8.below;

Table 4. 8: Customer Satisfaction

|  |  |  |  |  |  |  |  | Std. |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SD | D | N | A | SA | Mean | D | Skewness | Kurtosis |  |  |
| Iam generally <br> delighted by the <br> services offered in this <br> restaurant | F | 1 | 4 | 42 | 95 | 159 | 4.36 | 0.77 | -0.90 | -0.15 |
| I am satisfied with the | F | 0 | 0.3 | 1.3 | 14 | 31.6 | 52.8 |  |  |  |
| quality of food <br> ,cleanliness and |  |  |  |  | 82 | 177 | 4.46 | 0.74 | -1.16 | 0.54 |
| general appearance of <br> the restaurant | $\%$ | 0 | 1.3 | 10.6 | 29.2 | 58.8 |  |  |  |  |
| Staff always give fast <br> attention to customers | F | 0 | 3 | 45 | 161 | 92 | 4.14 | 0.69 | -0.37 | -0.22 |
| problems and <br> complaints | $\%$ | 0 | 1 | 15 | 53.5 | 30.6 |  |  |  |  |
| I prefer this restaurant <br> because staff are | F | 0 | 8 | 93 | 102 | 98 | 3.96 | 0.86 | -0.18 | -1.10 |
| friendly |  |  |  |  |  |  |  |  |  |  | $\mathrm{\%}$

### 4.6 Factor Analysis of the Study Variables

Factor analysis is a statistical method used to describe variability among observed, correlated variables in terms of a potentially lower number of unobserved variables called factors. Factor analysis tests construct validity.Sampling adequacy was tested using the Kaiser- Meyer- Olkin Measure (KMO measure) of sampling adequacy. As evidenced in Table 4.9, KMO was greater than 0.5 , and Bartlett's Test was significant.

Table 4.8: KMO

## KMO and Bartlett's Test

| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | 0.756 |  |
| :--- | :--- | ---: |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 4839.521 |
|  | Df | 406 |
|  | Sig. | 0 |

Analysis of Total Variance was done to determine the proportion of variance in the set of variables. Results shows that all components extracted from the analysis along with their Eigen values, the percentage of variance attributed to each component, and the cumulative variance of the component and the previous components. All the components had Eigen values greater than 1. In addition, all the components were found to be significant. As shown in Table 4.10 below;

Table 4.9: Total variance explained

|  | Extraction Sums of Squared Loadings |  |  | Rotation Sums of Squared Loadings |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Initial <br> Eigen <br> values | $\%$ of <br> Variance | Cumulative \% | Initial <br> Eigen <br> values | \% of Variance | Cumulative \% |
| 1 | 6.699 | 23.101 | 23.101 | 5.584 | 19.256 | 19.256 |
| 2 | 3.477 | 11.991 | 35.092 | 3.948 | 13.614 | 32.87 |
| 3 | 2.666 | 9.193 | 44.285 | 3.113 | 10.734 | 43.604 |
| 4 | 2.092 | 7.214 | 51.499 | 2.29 | 7.895 | 51.499 |

Principal Component Analysis was conducted in order to make sure that the items belong to the same construct (Wibowo 2008).Factor analysis for knowledge in food quality, social psychology and nutrition knowledge and knowledge in food menu are illustrated below. There were no exceptions as all variables scored above the threshold of 0.5 . The criterion for communality was fulfilled by knowledge in food quality, social psychology and nutrition knowledge and knowledge in food menu items hence they were retained for further analysis. Table 4.11 below shows the analysis.

Table 4.10: Principal component analysis

|  | KFV | NK | SP | KFQ |
| :---: | :---: | :---: | :---: | :---: |
| I know how to read the food menu | 0.79 |  |  |  |
| Am well oriented on the all foods listed in the menu | 0.83 |  |  |  |
| I know exactly where to look at whenever I am given the menu | 0.67 |  |  |  |
| I know how to choose food items on the menu to make a balanced diet. | 0.62 |  |  |  |
| I understand the menu language and terms used on the menu | 0.65 |  |  |  |
| The staff know how to explain the restaurant menu | 0.58 |  |  |  |
| I have knowledge on how to balance my foods | 0.66 |  |  |  |
| I have understanding on food nutrients |  | 0.67 |  |  |
| I know which kind of nutrients am supposed to take |  | 0.69 |  |  |
| Foods served in this restaurant have nutritional balance |  | 0.83 |  |  |
| Whenever I ask for food with a particular nutrient I get i1 |  | 0.74 |  |  |
| The staff have understanding on food nutrients |  | 0.79 |  |  |
| I know the types nutrients and in which foods they are found |  | 0.71 |  |  |
| I find the food menu for this restaurant appealing and cle: |  | 0.73 |  |  |
| Sensory appeal of the food influences my choice of food |  |  | 0.65 |  |
| I choose what most people have chosen |  |  | 0.59 |  |
| I consider my cultural values when choosing food |  |  | 0.62 |  |
| I know how to choose food items suitable for my health and lifestyle |  |  | 0.66 |  |
| My social class influences my food choices |  |  | 0.53 |  |
| I only choose foods which I am familiar with |  |  | 0.54 |  |
| I only choose foods which I like |  |  | 0.54 |  |
| I have knowledge on which food are safe for me |  |  |  | 0.66 |
| I have knowledge on foods which are a risk to my health |  |  |  | 0.71 |
| I have knowledge on quality service and food hygiene |  |  |  | 0.77 |
| I have knowledge on establishing fresh food and stale foc |  |  |  | 0.63 |
| I have knowledge on types of foods available this season |  |  |  | 0.57 |
| I have knowledge on food contamination |  |  |  | 0.66 |
| I can tell when food is not well cooked |  |  |  | 0.75 |

[^0]Factor Analysis for Customer Satisfaction was conducted to ensure that all of the constructs used are valid and reliable before proceeding for further analysis. The study requested that all loading less than 0.5 be suppressed in the output, hence providing blank spaces for many of the loadings. All customer satisfaction factors were retained for further analysis. Customer satisfaction cumulatively explained $63.3 \%$ of variance. Sampling adequacy was tested using the Kaiser- Meyer- Olkin Measure (KMO measure) of sampling adequacy. As evidenced in table 4.12 , KMO was greater than 0.5 , and Bartlett's Test was significant.

Table 4.11: Factor Analysis for Customer Satisfaction

|  | 1 | 2 |
| :---: | :---: | :---: |
| In general am satisfied with the variety of foods offered | 0.819 |  |
| I am willing to re visit this restaurant | 0.848 |  |
| I prefer this restaurant because they always satisfy my needs | 0.814 |  |
| I have no complains on this restaurant | 0.843 |  |
| The hotel has never disappointed me so far. | 0.806 |  |
| Language used on the menu is informative and easy to understand | 0.854 |  |
| I am generally delighted by the services offered in this restaurant |  | 0.582 |
| I am satisfied with the quality of food ,cleanliness and general appearance of the restaurant |  | 0.721 |
| Staff always give fast attention to customers problems and complaints |  | 0.817 |
| I prefer this restaurant because staff are friendly |  | 0.541 |
| Total Variance Explained; Rotation Sums of Squared Loadings |  |  |
| Total | 4.386 | 1.946 |
| \% of Variance | 43.855 | 19.464 |
| Cumulative \% | 43.855 | 63.319 |
| KMO and Bartlett's Test |  |  |
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. |  | 0.829 |
| Bartlett's Test of Sphericity | Approx. <br> Chi- |  |
|  | Square | 1679.061 |
|  | Df | 45 |
|  | Sig. | 0.00 |

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

### 4.7 Assumptions of Multiple Regression Model

According to Hair et al., (2010), the assumptions of regression analysis are essential to ensure that the results obtained were actually representative of the sample so as to obtain the best results possible. The key assumptions tested were normality, linearity, multicollinearity and homoscedasticity (Hair et al., 2010).

### 4.7.1 Linearity

Before conducting multiple linear regression analysis, the assumptions of linearity (that there must be a linear relationship between the outcome variable and the independent variables) must be metCITE.The findings in the table highlighted the linearity test between the dependent variable (customer satisfaction) and the independent variables (knowledge of food quality, knowledge of food menu, nutrition knowledge and social psychology). A $p$-value of greater than 0.05 for linearity means that the inference is that there is no linear relationship. The findings revealed that there is a linear relationship between knowledge of food quality and customer satisfaction $(F(1)=124.857$, $p$-value $=$ 0.000). There is also a linear relationship between nutrition knowledge and customer satisfaction $(F(1)=186.989, p$-value $=0.000)$.

Furthermore, there is a linear relationship between knowledge of food menu and customer satisfaction $(F(1)=173.126, p$-value $=0.000)$. In addition, there is a linear relationship between social psychology and customer satisfaction $(F(1)=112.216, p$ value $=0.000$ ). This means that the significant linear relationships indicate that the independent variables can be used to predict the behavior of customer satisfaction. Thus, there is no violation of the linearity assumption. Table 4.13 below shows the findings;

Table 4.12: Linearity

|  |  | Sum of <br> Squares | Df | Mean <br> Square | F | Sig. |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Customer satisfaction * <br> knowledge of food quality | Linearity | 22.027 | 1 | 22.027 | 124.857 | 0.00 |
| Customer satisfaction * <br> nutrition knowledge | Linearity | 24.44 | 1 | 24.44 | 186.989 | 0.00 |
| Customer satisfaction * <br> knowledge of food menu | Linearity | 26.713 | 1 | 26.713 | 173.126 | 0.00 |
| Customer satisfaction * |  |  |  |  |  |  |
| Linearity | 19.355 | 1 | 19.355 | 112.216 | 0.00 |  |

### 4.7.2 Normality

Normality refers to the shape of the data distribution and is tested by examining the skewness and kurtosis. Extreme values in skewness and kurtosis indicate the possibility of abnormality in the data distribution. Researchers (Kline, 2011) suggested skewness values above 3 and kurtosis values above 10 might indicate possible problem in the data with regard to normality. In the present study, Table 4.14 was checked for any value of skewness above 3 and kurtosis above 10 and it was found that all the variables resulted in values below the threshold. This assures that the data for the present study is normal.

Table 4.14: Normality

| N=301 | Mean | Std. Deviation | Skewness | Kurtosis |
| :--- | :---: | :---: | :---: | :---: |
| Customer <br> satisfaction <br> Knowledge of food <br> quality | 3.9002 | 0.54551 | -0.18 | 0.008 |
| Nutrition knowledge | 3.7599 | 0.5706 | 0.276 | 0.496 |
| Knowledge of food |  | 0.52627 | 0.066 | 0.354 |
| menu | 3.8506 | 0.50697 | -0.172 | 0.963 |
| social psychology | 3.7369 | 0.50773 | -0.208 | 0.85 |

### 4.7.3 Homoscedasticity

If the data are heteroscedastic, a non-linear data transformation or addition of a quadratic term might fix the problem (Hair et al., 2006; Ghozali, 2005). The findings revealed that according to Levene statistic, homoscedasticity is not a problem. This essentially means that there is a linear relationship and there is no need to have a non-linear data transformation or quadratic term to fix, as evidenced in Table 4.15 below,

Table 4.13: Homoscedasticity

|  | Levene <br> Statistic | df1 | df2 | Sig. |
| :--- | :---: | :---: | :---: | :---: |
| Customer satisfaction | 2.834 | 3 | 297 | 0.138 |
| Knowledge of food |  |  |  |  |
| quality | 3.09 | 3 | 297 | 0.327 |
| Nutrition knowledge | 2.251 | 3 | 297 | 0.282 |
| Knowledge of food menu | 2.973 | 3 | 297 | 0.432 |
| social psychology | 7.379 | 3 | 297 | 0.201 |

### 4.7.4 Multicollinearity

Multicollinearity means that two or more of the independent variables are highly correlated and this situation can have damaging effects on the results of multiple regressions (Cooper \& Schindler, 2006). Multi-collinearity can be detected with the help of tolerance and its reciprocal Variance Inflation Factor (VIF). The cut-off point for determining multi-collinearity is a tolerance value that is less than 0.10 and a VIF value of above 10 (Hair et al., 2006; Ghozali, 2005). Multicollinearity means that two or more of the independent variables are highly correlated and this situation can have damaging effects on the results of multiple regressions. The VIF values in Table 4.16 below were less than four (>4) meaning that there was no multicollinearity.

Table 4.14: Multicollinearity

|  | Collinearity Statistics |  |
| :--- | :---: | :---: |
| Knowledge of food quality | Tolerance | VIF |
| Nutrition knowledge | 0.71 | 1.408 |
| Knowledge of food menu | 0.791 | 1.264 |

### 4.8 Correlation Results

Correlation statistics is a method of assessing the relationship between variables/factors. Pearson correlation results in the table showed that knowledge of food quality is positively related with customer satisfaction with a Pearson Correlation coefficient of $\mathrm{r}=$ .497 which is significant at $\mathrm{p}<0.01$. The output also shows that nutrition knowledge is positively related with customer satisfaction, with a coefficient of $r=.523$ which is also significant at $\mathrm{p}<0.01$.

The correlation results also indicated that knowledge of food menu is positively related with customer satisfaction as shown by a coefficient of $\mathrm{r}=.547$ which is significant at $\mathrm{p}<$ 0.01. Further, social psychology was positively related with customer satisfaction as evidenced by a coefficient of $\mathrm{r}=.466$ which is also significant at $\mathrm{p}<0.01$. From the foregoing, there is a linear relationship between knowledge of food quality, nutrition knowledge, knowledge of food menu, social psychology and customer satisfaction. This provided more ground to perform multiple regression analysis, as shown in table 4.17 below.

Table 4.15: Pearson correlation Statistic

|  | CS | KFQ | NK | KFM | SP |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Customer satisfaction | 1 |  |  |  |  |
|  | 1 |  |  |  |  |
| Knowledge of food quality | .497** | 1 |  |  |  |
|  | 0.000 |  |  |  |  |
| Nutrition knowledge | . 523 ** | . $335 * *$ | 1 |  |  |
|  | 0.000 | 0.000 |  |  |  |
| Knowledge of food menu | . $547 * *$ | .526** | .441** | 1 |  |
|  | 0.000 | 0.000 | 0.000 |  |  |
| social psychology | .466** | .433** | .249** | . 599 ** | 1 |
|  | 0.000 | 0.000 | 0.000 | 0.000 |  |

** Correlation is significant at the 0.01 level

### 4.9 Regression (Direct effect)

Regression analysis is a quantitative research method which is used when the study involves modeling and analyzing several variables, where the relationship includes a dependent variable( CS ) and (KFQ,NK , KFM) as independent variables

### 4.9.1 Model Summary

The results shows that all the three known predictors (knowledge in food quality, nutrition knowledge, knowledge in food menu) explained $44 \%$ variation of customer satisfaction ( R squared=0.44), while $56 \%$ is explained other variables not tested in this study. Table 4.18 illustrates the model summary of multiple regression models.

Table 4.16: Model Summary

| R | R Square | Adjusted R <br> Square | Std. Error of the <br> Estimate |
| :---: | :---: | :---: | :---: |
| .663 a | 0.44 | 0.434 | 0.41024 |

a Predictors: (Constant), knowledge of food menu, nutrition knowledge, knowledge of food quality

### 4.9.2 ANOVA Model

Analysis of variance is a data Analysis procedure used to determine whether there are significant differences between dependant and independentvariables.From the results, the above-discussed coefficient of determination was significant as evidenced in F ratio of 77.821 with p value $0.000<0.05$ (level of significance). Therefore, the model was fit to predict customer satisfaction using knowledge in food menu, nutrition knowledge and knowledge in food quality. The results on the ANOVA model are illustrated in Table 4.19 below;

Table 4.17: Model Summary

|  | Sum of <br> Squares | Df | Mean <br> Square | F | Sig. |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Regression | 39.291 | 3 | 13.097 | 77.821 | .000 b |
| Residual | 49.984 | 297 | 0.168 |  |  |
| Total | 89.276 | 300 |  |  |  |

a Dependent Variable: customer satisfaction
b Predictors: (Constant), knowledge FM, nutrition knowledge, knowledge FQ

### 4.9.3 Coefficient of Estimate

The study sought to establish the significance levels of relationship between the study variables. Research findings show that knowledge in food quality had coefficients of estimate which was significant, $\beta_{1}=0.243$ ( p -value $=0.000$ which is less than $\alpha=0.05$ ). Therefore, an increase in knowledge in food quality by one-unit results to an increase in customer satisfaction by 0.243 units. Furthermore, the effect of knowledge in food quality was reiterated by the $t$-test value $=4.726$, which implied that the standard error associated with the parameter is more than the effect of the parameter.

Nutrition knowledge also had coefficients that was significant, $\left(\beta_{2}=0.319\right.$ ( $p$-value $=$ 0.000 which is less than $\alpha=0.05$ ). Therefore, for each unit increase in nutrition knowledge, there is up to 0.319 -units increase in customer satisfaction. Moreover, the effect of nutrition knowledge was tested by the $t$-test value of 6.535 which implied that the effect of nutrition knowledge surpasses that of the error.

Thereseach findings showed that knowledge in food menu had coefficients of estimate which was significant, $\beta_{3}=0.278$ ( p -value $=0.000$ which is less than $\alpha=0.05$ ). This suggests that there is up to 0.278 -unit increase in customer satisfaction for each unit increase in knowledge in food menu. The effect of knowledge in food menu was five times the effect attributed to the error, which was indicated by the $t$-test value $=5.147$.

Table 4.20 below represents the findings;

Table 4. 18: Coefficient of Estimates

|  | Unstandardized <br> Coefficients | Standardized <br> Coefficients |  |  |  | Collinearity <br> Statistics |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | B | Std. <br> Error | Beta | T | Sig. | Tolerance | VIF |
| (Constant) | 0.641 | 0.216 |  | 2.972 | 0.003 |  |  |
| Knowledge FQ 0.252 0.053 0.243 4.726 0 0.71 1.408 <br> Nutrition <br> knowledge 0.305 0.047 0.319 6.535 0 0.791 1.264 <br> Knowledge FM 0.3 0.058 0.278 5.147 0 0.645 1.552 |  |  |  |  |  |  |  |

a Dependent Variable: customer satisfaction

### 4.10 Moderation Effect

The study sought to establish the moderating effect of social psychology and found that social psychology has no significant moderating effect on relationship between knowledge in food choice and customer satisfaction in restaurants. The results of the moderated regression indicated a negative and insignificant moderating effect of social
psychology on the relationship between knowledge in food quality and customer satisfaction $(\beta=-0.839 ; \rho>0.05)$.

Therefore, the study failed to reject hypothesis $\mathrm{H}_{0} 4_{\mathrm{a}}$, that social psychology has no significant moderating effect on relationship between knowledge in food quality and customer satisfaction. Therefore, social psychology has no influence on the relationship between knowledge in food quality and customer satisfaction.

Hypothesis $\mathrm{H}_{0} 4_{\mathrm{b}}$ proposed that social psychology does not significantly moderate the relationship between nutrition knowledge and customer satisfaction. The results indicated a negative and significant moderating effect of social psychology on the relationship between nutrition knowledge and customer satisfaction ( $\beta=-1.888 ; \rho<0.05$ ). Hence, the hypothesis $\mathrm{Ho}_{\mathrm{b}}$ was rejected. Therefore, with the introduction ofsocial psychology, the relationship between nutrition knowledge and customer satisfaction is weakened.

Hypothesis $\mathrm{H}_{0} 4_{\mathrm{c}}$ stated that social psychology does not significantly moderate the relationship between knowledge in food menu and customer satisfaction. The results indicated a positive and significant moderating effect of social psychology on the relationship between knowledge in food menu and customer satisfaction ( $\beta=2.466$; $\rho<0.05)$. Hence, the hypothesis $\mathrm{Ho}_{\mathrm{c}}$ was rejected. This implies that with every unit increase of social psychology, customer satisfaction would increase by 2.466 units.

Moreover, the moderation model indicated changes in $\mathrm{R}^{2}$ from 0.44 to 0.031 signifying that the inclusion of social psychology as moderator weakened the relationship between knowledge in food choice and customer satisfaction in restaurants. The results are show in Table 4.21 below;

Table 4.19: Moderation effect

## Table 4.17: Pearson <br> correlation Statistics

|  | Model 1 |  | Model 2 |  | Model 3 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Beta | Sig. | Beta | Sig. | Beta | Sig. |
| (Constant) | 0.641 | 0.003 | 0.4 | 0.074 | 0.139 | 0.878 |
| Predictors <br> Knowledge of food quality (KFQ) | 0.243 | 0.000 | 0.212 | 0.000 | 0.284 | 0.248 |
| Nutrition <br> knowledge(NK) <br> Knowledge of food menu (KFM) | 0.319 0.278 | 0.000 0.000 | 0.326 0.181 | 0.000 0.003 | 0.324 0.178 | 0.000 0.004 |
| Moderator <br> Social psychology |  |  | 0.184 | 0.001 | 0.257 | 0.306 |
| Interactions KFQ_SP |  |  |  |  | -0.839 | 0.090 |
| NK_SP |  |  |  |  | -1.888 | 0.000 |
| KFM_SP <br> Summary Statistics |  |  |  |  | 2.466 | 0.000 |
| R | . 663 |  | . 679 |  | . 707 |  |
| R Square | 0.44 |  | 0.461 |  | 0.5 |  |
| Adjusted R Square Std. Error of the | 0.434 |  | 0.452 |  | 0.488 |  |
| Estimate <br> Change Statistics | 0.41024 |  | 0.40378 |  | 0.3902 |  |
| R Square Change | 0.44 |  | 0 |  | 0.031 |  |
| F Change | 77.821 |  | 0.09 |  | 18.043 |  |
| df1 | 3 |  | 1 |  | 1 |  |
| df2 | 297 |  | 295 |  | 293 |  |
| Sig. F Change | 0.00 |  | 0.764 |  | 0.00 |  |

a Dependent Variable: customer satisfaction

## CHAPTER FIVE

## SUMMARY OF FINDINGS AND DISCUSSIONS

### 5.1 Summary of Findings

Findings were summarized as shown below

### 5.1.1 Knowledge in Food Quality

The findings indicated that the customers possess knowledge on the kind of food that is safe for them and those that are a risk to their health. They also have knowledge on quality service and food hygiene. Further, the customers can clearly differentiate between fresh and stale food. Besides, they are aware of the types of food available in any given season. Customers also have knowledge on food contamination and they can tell when food is not well cooked.

### 5.1.2 Nutrition Knowledge

The findings on nutrition knowledge indicated that customers have knowledge on how to balance their food. They understand the food nutrients and are aware of the kind of nutrients they should take. Also, the food served at the restaurant has nutritional balance, and the staffs are aware of the food nutrients.Restaurants are capable of availing food with specific nutrients when asked for by customers. For the customers, they know the types of nutrients and in which foods they are found.

### 5.1.3 Knowledge in Food Menu

With respect to knowledge in food menu, the customers know how to read the food menu and are well oriented on the foods listed in the menu. As well, customers know exactly where to look at whenever they are given the menu. In addition, they know how to choose food items on the menu to make a balanced diet. Some customers alsounderstand the menu language and terms used on the menu. Finally, restaurant staffknow how to explain the menu to the customers.

### 5.1.4 Social Psychology

Results on social psychology established that the menu at the restaurants are appealing and clear. Other than that, the sensory appeal of the food influences the customers' choice of food. Customer's choice of food is also influenced by what most people have chosen. Further, cultural values are put into consideration by majority of the customers when choosing food. Besides, customers know how to choose foods that are ideal for their health and lifestyle. Likewise, the social psychology plays a role in influencing customers' food choice. Moreover, customers only choose foods that they like and are familiar with.

### 5.2 Discussion of the Findings

The findings of the study were discussed under each variable

### 5.2.1 Knowledge in Food Quality on Customer Satisfaction

Basing on the findings in chapter four, knowledge in food quality positively and significantly influences customer satisfaction. The findings coincide showed that Khan\&Afsheen, (2012) qualities of food quality that are offered by a restaurant
determine the level of customer satisfaction. Also, the findings are similar, Rijswijk \&Frewer, (2008) findings that knowledge food quality and customer satisfaction. Rajput et al., (2012) identified perceived quality upon acquire intentions as determinants. Azadavaret al.(2011) discovered knowledge of food quality and customer satisfaction.

### 5.2.2 Nutritional Knowledge of Food Choice on Customer Satisfaction

Nutritional knowledge positively and significantly influences customer satisfaction. Consistent with the results, Dumanovsky et al., (2010) concluded that posting simple and understandable nutrition information on menu boards increases the interest and the number of consumers who see and use such information. Similarly, purchase intention declines when unclear nutritional information is provided. Further support to the study findings is by Burton, et al (2006) elucidated that whenever nutritional information is presented, customers tend to make healthier menu items choices. However, certain studies have indicated that there is no link between nutritional information and consumer food choices in a restaurant setting (Droms, 2006; Stubenitsky, et al., 2007). Clearly, not much has been done on the relationship between nutritional knowledge and customer satisfaction. The study therefore fills the gap in the literature.

### 5.2.3 Knowledge of Food Menu on Customer Satisfaction

Basing on the findings in chapter four, knowledge in food menu positively and significantly influences customer satisfaction. Consistent with the results, Mensah and Amuquandoh, (2014) posited that it might be a tall order doing all that a customer asks for though having a flexible menu will make customers happy. Also, a survey conducted at 45 fast food restaurants established that $72 \%$ of the customers noticed the calorie information being posted on the menu and it indeed influence their decision on what to eat (Dumanovsky, Huang, Bassett, \& Silver, 2010). Definitely, the food menu is an important guide for customers. It would be rather beneficial for restaurants to reveal the calorie content rather than hide because customers would eventually find out and it would create a bad reputation for the restaurant. Overall, knowledge in food menu enhances customer satisfaction.

### 5.2.4 Moderated Effect of Social Psychology

Social psychology had a negative and insignificant moderating effect on the relationship between knowledge in food quality and customer satisfaction ( $\beta=-0.839 ; \rho>0.05$ ). The implication is that, once customers are aware of the quality of food, they won't be influenced by other factors such as social class or the food that other customers are taking. At this point, the quality of food is the top priority. The results indicated a negative and significant moderating effect of social psychology on the relationship between nutrition knowledge and customer satisfaction ( $\beta=-1.888 ; \rho<0.05$ ), which suggest that social psychology is detrimental to customer satisfaction. Once social psychology comes into play, issues such as cultural values may influence customer preference and in the end lead to declined customer satisfaction.

The results indicated a positive and significant moderating effect of social psychology on the relationship between knowledge in food menu and customer satisfaction ( $\beta=2.466$; $\rho<0.05$ ). Social psychology enhances the relationship between knowledge in food menu and customer satisfaction. This is because the food menu is used as a marketing tool to appeal to the customers. Also, food menus that clearly articulate the nutritional content of food such that customers can adapt to healthy eating habits. In such a case, restaurants are likely to attract more customers since their desires are being met by the restaurants. In line with the findings, Shanks et al. (2017) noted that physiological, emotional, socioeconomic, and mental elements influenced customers' food choice and consumption rate.

## CHAPTER SIX

## CONCLUSION AND RECOMMENDATIONS

### 6.1 Conclusion

Knowledge of food quality is a key determinant of customer satisfaction. When customers are aware of the quality of food that is good for them, they are satisfied with the services of the restaurant whenever their needs are met. In fact, it is a win-win situation for both parties since customers' demands are being met while the restaurants grow their customer base as they maintain existing customers. Besides, the restaurants benefit from the vast knowledge the customers possess on food quality. Therefore they ensure that their foods meet the quality needed by customers. The take away is that customers possess adequate knowledge of food quality.

Food is at the core of the relationship between customers and restaurants. Thus, whenever customers have nutrition knowledge of food, both parties mutually benefit. The restaurants will be able to offer foods that have the nutritional value needed by customers and in turn customers will be satisfied with their services. The resulting outcome would be repeat purchase and an opportunity to capitalize on the wealth of knowledge of customers' food preferences.

A restaurant is not just about the food it offers but a combination of other factors such as the menu which paves a way for satisfaction of the customers. The menu card is a tool of communication by which restaurants influence customer choice. The restaurants have designed the menu in such a way that customers understand the menu language and terms
used in it. Customers are well oriented on the menu and know exactly where to look at in the menu. The implication is that the menu has effectively accomplished its goal of communicating to customers the food available at the restaurants, whose eventual outcome is customer satisfaction.

Finally, nutritional knowledge is key in enhancing customer satisfaction. Evidently, customers possess the requisite knowledge on nutrition and on the type of food to choose so as to get the required nutrients. Whenever restaurants provide nutritional information, they are capable of benefiting from a niche of customers that prefer healthy eating habits. The same is true when unclear nutritional information is provided.

### 6.2 Recommendations

Indeed, knowledge of food quality is an important aspect to be learnt by customers and the parties involved in the food industries such as restaurants. In actual fact, knowledge of food quality is of essence to restaurants as it will make it easier for them to satisfy the needs and wants of their customers. On the other hand, it is beneficial to customers if they are aware of the foods that are beneficial to their health and those that possess a risk. It is also crucial for customers to have knowledge in differentiating between fresh and stale food as it will save them from the risk of contamination.

Restaurants should provide nutrition information as it is a significant predictor of customer satisfaction. This will attract customers who have preference towards healthy eating habits. Restaurants should also ensure that the food served has nutritional balance and contains the specific nutrients needed by customers. They should make it their top priority to offer foods that have nutritional balance. There is also need for the restaurants
to constantly engage with their customers so as to identify the type of food nutrients they prefer, and offer information on the nutritional content of the foods offered as some of them are unaware. Restaurants should make it possible to offer food with a specific nutrient upon customer' request.The menu is also a key factor that contributes to customer satisfaction in restaurants. Therefore, restaurant should emphasis on providing a menu that customers understands the language and terms used. It should contain an appropriate and effective amount of nutrition information that will help customers make healthier food choices, but most importantly, be made simple and easily readable. It should be informative but also avoid nutritional factors that might offend customers.

### 6.3 Further Research Recommendations

This study recommends that another study be done to augment finding in this study. Specifically, future researchers can focus on customer's characteristics, their perception and customer loyalty and how it affects their satisfaction for a dining experience in a restaurant.

A comparative study across different counties might also be a more valuable contribution to this area of research. Moreover, there is no evidence that customer satisfaction is entirely dependent on the three independent variables. As such further research need to be carried out to establish what other factors contribute significantly to customer satisfaction in the hospitality industry. Moreover, the study has indicated that social psychology weakens the relationship between knowledge in food choice and customer satisfaction in restaurants. There is therefore need for further studies on the same to find out if the study findings hold.

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## APPENDICES

## APPENDIX I: QUESTIONNAIRE

Dear respondent,

I am ISABELA OMARIBA a Masters student from the University of Eldoret, undertaking a Masters degree in Hospitality Management. I am conducting a study entitled "Effect of knowledge in food choice on customer satisfaction in restaurants within Eldoret Central Business District, Kenya". Kindly fill in this questionnaire. Any information you provide will be of great importance to this study and will be treated as confidential.

Thank you.

## Isabela omariba

## Please tick as appropriate.

## SECTION A: KNOWLEDGE OF FOOD QUALITY

In this section the study is interested in your view of knowledge of food quality. Read each of the statements and answer by ticking in the appropriate category that best fits your opinion.
$5=$ Strongly agree, $4=$ Agree, $3=$ Neutral, $2=$ Disagree, $1=$ Strongly Disagree

|  | KNOWLEDGE OF FOOD QUALITY | $\mathbf{5}$ | $\mathbf{4}$ | $\mathbf{3}$ | $\mathbf{2}$ | $\mathbf{1}$ |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: |
|  | KF1 | I have knowledge on which food are safe for me | $\mathbf{4}$ | $\mathbf{3}$ | $\mathbf{2}$ | $\mathbf{1}$ |
| KF2 | I have knowledge on foods which are a risk to my <br> health | $\mathbf{5}$ | $\mathbf{4}$ | $\mathbf{3}$ | $\mathbf{2}$ | $\mathbf{1}$ |
| KF3 | I have knowledge on quality service and cleanliness of <br> food | $\mathbf{5}$ | $\mathbf{4}$ | $\mathbf{3}$ | $\mathbf{2}$ | $\mathbf{1}$ |
| KF4 | I have know how to distinguishing between fresh food <br> and stale food | $\mathbf{5}$ | $\mathbf{4}$ | $\mathbf{3}$ | $\mathbf{2}$ | $\mathbf{1}$ |


| KF5 | I have knowledge on types of foods available during <br> this season | $\mathbf{5}$ | $\mathbf{4}$ | $\mathbf{3}$ | $\mathbf{2}$ | $\mathbf{1}$ |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: |
| KF6 | I have knowledge on food contamination | $\mathbf{5}$ | $\mathbf{4}$ | $\mathbf{3}$ | $\mathbf{2}$ | $\mathbf{1}$ |
| KF7 | I can tell when food is well cooked | $\mathbf{5}$ | $\mathbf{4}$ | $\mathbf{3}$ | $\mathbf{2}$ | $\mathbf{1}$ |

## SECTION B: NUTRITION KNOWLEDGE

In this section the study is interested in your view of Nutrition knowledge. Read each of the statements and answer by ticking in the appropriate category that best fits your opinion.

5 = strongly agree, 4 = Agree, 3 = Neutral, 2 = Disagree, $1=$ strongly Disagree

|  | Nutrition knowledge Aspects | $\mathbf{5}$ | $\mathbf{4}$ | $\mathbf{3}$ | $\mathbf{2}$ | $\mathbf{1}$ |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: |
| NK1 | I have knowledge on how to balance my foods | $\mathbf{5}$ | $\mathbf{4}$ | $\mathbf{3}$ | $\mathbf{2}$ | $\mathbf{1}$ |
| NK 2 | I have understanding on food nutrients | $\mathbf{5}$ | $\mathbf{4}$ | $\mathbf{3}$ | $\mathbf{2}$ | $\mathbf{1}$ |
| NK 3 | I know which kind of nutrients am supposed to take | $\mathbf{5}$ | $\mathbf{4}$ | $\mathbf{3}$ | $\mathbf{2}$ | $\mathbf{1}$ |
| NK 4 | The foods served in this restaurant have nutritional <br> balance | $\mathbf{5}$ | $\mathbf{4}$ | $\mathbf{3}$ | $\mathbf{2}$ | $\mathbf{1}$ |
| NK 5 | Whenever I ask for food with a particular nutrient I <br> get it | $\mathbf{5}$ | $\mathbf{4}$ | $\mathbf{3}$ | $\mathbf{2}$ | $\mathbf{1}$ |
| NK6 | The staff have understanding on food nutrients | $\mathbf{5}$ | $\mathbf{4}$ | $\mathbf{3}$ | $\mathbf{2}$ | $\mathbf{1}$ |
| NK7 | I know the types nutrients and in which foods they <br> are found | $\mathbf{5}$ | $\mathbf{4}$ | $\mathbf{3}$ | $\mathbf{2}$ | $\mathbf{1}$ |

## SECTION C: KNOWLEDGE OF FOOD MENU

In this section the study is interested in your view of knowledge of food menu. Read each of the statements and answer by ticking in the appropriate category that best fits your opinion
$5=$ Strongly agree, $4=$ Agree, $3=$ Neutral, $2=$ Disagree, $1=$ Strongly Disagree

|  | Menu Knowledge Aspects | $\mathbf{5}$ | $\mathbf{4}$ | $\mathbf{3}$ | $\mathbf{2}$ | $\mathbf{1}$ |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: |
| KFM1 | I know how to read the food menu | $\mathbf{5}$ | $\mathbf{4}$ | $\mathbf{3}$ | $\mathbf{2}$ | $\mathbf{1}$ |
| KFM2 | Am well oriented on the all foods listed in the menu | $\mathbf{5}$ | $\mathbf{4}$ | $\mathbf{3}$ | $\mathbf{2}$ | $\mathbf{1}$ |


| KFM3 | I know exactly where to look at whenever I am given <br> the menu | $\mathbf{5}$ | $\mathbf{4}$ | $\mathbf{3}$ | $\mathbf{2}$ | $\mathbf{1}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| KFM4 | I know how to choose food items on the menu to <br> make a <br> balanced diet. | $\mathbf{5}$ | $\mathbf{4}$ | $\mathbf{3}$ | $\mathbf{2}$ | $\mathbf{1}$ |
| KFM5 | I understand the menu language and terms used on the <br> menu | $\mathbf{5}$ | $\mathbf{4}$ | $\mathbf{3}$ | $\mathbf{2}$ | $\mathbf{1}$ |
| KFM66 | The staff know how to explain the restaurant menu | $\mathbf{5}$ | $\mathbf{4}$ | $\mathbf{3}$ | $\mathbf{2}$ | $\mathbf{1}$ |
| KFM7 | I find the food menu for this restaurant appealing and <br> clear | $\mathbf{5}$ | $\mathbf{4}$ | $\mathbf{3}$ | $\mathbf{2}$ | $\mathbf{1}$ |

## SECTION D; INFLUENCE OF SOCIAL PSYCHOLOGY

In this section the study is interested in your view of psychological influence on food choices. Read each of the statements and answer by ticking in the appropriate category that best fits your opinion
$5=$ Strongly agree, $4=$ Agree, $3=$ Neutral, $2=$ Disagree, $1=$ Strongly Disagree

|  | Social Psychology Aspects | $\mathbf{5}$ | $\mathbf{4}$ | $\mathbf{3}$ | $\mathbf{2}$ | $\mathbf{1}$ |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: |
| SP1 | Appearance of the food influences my choice of food | $\mathbf{5}$ | $\mathbf{4}$ | $\mathbf{3}$ | $\mathbf{2}$ | $\mathbf{1}$ |
| SP2 | I choose what most people have chosen | $\mathbf{5}$ | $\mathbf{4}$ | $\mathbf{3}$ | $\mathbf{2}$ | $\mathbf{1}$ |
| SP3 | I consider my cultural values when choosing food | $\mathbf{5}$ | $\mathbf{4}$ | $\mathbf{3}$ | $\mathbf{2}$ | $\mathbf{1}$ |
| SP4 | I know how to choose food items suitable for my <br> health and lifestyle |  |  |  |  |  |
| SP5 | My social class influences my food choices | $\mathbf{5}$ | $\mathbf{3}$ | $\mathbf{2}$ | $\mathbf{1}$ |  |
| SP6 | I only choose foods which I am familiar with | $\mathbf{5}$ | $\mathbf{4}$ | $\mathbf{3}$ | $\mathbf{2}$ | $\mathbf{1}$ |
| SP7 | I only choose foods which I like | $\mathbf{4}$ | $\mathbf{3}$ | $\mathbf{2}$ | $\mathbf{1}$ |  |

## SECTION F: CUSTOMER SATISFACTION

In this section the study is interested in your view on satisfaction achieved. Read each of the statements and answer by ticking in the appropriate category that best fits your opinion

5 = Strongly agree, $4=$ Agree, 3 = Neutral, 2 = Disagree, $1=$ Strongly disagree

| CS1 | I am generally delighted by the services offered in this <br> restaurant | $\mathbf{5}$ | $\mathbf{4}$ | $\mathbf{3}$ | $\mathbf{2}$ | $\mathbf{1}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| CS2 | I am satisfied with the quality of food ,cleanliness and <br> general appearance of the restaurant | $\mathbf{5}$ | $\mathbf{4}$ | $\mathbf{3}$ | $\mathbf{2}$ | $\mathbf{1}$ |
| CS3 | Staff always give fast attention to customers' problems <br> and complaints | $\mathbf{5}$ | $\mathbf{4}$ | $\mathbf{3}$ | $\mathbf{2}$ | $\mathbf{1}$ |
| CS4 | I prefer this restaurant because staff are friendly | $\mathbf{5}$ | $\mathbf{4}$ | $\mathbf{3}$ | $\mathbf{2}$ | $\mathbf{1}$ |
| CS5 | In general am satisfied with the variety of foods offered | $\mathbf{5}$ | $\mathbf{4}$ | $\mathbf{3}$ | $\mathbf{2}$ | $\mathbf{1}$ |
| CS6 | I am willing to re visit this restaurant | $\mathbf{5}$ | $\mathbf{4}$ | $\mathbf{3}$ | $\mathbf{2}$ | $\mathbf{1}$ |
| CS7 | I prefer this restaurant because they always satisfy my <br> needs | $\mathbf{5}$ | $\mathbf{4}$ | $\mathbf{3}$ | $\mathbf{2}$ | $\mathbf{1}$ |
| CS8 | I have no complains on this restaurant | $\mathbf{5}$ | $\mathbf{4}$ | $\mathbf{3}$ | $\mathbf{2}$ | $\mathbf{1}$ |
| CS5 | The hotel has never disappointed me so far. | $\mathbf{5}$ | $\mathbf{4}$ | $\mathbf{3}$ | $\mathbf{2}$ | $\mathbf{1}$ |
| CS10 | Language used on the menu is informative and easy to <br> understand | $\mathbf{5}$ | $\mathbf{4}$ | $\mathbf{3}$ | $\mathbf{2}$ | $\mathbf{1}$ |

## SECTION G: BIO-DATA

## Please tick or fill in the blank spaces as appropriate

1. Age; below 18 yrs ( ) 19-24 yrs ( ) 25-30yrs ( ) 31-36 yrs ( ) 37-42yrs ( ) Above 43 yrs ( )
2. Gender; Male ( ) Female ( )
3. Level of education; Primary ( ) secondary ( ) tertiary ( ) university ( )

Others, specify- $\qquad$
4. Your occupation $\qquad$
5. How many years have you been a customer of this restaurant $\qquad$
6. How many times do you eat in this restaurant per month $\qquad$

## APPENDIX II: RESTAURANT COVERS IN ELDORET CBD

| SN | RESTAURANT NAME | NUMBER OF COVERS |
| :---: | :---: | :---: |
|  | Kenyatta street |  |
| 1. | Sizzlers | 100 |
| 2. | Hachis | 80 |
| 3. | Savanna | 70 |
| 4. | Prime chic | 260 |
| 5. | Calabash | 90 |
| 6. | Calabash glorious | 100 |
|  | Total | 730 |
|  | Oginga Odinga street |  |
| 7. | Maggies | 350 |
| 8. | Members primier | 250 |
| 9. | Silver cool | 50 |
| 10. | Klassique | 250 |
| 11. | Silver line | 80 |
| 12. | shakers | 70 |
| 13. | Carlos | 100 |
| 14. | Bakers | 60 |
| 15. | Big Fries | 50 |
| 16. | Highway inn | 50 |
| 17. | Belasco | 50 |
|  | Total | 1360 |
|  | Oloo street |  |
| 18. | BismilahiLengut | 80 |
| 19. | Jamii | 80 |
| 20. | Taachtoek | 60 |
| 21. | Wannah | 40 |
| 22. | M oibenMakuti | 50 |
| 23. | Lincon | 80 |
| 24. | Long room | 60 |
|  | Total | 450 |
|  | Ronald Ngala street |  |
| 25. | Green park | 50 |
| 26. | Garden square | 200 |


| 27. | Storms | 60 |
| :---: | :--- | :--- |
| 28. | Hot springs | 50 |
| 29. | Delicious | 40 |
| 30. | Kimwa | 40 |
| 31. | Gigabite | 50 |
| 32. | Ndupawa -rehema | 110 |
| 33. | Tilapia Rib and Grill | 70 |
|  | Total | $\mathbf{6 7 0}$ |
|  | Muliro street |  |
| 34. | Miyako | 80 |
| 35. | Ndupawa Prestige | 220 |
| 36. | Sundrops | 100 |
|  | Total | $\mathbf{4 0 0}$ |

Sources: County Government (2016);Tourism Regulatory Authority North Rift

## Region (2018)

## APPENDIX III: UNIVERSITY RESEARCH AUTHORIZATION

P. O. Box 1125-30100, Eldoret, Kenya

Tel: +254532063257 / 2033712/13 Ext. 2352/3
Mob: 0736 493555; Fax: +254 532063257
E-mail: deansbus@uoeld.ac.ke
SCHOOL OF BUSINESS \& MANAGEMENT SCIENCES Department of Hotel \& Hospitality Management

REF: UoE/B/SBUS/PGME\&SB/041
7th August, 2018

UASIN GISHU COUNTY

Dear Sir/Madam,

## RE: APPLICATION FOR RESEARCH PERMIT -ISABELA OMARIBA SBM/S/PGHM/2005/15

Reference is made to the above named who is applying to the National Commission for Science Technology and Innovation for a Research Permit.

Ms. Omariba is a student University of Eldoret undertaking a Master Degree in Hospitality Management in the School of Business and Management Sciences. She has completed presenting her research proposal titled Moderating Effect of Social Psychology on Relationship Between Knowledge of Food Choice and Customer Satisfaction in Restaurants within Eldoret Central Business District.

Any assistance accorded to her is highly appreciated by this institution.
Yours faithfully,
HOD
Hotel 8 : Hospitality
Ma ajeqnent Dept.
OUNIVE SSTONO ELDORET
DR. RACHEAL KAREI
HEAD, DEPARTMENT OF HOTEL AND HOSPITALITY MANAGEMENT
C.C. Dean, School of Business and Management Sciences

## APPENDIX IV: NACOSTI RESEARCH AUTHORIZATION



## NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone:+254-20-2213471.
2241349,3310571,2219420
Fax:+254-20-318245.318249
Email: dg@nacosti.go.ke
Website : www.nacosti.go.ke
When replying please quote
Ref: No. NACOSTI/P/18/56903/24796
Isabella Kerubo Omariba
University of Eldoret
P. O. Box 1125-30100

ELDORET.

## RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on "Moderating effect of social psychology on the relationship between knowledge of food choice and customer satisfaction in restaurants within Eldoret Central Business District, Kenya" I am pleased to inform you that you have been authorized to undertake research in Uasin Gishu County for the period ending $13^{\text {th }}$ September, 2019.

You are advised to report to the County Commissioner and the County Director of Education, Uasin Gishu County before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit a copy of the final research report to the Commission within one year of completion. The soft copy of the same should be submitted through the Online Research Information System.


Copy to:
The County Commissioner
Uasin Gishu County.
The County Director of Education
Uasin Gishu County.

## APPENDIX V: NACOSTI RESEARCH PERMIT


#### Abstract

THIS IS TO CERTIFY THAT: MS. ISABELLA KERUBO OMARIBA of UNIVERSITY OF ELDORET, 0-30100 Eldoret, has been permitted to conduct research in Uasin-Gishu County on the topic: MODERATING EFFECT OF SOCIAL PSYCHOLOGY ON THE RELATIONSHIP BETWEEN KNOWLEDGE OF FOOD CHOICE AND CUSTOMER SATISFACTION IN RESTAURANTS WITHIN ELDORET CENTRAL BUSINESS DISTRICT, KENYA


for the period ending:
13th September,2019

## Applicant's

Signature

## THE SCIENCE, TECHNOLOGY AND

 INNOVATION ACT, 2013The Grant of Research Licenses is guided by the Science, Technology and Innovation (Research Licensing) Regulations, 2014.

## CONDITIONS

1. The License is valid for the proposed research, location and specified period.
2. The License and any rights thereunder are non-transferable.
3. The Licensee shall inform the County Governor before commencement of the research.
4. Excavation, filming and collection of specimens are subject to further necessary clearance from relevant Government Agencies.
5. The License does not give authority to transfer research materials.
6. NACOSTI may monitor and evaluate the licensed research project.
7. The Licensee shall submit one hard copy and upload a soft copy of their final report within one year of completion of the research.
8. NACOSTI reserves the right to modify the conditions of the License including cancellation without prior notice.

National Commission for Science, Technology and innovation P.O. Box 30623-00100, Nairobi, Kenya

TEL: $0204007000,0713788787,0735404245$
Email: dg@nacosti.go.ke, registry@nacosti.go.ke Website: www.nacosti.go.ke

Permit No: NACOSTI/P/18/56903/24796
Date Of Issue : 15th September, 2018 Fee Recieved : Ksh 1000


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National Commission for Science, Technology and Innovation

RESEARCH LICENSE

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CONDITIONS: see back page


[^0]:    Extraction Method: Principal Component Analysis.
    Rotation Method: Varimax with Kaiser Normalization.

