

**EFFECT OF CATERING SERVICE QUALITY DIMENSIONS ON  
STUDENTS' SATISFACTION IN SELECTED PUBLIC BOARDING  
SECONDARY SCHOOLS IN UASIN GISHU COUNTY, KENYA**

**BY**

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## DECLARATION

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**DEDICATION**

To my husband, children and the entire family for being my greatest inspiration and source of strength and for your prayers, encouragement and financial support

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## ABSTRACT

Students' satisfaction is important in ensuring among others academic performance, loyalty and retention. The quality of catering or school feeding services is one of the aspects that affect students' satisfaction. Limited studies have been undertaken to establish the effects of service quality on student satisfaction in secondary boarding schools in Kenya. This study therefore sought to determine the effect of catering service quality dimensions on student's satisfaction in the selected public boarding secondary schools in Uasin Gishu County, Kenya. The specific objectives of this study were to establish the effect of tangibles, responsiveness and assurance of catering services on student's satisfaction. The study also sought the school management's perceptions of quality service and satisfaction with catering services. The study was guided by expectancy-disconfirmation theory. It was a mixed methods study and adopted both descriptive and explanatory research designs. The target population comprised of 13,500 students from 6 public boarding secondary schools that were selected from each of the 6 constituencies in the County. Simple random sampling technique was employed to select one school from each constituency. The sample size was 375 students from the chart, selected through simple random sampling. A total of 6 principals and the 6 cateresses from the sampled schools were also purposively selected. Questionnaires were used to collect data from the students while interview schedules were administered to the principals and cateresses. Descriptive and inferential statistics were used for quantitative data analysis and included frequency, standard deviation, mean and multiple linear regressions. Qualitative data from the interviews was analyzed using content analysis. The findings revealed that tangibility had significant effect on student satisfaction ( $\beta_1=0.586$  and  $p=0.000$ ), responsiveness had significant effect on student satisfaction ( $\beta_2=0.021$  and  $p=0.000$ ) and assurance service quality dimension had significant effect on student satisfaction ( $\beta_3=0.261$  and  $p=0.000$ ). Interview results revealed that the schools ensure quality service through adherence to laid down policies, maintenance of cleanliness and supervision of staff. Respondents also indicated that feedback on satisfaction is received through student leader's responses. The study concluded that the tangibility dimension has the most significant effect on student satisfaction. The study therefore recommends that the employees in the catering department should uphold tangible aspects such as cleanliness in the catering services. The school management should also devise ways through which all students give feedback about quality and satisfaction as opposed to the current situation where only student leaders provide feedback.

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**ABBREVIATIONS AND ACRONYMS**

<b>ASS</b>	Assurance
<b>HeDPERF</b>	Higher Education Performance
<b>MOEST</b>	Ministry of Education Science and Technology
<b>Res</b>	Responsiveness
<b>SLAs</b>	Service Level Agreements
<b>SERVQUAL</b>	Service quality
<b>SPSS</b>	Statistical package for social sciences
<b>Tan</b>	Tangibility

## OPERATIONAL DEFINITION OF TERMS

**Assurance:** Assurance refers to knowledge and courtesy of employees and their ability to convey trust and confidence (Tanomsakyut, 2011). In this study it refers to confidence of students on the employees in the catering section.

**Boarding secondary schools:** Schools that provide education for pupils who live on the premises (MoE, 2012). In this study it refers to all schools offering accommodation and catering services in Uasin Gishu County, Kenya.

**Catering:** It is the provision of food and drink at a remote site or a site such as a hotel or other location (Robinson & White, 1997). In this study it refers to provision of food and drink to students in public boarding secondary schools.

**Responsiveness:** Responsiveness is the willingness to assist students and provide the service promptly. The differences in the shopping experience between retail outlets (e.g. store ambience, disposition of associates, store service) are often as important to customers as the differences in physical characteristics of the goods offered (Gomez, McLaughlin, & Wittink, 2004). In this study, it refers to the willingness of the employees to assist the students.

**Service Quality:** A focused evaluation that reflects customers' perceptions of reliability, assurance, responsiveness, empathy and

tangibles (Zeithaml, Bitner & Gleimmler, 2009). The indicators considered in this study included; tangibility, responsiveness and assurance.

**Student Satisfaction:** According to Grunwald and Peterson (2003), satisfaction refers to the state felt by a student who has experienced performance or an outcome that fulfills his or her expectation. In this study it refers to contentment of students on catering services in public boarding secondary school Uasin Gishu County, Kenya. The indicators considered were; loyalty, positive word of mouth and student development.

**Student:** Someone who attends an educational institution for learning purposes. The usage of the term is reserved for those who attend secondary, tertiary or university education (MoE, 2012). The classes considered were; form one, two, three and four.

**Tangibility:** Tangibles consist of those things that students can see or touch. The tangibles include the appearance of physical facilities, the furniture, the equipment used to perform services, cleanliness, point of purchase display as well as the appearance of employees (Kurtz & Clow, 1998). In this study the tangibles are the dining halls, dormitories and equipment used in the kitchen.

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.0 Overview**

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

#### **1.1 Background Information of the Study**

Customer satisfaction largely depends on the quality of services provided by any organization (Zhou, 2011). According to Tse and Wilton, (2008), satisfaction is a customer response to the service provided. The concepts of service quality and customer satisfaction have received widespread attention especially in marketing related research and practice. However, the concepts have received limited attention in the welfare catering sub-sector hence the focus of this study.

According to Lulfs-Baden and Spiller (2009), the two concepts are greatly relevant in the service sector and more so in the food retail industry. In the business world, literature suggests that customer satisfaction has an impact on a firm's success or failure (Lulfs-Baden & Spiller, 2009). Studies such as Mensah and Appietu, (2019) focused on customer satisfaction in both the commercial and welfare food service sectors. On the other hand, Arora and Singer, (2006) and Ryu and Han, (2010) focused on the commercial food service sector specifically restaurants. Others such as (Lulfs-Baden & Spiller 2009; Maietta &Gorgitano, 2016; Liu *et al.*, 2018; Jeong *et al.*, 2013) addressed the welfare sector or more specifically the institutional food service sector.

Competition is now increasing within the education sector prompting the stakeholders especially the management to look for ways of enhancing student satisfaction (Paul, 2014). According to Zhou (2011), public secondary schools where the customers (students) are adversely deprived of the basic needs of services they should receive, improving overall service quality should be in the focus and priority of government regulatory and monitoring bodies. Stevens, Knutson, and Patton (2005) opine that provision of high quality service is an important strategy in an attempt to maximize student satisfaction. Food is a basic need and its quality is of paramount importance to student satisfaction (Stevens *et al.*, 2005).

Students' satisfaction is described as the positive feelings of the students towards their program and institution (Sum, McCaskey & Kyeyune, 2010; Qi *et al.*, 2010). Satisfaction is a feeling of happiness and joy that individuals obtain when they have fulfilled their human needs and desires. Educational institutions use certain methodologies to determine the level of their students' satisfaction regarding the services and programs they offer to better fulfill student needs and satisfy student aspirations (Qureshi, Shaukat & Hijazi, 2011). A study conducted by Mamun and Das (1999) identified catering facilities of residential halls, cafeteria, recreation and sports as essential factors in the satisfaction of the students in higher education institutions. The indicators of student satisfaction considered in this study were; loyalty, positive word of mouth and student development.

Service quality is one of the popular research topics for the past few decades (Gallifa & Batalle, 2010). In the recent past, efforts have been put up to develop suitable models which are aimed at helping in measuring the quality of services in the education sector. One of the most important models is the SERVQUAL instrument



(Ghulam, Khan, & Affaq, 2014). The SERVQUAL instrument helps in measuring quality service delivery by focusing on service quality to customer satisfaction based on the model's five dimensions which include; assurance, responsiveness, reliability, tangibles and empathy (Ghulam *et. al.*, 2014). However, the current study considered tangibility, responsiveness and assurance service quality dimensions.

Tangibility dimension refers to the appearance of physical facilities, equipments, personnel and communication materials (Faranak & Behnaz, 2011). The tangibles can be improved or can be made available according to the measurements and establishment of the expectations of the students. The indicators of tangibility that were considered in the current study were; cleanliness, lighting and space. Responsiveness refers to the willingness to help customers and provide prompt services (Raphael, 2014). In this case, the most fundamental aspects that were considered in this study so as to ensure that responsiveness is assured in delivery of catering services were; willingness, promptly and timeliness. Assurance refers to the knowledge and courtesy of employees and their ability to promote confidence and trust in service delivery (Ghulam *et. al.*, 2014). Aspects of assurance dimension that were considered in the current study were; trust, confidence and believable.

Scholars believe that in an educational institution, students are the main customers of the organization (Qi, Chen, Liu & Ding, 2010). In this regard, they argue that student satisfaction should always be considered by the institutions due to the rising competitions in the education sector, higher expectation of stakeholders towards services offered by educational institution and the introduction of profit motive in higher education (Dejaeger, Goethals, Giangreco, Mola & Baesens, 2011). The widespread view of a student as a consumer has made students search for institutions

that will provide them with unique, memorable and better services (Sudharani & Kalpana, 2012).

In addition, several studies have addressed the issue of SERVQUAL and student satisfaction. For example, Fitri, Ilias, AbdRehman and AbdRazak (2008) have observed SERVQUAL dimension like tangibility, responsiveness, reliability, assurance, and empathy as positive contributors towards students' satisfaction. Lo (2010) described the students' satisfaction as their perception about the environment in which they are getting education and it closely relates the role of both teachers and students.

Educational institutions are increasingly recognizing that education is a service industry. As service organization, educational institutions are dealing with same situation which places greater emphasis on meeting the expectations and needs of their customers. However, in the institution environment, the concept of customer is not clearly defined (Navarro, Iglesias & Torres, 2005). Since there are various groups that can be categorized as customers of an institution, namely students, employees, families and the society. The educational sector plays a significant role in the development of human capital and ultimately in the economic development of the country. Like the manufacturing and service sectors, the concept of quality has also evolved among the educational institutions and has helped develop a competitive environment that ultimately raises the importance of measuring the quality of services among institutions (Gbadamosi & De Jager, 2008).

The expectancy-disconfirmation theory was adopted as it emphasizes that satisfaction is determined or measured by the discrepancy between perceived performance and cognitive standards such as expectations and desires (Khalifa & Liu, 2003). In this

study, tangibility, responsiveness and assurance dimensions were considered out of the five service quality dimensions due to their relevance for the setup of secondary schools catering services.

Lewis and Mitchell (1990) have suggested a need for educational institutions to monitor the quality of their services to students in order to commit themselves to continuous improvement. Kamakura and Mittal (2001) examines relationships when it comes to the effect that satisfaction has on the retention of existing customer and recruitment of new customer and that customer satisfaction is a key factor in formation of customer's desires for future purchase. Thus, satisfaction can affect students' loyalty and retention. Lo (2010) opines that most of the students in boarding schools are unsatisfied with the way the food is prepared.

Nevertheless, Douglas, Douglas and Barnes (2006) found that the less important factors were those linked to the physical facilities which contradict the results presented by Maimunah, Kaka and Finch (2009) who identified the institution's facilities as the most important aspect. They noted that the physical infrastructure is an important factor that influences prospective students when deciding on which institution to enroll. Once they have enrolled in the institution, the academic activities become more crucial. Meanwhile, the finding of Maimunah *et al.*, (2009) in the context of Malaysia, the equipment and facilities factors are vital from the students' viewpoint.

Mputhia (2014) examined the service quality measurements in tertiary colleges in Kenya. The study was conducted at Zetech College. The study found that more than a half of the services offered at the facility were below what the students' expected in terms of service quality. The study was carried out in tertiary institutions while the

current study focused on public boarding secondary schools. The study by Mputhia (2014) did not focus on service quality dimensions of catering services which the current study sought to incorporate. Therefore, the current study sought to determine the effect of the catering service quality dimensions on students' satisfaction in selected public boarding secondary schools, Uasin Gishu County, Kenya.

## **1.2 Problem Statement**

Students' satisfaction has been identified to have a significant impact on maintaining students' loyalty (Cronin & Taylor, 1992; Voon, 2006; Brunson, 2010). Kenyan boarding secondary schools fail to provide students with adequate nutritious foods. According to Serrem, Dunay, Serrem, Atubukha, Oláh and Illés (2020), none of the Kenyan boarding secondary schools adequately meet the nutritional requirements of meals served to school-goers as the meal menus lack variation in food options, are very repetitive, simplistic in nature and are of low quality standards.

In an increasingly competitive higher education arena, research indicates that service quality is an important determinant of students' satisfaction (Burke, Hammond, & Yound, 1997). However, there is little empirical knowledge about the quality of catering services among public secondary schools in Kenya. Elsewhere, Voon's (2006) study found that perceived service quality in institution had a greater impact on customer satisfaction and loyalty than maintaining a service market orientation by the institution. The study by Vroon (2006) did not focus on the quality of catering service dimensions which the current study sought to find out.

Although research has been conducted and theories developed on the importance of better service delivery and its possible linkages with customer satisfaction, their retention and recruitment of the new potential customers (Berry, Bamber, Miller,

Barbone, Bush, & Armstrong, 2006), little research pertaining to students as consumers of public secondary education services and the need for institution to respond to student requirements has been documented (Thorsten, Voss, & Zikuda, 2010). Thus, public secondary institutions and other learning institutions in Kenya are bound to fail if they do not have an accurate understanding of what students expect of them for example strike that happens in schools. It is against this background that this study tries to find out the effects of catering service quality dimensions on students' satisfaction in public boarding secondary schools in Kenya from the perspective of students as the primary internal customers and service recipients.

In Uasin Gishu County, there are no studies that have been done on service quality dimensions of catering services on students' satisfaction in public boarding secondary schools. Therefore, the current study sought to determine the effect of the catering service quality dimensions on students' satisfaction in selected public boarding secondary schools, Uasin Gishu County, Kenya.

### **1.3 Objectives of the study**

#### **1.3.1 General Objective**

To investigate the effects of the catering service quality dimensions on students' satisfaction in selected public boarding secondary schools in Uasin Gishu County, Kenya.

#### **1.3.2 Specific Objectives**

- i. To establish the effect of the tangibles of catering services on students 'satisfaction in selected public boarding secondary schools in Uasin Gishu County, Kenya.

- ii. To determine the effect of the responsiveness of catering services on students' satisfaction in selected public boarding secondary schools in Uasin Gishu County, Kenya.
- iii. To examine the effect of the assurance of catering services on students' satisfaction in selected public boarding secondary schools in Uasin Gishu County, Kenya.
- iv. To establish school managements' perception on quality service and student satisfaction in selected public boarding secondary schools in Uasin Gishu County Kenya.

#### **1.4 Research Hypothesis**

**H<sub>01</sub>:** There is no significant effect of tangibles of catering service on students' satisfaction in selected public boarding secondary schools Uasin Gishu County, Kenya.

**H<sub>02</sub>:** There is no significant effect of responsiveness of catering service on students' satisfaction in selected public boarding secondary schools Uasin Gishu County, Kenya.

**H<sub>03</sub>:** There is no significant effect of assurance of catering service on students' satisfaction in selected public boarding secondary schools Uasin Gishu County, Kenya.

#### **1.5 Research Question**

- i. What are the perceptions of school management on quality service and student satisfaction in Uasin Gishu County, Kenya?

### **1.6 Significance of the Study**

The study findings are expected to inform the stakeholders of public boarding schools in Kenya about catering services. First, it is expected that the study findings will inform the management of public boarding secondary schools, parents, sponsors, government officials on the current status of the catering facilities across public boarding secondary schools. The government through the ministry of education can now come up with relevant policies so as to ensure the catering facilities are kept up to the standards that are needed. The study findings also were to assist management of public boarding secondary schools to come up with strategies that if implemented will ensure that the catering services offered remain to be of high quality for a long period of time.

In addition, the study findings are to be useful to the Ministry of Education as the study findings might be used to aid in policy formulation on catering services quality dimensions among public secondary schools in Kenya. Lastly, the study findings are to contribute to increased knowledge in the area of research on the implementation of quality service delivery and educational service delivery. This was useful to students who will wish to carry out further research.

### **1.7 Justification of the study**

There was need for a study to address student satisfaction with food provided in Kenyan boarding secondary schools. This was to help provide recommendations that was not only to enhance student satisfaction with meals provided but were to go hand in hand with enhancing student retention. Therefore, the study was done to address the existing knowledge gap where few studies exist on catering service quality dimensions among students' satisfaction among public boarding secondary schools in Uasin Gishu County. The study was done because it was to inform the management of

public boarding secondary schools, parents, sponsors, government officials on the status of the catering facilities across public boarding secondary schools. The government through the ministry of education can now come up with relevant policies so as to ensure the catering facilities are kept up to the standards that are needed.

The study findings will also assist management of public boarding secondary schools to come up with strategies that if implemented will ensure that the catering services offered remain to be of high quality for a long period of time. In addition, the study findings will be useful to the Ministry of Education as the study findings might be used to aid in policy formulation on catering services quality dimensions among public secondary schools in Kenya. Lastly, the study findings will contribute to increased knowledge in the area of research on the implementation of quality service delivery and educational service delivery. This was useful to students who will wish to carry out further research.

### **1.8 Scope of the Study**

The study is on effect of catering service quality dimensions on student's satisfaction in selected public boarding secondary schools in Uasin Gishu County, Kenya. The service quality dimensions considered in the study were; tangibles, responsiveness and assurance of catering services. The study does not incorporate reliability and empathy service quality dimensions. The operational measures of tangibility are cleanliness, lighting and space. Responsiveness was operationalized using willingness, promptness and timeliness. Assurance was operationalized using trust, confidence and believable.

The dependent variable was student's satisfaction and it was operationalized using loyalty, positive word of mouth and personal development. The study mainly covered



all public boarding secondary schools in Uasin Gishu and the target populations were all students, school principals and catering in charge. The study was based on expectancy-disconfirmation theory. Multi-stage sampling research design was used which combine purposive and simple random sampling. The data was collected by use of questionnaires, interviews and was analyzed using descriptive statistics and multiple regression models. The study was conducted between February to May 2019 while the respondents were students, cateresses and principals.

### **1.9 Limitations of the Study**

The education sector is a highly regulated sector governed by several confidentiality clauses and accessing information for the purpose of research was quite difficult. However, the head teachers were assured that the findings of this study were used purely for academic purposes. Some head teachers were reluctant to allow the researcher to administer the questionnaire to students. This is because they think that the exercise could interrupt staff and students' schedules. The researcher assured them that only lunch time hour was used. The findings should be generalized with caution due to the small sample that was used.

The respondents were explained on the importance of the research. The questionnaires were well structured to collect maximum information and relevant data. As a criterion for measuring the effectiveness of internal control, the secondary schools were treated as any organization; fourth, to increase the level of objectivity, numerical estimates were used. The assessment was performed solely by the researcher who has experience in the evaluation of dimensions of service quality in public boarding secondary schools.

### **1.10 Assumptions of the Study**

The study was conducted on the assumption that all the respondents understood the catering service quality dimensions concept as well as the concept of satisfaction. The other assumption of this study was that all the respondents provided accurate information on the catering service quality dimensions and how it had affected student satisfaction. The final assumption was that all the respondents were willing to participate in the study without any coercion and that the school management would facilitate access to the respondents.

### **1.11 Chapter Summary**

This chapter covered the background of the study, statement of the problem, , objectives of the study, study hypothesis, scope and limitations of the study, justification of the study and finally the assumptions of the study.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

This chapter explores literature that has been reviewed for the purpose of study. The chapter covers 'satisfaction, boarding facilities services and their fundamental aspects as well as definitions. It presents integration of the study variables by use of theoretical framework and ends with the conceptual framework.

#### **2.1 Satisfaction**

Kotler, Lane, Koshy and Jha (2009) defined satisfaction as a person's feeling of pleasure that result from comparing a product's perceived performance or outcome to their expectation. According to Oliver (2007), satisfaction is the judgment that product or service feature, or service itself, provided a pleasurable level of consumption-related fulfillment, including levels of under or over fulfillment. It has been regarded as important within the management field because high customer satisfaction enhances the firm's reputation, increases customer loyalty, and lowers the cost of future transactions (Lai, Hui, Lo, Tse, Tso, & Wu, 2003).

According to Kotler *et al.*, (2009), it means if the performance matches the expectation, the customer was satisfied. According to Wangenheim and Bayon (2004), providing high customer satisfaction is well acknowledged to be associated with higher customer loyalty and enhanced reputation. There is need for understanding customer satisfaction (CS) dimensions and how to measure it as it has a great impact on the reputation of the organization (Ngo, 2007).

One of the most common theories regarding customer satisfaction is the 'confirmation process/failure to confirm satisfaction' theory. It is based on the idea that customer

satisfaction is a process of comparing what you have expected from a product or service and what you have got from that product or service. Oliver (2007) suggested that expectations serve as a frame of reference against which customers' experiences are measured.

Oliver (2007) further opines that dissatisfaction occurs when the perceived quality is below expectations, the situation of balance 'neither satisfied nor dissatisfied' occurs when the perceived quality is at the same level with the consumer expectations, and satisfaction occurs when perceived quality is above expectations. The study adopted the SERVQUAL model which is the model based on the confirmation process/failure to confirm satisfaction' theory. The model was proposed by Parasuraman, Zeithaml and Berry (1988), which measures the difference between 'what customers want' and 'what customers receive'.

Customer effort score can also be used and it examines the ease with which the customers were able to have their issue resolved successfully or complete an action, consumer retention rate among others (Amudha, *et al.*, 2012). These study adopted loyalty, positive word of mouth and student development as the operational measures of student satisfaction.

Customer satisfaction is taken as a yardstick for measuring the quality of service and providing excellent customer service that decides the effectiveness of service delivery process (Amudha, Surulivel, & Vijaya, 2012). It is in this regard that the current study assesses catering service quality dimensions and its subsequent impact on student satisfaction. Organizations can use the referral rate of their customer, Customer Satisfaction Score where they ask the customers to rate their satisfaction on a linear scale. In the context of higher education, the matter of satisfaction is what students

expect from their educational institution, in fact, everything that makes them eligible to become productive and successful person in their practical lives. Satisfaction measurement is considered a strategic issue for educational institutions because satisfaction is similar to profit-and-loss accounting in business organizations (Petruzzellis, D'Uggento & Romanazzi, 2006).

Literature suggests that if satisfaction is high, then the institution is making sizeable profits as a result of having provided students with knowledge, skills and targeted abilities. Student was pleased with their academic achievement and their institution life and will speak positively about the institution because satisfaction is the ultimate goal, and the ultimate goal reflects high levels of service quality (Majeed, Sawsan & Muhammad, 2008).

It is evident that student satisfaction is the major source of competitive advantage and that the satisfaction leads towards student retention (Arambewela & Hall, 2009). These results are consistent with those of Bergamo, Giuliani, Silvia, Felipe and Mateus (2012), which indicate that there is a clear effect of institution services' quality on student satisfaction with and loyalty to education. These results also conform to those of Purgailis and Kristīne (2012) in terms of the existence of a positive relation between student acquisition of expected skills and student satisfaction with and loyalty toward institution services. There exists an interesting debate suggesting that students' expectation build prior to enrolment in a college or institution, while satisfaction exists during his/her stay in college or institution. For example, Palacio, Meneses and Perez (2002) suggest that student expectation normally build even before entering the institution.

Researchers have also measured students' satisfaction in context of many tangible and intangible elements and characteristics. For example, Feldman and Newcomb (1969); Pascarella and Terenzini (1991) have explored relationship between student learning experiences and their learning, development and satisfaction. Pike (1994); Pace (1979) have suggested alumni satisfaction as an excellent tool for assessing the effects of educational institution on students. Based on the studies of Pascarella and Terenzini (1991); Umbach and Porter (2002), it is stated that intellectual and personal developments are among key satisfaction outcomes of educational institutions.

Students' satisfaction is a major challenge for the universities and other institutions of learning. It is a major source of competitive advantage and also it leads to student retention (Arambewela & Hall, 2009). In Kenya, there exist studies that have examined student satisfaction but majority of the studies have been done on University students. For example, Dawit, Getachew and Ashenafi (2017) examined student satisfaction at Dire Dawa University in Ethiopia. The study found out that the satisfaction level of students in the overall service of the university is 65.4%. Therefore, little is known about student satisfaction in public boarding schools in Kenya which the current study sought to fill.

Omwando and Ingari (2014) examined students' satisfaction with module II academic programs offered by public universities in Mombasa. The study found that the students are not fully satisfied with the services offered by various campuses of public universities in Mombasa. The study also revealed that as much as the campuses offered good customer services at their libraries, the libraries were not fully stocked-up with enough learning resources. The study was done on University students and revolved around library services. The current study assessed student satisfaction in

public boarding secondary schools. It focused on catering services which were not part of the study of their study.

Chepkorir, Naibei, and Cheruiyot (2017) opine that student dissatisfaction that is experienced in academic institutions in Kenya is as a result of inadequate teaching and learning facilities, low quality library services, poor examination management and processes and also inadequate student support services. In UasinGishu County, there exist no studies that have been done on student satisfaction in public boarding secondary schools. According to Muthoni (2017) there have been various forms of indiscipline in public primary teacher training college in Mosoriot where students have been dissatisfied with the student support services, quality of library services, accommodation services, guidance and counseling services and medical services. Their study was not done on public secondary boarding schools; therefore, little is known about student satisfaction in the schools. The studies on student satisfaction in Uasin Gishu County and Kenya at large, have not examined quality of catering services as a determinant of student satisfaction which the current study sought to examine and fill the knowledge gap. The indicators of customer satisfaction considered in this study were; loyalty, positive word of mouth and student development.

### **2.1.1 Loyalty**

Student satisfaction can affect their loyalty and retention. Bergamo *et al.*, (2012) indicated that there is a clear effect of institution services' quality on student satisfaction with and loyalty to higher education institutions. These results also conform to those of Purgailis and Kristīne (2012) in terms of the existence of a positive relation between student acquisition of expected skills and student satisfaction with and loyalty toward institution services.

Students' satisfaction has been identified to have a significant impact on maintaining students' loyalty and retention (Cronin & Taylor, 1992; Voon, 2006; Brunson, 2010). For instance, Voon's (2006) study found that perceived service quality in higher education had a greater impact on customer satisfaction and loyalty than maintaining a service market orientation by the higher educational institution.

Institutions that consistently satisfy their customers enjoy higher retention levels and greater profitability due to increased customers' loyalty (Wicks & Roethlein, 2009). It is vital to keep students satisfied by trying to know their expectations and perceptions of services offered by institution. In this way, service quality could be assessed and thereby evaluate students' satisfaction. Service quality and customer satisfaction proves from past researches to relate positively (Gera, 2011).

Customers' brand loyalty base on the satisfaction achieved after the purchase of a product or service (Churchill & Surprenant, 1982). According to the customer satisfaction model developed by Oliver (1980), customers compare their perceptions of actual products/services performance with the expectations and that is when the feeling of satisfaction arises leading to repeat purchase. Satisfaction from service quality, according to Gronroos (1984), evaluates technical quality and functional quality. This happens when customers do not have much information about the technical aspects of a service. Under such circumstances, functional quality becomes the major factor from which customers base perceptions of service quality (Donabedian, 1982).

Students' loyalty to an institution leads to students' retention. Danesh, Nasab and Ling (2012) defined customer retention as the future propensity of a customer to stay with the service provider. According to Danesh *et al.*, (2012), customer satisfaction is



not the only variable that influences the retention of customers. Molapo and Mukwada (2011) defined customer retention as the marketing goal of preventing a customer from switching to another competitor.

Edward and Sahadev (2011) stated that customer retention indicates customer's intention to repurchase a service from the service provider. They used customer retention as a measure of the customer's intention to stay loyal to the service provider. For them, service quality and student's satisfaction are important antecedents of students retention. On the effect of quality of service on students, it was concluded that when services are offered as and above the expectations; it enhanced interaction, loyalty to the institution. There are no studies that have examined student loyalty in public secondary schools in Kenya, the studies exist have been done on University students. According to Muthamia (2016), in United States International University, most of the graduate students did their undergraduate degree at the same institution. According to, the students were satisfied with the services they got in their undergraduate program and that are why they pursued the graduate program in the same institution.

Student's loyalty is achieved when there are repeated experiences in the learning environment (Elliot & Shin, 2002). The students are able to develop a sense of belonging by participating in both academic and support services. Loyalty can also be realized when the students develop good relations with teachers and other students. It will also be realized when the student realizes good learning outcomes (Joh, 2000). In Kenya, students in primary teachers training colleges exhibit problems such as drug abuse, absenteeism and social related problems which have resulted in a surge in students drop out. In 2001, the Ministry of Education, Science and Technology

(MOEST) formed a task force to assess the rampant strikes in the institutions. These strikes are an impediment against realization of students' loyalty.

Satisfaction can be expressed through loyalty (Kasper, Helsdingen, & Gabbott, 2006). In the United States, Universities have implemented quality programs that have led to a surge in student satisfaction. Evans (2011) opines that ninety percent of the undergraduate students and alumni postulated that they would undertake graduate programs in the same institutions. This is an indicator of student loyalty. Little is known about students' loyalty in public secondary boarding schools in Uasin Gishu County. This is because there are no studies that have assessed students' loyalty on the same study area. The current study filled this knowledge gap as it assessed students' satisfaction in selected public secondary boarding schools in Uasin Gishu County.

### **2.1.2 Positive word of Mouth**

It has been found that positive perceptions of service quality have a significant influence on student satisfaction and thus satisfied student would attract more students through word-of-mouth communications (Alves & Raposo, 2010). The students can be motivated or inspired from both academic performance as well as the administrative efficiency of their institution. Ahmd and Nawaz (2010) mentioned that service quality is a key performance measure in educational excellence and is a main strategic variable for institution to create a strong perception in consumer's mind. The results of previous research reveal that students who are satisfied may attract new students by engaging in speech of positive word-of mouth communication to inform their friends and acquaintances, and they could go back to the university to further continue their study or take other courses (Helgesen & Nettet, 2007; Gruber, Fub, Voss & Glaser-Zikuda, 2010).

Other studies have also shown that such factors affect the student performance (Bean & Bradley, 1986) and once such factors are minimized, it might help a university to be more competitive and attract new students (Lee, Jolly, Kench, & Gelonesi, 2000). Consequently, it was found that universities that maximize their student satisfaction through provision of quality services that meet student expectation have better chances of reducing students. Dropout rates while attracting many other new students (Elliot & Dooyoung, 2002). As competition for students has escalated among colleges and universities, student attraction and retention should be given great attention. Since service quality and student satisfaction are important factors in attraction and retention, it is important that faculties/business schools continuously measure service quality.

Service quality is clearly an important element of competition in a variety of markets ranging from traditional service and retail industries to the manufacturing sector. Firms compete on price in addition to non-price attributes like service quality. Under vertical (quality) differentiation theory, customers differ in their marginal willingness to pay for quality. They defect from an incumbent only if a competitor's price/quality bundle improves their utility (Gabszewicz & Thisse, 1979). According to Shaked and Sutton (1982); Sutton (1986), customers often seek among existing firms in the market according to their price and service quality preferences. Because of such customer sorting, the effects of increased competition on an incumbent's customer retention rates may be highly heterogeneous and dependent on its relative service quality and price performance. Students tend to get attracted to high quality services. An increase in service quality leads to high levels of students' attraction.

### **2.1.3 Students development**

It is an indicator of student satisfaction. Institutions in Africa are under pressure to provide education to a large number of students under conditions of resource constraints which leads to issues of delivery of academic programmes as well as sporadic growth and development (Jowi, In-Teffer, & Knight, 2008). Availability of social and sports facilities in the school positively contributed to student satisfaction in field activities. They are considered to be opportunities meant to develop close bonds with institutions which can have positive influence on student overall development and attitude. Researchers have also measured students' satisfaction in context of many tangible and intangible elements and characteristics.

For example, Feldman and Newcomb (1969); Pascarella and Terenzini (1991) have explored relationship between student learning experiences and their learning, development and satisfaction. Pike (1994) and Pace (1979) have suggested alumni satisfaction as an excellent tool for assessing the effects of educational institution on students. Based on the studies of Pascarella and Terenzini (1991) and Umbach and Porter (2002), it is stated that intellectual and personal developments are among key satisfaction outcomes of educational institutions. Harvey (1995) also advises that student satisfaction goes hand in hand with the development of a culture of continuous quality improvement.

One way of achieving student development and satisfaction is through guidance and counseling services. Campbell and Nutt (2008) opine that the benefits of student development have not been fully realized in most academic institutions because of poor guidance and counseling services. In Kenya, Kyalo and Chumba (2011) student development has not fully been realized as the essential services that are needed in most of the academic institutions to facilitate its success are not fully functional. In

UasinGishu County there are no studies that have assessed student development in public boarding secondary schools. The current study sought to address this knowledge gap as it examined students' satisfaction in selected public secondary boarding schools in UasinGishu County.

## **2.2 Boarding Facilities and Services**

A boarding school provides education for students or pupils who live on the premises. Boarding facilities include school dormitories, dining room and other facilities such as class rooms, halls, libraries and laboratories. Boarding schools also often provide a wide variety of extracurricular activities such as music rooms, canteen, school chapel, theaters and cinemas among others (Schaverein, 2004). Boarding services include medical, food, guidance and counseling, health services among others. The word 'service' is multifaceted. Usually, it is expressed as something 'intangible'. Tsay and Agrawal (2000) opine that services are behavioral rather than physical entities and have been explained as deeds, i.e. performance of effort.

The services offered by boarding schools should be of good quality so as to enhance student satisfaction as well as gain competitive advantage. The food provided by schools varies from school to school but the schools offer diverse menu choices for many kinds of dietary restrictions and preferences. The quality of the services provided will give a school a competitive advantage over other schools. Keaveney and Clifford (1997) opine that faculty, advising staff; classroom facilities, dormitories and dining experience normally shape student practical school experience and therefore considered key satisfaction and retention Gbadamosi (2010) in terms of the existence of a positive relation between university services' quality and student satisfaction in South Africa.

This study adopted SERVQUAL service quality model that was developed by Parasuraman, Berry and Zeithaml (1985). The researchers argue that quality is a comparison between expectations and performance, i.e. how well the service that is delivered matches customers' expectations. Gronroos (1982), whose model was discussed later, also made similar conclusions. The SERVQUAL-model measures discrepancy between what customers expect from the service and how customer perceives it. Parasuraman *et al.*, (1985) identify five gaps :

Gap 1 : consumer expectation – management perception gap,

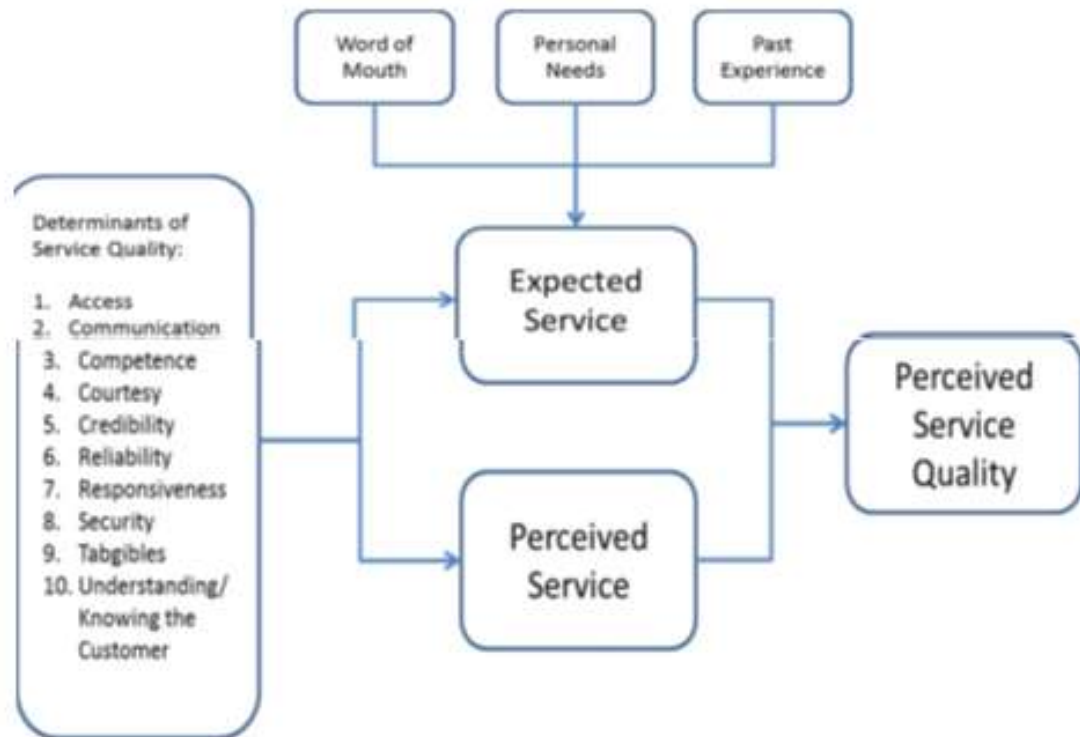
Gap 2 : management perception – service quality specifications gap,

Gap 3 : service quality specifications – service delivery gap,

Gap 4 : service delivery – external communications gap,

Gap 5: expected service – perceived service gap.

To measure perceived service, Parasuraman *et al.* (1985) identify ten key determinants of service quality, which impact both expected and perceived services, and through those, perceived service quality (Figure 2.1). Expected service is also influenced by word of mouth, personal needs as well as past experience.

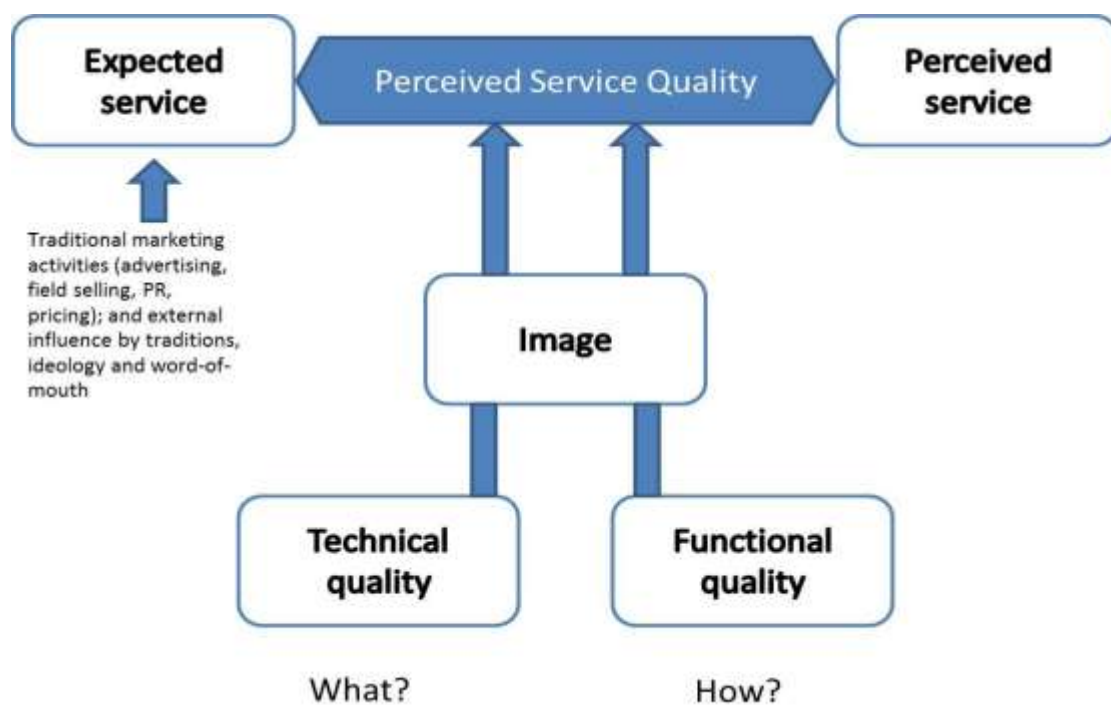


**Figure 2.1 Determinants of perceived service quality (Parasumaran et al., 1985)**

Moreover, Gronroos (1982) presented another famous service quality model. He defined two types of service quality: technical and functional. *Technical quality* is what a customer is receiving from a service. He adds that the customer is interested not only in the result of service process, but also in a process itself. Thus, *functional quality* is a manner in which the service is delivered, or how a customer receives technical quality. In addition, there is *image quality*, i.e. corporate image (for example, an image of a local office, how the customers perceive the service provider). Both technical and functional quality aspects contribute to image quality. In addition, such factors as word-of-mouth, ideology as well as marketing activities influence image quality. These types of service quality are identical to ones suggested by Lehtinen and Lehtinen (1982).

In the model, Gronroos (1982) defines perceived quality of a service as *the outcome of an evaluation process, where the consumer compares his/her expectations with the*

*service he/she perceives he/she has received.* Furthermore, in his later study Gronroos (1993) suggests that measuring customer experiences provides close approximation of service quality. In 2001, Gronroos criticizes his own concept of perceived service quality by insisting that he has never meant for service quality to be measured, and it should not be measured at all. Instead, he claims that in his model word *service* should be replaced with the word *feature*, i.e. there would be technical and functional features of service, which would help to avoid a discussion about the relationship between service quality and customer satisfaction. Based on these, Gronroos (1982) presents the following model (Figure 2.2):



**Figure 2.2 Perceived Service Quality Model (Gronroos, 1982)**

Numerous studies have addressed the issue of service quality and student satisfaction. For example, Campbell and Nutt (2008) have observed service quality dimension i.e. tangibility, responsiveness, reliability, assurance, and empathy as positive contributors towards student satisfaction. Some other authors like Bigne, Moliner, and Sanchez,



(2003); Ham and Hayduk (2003); Elliot and Shin (2002) have reported significant relationship between service quality i.e. service reliability, responsiveness, empathy, assurance, tangibility etc and satisfaction in higher education settings. Spreng and Mackoy (1996) reported that perceived service quality is an antecedent to satisfaction.

Muthoni (2017) examined the relationship between quality of student support services and students' satisfaction in public primary teacher training colleges in Kenya. The study found that boarding services such as accommodation services have a significant relationship with student satisfaction. Other student support services that have a significant relationship with student satisfaction are library services and medical services. The study did not focus on catering services which was the main interest of the current study. The study setting was university students while the current study was on public boarding secondary schools in Uasin Gishu County.

Boarding schools are supposed to offer good quality boarding services so as to enhance student satisfaction, increase retention rate and lead to a surge in student enrolment. According to Imungi and Mbugua (2017), boarding high schools in Kenya usually adopt western type of diets containing high level of fats. Many schools students take snacks which are carbohydrate and fat based between meals. Besides adoption of these types of food the author opines that the management of schools has failed to provide high quality feeding services to the students. According to the author, the food prepared is usually of low quality in most schools and it is one of the reasons for student turnover. Nevertheless, in Uasin Gishu County, there are no studies on catering services quality dimensions on student satisfaction in selected public boarding secondary schools which the current study sought to examine. The current study considered tangibility, responsiveness and assurance catering service quality dimensions as presented below:

### **2.2.1 Tangibility**

Tangibles consist of those things that students can see or touch. The tangibles include the appearance of physical facilities, the furniture, the equipment used to perform services, cleanliness, point of purchase display as well as the appearance of employees (Kurtz & Clow, 1998). In most cases, new customers use these tangibles to evaluate the service quality so it is of great importance that firms enhance their image to reflect quality as well as provide continuity in their service quality image (Zeithaml & Bitner, 1996).

In this case, the facilitating goods for service delivery include the lectures and tutorials, presentation slides, supplementary handout documents/materials and the recommended module text. It also includes the physical facilities such as the lecture theatres, tutorial rooms and their level of furnishing, decoration, lighting, and layout as well as auxiliary services such as catering and recreational amenities. For that reason, it is indispensable for institutions to renew themselves visually, which would mean amendments in physical facilities, since students opt for the institutions that have up to date standards in term of appearance (Coles, 2002).

Private universities operate in a competitive environment. Knowledge on how to satisfy their students can lead to a surge in enrolment. The author further opines that aspects of responsiveness such as physical facilities appearance and cleanliness are of paramount importance in enhancing student satisfaction. In a University setting, Ntabathia (2013) found that responsiveness is positively correlated to student satisfaction. The study adopted HeDPERF model. The current study was done students in public secondary schools and the SERQUAL model was adopted.

In every academic institution, the student is the most important stakeholder who the management of the institution should seek to maximize (Jalal, Haim, & Ari, 2011). The students expect the dormitories, dining halls and other boarding facilities to be clean and kept in good condition. The catering department should make sure the kitchen and its environment is also clean so as to avert a surge in diseases. According to Muthoni (2017) the public teachers training colleges in Kenya have clean dining halls but some have dormitories that are not modern, not well painted and leaking roofs. The author recommended that the roofs of the dormitories should be changed so that the hostels are in a good condition.

Scarce information exists on the state of boarding services in secondary schools in UasinGishu County and Kenya at large. The dormitories, dining halls, kitchen among others are not painted well since some boarding schools have been in existence for over 4 decades. The boarding facilities are not appealing in comparison to those provided by private schools in Kenya. The catering services provided by private boarding secondary schools are better than those provided by the public secondary boarding schools (Kimani, Kagira & Kendi, 2011). The authors further opine that most of the facilities cleanliness and lighting is poor while the spacing is small as the students' enrolment has increased in the last one decade. Therefore, the current study sought to address this knowledge gap as it assessed catering services quality dimensions and its effect on student satisfaction in selected public secondary schools in Uasin Gishu County.

### **2.2.2 Responsiveness**

Responsiveness is the willingness to assist students and provide the service promptly. The differences in the shopping experience between retail outlets (e.g. store ambience,

disposition of associates, store service) are often as important to customers as the differences in physical characteristics of the goods offered (Gomez, McLaughlin, & Wittink, 2004). The reason why employees' responsiveness lack is because organizations often focus on hard skills training which involve training in the areas of product knowledge, technical skills and administrations, while deemphasizing the importance of positive attitude in the way employees deal with customers.

Johnston (1997) describes responsiveness as the speed and timeliness of service delivery. This includes the speed of throughput and the ability of the service to respond promptly to customer service requests, with minimal waiting and queuing time. Fitzsimmons and Fitzsimmons (2001) argued that when the customer is kept waiting for no apparent reason creates unnecessary negative perceptions of quality. Conversely, the ability for the institution to recover quickly when service fails and exhibit professionalism also creates very positive perceptions of quality. Responsiveness also reflects employee preparedness to provide the service to students. It involves the willingness to provide prompt or favorable services by the faculty and staff to students (Yong, 2000).

The employees should always be willing to offer boarding services promptly and timely. Musyoka (2013) examined service quality and student satisfaction among universities in Kenya. The study found that sometimes the employees charged with the responsibilities of assisting students in the dormitories and dining halls are not prompt and so many cases had been raised to the management. Some students have changed from one university to another citing unwillingness from the management to act on their requests on time. The study concluded that responsiveness has a significant effect on student satisfaction. Nevertheless, there are no studies that had

examined catering service quality dimensions in Uasin Gishu County which the current study sought to incorporate.

Mputhia (2014) examined service quality measurements in tertiary colleges in Kenya. The study was conducted at Zetech College. The study found that the interests of the students are not always prioritized by the management in most institutions. The institution had realized growth in the students' population. The number of employees is not enough to attend to all the students on time. The study also found that 62.5% of the services offered at the facility were below what the students expected in terms of service quality. Overly, the study revealed that responsiveness has a significant relationship with student satisfaction. The study focused on university students while the current study examined public secondary schools in Uasin Gishu County.

According to Parasuraman, Zeithaml and Berry (1994), responsiveness is the willingness of the employees to tell customers exactly when things will be done, giving them undivided attention, prompting services and responding in accordance with their requests. Students are the most important clients for schools. Through their word of mouth student enrolment can either increase or decrease. Little is known about students' satisfaction in public secondary schools around the globe and yet dormitories in secondary schools have been burnt in the past and also there have been strikes in the past. The current study assessed the effect of catering service quality dimensions on student satisfaction in selected public boarding secondary schools in Uasin Gishu County.

### **2.2.3 Assurance**

Assurance refers to knowledge and courtesy of employees and their ability to convey trust and confidence (Tanomsakyut, 2011). Clients expect service providers to be the

experts in their service delivery. Service quality (SERVQUAL) research showed that it is important to communicate that expertise to customers (Arlen, 2008). Assurance is the ability of employees to instigate trust and confidence into a client and motivate purchase. Assurance is one of the most important factors of service quality. This is because clients want to deal with people they can trust. According to Parasuraman, Zeithaml and Berry (1988) assurance is the level of the service delivered to customers that is believable and can be trusted.

Students face much greater risk in terms of fraud and identity theft in institutions. This may explain the fact that institutions do all they can to assure their students that transactions with their organizations are safe and secure. On whether employees always instill confidence in their customers, it is important to acknowledge the fact that customers want to trust and have confidence in the competence of the service provider's employees to deliver the service. The client is never satisfied if he/she does not feel assured about the competence of the service provider. Kumar, Ravichandran, Mani and Prabhakaran (2010) found that confidence is one of the important factors for assurance. As confidence in one's impressions about the firm increases, trust develops between the parties and the cost of switching firms rises (Shapiro & Varian, 1999). Customers weigh prior cumulative satisfaction heavily when they are deciding whether to maintain or terminate their relationship with entity (Bolton, 1998).

The assurance construct consists of competence included in the possession of the required skills and information to perform the service in consideration for the client's possessions, spruce in appearance of public contact personnel, security of the employees, and their ability to inspire trust and confidence. According to Sadek, Zainal, Taher and Yahya (2010), in British banks assurance means the polite and

friendly staff, provision of financial advice, interior comfort, easiness of access to account information and knowledgeable and experienced management team. Assurance involves employees having knowledge to answer questions, inspiring confidence, providing prompt service, willing to respond to customer's requests, giving customers individual attention, showing consistent courtesy with customers and even treat customers properly on the phone.

Tahar (2008) opines that assurance of service quality in the field of higher education has received attention among scholars in the last two decades. This is attributed to the key role that quality education system plays in articulating a framework for providing qualified, highly skilled and well trained manpower for the markets. According to Othman (2008) assurance should be assessed in academic institutions as it is one of the bases for decision making and betterment of service delivery. The author further opines that in Jordanian higher education sector, the management of the institutions have been able to understand the level of student satisfaction as there are many researches that have been done on service quality dimensions.

According to Navarro *et al.*, (2005) assurance as well as other service quality dimensions' builds students trust and confidence which influences the student's intent to return to the university. It also supports the University to increase its number of students. The study was done in a University setting while the current study was done on public secondary boarding schools. Therefore, there was a knowledge gap as little is known about the assurance service quality dimension in secondary schools which the current study sought to address.

Owino, Kibera, Munyoki and Wainaina (2014) examined service quality in Kenyan Universities. The study established that there exists a significant difference in the

dimensions of service quality between public and private University students. According to the authors, appreciation of service quality dimensions is imperative in management of students' expectations. The authors further opine that trust and confidence can be built if assurance service quality dimension is streamlined to the expectations of the students.

In-order for the students to be satisfied and have confidence in the services provided at the institution then the staff and the management of the institutions should ensure that adequate regulations exist to standardize assurance service quality dimensions and other service quality dimensions (Owino *et al.*, 2014). Nevertheless, there are no studies that have examined the effect of catering service assurance quality dimension on student satisfaction in public secondary schools in Uasin Gishu County which the current study sought to examine.

#### **2.2.4 Catering Service Quality Perception of School Management**

Service quality perception refers to a consumer's evaluation of the service performance received, compared with their expectations (Jiang & Wang, 2006). Quality of Catering Service is the most important factor to improve the student satisfaction on school meals. Schools food service is of paramount importance in provision of an ideal environment for good nutrition and dietary to students. A study was conducted by Kwon, Cha and Kim (2005), on whether high school student satisfaction with food service quality is affected by food service management quality type. The study established that the school management has improved on the quality of its catering services since according to the school management; the quality of catering services positively influences student satisfaction.



According to Kim and Lee (2003), improving the effects of school meals by school management enhances student satisfaction. The authors further opine that the school meal services should be improved so as to enhance the students' nutrition status and health. Jung, Lee and Oh (2009), did a comparison of student's satisfaction on school food service environment by the eating place and gender. The researchers concluded that the school management had improved significantly the catering service in the last decade. The researchers further opine that school management had perceived quality of catering service as a precursor for student satisfaction.

Schools have modernized the cafeteria where the students take food as they want and meal helpers distribute food in the designated area, which makes the school food distributed with warmth and cleanliness, managed with hygiene (Lee, 2005). Also, students can have their meals in a pleasant and hygienic place. However, school cafeterias take a lot of space, and small space provokes dissatisfaction on prolonged distribution time. Lee (2005), further opines that students have preference in eating place that influences satisfaction of school meal service.

The schools still have a lot to do in order to improve their catering services and enhance student satisfaction. In some schools, students take their meals in classrooms while other in cafeteria. Its effect on student satisfaction varies. For example, Lee and Lyu (2005), opine that students who eat school meals in their classroom shows more satisfaction on meal distribution time, eating place, eating atmosphere. As for hygiene, cafeteria group has higher satisfaction than that of classroom, but waiting time for meal distribution, classroom group has higher satisfaction than that of cafeteria because students prefer to have meals at their seats due to convenience and

eating meal in classroom has faster service than cafeteria distribution (Lee & Lyu, 2005).

Kim and Lee (2003), opine that the catering service quality perception of school management is a prerequisite of student satisfaction. The schools should offer good quality catering services that are of good hygiene. Chyun, Choe, Hong, Yoo, and Kim (2009), postulates that the perception of school management on catering service quality has a significant positive effect on student satisfaction.

### **2.3 Research Gap**

Kwon *et al.*, (2005), researched on whether high school student satisfaction with food service quality is affected by food service management quality type. The study established that the school management has improved on the quality of its catering services since according to the school management; the quality of catering services positively influences student satisfaction. The study had not incorporated responsiveness. The study was therefore narrow in scope. Jung *et al.*, (2009), did a comparison of student's satisfaction on school food service environment by the eating-place and gender. The researchers found that the school management had improved significantly the catering service in the last decade. The researchers further opine that school management had perceived quality of catering service as a precursor for student satisfaction. The study was narrow in scope, as it had not incorporated assurance. The current study sought to broaden the scope of the study as it incorporated assurance, which was not within the scope of their study.

### **2.4 Chapter Summary**

Literature has been reviewed on the various study constructs considered in this study. On satisfaction, more literature has been provided on loyalty, positive word of mouth,

student's development and boarding facilities and services. On service quality, the empirical review has been provided on assurance, responsiveness and tangibility has revealed diverse results. The empirical review presented comprised of both international and local studies. Empirical review facilitated the identification of the knowledge gap, which the current study sought to fill. From the literature reviewed, it was evident that catering service quality dimensions are important when it comes to influencing student satisfaction. The next chapter was research methodology.

## **2.5 Theoretical Framework**

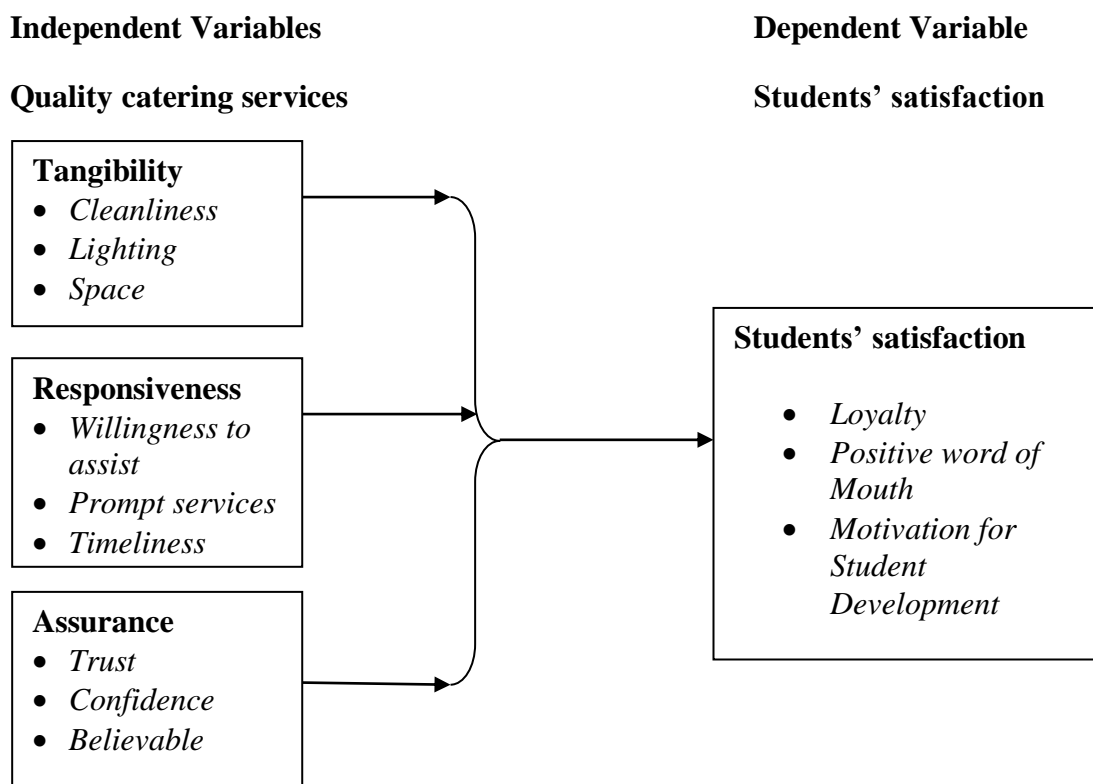
This study applies expectancy disconfirmation. A discussion on customer satisfaction and customer expectations cannot be complete without discussing the disconfirmation theory. The disconfirmation theory stands out as the primary foundation for satisfaction models in marketing literature (Churchill & Surprenant, 1982; Oliver, 1980). According to this theory, satisfaction is determined or measured by the discrepancy between perceived performance and cognitive standards such as expectations and desires (Khalifa & Liu, 2003). Customers or client's expectations can be defined as customer's partial beliefs about a product or service (McKinney, Yoon & Zahedi, 2002).

According to Berry, Parasuraman and Zeithaml (1988), expectations can be viewed as predictions made by consumers about what is likely to happen during impending transaction or exchange. Perceived performance on the other hand is customers' perception of how product or service performance fulfills their needs, wants and desire (Cadotte, Woodruff, & Jenkins, 1987). Perceived quality is the customer's judgment about an entity's overall excellence or superiority (Zeithaml *et al.*, 1988). Disconfirmation is therefore defined as the customers' subjective judgments resulting from comparing their expectations and their perceptions of performance received

(Mckinney *et al.*, 2002; Spreng & Mackoy, 1996). The confirmation-disconfirmation theory states that satisfaction is affected by the intensity (or size) and direction (positive or negative) of the gap (disconfirmation) between expectations and perceived performance.

## 2.6 Conceptual Framework

The independent variable was catering service quality dimensions and its indicators were Tangibility, Responsiveness and Assurance and the dependent variable was the Students' Satisfaction in catering services. The relationship between the variables is summarized in Figure 2.3;



**Figure 2.3: Conceptual Model of Quality Services on Students' Satisfaction**  
Adopted from Parasuraman, *et al.*, (1985)

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.0 Introduction**

This chapter presents the procedure that was adopted in the study. It describes study area, the research design, target population, sampling size and sampling techniques, data collection instruments, measurement of variables, validity and reliability of research instruments, data analysis and finally the ethical considerations.

#### **3.1 Study Area**

This study was done in Uasin Gishu County, which is one of the forty-seven counties of Republic of Kenya. It is situated in the North Rift Region. The county borders; Trans-Nzoia, Baringo, Kakamega and Nandi counties. The county has six Sub Counties which include; Kapseret, Ainabkoi, Kesses, Turbo, Soy and Moiben. Uasin-Gishu County hosts Eldoret International Airport. Though the County is cosmopolitan in nature, the greater population is dominated by Kalenjin tribe (Nandi, Elgeyos and Marakwets) who are the indigenous residents and is the home of the present Deputy President of Kenya.

Uasin Gishu County has One Hundred and Sixty-six (166) public secondary schools. According to the records received from the County Education statistics (2020) report, there are eighteen (18) extra- County, Twelve (12) County and one hundred and thirty-five Sub-County public secondary schools (Uasin-Gishu county Education Report, 2021). The County has only one National secondary school, which is Moi Girls high school- Eldoret. There are no studies that had been done on catering service quality dimensions and student satisfaction among public boarding secondary schools in Uasin Gishu County. This informed its choice as the most appropriate study area.

### **3.2 Research Design**

The study adopted both descriptive and explanatory and research designs in collecting information by administering questionnaires to a sample of individuals (Orodho, 2003). An explanatory research design was adopted because it allows for explanations of the nature of relationship to be sought between catering service quality dimensions and student's satisfaction. Explanatory research is characterized by research hypotheses that specify the nature and direction of the relationships between or among variables being studied.

The information collected from the responses was statistically presented in this type of research method for the easy interpretation of the report users. Descriptive survey research design was used in collecting information by administering questionnaires to a sample of individuals (Orodho, 2003). It also used to collect information about people's attitudes or social issues (Orodho & Kombo, 2002). Surveys are helpful to learn about trends or characteristics of individual attitudes, opinions, beliefs, practices, successes or effectiveness of program or to identify needs (Creswell, 2003). The design was deemed appropriate for the study as it allowed to be carried out in natural settings where researcher employed convenience and simple random probability sampling.

### **3.3 Target Population**

The total target population was 13,500 students 6 school principals and 6 cateresses from the six constituencies in public secondary schools Uasin Gishu County.

### **3.4 Sample Design and Techniques**

This section presents the sample size and sampling techniques used in the study.

### 3.4.1 Sample size

Target population of 13,500 respondents was considered, out of which a sample of 375 was drawn from the chart by Krejcie, Robert, Morgan, and Daryle (1970) (see appendix vi). Whereby when the population is 15,000 the sample size is 375 the researcher's population size is between 10,000 and 15,000.

**Table 3.1: Sample Size**

Schools	Sample size per school		
	Students	Cateress	School Principals
A.	62	1	1
B.	62	1	1
C.	62	1	1
D.	62	1	1
E.	62	1	1
F.	62	1	1
Total	375	6	6

Source: Researcher's Computation (2019)

### 3.4.2 Sampling Techniques

The study adopted multi stage sampling techniques to obtain samples of form one to form four students from the selected public boarding secondary schools. This conformed to Bless and Higson-Smith (1995) argument that the major issue in sampling is to determine samples that best represent a population so as to allow for an accurate generalization of results. Simple random sampling was used to select 6 public boarding secondary schools from the six constituencies.

Purposive and simple random sampling for the case of schools from Soy, Moiben, Ainapko, Turbo, Kesses and Kapseret constituencies form one, form two, form three and form four this involved generating a list frame. Then simple random sampling was done where random numbers was assigned to recruit the required calculated number of students in each school. Random sampling techniques required that elements in the sampling frame be assigned unique identification codes usually by

numbering them from 1 to n so as to make sample selection procedure simple (Black, 2010).

### **3.5 Data Collection Instruments**

The researcher used questionnaires to collect data from students, interviewed the school managers/school Principals and cateress/ boarding in charge. The questions on the questionnaires were constructed according to the objectives and research questions, which gave room for easy references and analysis. The questionnaire was both closed ended and open-ended. The researcher personally collected the data. The study used an interview schedule in conducting the interviews. The interview schedule will aid in oral administration of the questionnaire where the respondents were asked questions which they responded to (Polit & Beck, 2006).

### **3.6 Measurement of Variables**

In these study two types of variables was measured namely: independent and dependent. The independent variable was quality catering services and dependent variable was students' satisfaction. Statements were generated on all these variables and were then rated on a 5point likert scale. The 5point likert scale was of the following from; where Strongly Disagree was (1), Disagree (2), Neutral (3) Agree (4) and Strongly Agree (5).

#### **3.6.1 Quality catering services**

Dimensions of Service Quality was adopted from scale used by (Parasuraman *et al.*, 1988) and slightly modified to suit this study. The first purification stage came up with ten dimensions for assessing service quality namely; tangibles, reliability, responsiveness, communication, credibility, security, competence, courtesy, understanding, knowing, customers, and access. The second purification stage



concentrated on condensing scale, dimensionality and reliability. They further reduced the ten dimensions to five which were; tangibility, reliability, responsiveness, assurance, and empathy. All the variables are measured using five-point Likert Scale (1 = strongly disagree to 5 = strongly agree).

### **3.6.2 Students' satisfaction**

Questionnaire items were adopted from scale used by (Martensen, Gronholdt, Eskildsen, & Kristen, 2000) and were modified accordingly to suit the context of the study. All the variables are measured using five-point Likert Scale (1 = strongly disagree to 5 = strongly agree).

## **3.7 Reliability and Validity of instruments**

### **3.7.1 Reliability of instruments**

Reliability of an instrument is the measure of the degree to which a research instrument yields consistent results or data after repeated trials. The study applied Cronbach Alpha coefficient to test the reliability of the constructs. According to Hair *et al.*, (2005), the general agreed upon lower limit for Cronbach's Alpha is 0.70 but may decrease to 0.60 in exploratory researches and more than 0.80 in studies that require more stringent reliability. The threshold value to be adopted for this study was 0.7. The reliability results were as follows; the Highest Cronbach's alpha was observed for student satisfaction (0.817) and the lowest for assurance (0.744) as summarized in Table 3.2. The study findings depicted that on overall the Cronbach's Alpha was 0.891, since the coefficient was above 0.7 when all the constructs were combined, it was reliable. A reliability coefficient of 0.70 and above was assumed to reflect the internal reliability of the instruments (Fraenkel & Wallen, 2000). The high value of Cronbach's alpha for all the variables under study indicates that the question items are reliable and consistent.

**Table 3.2 Reliability Statistics**

	<b>Cronbach's Alpha</b>	<b>N of Items</b>
Tangibility	.798	6
Responsiveness	.776	5
Assurance	.744	5
Satisfaction	.817	4
Composite value	.891	20

### 3.7.2 Validity of the instruments

Validity refers to the extent to which a research instrument measures what it was intended to measure (Zikmund *et al.*, 2010). The goal of the pilot study was to validate the instruments through content validity, face validity, criterion validity and construct validity (Zikmund *et al.*, 2010). Prior to using the questionnaire for data collection, the researcher discussed them with the supervisors and colleagues. The respondents' opinion was used to improve the research instrument for the final study. In addition, Kaiser-Meyer-Olkin measures of sampling adequacy (KMO) and Bartlett's test of sphericity were applied to test whether a relation between the study variables exist. Kaiser- Meyer- Oklin was used as a measure of sampling adequacy and a value of  $>.5$  and p-value  $<0.5$  was acceptable.

Confirmatory factor analysis was used to reduce the overall number of observed variables into latent factors based on commonalities within the data. The validity of the instrument was measured through Bartlett's Test of Sphericity (Muhammad, 2009). The Bartlett's test of sphericity was used as a test of the adequacy of the correlation matrix whereby it tests the null hypothesis that the correlation matrix is has all diagonal elements as 1 and non-diagonal elements as 0. If the test value is large and the significance level is small, then the null hypothesis that the variables are independent can be rejected.

The component factor analysis with varimax rotation was conducted on all variables to extract factors from the scales of each construct. Based on the previous works of (Hair, Black, Anderson & Tatham, 2006) all items loading below 0.50 were deleted and those with more than 0.50 loading factor retained (Daud, 2014). All items were well loaded into their various underlying variable structure of dimensions. In this study, factor analysis was used to validate whether the items in each section loaded into the expected categories. Varimax rotation was used to validate the four variables that are distinct. The principle component analysis and Varimax rotation were performed in all the items that had factor loadings lower than 0.50 were eliminated as postulated by Hair, Black, Babinand Anderson (2005). After performing the factor analysis of each construct, the variables were thereafter subjected to inferential analysis.

#### **3.7.2.1 Tangibility validity results**

The factor analysis results of tangibility, indicated that the KMO was 0.830 and the Bartlett's Test of sphericity was significant ( $p < .05$ ) and a chi square of 676.72 (Table 3.3). The Varimax rotated principle component resulted in one factor loading on tangibility variable that explained 51.21% of variance with Eigen values larger than 1. All the statements explaining tangibility was retained computed and renamed tangibility for further analysis.

**Table 3.3 Rotated factor matrix on measurement items for Tangibility**

	<b>Component</b>
	1
School has appropriate catering facilities	.746
School has clean catering facilities	.764
School catering facilities are appealing	.732
School catering facilities are well decorated	.847
School catering facilities are well light	.585
Size of school catering facilities adequate	.581
KMO	.830
Approx. Chi-Square	676.721
Bartlett's Test of Sphericity (P<0.001) df=15	
Eigenvalues	3.072
% of Variance	51.208

Extraction Method: Principal Component Analysis.

a. 1 component extracted.

### 3.7.2.2 Responsiveness validity results

Responsiveness statements was subjected to factor analysis and one component with Eigen values greater than 1 were extracted which cumulatively explained 53.585% of variance as shown in (Table 3.4).

**Table 3.4 Rotated factor matrix on measurement items for Responsiveness**

	<b>Component</b>
	1
School catering employees are willing to assist	.652
School catering staff are prompt	.741
School catering employees are timely	.780
School catering employees are prepared	.794
School catering employees discharge their duties with speed	.683
KMO	.790
Approx. Chi-Square	495.456
Bartlett's Test of Sphericity (P<0.001) df=10	
Eigenvalues	2.679
% of Variance	53.585

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

The responsiveness indicated that the KMO was 0.790 and the Bartlett's Test of sphericity was significant ( $p < .05$ ) and chi square (495.456). No statements were

deleted and all the statements retained, computed and renamed responsiveness for further analysis.

### 3.7.2.3 Assurance validity results

The factor analysis results of assurance, indicated that the KMO was 0.701 and the Bartlett's Test of sphericity was significant ( $p < .05$ ) and a chi square of 519.404 (Table 3.5). The Varimax rotated principle component resulted in two factor loadings on assurance variable that explained 70.659% of variance with Eigen values larger than 1. All the statements explaining assurance was retained computed and renamed assurance for further analysis.

**Table 3.5 Rotated factor matrix on measurement items for Assurance**

	Component	
	1	2
School catering employees are knowledgeable		.830
School catering employees are courteous		.810
School catering employees are trustworthy	.835	
School catering employees are confident	.777	
School catering employees are believable	.838	
KMO	.701	
Approx. Chi-Square	519.40	
Bartlett's Test of Sphericity ( $P < 0.001$ ) $df = 10$		
Eigenvalues	.480	1.053
% of Variance (70.659)	41.016	29.643

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

### 3.7.2.4 Students satisfaction validity results

Students satisfaction statements was subjected to factor analysis and one component with Eigen values greater than 1 were extracted which cumulatively explained 64.6% of variance as shown in (Table 3.6). The student's satisfaction indicated that the KMO was 0.753 and the Bartlett's Test of sphericity was significant ( $p < .05$ ) and chi square (534.665). No statements were deleted and all the statements retained, computed and renamed satisfaction for further analysis.

**Table 3.6 Rotated factor matrix on measurement items for Students satisfaction**

	<b>Component</b>
	1
School catering facilities are attractive	.780
School catering facilities are conducive to retain students	.788
School catering facilities maintain student loyalty	.861
School catering facilities encourage student personal development	.783
<hr/>	
KMO	.753
Approx. Chi-Square	534.665
Bartlett's Test of Sphericity (P<0.001) df=6	
Eigen values	2.584
% of Variance	64.600

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

### 3.8 Data Analysis

Data analysis refers to the computation of certain measures along with searching for patterns of relationship that exist among data groups (Kothari, 2004). Descriptive statistics was used to analyze data in this study. The descriptive analysis to be used includes measures of central tendencies and measure of dispersion to describe the sample statistics and aid in interpreting the data. Inferential and correlation analysis was used to draw conclusions concerning the relationships and differences found in research results.

Regression analysis was used to test the hypotheses that enabled the drawing of inferences. Among the measure of relationship, Karl Pearson's correlation coefficient (R) was used to test for significant relationship between variables. Once the data has been gathered and coded, it was programmed into SPSS version 23.0 statistical analysis package. The analyzed data was then presented in tables, frequencies and percentages. The study considered a 5% level of significance.

The general multiple linear regression model formula to be used:

$$SS = \alpha + \beta_1 (\text{TAN}) + \beta_2 (\text{RES}) + \beta_3 (\text{ASS}) + \varepsilon$$

Where;

SS = Students Satisfaction (dependent variable).

$\alpha$ =Constants.

$\beta_1 - \beta_3$  = coefficients.

TAN = Tangibility (independent variable).

RES = Responsiveness (independent variable).

ASS = Assurance (independent variable).

$\varepsilon$  = Error term.

Qualitative data obtained from interview schedules by cateresses and principles was analyzed using content analysis. Content analysis is defined as ‘a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the contexts of their use’ (Krippendorff, 2004). According to White and Marsh (2006), content analysis is a systematic and rigorous approach for analyzing documents obtained or generated in the course of research. Neuman (1997) further describes content analysis as a technique for gathering and analyzing the content of text and content refers to words, meanings, pictures, symbols, ideas, themes or any message that can be communicated. The interviews were transcribed into text and subjected to content analysis. Verbatim and quotes from the interviews were then used to present the findings from the interviews. Below is a summary of the interviews and the allocated codes for citation and for ensuring anonymity of the respondents.

**Table 3.7 Interview schedule codes**

<b>S. No.</b>	<b>Category of respondents</b>	<b>Code</b>
1.	Principal	INT/P/A/01
2.	Principal	INT/P/B/02
3.	Principal	INT/P/C/03
4.	Principal	INT/P/D/04
5.	Principal	INT/P/E/05
6.	Principal	INT/P/F/06
7.	Cateress	INT/C/A/01
8.	Cateress	INT/C/B/02
9.	Cateress	INT/C/C/03
10.	Cateress	INT/C/D/04
11.	Cateress	INT/C/E/05
12.	Cateress	INT/C/F/06

### **3.9 Ethical Considerations**

According to Coopers and Schindler (2011), the right authorization should be sought from relevant authorities before commencement of fieldwork. In response to this research ethic, the researcher sought permission to carry out the study was sought from the School of Tourism and Hospitality Moi University, The National Council for Science and Technology of which the researcher was issued with a research clearance permit and from the respondents who participated in the study. The nature and the rationale for the study were explained to the respondents by the researcher. The researcher respected individuals' rights and safeguarded their personal integrity.

The respondent's anonymity should be upheld in the study (Mugenda & Mugenda, 2003). In order to ensure anonymity ethical consideration is upheld in this study, the participants were not required writing their names on the questionnaire, but each questionnaire was given a code number for reference; hence the anonymity of the respondents was maintained. Mugenda and Mugenda (2003) also opine that the respondent's confidentiality should also be upheld. In this study, the participants were then assured that the information given was treated confidentially and for the purpose



of academic use only. Williams (2007), states that in research, individuals participating need to know their rights and freedom to withdraw from the study at any point. In response to this research ethic, the respondents were assured of their rights and freedom to withdraw from the study at any point or time without consequences.

## **CHAPTER FOUR**

### **DATA PRESENTATION, ANALYSIS, INTERPRETATION AND DISCUSSION**

#### **4.1 Introduction**

This chapter presents the data analysis, presentation, interpretation and discussions on effect of catering service quality dimensions on student's satisfaction in selected public boarding secondary schools in Uasin Gishu County, Kenya. The chapter is organized as follows: background information of the respondents, descriptive analysis, reliability and validity analysis, correlation analysis, multiple regression analysis and discussion of the study findings.

#### **4.2 Response Rate**

Data was collected from students in selected public boarding secondary schools in Uasin Gishu County. A total of 375 questionnaires were issued from which 356 were filled and returned which represents a response rate of 94.93%. For the interviews, 4 cateresses and 6 principals participated in the study. This represented a response rate of 83.33%. The response rate was considered satisfactory since Nyamjom (2013) argues that a response rate of 75% is considered excellent and a representative of the population.

#### **4.3 Demographic Information of the Respondents**

Background information of the respondents serves a great purpose in giving a grim light as far as the sample population and the research topic is concerned. The demographic information sought from the respondents included; gender, age, and form of the students. All these were relevant in establishing the effect of catering service quality dimension on student satisfaction in public boarding secondary schools

in Uasin Gishu County. The findings indicated that 186(52.2%) of the respondents were male and 170(47.8%) were female as shown in Table 4.1. This means that there was no gender disparity in the distribution of students in public boarding secondary schools in Uasin Gishu County.

**Table 4.1 Gender of Students**

	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Percent</b>
Male	186	52.2	52.2
Female	170	47.8	100.0
<b>Total</b>	<b>356</b>	<b>100.0</b>	

On the age bracket of the respondents, results indicated that 90(25.3%), were aged 14 years, with 84(23.6%) of respondents aged 15 years, while 67(18.8%) aged 16 years, with 58(16.3%) were 18 years old and finally 57(16.3%) aged 17 years as summarized in table 4.2. This implied that majority of the students were below 18 years and were in their adolescences and catering services and satisfaction are important.

**Table 4.2 Age of Respondents**

	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Percent</b>
14 years	90	25.3	25.3
15 years	84	23.6	48.9
16 years	67	18.8	67.7
17 years	57	16.0	83.7
18 years	58	16.3	100.0
<b>Total</b>	<b>356</b>	<b>100.0</b>	

On the form of the respondents, the results indicated that 166(46.6%), were in form one, with 75(21.1%) of respondents in form two, while 67(18.8%) in form three, and 48 (13.5%) in form four as summarized in table 4.3. This implied that the students were evenly distributed within the various classes and their view on satisfaction of catering services is important in public boarding secondary schools in Uasin Gishu County.

**Table 4.3 Form of Students**

	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Percent</b>
Form one	166	46.6	46.6
Form two	75	21.1	67.7
Form three	67	18.8	86.5
Form four	48	13.5	100.0
<b>Total</b>	<b>356</b>	<b>100.0</b>	

#### 4.4 Student Satisfaction on Catering Services

The dependent variable during the study was student satisfaction in public boarding secondary schools in Uasin Gishu County. Descriptive statistics such as mean, standard deviation, frequency and percentage were used to analyze the responses. The respondents were asked to rate on a five-point Likert scale their level of agreement on statements describing the student satisfaction in public boarding secondary schools in UasinGishu County and findings summarized in Table 4.4.

Most of the students 150(42.1%) agreed that the boarding school catering facilities were attractive, with 104(29.2%) disagree and 102 (28.7%) were undecided. This implied that most of the boarding school catering facilities were attractive. The results resemble that of Oliver (2007), that most of the boarding schools catering facilities were attractive. Most of the students 198(55.6%) agreed that the boarding school catering facilities was conducive to retain students, with 71(19.9%) disagree and 87(24.4%) were undecided. This implied that the boarding school catering facilities were conducive to retain students. The results resemble that of Lai *et al.* (2003), that the boarding school catering facilities was conducive to retain students.

Most of the students 184(51.7%) agreed that the boarding school catering facilities maintain student loyalty, with 77(21.6%) disagree and 95(26.7%) were undecided. This implied that boarding school catering facilities maintain student loyalty. The results resemble that of Amudha *et al.*, (2012), that boarding school catering facilities

maintain student loyalty. Majority of the students 217(61%) agreed that the boarding school catering facilities encourage student personal development, with 70(19.6%) disagree and 69(19.4%) were undecided. This implied that the boarding school catering facilities encourage student personal development. The results are in tandem with that of Wangenheim and Bayon (2004), that the boarding school catering facilities encourage student personal development.

**Table 4.4 Student satisfaction with Catering services**

	Strongly agree		Agree		Undecided		Disagree		Strongly disagree		Mean	SD
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%		
School catering facilities are attractive	42	11.8	108	30.3	102	28.7	61	17.1	43	12.1	3.13	1.19
School catering facilities are conducive to retain students	73	20.5	125	35.1	87	24.4	40	11.2	31	8.7	3.47	1.19
School catering facilities maintain student loyalty	67	18.8	117	32.9	95	26.7	51	14.3	26	7.3	3.42	1.16
School catering facilities encourage student personal development	111	31.2	106	29.8	69	19.4	40	11.2	30	8.4	3.64	1.26
Composite values											3.41	0.96

On student's satisfaction on catering services the boarding school catering facilities were found to be conducive to retain students, maintain student loyalty and encourage student personal development and some of the catering facilities were attractive. Student satisfaction measurement is considered a strategic issue for educational institutions because satisfaction is similar to profit-and-loss accounting in business organizations. The study results are in agreement with the findings of Majeed *et al.*, (2008) that student was pleased with their academic achievement and their institution

life and will speak positively about the institution because satisfaction is the ultimate goal, and the ultimate goal reflects high levels of service quality.

#### **4.5 Tangibility Service Quality Dimension**

The first objective was to determine the effect of tangibility of catering service quality dimension on student satisfaction in public boarding secondary schools in Uasin Gishu County. Descriptive statistics such as mean, standard deviation, frequency and percentage were used to analyze the responses. The respondents were asked to rate on a five-point Likert scale their level of agreement on statements describing the tangibility service quality dimension of catering services in public boarding secondary schools in Uasin Gishu county and findings are summarized in Table 4.5.

Most of the students 265(74.5%) agreed that the boarding school has appropriate catering facilities, with 49(12.7%) disagree and 42(11.8%) were undecided. This implies that most of the boarding school has appropriate catering facilities. The results agree with those of Ntabathia (2013), that most of the boarding school has appropriate catering facilities. Majority of the students 195(54.8%) agreed that the boarding school has clean catering facilities, with 55(15.4%) disagree and 106(29.8%) were undecided. This implies that the boarding school has clean catering facilities. Jalal *et al.*, (2011), that most of the boarding schools have clean catering facilities. Most of the students 200(56.2%) agreed that the boarding school catering facilities are appealing, with 41(11.5%) disagree and 115(32.3%) were undecided. This implies that the boarding school catering facilities are appealing. The results were similar to that of Muthoni (2017), that the boarding school catering facilities are appealing.

Majority of the students 232(65.2%) agreed that the boarding school catering facilities are well light, with 40(11.2%) disagree and 84(23.6%) were undecided. This implies

that the boarding school catering facilities are well light. The results were similar to that of Coles (2002), that the boarding school catering facilities are well light. Most of the students 209(58.7%) agreed that the boarding school catering facilities adequate, with 85(23.9%) disagree and 62(17.4%) were undecided. This implies that the boarding school catering facilities adequate. The results resemble that of Muthoni (2017), that the boarding school catering facilities adequate. At least 141(39.6%) agreed that the boarding school catering facilities are well decorated, with 114(32%) disagree and 101(28.4%) were undecided. This implies that the boarding school catering facilities are well decorated. The results were in tandem with the findings of Kimani *et al.*, (2011), that the boarding school catering facilities are well decorated.

One of the respondents (INT/P/A/01) interviewed stated that: *“tangibility has an effect on student satisfaction, as students want clean catering services.”*

**Table 4.5 Tangibility service quality dimension**

	Strongly agree		Agree		Undecided		Disagree		Strongly disagree		Mean	SD
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%		
School has appropriate catering facilities	95	26.7	170	47.8	42	11.8	39	11.0	10	2.8	3.85	1.03
School has clean catering facilities	73	20.5	122	34.3	106	29.8	36	10.1	19	5.3	3.54	1.09
School catering facilities are appealing	54	15.2	146	41.0	115	32.3	33	9.3	8	2.2	3.58	0.93
School catering facilities are well decorated	44	12.4	97	27.2	101	28.4	62	17.4	52	14.6	3.05	1.24
School catering facilities are well light	79	22.2	153	43.0	84	23.6	31	8.7	9	2.5	3.74	0.98
Size of school catering facilities adequate	97	27.2	112	31.5	62	17.4	48	13.5	37	10.4	3.52	1.30
Composite values											3.55	0.78

#### 4.6 Responsiveness Service Quality Dimension

The second objective was to determine the influence of responsiveness catering service quality dimension on student satisfaction in public boarding secondary schools in Uasin Gishu County. The respondents were asked to rate on a five-point Likert scale their level of agreement on statements describing the responsiveness of catering service quality dimension on student satisfaction in public boarding secondary schools in Uasin Gishu County and findings are summarized in Table 4.6.

**Table 4.6 Responsiveness service quality dimension**

	Strongly agree		Agree		Undecided		Disagree		Strongly disagree		Mean	SD
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%		
School catering employees are willing to assist	136	38.2	127	35.7	55	15.4	8	2.2	30	8.4	3.93	1.18
School catering staff are prompt	66	18.5	117	32.9	109	30.6	47	13.2	17	4.8	3.47	1.08
School catering employees are timely	83	23.3	97	27.2	83	23.3	52	14.6	41	11.5	3.36	1.30
School catering employees are prepared	104	29.2	97	27.2	117	32.9	22	6.2	16	4.5	3.71	1.09
School catering employees discharge their duties with speed	52	14.6	74	20.8	122	34.3	62	17.4	46	12.9	3.07	1.22
Composite values											3.51	0.85

Most of the students 263(73.9%) agreed that the boarding school catering employees are willing to assist, with 38(10.6%) disagree and 55(15.4%) were undecided. This implies that the boarding school catering employees were willing to assist. The results resemble that of Gomez *et al.*, (2004) that the boarding school catering employees are willing to assist. Majority of the students 183(50.4%) agreed that the boarding school catering staff are prompt, with 64(18%) disagree and 109(30.6%) were undecided. The results



are in tandem with the findings of Fitzsimmons and Fitzsimmons (2001) that the boarding school catering staffs are prompt.

Most of the students 180(50.5%) agreed that the boarding school catering employees are timely, with 93(26.1%) disagree and 83(23.3%) were undecided. The results resemble that of Musyoka (2013), that the boarding school catering employees are timely. Majority of the students 201(56.4%) agreed that the boarding school catering employees are prepared, with 38(10.7%) disagree and 117(32.9%) were undecided. The results resemble that of Johnston (1997), that the boarding school catering employees are prepared. At least 126(35.4%) agreed that the boarding school catering employees discharge their duties with speed, with 108(30.3%) disagree and 122(34.3%) were undecided. The results are similar to that of Mputhia (2014), that the boarding school catering employees discharge their duties with speed.

On responsiveness service quality dimension boarding school catering employees are willing to assist, prompt, timely and prepared. Also, some of the boarding school catering employees discharges their duties with speed. This agrees with Gomez *et al.* (2004) that responsiveness is the willingness to assist students and provide the service promptly. Fitzsimmons and Fitzsimmons (2001) argued that when the customer is kept waiting for no apparent reason creates unnecessary negative perceptions of quality. In regards to the interview results, respondent (INT/P/B/02) opined that “*responsiveness affects student satisfaction, students become satisfied if food is served on time as well as promptly.*”

#### **4.7 Assurance Service Quality Dimension**

The third objective was to determine the effect of assurance service quality dimension of catering services on student satisfaction in public boarding secondary schools in

Uasin Gishu County. The respondents were asked to rate on a five-point Likert scale their level of agreement on statements describing the assurance service quality dimension of catering services in public boarding secondary schools in Uasin Gishu county and findings are summarized in Table 4.7

**Table 4.7 Assurance Service Quality Dimension**

	Strongly agree		Agree		Undecided		Disagree		Strongly disagree		Mean	SD
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%		
School catering employees are knowledgeable	74	20.8	142	39.9	84	23.6	53	14.9	3	.8	3.65	1.00
School catering employees are courteous	79	22.2	121	34.0	107	30.1	40	11.2	9	2.5	3.62	1.03
School catering employees are trustworthy	92	25.8	90	25.3	106	29.8	54	15.2	14	3.9	3.54	1.14
School catering employees are confident	137	38.5	136	38.2	63	17.7	20	5.6			4.10	0.88
School catering employees are believable	109	30.6	100	28.1	86	24.2	39	11.0	22	6.2	3.66	1.20
Composite values											<b>3.71</b>	<b>0.74</b>

Most of the students 216(60.7%) agreed that the boarding school catering employees are knowledgeable, with 56(15.7%) disagree and 84(23.6%) were undecided. The results resemble that of Tanomsakyut (2011), that the boarding school catering employees are knowledgeable. Majority of the students 200(54.2%) agreed that the boarding school catering employees are courteous, with 49(13.7%) disagree and 107(30.1%) were undecided. The results are in tandem with the finding of Kumar *et al.*, (2010), that the boarding school catering employees are courteous. Most of the students 182(51.1%) agreed that the boarding school catering employees are trustworthy, with 68(19.1%) disagree and 106 (29.8%) were undecided. The results agree with those of *et al.*, (2010), that the boarding school catering employees are trustworthy. Majority of the students

261(76.7%) agreed that the boarding school catering employees are confident, with 20(5.6%) disagree and 63(17.7%) were undecided. The results resemble that of Othman (2008), that the boarding school catering employees are confident. Most of the respondents 209(58.7%) agreed that the boarding school catering employees are believable, with 61(17.1%) disagree and 86(24.2%) were undecided. The results are similar to that of Tahar (2008), that the boarding school catering employees are believable.

From the study findings on assurance service quality dimension the boarding school catering employees were found to be knowledgeable, courteous, trustworthy, confident and believable. This agrees with Sadeket *al.*, (2010), that assurance means the polite and friendly staff, provision of financial advice, interior comfort, easiness of access to account information and knowledgeable and experienced management team. In regards to the interview results, respondent (INT/C/B/02) argued that *“assurance of catering services had an effect on student satisfaction as they became satisfied when the level of trust and confidence rises as a result of the quality of the catering services that are provided at the school”*

#### **4.8 Correlation Analysis of the Variables**

The study sought to find out the strength of the effect of catering service quality dimension on student satisfaction in public boarding secondary schools in Uasin Gishu County. To achieve this Pearson’s moment correlation was used and it was appropriate because all the variables were in interval scale. Results of the study showed that there is a significant influence of tangibility service quality dimension of catering services on student satisfaction in public boarding secondary schools ( $r=0.588$ ,  $p =0.000$ ) as summarized in Table 4.8. This implies that an increase in

tangibility service quality lead to improvement in student satisfaction on catering services in public boarding secondary schools. The results are in tandem with that of Kimani *et al.*, (2011) that there is a significant influence of tangibility service quality dimension of catering services on student satisfaction.

There was a significant positive relationship between responsiveness service quality dimension of catering services on student satisfaction in public boarding secondary schools ( $r= 0. 343$ ,  $p =0.000$ ). An increase in responsiveness service quality in catering services led to improvement in student satisfaction in public boarding secondary schools. The results are similar to that of Mputhia (2014), that there is a significant positive relationship between responsiveness service quality dimensions of catering services on student satisfaction. There was a significant positive relationship between assurance service quality dimension of catering services on student satisfaction in public boarding secondary schools ( $r= 0. 459$ ,  $p =0.000$ ). Therefore, an increase in assurance service quality led to a rise in student satisfaction on catering services public boarding secondary schools. The results are in tandem with that of Kumar *et al.* (2010) that there is a significant positive relationship between assurance service quality dimensions of catering services on student satisfaction.

**Table 4.8 Correlation analysis of the variables**

		Satisfaction	Tangibility	Responsiveness	Assurance
Satisfaction	Pearson	1			
	Correlation				
	Sig. (2-tailed)				
Tangibility	Pearson	.588**	1		
	Correlation				
	Sig. (2-tailed)	.000			
Responsiveness	Pearson	.343**	.488**	1	
	Correlation				
	Sig. (2-tailed)	.000	.000		
Assurance	Pearson	.459**	.529**	.466**	1
	Correlation				
	Sig. (2-tailed)	.000	.000	.000	

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

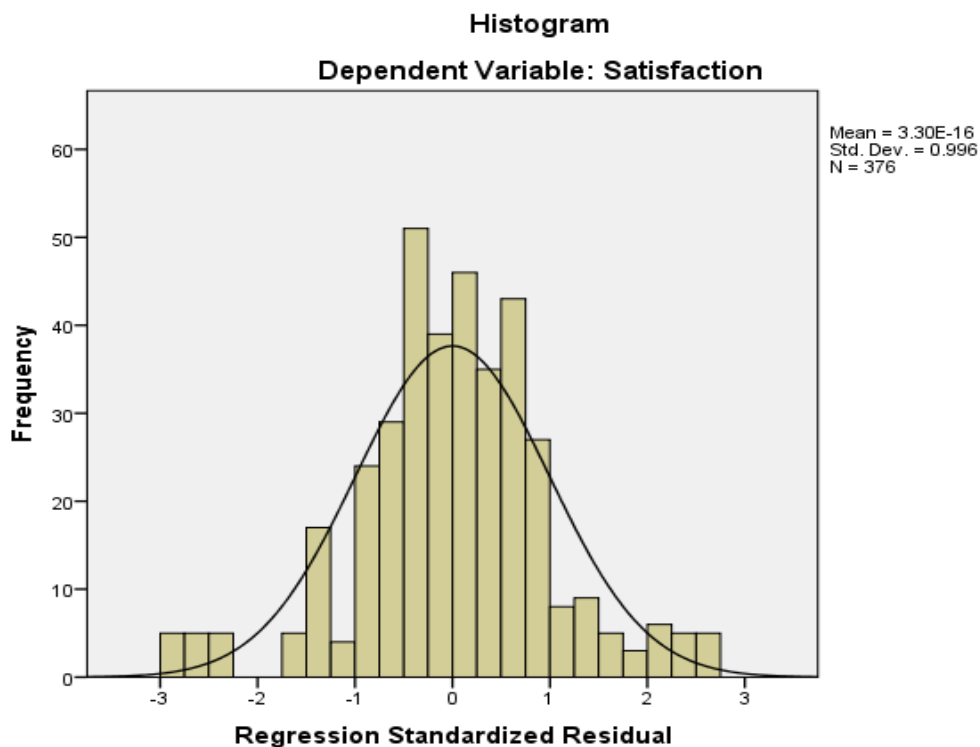
b. Listwise N=376

#### 4.9 Multiple Regression Assumptions

Before a regression analysis was performed, the assumptions concerning the data must be made. According to Antonakis and Deitz (2011) ignoring the regression assumptions contribute to wrong validity estimates. Multiple regressions is a parametric statistic used since the data adheres to the following assumptions or parameters (Field, 2009). The assumptions used in the research included; normality, linearity, homoscedasticity and multicollinearity and determined using SPSS statistical software.

##### 4.9.1 Normality

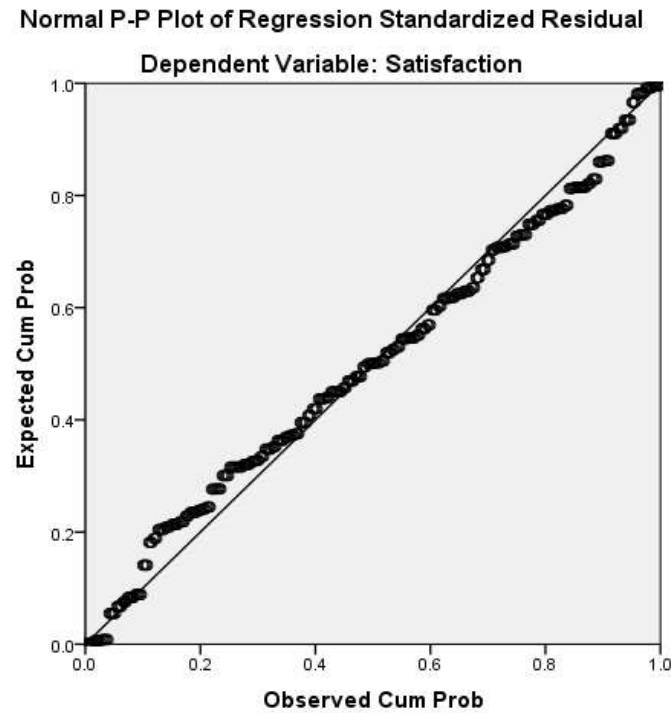
The assumption is based on the shape of normal distribution and gives the researcher knowledge about what values to expect (Keith, 2006). The researcher tested this assumption through several pieces of information: visual inspection of data plots, skew, kurtosis, and P-Plots (Osborne & Waters, 2002). Normality was further checked through histograms of the standardized residuals (Stevens, 2009). The residuals were normally distributed as shown Figure 4.1.



**Figure 4.1: Normality**

#### **4.9.2 Linearity**

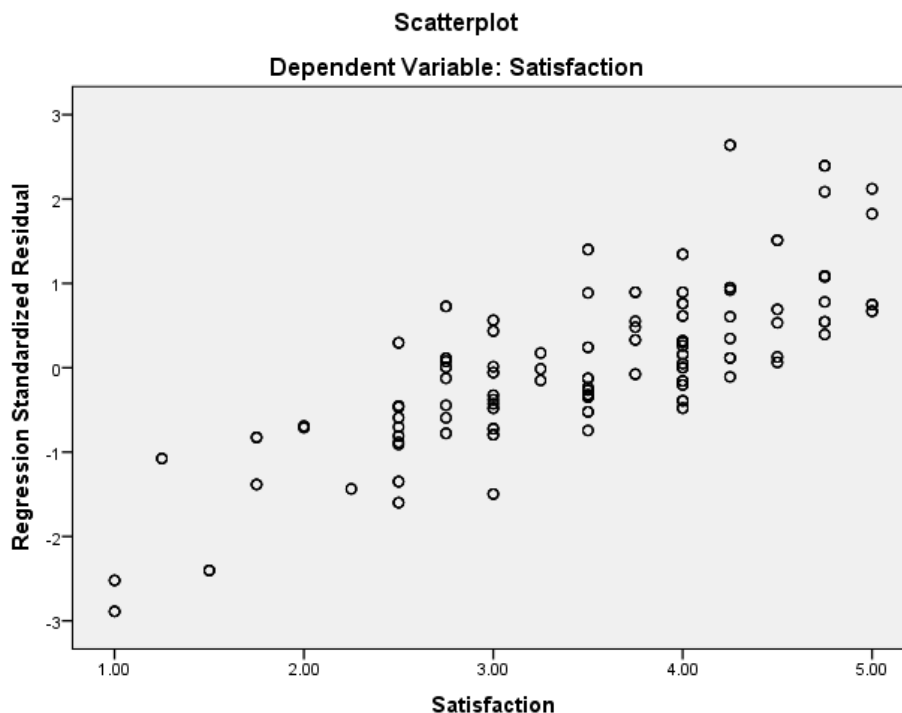
Multiple regressions can accurately estimate the relationship between dependent and independent variables when the relationship is linear in nature (Osborne & Waters, 2002). Violation of this assumption threatens the meaning of the parameters estimated in the analysis (Keith, 2006). Residual plots showing the standardized residuals vs. the predicted values were useful in detecting violations in linearity (Stevens, 2009). Any systematic pattern or clustering of the residuals suggests violation (Stevens, 2009). Residual plots showing the standardized residuals and the predicted values were used to establish linearity as shown in Figure 4.2.



**Figure 4.2: Linearity**

#### **4.9.3 Homoscedasticity**

The assumption of homoscedasticity refers to equal variance of errors across all levels of the independent variables (Osborne & Waters, 2002). This means that the study assumed that errors are spread out consistently between the variables (Keith, 2006). Specifically, SPSS statistical software scatterplots of residuals with independent variables was used for examining this assumption (Keith, 2006). Heteroscedasticity was indicated when the scatter is not even, fan and butterfly shapes are common patterns of violations. Some examples of homoscedasticity and heteroscedasticity was seen in scatter plots. Homoscedasticity was checked using the standardized residual scatter plot (Figure 4.3).



**Figure 4.3: Homoscedasticity**

The results showed whether standardized residuals concentrated in the centre (around 0) and whether their distribution was rectangular. This was an indication that the variance of the residuals about the dependent variable scores are the same, an indication that homoscedasticity is not a problem. More in-depth examination of the residual plots and scatter plots available in most statistical software packages indicated linear vs. curvilinear relationships (Keith, 2006; Osborne & Waters, 2002).

#### **4.9.4 Multicollinearity**

Multicollinearity occurs when several independent variables correlate at high levels with one another, or when one independent variable is a near linear combination of other independent variables (Keith, 2006). The more variables overlap (correlate) the less able researchers separated the effects of variables. Statistical software packages include collinearity diagnostics that measure the degree to which each variable is



independent of other independent variables. Tolerance and VIF statistics were used to carry out the diagnosis. The rule of thumb for a large VIF value should be less than ten and tolerance should be greater than 0.2 (Keith, 2006; Shieh, 2010) as shown in Table 4.9. Small values for tolerance and large VIF values show the presence of multicollinearity (Keith, 2006).

**Table 4.9: Multicollinearity**

Model	Collinearity Statistics	
	Tolerance	VIF
1 (Constant)		
Tangibility	.649	1.541
Responsiveness	.697	1.435
Assurance	.656	1.524

a. Dependent Variable: Satisfaction

#### 4.10 Multiple Regression Analysis

Multiple regression analysis was used to analyze the relationship between a single dependent variable and several predictor variables (Hair *et al.*, 2005). The regression coefficient summary was used to explain the nature of the relationship between independent variables and the dependent. To determine the effect of catering service quality dimension on student satisfaction in public boarding secondary schools, the researcher used multiple regression analysis to test hypothesis 1, 2 and 3 of the study.

Based on the regression model and Table 4.10 the coefficient of determination (R squared) of .377 showing that 37.7% of the variation in student satisfaction in public boarding secondary schools can be explained by service quality dimension. The adjusted R square of .377 depicts that the entire service quality dimension in exclusion of the constant variable explained the variation in student satisfaction in public boarding secondary schools by 37.7% the remaining percentage can be explained by other factors excluded from the model.

**Table 4.10 Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.614 <sup>a</sup>	.377	.372	.76479	.377	70.954	3	352	.000

a. Predictors: (Constant), Assurance, Responsiveness, Tangibility

The analysis of variance was used to test whether the model could significantly fit in predicting the outcome than using the mean as shown in (Table 4.11). The regression model of service quality dimension of catering services as a predictor was significant ( $F=70.95$ ,  $p$  value =0.000) showing that there is a significant relationship between service quality dimension of catering services and student satisfaction. Thus, we reject the null hypothesis that there is no significant effect of catering services quality dimension and student satisfaction.

**Table 4.11: Analysis of Variance**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	124.503	3	41.501	70.954	.000 <sup>b</sup>
	Residual	205.884	352	.585		
	Total	330.387	355			

a. Dependent Variable: Satisfaction

b. Predictors: (Constant), Assurance, Responsiveness, Tangibility

#### 4.10.1 $\beta$ coefficients for service quality dimension

In addition, the  $\beta$  coefficients for service quality dimension as independent variable were generated from the model, in order to test the hypotheses of the study. The t-test was used as a measure to identify whether the service quality dimension predictor is making a significant contribution to the model. Table 4.12 gave the estimates of  $\beta$ -value and the contribution of each predictor to the model. The  $\beta$ -value for tangibility, responsiveness and assurance had a positive coefficient, depicting positive

relationship with student satisfaction in public boarding secondary schools as summarized in the model as:

$$Y = .292 + 0.586X_1 + 0.021X_2 + 0.261X_3 + \varepsilon \dots \dots \dots \text{Equation 4.1}$$

Where:

Y = Satisfaction,  $X_1$  = tangibility,  $X_2$  = responsiveness,  $X_3$  = assurance and  $\varepsilon$  = error term

The findings showed that  $\beta$ -value for tangibility, responsiveness and assurance service quality dimension had a positive coefficient, depicting positive relationship with student satisfaction in public boarding secondary schools. Thus, tangibility, responsiveness and assurance service quality dimension had a significant relationship with student satisfaction in public boarding secondary schools. Students as customers often vary in service sensitivity and generate either homogeneous profitability for the institution or profitability uncorrelated with their preferences for Table 4.12;

**Table 4.12: Coefficients of Student Satisfaction**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	$\beta$	Std. Error	B		
1 (Constant)	.292	.233		1.253	.211
Tangibility	.586	.065	.473	9.036	.000
Responsiveness	.021	.057	.019	.377	.706
Assurance	.261	.067	.201	3.883	.000

a. Dependent Variable: Satisfaction

#### 4.10.2 Hypotheses Testing

The study hypothesized that there is no significant influence of tangibility on student satisfaction in public boarding secondary schools. The study findings depicted that there was a positive significant relationship between tangibility and student satisfaction in public boarding secondary schools ( $\beta_1 = 0.586$  and p value  $< 0.05$ ). An

increase in tangibility service quality dimension improved student satisfaction in public boarding secondary schools. The null hypothesis ( $H_{01}$ ) was rejected. Therefore, tangibility service quality dimension had positively significant influence on student satisfaction. This agrees with Coles (2002) that student satisfaction decreased when class sizes were larger in earlier cohorts, and when students took compulsory core modules rather than optional modules.

The study findings depicted that there was a positive significant effect of responsiveness service quality dimension and student satisfaction in public boarding secondary schools ( $\beta_2 = 0.021$  and  $p$  value  $>0.05$ ). An increase in responsiveness service quality dimension improved student satisfaction in public boarding secondary schools. The null hypothesis ( $H_{02}$ ) was rejected. Therefore, responsiveness service quality dimension had positively significant influence on student satisfaction. This agrees with Glaveli, Petridou and Spathis (2006) that responsiveness is likely to have an important and positive effect on customer satisfaction. The higher customers appreciate problem solving, the higher overall evaluation of retail service quality becomes. This creates public confidence, and thus helps customers to make the right decisions at the right time.

The study findings depicted that there was a positive significant influence of assurance service quality dimension and student satisfaction in public boarding secondary schools ( $\beta_3 = 0.261$  and  $p$  value  $<0.05$ ). An increase in assurance service quality dimension improved student satisfaction in public boarding secondary schools. The null hypothesis ( $H_{03}$ ) was rejected. Therefore, assurance service quality dimension had positively significant influence on student satisfaction. This agrees with Kumar *et al.*, (2010) that confidence is one of the important factors for

assurance. The assurance construct consists of competence included in the possession of the required skills and information to perform the service in consideration for the client's possessions, spruce in appearance of public contact personnel, security of the employees, and their ability to inspire trust and confidence.

The findings showed that tangibility, responsiveness and assurance service quality dimension had a positive coefficient, depicting positive relationship with student satisfaction in public boarding secondary schools. These results are consistent with those of Bergamo *et al.*, (2012), that there is a clear effect of institution services' quality on student satisfaction with and loyalty to education (Mandelbaum & Shimkin, 2000; Tsay & Agrawal, 2000). If the most profitable customers enmesh in relationships that are more complex with the firm, switching costs may reduce their probability of defection when an attractive opportunity presents itself (Klemperer, 1995). Alternatively, highly profitable customers may have a higher willingness to pay for service quality as posited by the priority pricing literature (Afeche, 2004; Lederer & Li, 1997).

Furthermore, high profitability customers have more at stake in the relationship and more interactions with the firm than their low profitability counterparts and they may be more acutely aware of any potential deficiencies in its provision of service quality (Dewan & Mendelson, 1990). These arguments raise the possibility of students' level of heterogeneity in the effects of service quality competition on students' defection, and they point to the importance of understanding the economics of the student's relationships most influenced by increased service quality competition.

According to Kara, Tanui and Kalai (2016), attraction and recruitment of new students in an academic institution is achieved if the academic institutions provide an

enabling environment where the students are motivated and are able to develop the desired competencies. The authors further opine that, most public Universities in Kenya have improved their teaching facilities, library services and internet services. In Uasin Gishu County, the studies that exist in the public domain are in regards to what the public universities are doing to attract students.

Chepkener (2018) researched on students' level of satisfaction with on and off-campus accommodation at Moi University. The researcher found that accommodation, security, social amenities and distance from university facilities are determinants of students' satisfaction as they play a significant role in attracting students. Studies that have assessed attraction of students in public secondary boarding schools in Uasin Gishu County are scarce. Therefore, the current study sought to fill this knowledge gap as it examined student' satisfaction in selected public boarding secondary schools in Uasin Gishu County.

## CHAPTER FIVE

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### 5.0 Introduction

This chapter presents the summary of findings, the conclusions made and recommendations of the study based on the research objectives.

#### 5.1 Summary of Findings

The dependent variable during the study was student satisfaction in public boarding secondary schools in Uasin Gishu County. The findings of the study showed that the boarding school catering facilities were found to be conducive to retain students, maintain student loyalty and encourage student personal development and some of the catering facilities were attractive. The satisfaction is the ultimate goal that is reflected by high levels of service quality. The summary of the findings was made based on the research objectives.

##### **5.1.1 Effect of the tangibles on students' satisfaction in selected public boarding secondary schools in Uasin Gishu County**

The first objective was to determine the effect of tangibility service quality dimension of catering services on student satisfaction in public boarding secondary schools in Uasin Gishu County. The findings indicated that the boarding school had appropriate catering facilities, clean catering facilities which are appealing and adequate. Pearson's moment correlation results showed that there is a significant influence of tangibility service quality dimension of catering services on student satisfaction in public boarding secondary schools ( $r=0.588$ ,  $p=0.000$ ). This implies that an increase in tangibility service quality lead to improvement in student satisfaction on catering services in public boarding secondary schools.

The regression results depicted that there was a positive significant relationship between tangibility and student satisfaction in public boarding secondary schools ( $\beta_1=0.586$  and  $p$  value  $<0.05$ ). An increase in tangibility service quality dimension improved student satisfaction in public boarding secondary schools. The null hypothesis ( $H_{01}$ ) was rejected. Therefore, tangibility service quality dimension had positively significant influence on student satisfaction.

### **5.1.2 Effect of the responsiveness dimensions of catering services on students' satisfaction in selected public boarding secondary schools in Uasin Gishu County**

The second objective was to determine the influence of responsiveness service quality dimension of catering services on student satisfaction in public boarding secondary schools in Uasin Gishu County. The findings indicated that boarding school catering employees are willing to assist, prompt, timely and prepared. Also, some of the boarding schools catering employees discharge their duties with speed. Responsiveness is the willingness to assist students and provide the service promptly. There was a significant positive relationship between responsiveness service quality dimension of catering services on student satisfaction in public boarding secondary schools ( $r= 0.343$ ,  $p =0.000$ ). Increase in responsiveness service quality in catering services led to improvement in student satisfaction in public boarding secondary schools.

The study findings depicted that there was a positive significant effect of responsiveness service quality dimension on student satisfaction in public boarding secondary schools ( $\beta_2= 0.021$  and  $p$  value  $>0.05$ ). An increase in responsiveness service quality dimension improved student satisfaction in public boarding secondary



schools. The null hypothesis ( $H_{02}$ ) was rejected. Responsiveness service quality dimension had positively significant influence on student satisfaction. Responsiveness is likely to have an important and positive effect on customer satisfaction. The higher customers appreciate problem solving, the higher overall evaluation of retail service quality becomes.

### **5.1.3 Effect of the assurance dimensions of catering services on students' satisfaction in selected public boarding secondary schools in Uasin Gishu County**

The third objective was to determine the influence of assurance service quality dimension of catering services on student satisfaction in public boarding secondary schools in Uasin Gishu County. From the study findings on assurance service quality dimension the boarding school catering employees were found to be knowledgeable, courteous, trustworthy, confident and believable. There was a significant positive relationship between assurance service quality dimension of catering services on student satisfaction in public boarding secondary schools ( $r= 0.459$ ,  $p =0.000$ ). Therefore, an increase in assurance service quality led to a rise in student satisfaction on catering services public boarding secondary schools.

The study findings depicted that there was a positive significant influence of assurance service quality dimension on student satisfaction in public boarding secondary schools ( $\beta_3= 0.261$  and  $p$  value  $<0.05$ ). An increase in assurance service quality dimension improved student satisfaction in public boarding secondary schools. The null hypothesis ( $H_{03}$ ) was rejected. Assurance service quality dimension had positively significant influence on student satisfaction.

Based on the multiple regression model the coefficient of determination (R squared) of .377 showing that 37.7% of the variation in student satisfaction in public boarding secondary schools can be explained by service quality dimension. The three-service quality dimension explained the variation in student satisfaction in public boarding secondary schools by 37.9% the remaining percentage can be explained by other factors excluded from the model. The findings showed that tangibility, responsiveness and assurance service quality dimension had a positive coefficient, depicting positive relationship with student satisfaction in public boarding secondary schools. There is an effect of institution services' quality on student satisfaction.

#### **5.1.4 Effect of quality catering services of management perception on student satisfaction in selected public boarding secondary school Uasin Gishu County**

The fourth objective was quality catering service perception of school management is the most important in provision of an ideal environment for good nutrition and dietary to students. The study established that the school management has improved on the quality of its catering service, since according to school management, the quality of catering service positively influences student satisfaction.

Improving the effect of school meals by management enhances student satisfaction, also students can have their meals in a pleasant and hygienic place. In response to this the schools are modernizing their cafeteria so as to enhance student satisfaction. The perception of school management on catering service quality has a significant positive effect on student satisfaction.

## 5.2 Conclusions

On tangibles of catering services, the study concluded that the boarding school had appropriate catering facilities, clean catering facilities which are appealing, adequate and well light catering facilities. The improvement of catering facilities tangibility makes the student satisfied on catering services in public boarding secondary schools. Tangibility service quality dimension had positively significant influence on student satisfaction. From the interview results, it can also be concluded that tangibility service quality dimension had positively significant influence on student satisfaction.

On responsiveness of catering services, the study concluded that the boarding school catering employees are willing to assist, promptly, timely and well prepared. Responsiveness has positive effect on customer satisfaction. The more there is responsiveness in catering services the higher the student satisfaction in public boarding secondary schools. From the interview results, it can also be concluded that responsiveness of catering services has a great impact on student satisfaction.

On assurance of catering services, the study concluded that the boarding school catering employees were knowledgeable, courteous, trustworthy, confident and believable. There was a significant positive effect of assurance service quality dimension of catering services on student satisfaction in public boarding secondary schools. An increase in assurance led to a rise in student satisfaction on catering services public boarding secondary schools. From the interview results, it can also be concluded that assurance of catering services has a great impact on student satisfaction.

The perception of school management on catering service should be of good hygiene, the study concluded that the school management has improved on the quality of its catering service since according to the school management the quality of catering

services influences student satisfaction. Perception of school management on catering service quality has a significant positive effect on student satisfaction.

### **5.3 Recommendations**

- i. The school board of management should make sure that the boarding school has appropriate catering facilities as well as clean catering facilities which are appealing.
- ii. The boarding school catering employees should always be willing to assist the students at any given point in time.
- iii. The boarding school catering employees should always be courteous and trustworthy.
- iv. The school management should offer good quality catering services that are of good hygiene.

### **5.4 Recommendations for Further studies**

This study sought to establish the effect of the service quality dimensions of catering services on students' satisfaction in selected public boarding secondary schools, Uasin Gishu County, Kenya. Future studies should be carried out in other Counties apart from Uasin Gishu and make comparisons. This study only focused on public boarding secondary schools, thus future studies should focus on private secondary schools. The study also recommends that further studies should be done on public boarding schools in other Counties besides Uasin Gishu County and should consider reliability and empathy as part of service quality dimensions.

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## APPENDICES

### Appendix I: Introduction Letter

**RAEL KIBET**

**P.O BOX 3778,**

**ELDORET.**

Dear respondent,

My name is Rael Kibet student at Moi University School of Tourism, Hospitality and Events Management. I am conducting a research on the ‘effects of catering service quality dimensions on students’ satisfaction in selected public boarding secondary schools Uasin Gishu County, Kenya’. Your school is among the schools I was conducting my research on. I would like to ask you some questions related to your school. This research is mainly for academic purposes. All the information you give was confidential.

Kindly answer the following questions.

Thanks

Yours Faithfully

RaelKibet



## Appendix II: Questionnaire for Students

(Declaration: The information presented here was treated confidential and was used purely for education purposes)

### PART I: GENERAL INFORMATION.

1. Indicate your gender                      Male ( ) Female ( )
2. What is your age            14years ( ) 15years ( ) 16years ( ) 17years ( )  
above 18years ( )
3. State your form: Form one( ) Form two( ) Form three( ) Form four( )

### PART II: Responses on the Variables

#### Section A: Tangibility

Indicate the extent to which you agree with each of the statements on tangibility.

Please indicate by ticking appropriately where applicable. Use the given scale. **Scale:**

Strongly Disagree (1), Disagree (2), Neutral (3) Agree (4), Strongly Agree (5)

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>
School has appropriate catering facilities					
School has clean catering facilities					
School catering facilities are appealing					
School catering facilities are well decorated					
School catering facilities are well light					
Sizes of school catering facilities are adequate					

### Section B: Responsiveness

Indicate the extent to which you agree with each of the statements on responsiveness.

Please indicate by ticking appropriately where applicable. Use the given *Scale*:

Strongly Disagree (1), Disagree (2), Neutral (3) Agree (4), Strongly Agree (5)

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>
School catering employees are willing to assist					
School catering staff are prompt					
School catering employees are timely					
School catering employees are prepared					
School catering employees discharge their duties with speed					

### Section C: Assurance

Indicate the extent to which you agree with each of the statements on assurance.

Please indicate by ticking appropriately where applicable. Use the given *Scale*:

Strongly Disagree (1), Disagree (2), Neutral (3) Agree (4), Strongly Agree (5)

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>
School employees of catering facilities are knowledgeable					
School employees of catering facilities are courteous					
School employees of catering facilities are trustworthy					
School employees of catering facilities are confident					
School employees of catering facilities are believable					

### Section D: Students' Satisfaction

Indicate the extent to which you agree with each of the statements on students' satisfaction. Please indicate by ticking appropriately where applicable. Use the given

*Scale:* Strongly Disagree (1), Disagree (2), Neutral (3) Agree (4), Strongly Agree (5)

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>
School catering facilities are attractive					
School catering facilities are conducive to retain students					
School catering facilities encourage students loyalty					
School catering facilities encourage personal development					

**Appendix III: Interview Schedule for Catering Staff**

1. Are the catering facilities appealing for the students in your school?
2. Are the catering facilities adequate for the students in your school?
3. Are the catering facilities clean for the students in your school?
4. Are the catering facilities attractive to retain and encourage student's loyalty?
5. How do you know if a student is satisfied with catering facilities in your school?

**Appendix IV: Interview Schedule for Principals**

1. What are the policies laid down for maintenance and cleanliness of the catering facilities in your school?
2. Describe whether the School catering employees discharge their duties with speed?
3. What are the rules and regulations used for the catering employees when discharging their duties to students?
4. How do you make sure that catering employees are trustworthy when administering services to students?
5. Do the catering employees discharge their duties with speed?
6. How do you know that students are satisfied with catering facilities?

**Appendix V: List of Public Boarding Secondary Schools Based on the Constituencies in Uasin Gishu County**

1. MOI GIRLS ELDORET	Ainabkoi Constituency
2. LEZERU GIRLS	Turbo Constituency
3. LORETO GIRLS MATUNDA	Soy Constituency
4. CHEBISAAS BOYS HIGH SHOOL	Moiben Constituency
5. KEROTED GIRLS	Soy Constituency
6. NGERIA GIRLS	Kesses Constituency
7. ARNERSENS BOYS SCHOOL	Ainabkoi Constituency
8. KALYET GIRLS SCHOOL	Moiben Constituency
9. ST. JOSEPH BOYS SCHOOL	Kesses Constituency
10. KAMAGUT BOYS SCHOOL	Turbo Constituency
11. KIPSANGUI BOYS	Soy Constituency
12. SUGOI GIRLS	Turbo Constituency
13. KIPKABUS BOYS SCHOOL	Ainabkoi Constituency
14. KIMONING BOYS	Moiben Constituency
15. LEMOK BOYS SECONDARY	Kapseret Constituency
16. A.I.C TULWET BOYS	Kesses Constituency
17. SIMAT BOYS SCHOOL	Kapseret Constituency
18. ST. ELIZABETH GIRLS SCHOOL	Kapseret Constituency

**Appendix VI: Table for Determining Sample Size from a Given Population**

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	246
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	351
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	181	1200	291	6000	361
45	40	180	118	400	196	1300	297	7000	364
50	44	190	123	420	201	1400	302	8000	367
55	48	200	127	440	205	1500	306	9000	368
60	52	210	132	460	210	1600	310	10000	373
65	56	220	136	480	214	1700	313	15000	375
70	59	230	140	500	217	1800	317	20000	377
75	63	240	144	550	225	1900	320	30000	379
80	66	250	148	600	234	2000	322	40000	380
85	70	260	152	650	242	2200	327	50000	381
90	73	270	155	700	248	2400	331	75000	382
95	76	270	159	750	256	2600	335	100000	384

Note: “N” is population size

“S” is sample size.

## Appendix VII: Research Letters



**MOI UNIVERSITY**  
*ISO 9001:2008 Certified Institution*  
**SCHOOL OF TOURISM, HOSPITALITY & EVENTS MANAGEMENT**

Telephone: 0771-296270/0790850990  
 Fax: (053) 43047  
 E-mail: deansthe@mu.ac.ke

Box 3900  
**ELDORET**  
 Kenya

Ref: MU/STHE/SGS/23

27<sup>th</sup> September, 2018

**TO WHOM IT MAY CONCERN**

Dear Sir/Madam,

**RE: RECOMMENDATION LETTER FOR RAEL J. KIBET-STHE/PGH/009/12**

The above named is a bonafide student of Moi University, School of Tourism, Hospitality and Events Management. She is pursuing a Master of Hospitality Management degree in the Department of Hotel and Hospitality Management.

She has successfully completed her course work and has defended her proposal titled "**Effects of Service quality of catering services on students satisfaction in Uasin Gishu County**". Ms. Rael has been allowed to proceed to the field for data collection.

Any assistance accorded to her will be appreciated.

Yours faithfully,



**PROF. DAMIANNAH KIETI**  
**DEAN, SCHOOL OF TOURISM, HOSPITALITY & EVENTS MANAGEMENT**





REPUBLIC OF KENYA  
**MINISTRY OF EDUCATION**

State Department for Early Learning & Basic Education

Telegrams: "EDUCATION", Eldoret  
 Telephone: 053-2063342 or 2031421/2  
 Mobile : 0719 12 72 12/0732 260 280  
 Email: cdeuasingishucounty@yahoo.com  
 : cdeuasingishucounty@gmail.com

When replying please quote:

Office of The County Director of Education,  
 Uasin Gishu County,  
 P.O. Box 9843-30100,  
**ELDORET.**

Ref: No. MOEST/UGC/TRN/9/VOL III/180

11<sup>TH</sup> OCTOBER , 2018

RAEL J.KIBET  
 STHE/PGH/009/12  
 MOI UNIVERSITY  
 P.O BOX 3900  
**ELDORET**

**RE: RESEARCH AUTHORIZATION**

This office has received a request from you institution to authorize you to carry out research on "*Effects of service quality of catering service on students satisfaction,*" in Uasin Gishu County.

We wish to inform you that the request has been granted until **end of October, 2018**. The authorities concerned are therefore requested to give you and your company maximum support.

We take this opportunity to wish you well during this data collection.

FOR COUNTY DIRECTOR OF EDUCATION  
 UASIN GISHU COUNTY  
 P.O. Box 9843, ELDORET  
 Tel: 0719-127 212/053-2063342

**SIMEON KEMEI**  
 For: COUNTY DIRECTOR OF EDUCATION  
**UASIN GISHU.**





**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

NACOSTI, Upper Kabete  
Off Waiyaki Way  
P.O. Box 30623-00100  
NAIROBI-KENYA

Ref. No. **NACOSTI/P/18/64034/26893**

Date: **15<sup>th</sup> November, 2018**

Rael Jelagat Kibet  
Moi University  
P.O Box 3900-30100  
**ELDORET**

**RE: RESEARCH AUTHORIZATION**

Following your application for authority to carry out research on "*Effects of service quality dimensions of catering services on students' satisfaction in selected Public Secondary Schools in Uasin Gishu County, Kenya*" I am pleased to inform you that you have been authorized to undertake research in **Uasin Gishu County** for the period ending **15<sup>th</sup> November, 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.

**GODFREY P. KALERWA MSc., MBA, MKIM  
FOR: DIRECTOR-GENERAL/CEO**

Copy to:

The County Commissioner  
Uasin Gishu County.

The County Director of Education  
Uasin Gishu County.

