

**UNIVERSITY OF EDUCATION, WINNEBA**  
**COLLEGE OF TECHNOLOGY EDUCATION, KUMASI**

**FOOD QUALITY MANAGEMENT PRACTICE IN HOSPITALITY INDUSTRY:**  
**A CASE STUDY IN MIKLIN HOTEL, KUMASI**



**ADWOA PINAMANG**

**NOVEMBER, 2016**



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**A Dissertation in the Department of HOSPITALITY AND TOURISM  
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of Graduate Studies, University of Education, Winneba, in partial fulfilment of the  
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degree**

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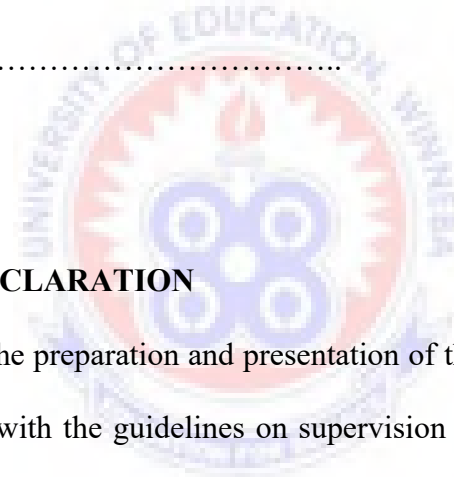
**DECLARATION**

**STUDENT'S DECLARATION**

I, ADWOA PINAMANG, declare that this dissertation, with the exception of the quotations and references contained in published works which have all been identified and acknowledged, is entirely my own original work, and it has not been submitted, either in part or whole, for another degree elsewhere.

SIGNATURE: .....

DATE: .....



**SUPERVISOR'S DECLARATION**

I hereby declare that the preparation and presentation of this dissertation were supervised by me in accordance with the guidelines on supervision of dissertation as laid down by the University of Education, Winneba.

NAME OF SUPERVISOR: DR. MRS. ELLEN OLU

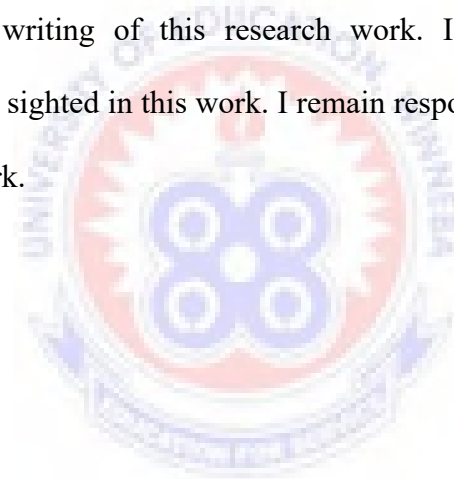
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Finally, I wish to express my appreciation to all who have contributed in one way or the other in the writing of this research work. I also acknowledge all whose literature(s) have been sighted in this work. I remain responsible for any error(s) that may be detected in this work.



## **DEDICATION**

This work is dedicated to my late grandmother Nana Adwoa Nyarko and my lovely daughter's Aseda Konadu Frimpong and Adwoa Nyarko Frimpong



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## ABSTRACT

The purpose of the study was to investigate the food quality management practice in hospitality industry, using Miklin Hotel Kumasi as a case study. The researcher used descriptive research design for the study. The research used both qualitative and quantitative research approach for the study. The total population of the study was 76. Random sampling method was used to select 63 respondents for the study. Primary and secondary data sources were used for the study. The main instrument used for data collection was questionnaire. The data was analysed using Statistical Package for the Social Science (SPSS) software version 12.0 for MS Windows. The study results hold that 83.1% of the respondents said that the taste and aroma of the food is desirable. Moreover, 68% of the respondents affirmed that healthiness and flavour of the food is desirable. Also, the study revealed that 73.6% of the respondents affirmed that the presentation of the food is desirable. The study indicates that after the dining experience, 52.8% of the respondents affirmed that they were satisfied with the food quality. The study indicates that 50.9% of the respondents said that providing quality food improves customer satisfaction and that cooks must participate and contribute to food quality management by using disposable tissues, wearing clean and proper uniforms, providing hygienic food to customers, practicing proper Personal hygiene practices to improve food quality and consumers health. The study findings concluded that the customers were highly satisfied with the food quality management practice in the hospitality industry. The study recommended that the management of the hotel should organize periodic seminars and workshops to train cooks regarding the modern methods of storing and preserving food to avoid food contamination at the hotel restaurant.

## **CHAPTER ONE**

### **INTRODUCTION**

This chapter presents a background to the study which is an assessment of food quality management practices in hospitality industry using Miklin Hotel Kumasi as a case study. Objectives of the study as well as the statement of problem are clearly stated in this chapter. The chapter further describes the scope of the study, limitations as well as a significance and organization of the study.

#### **1.1 Background to the Study**

Hotel operations have grown steadily since the nineteenth century and are now a global industry (Muller, VanLeeuwen, Mandabach, and Harrington, 2009). Due to increased competition amongst hotels, hotel managers recognized the significance of the quality of their hotels' products and services (Min and Min, 1997). However, delivering a consistent level of quality products and services within hotel operations still represents a major ongoing dilemma for the hotel sector (Clark, Hartline, and Jones, 2009). Hotel food and beverage division is labour intensive as a result of offering meals to hotel guests alongside with non-residents (Medlik, 1999). Riley (2005) has emphasized the importance of food quality management as a great source of hotel revenue. Kotas and Jayawardena (1994) have suggested that food in hotel operations is particularly significant as it is the only thing which remains in the memory of hotel guests as a pleasant thing after their visit and can represent half the total revenue (Australian Bureau of Statistics, 2004 cited Rodgers, 2005).

However, food and beverage management is the most challenging and complex area in hotel operations and much more difficult to run than the rooms division (Riley, 2005; Bosselman, 2007). Consistent quality is critical for hospitality operations (Jones and Dent, 1994; Crandall *et al.*, 1996), in particular, hotel food service operations (Bosselman, 1995). This is because customers of hotel restaurants are more concerned with the consistency of the quality of the food offered (Waller, 1999). However, providing a consistent level of food quality is a major challenging task (Walker, 2008).

## **1.2 Statement of the Problem**

The researcher realized that in most hotel restaurants in the Kumasi Metropolis, food quality management practice is poor. In recent years the requirements on hotels and restaurant providers. To provide quantity service to maintain customers have been on the increase. This meant that they fulfill and follow quality management systems (Bergström & Hellqvist, 2004). As a result of involving a great extent of labour content in hotel food production operation (Davis *et al.*, 2001); it has been a major challenge to produce consistent quality food from the management on a regular basis (Davis *et al.*, 2001).

Ghana initially ignored the tourist sector by not paying attention to the hospitality industry, authorities likewise failed to monitor the quality of the food in hotels. Thus, as a result, most of the hotels in the hospitality industry did not meet the standards expected of them in terms of service delivery. Their service delivery criteria's were such as adequate facilities, excellent customer relationship, knowledge of product or service offerings, trained personnel, food quality and provision of confidence and trust of services offered. This has led to customers complaining of poor quality of service, loss of confidence and

dissatisfaction. Lack of these factors, presently have resulted in hotels in Ghana losing their touch of excellence, sense of focus and as a result do not consider the customer as their central focus of their operation and also the cause for the existence of their business. This experience above suggests a possible existence of weakness in the services administered to the customer's whiles in Ghana amongst which Miklin Hotel is part. Miklin Hotel being a three Star is expected by the Ghana Tourist Authority Standard to provide quality services. However, this is not the case. The study therefore, set out to investigate how management is ensuring efficient and effective quality food management to provide satisfaction to their customers.

Miklin Hotel was established in August 2000 driven by a desire to introduce a new kind of service into the hospitality industry and to help promote tourism in the country to make it the 3rd foreign exchange earner. Miklin Hotel is considered to be one of the hotels Competitive destination in hospitality industry in Ghana to providing Food Quality service delivery to its clients "A REAL WELCOME AWAY FROM HOME". The hotel is located in the Ashanti Regional in the Kumasi municipality. A major goal was that stay in the hotel grants the individual an excellent view defined service products that will make guest feel at home. Additionally, Miklin Hotel meant to offers security measures to ensure maximum safety to its customers. However, currently there are reports that the hotel staffs are unable to provide quality services due to. It is based on such experience that this study sought to.



### **1.3 Purpose of the Study**

The purpose of the study was to investigate the food quality management practice in hospitality industry, using Miklin Hotel Kumasi as a case study.

### **1.4 Objectives of the Study**

Based on the background and the statement of problem of this study, the specific objectives were to,

1. Find out the participation of employees in contributing to food quality management.
2. Identify food quality and customer satisfaction.
3. Find out the benefits of providing quality food to customers in the hospitality business.

### **1.5 Research Questions**

Some of the major research questions to be answered by the study are:

1. How the participation of staff and employees does contribute to food quality management?
2. What is food quality and customer satisfaction?
3. What are the benefits of providing quality food to customers in the hospitality business?

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

Food quality management practices in the hospitality business are relevant to all customers both the old who patronize such business and those who want to patronize. The research study has meaningful and great significance to academia. Thus, the research work contributes to existing knowledge on this particular study or a study of similar nature. In the future, it can be a source of reference to students who might be doing a further study into this topic or related one in the future. On a whole the research study will be significant to the society, firms and the government at large.

### **1.7 Scope of the Study**

The overall scope of the study was to ascertain food quality management of services rendered by Miklin Hotel, Kumasi. The study covered only Kumasi, the capital of Ashanti Region. Ashanti Region with Kumasi as its capital lies between longitude 0° 15' - 2° west and latitude 5° - 7° 40' north, can be located in the sector of the country. Kumasi is about 254 square kilometers with a population of 2,035,064. (Census, 2010). The region was selected because of proximity to the researcher and also the conditions there are typical to other regions where hotels can be located in the country, and that the findings and the contributions can be extended to the national level.

### **1.8 Limitation of Study**

The researcher was faced with difficulties in getting back questionnaires distributed to respondents. This apparently might be due to the tight schedules of the respondents and the reason that respondents may need convenience. However, the

researcher persisted to receive about ninety-five percent (95%) of the answered questionnaires from the respondents. There was the problem of combining work, family and social activities with the research work. Despite all the above constraints, the researcher ensured that the needed data was obtained.

### **1.9 Organization of the Study**

This research paper is organized into chapters, with the chapters being organized as below:

Chapter one, focused on the introductory aspects of the research topic, it gave a general introduction to the research. This chapter is made up of the following, the background of the study, the statement of the problem, purpose of the study, the objectives of the study, the significance of the study, the research questions, the scope of the study, and the limitation of the study.

Chapter Two – Literature Review, this chapter reviews the related literature on the topic: Food quality management practices in the hospitality industry. The researcher considered theoretical literature available on the subject matter.

Chapter Three – Methodology, this chapter deals with methodology of the research. That is the various methods that the researcher adopted in carrying out the research. This chapter includes the sources of the data, primary and or secondary, the sampling techniques used and the reasons for employing such techniques.

Chapter Four – this chapter is concerned with the discussion of data, analysis of data and the interpretation of the data collected. That is, how the data was processed, presented, arranged etc. to bring out the meaning in them so to help achieve the objectives of the

study. The chapter is made of absolute figures, bar charts and pie charts in analysing the data collected.

#### Chapter Five – Findings, Summaries, Suggestions, Conclusion and Recommendations

This chapter deals with presentation of findings, making conclusions from the findings of the study and its implication. In addition, it considers recommendations and suggestions based on the findings of the study.



## CHAPTER TWO

### LITERATURE REVIEW

#### 2.0 Introduction

This chapter reviewed theoretical and empirical literature regarding food quality and customer satisfaction. This chapter introduces food quality management within the food industry and describes different quality assurance systems. An explanation regarding the relationship between food enterprises and quality management is provided in order to show the importance of food quality management systems on business performance.

#### 2.1 Concept of Food Quality: Meanings and descriptions

Food quality is a quality characteristics of food that is acceptable to consumers. This includes external factors as appearance (size, shape, colour and consistency), texture, taste and flavor. Quality includes all other attributes that influence a product's value to the consumer. This includes negative attributes such as spoilage, contamination with filth, discoloration, off-odours and positive attributes such as the origin, colour, flavour, texture and processing method of the food. This distinction between safety and quality has implications for public policy and influences the nature and content of the food control system most suited to meet predetermined national objectives. Food control is defined as: a mandatory regulatory activity of enforcement by national or local authorities to provide consumer protection and ensure that all foods during production, handling, storage, processing, and distribution are safe, wholesome and fit for human consumption; conform to safety and quality requirements; and are honestly and

accurately labelled as prescribed by law (Jay, 2006). In the last decade, the concept of 'quality' has become of utmost importance to society. To be specific, consumers have become more conscious about the concept of quality and organizations themselves are now being judged on their overall quality performance instead of (or in addition to) just their financial performance. The most drastic change in terms of quality thinking is most likely the shift from production-oriented to consumer-oriented concepts. Moreover, integrative approaches, system thinking, the focus on advanced technologies and belief in human capacities have also had considerable impacts on current quality management approaches (Schiefer 2002).

### **2.1.1 Quality concept**

Many authors have attempted to define or describe the concept of quality. Common definitions for quality and a range of quality concepts are described below. In the last two decades people have contributed to the concept of quality (i.e. quality experts or gurus). Some of them have even attempted to develop a definition for quality. Juran (1990) defined quality as “product performance that results in customer satisfaction and freedom from deficiencies, which avoids customer dissatisfaction, in short 'fitness for use'”.

Deming (1993), another quality expert, stated “a product or a service possesses quality if it helps somebody and enjoys a good and sustainable market”. Crosby (1979) described quality as “complying with clear specifications, whereby the management is responsible for establishment of univocal specifications”.

In addition, the Institute of Food Science and Technology (IFST, 1998) has described the term quality, applied for food as follows, “When applied meaningfully to

the character of food, quality may refer to the degree or standard of excellence, and/or the fitness for purpose, and/or the consistency of attainment of the specified properties of the food”.

The American National Standards Institute and the American Society for Quality Control (ASQC) standardized the definition for quality in 1987 as “the totality of features and characteristics of a product or service that bears on itself ability to satisfy given needs”. The International Organization of Standardization (ISO, 1998) within the ISO 9000 standards has defined quality as the context of “achieving sustained customer satisfaction through meeting customer needs and expectations within organizational environment commitment to continual improvement of efficiency and effectiveness”. Quality, in this sense, is critical to business success. Generally, the definitions for quality can be agreed upon as “meeting or exceeding customers’ expectations”.

The described quality concepts range from simple illustrations to complex models reflecting factors that might influence quality expectations and perceptions by consumers or customers. Van den Berg and Delsing (2009) described quality as the relationship between suppliers or companies delivering products that comply with specific expectations of the customers or consumers. According to Evans and Lindsay (2006), the concept of quality is often confusing because people consider quality with different criteria. They distinguished five criteria: judgmental, product-based, user-based, value-based and manufacturing-based.

From a *judgmental* point, quality can be considered a synonym of excellence or superiority. From this viewpoint quality is loosely related to a comparison of product characteristics, it is (sometimes) more a quality image created by marketing. Typical

examples are Rolex watches and Coca-Cola, which are considered quality products mainly due to their brand name. Of course, products must also comply with consumer demands; however, the brand in itself is almost a guarantee for quality.

From a *product-based* view, quality can be defined as a function of a specific, measurable variable. Differences in quality are thus reflected in a quantitative difference of a certain variable. Quality from this point of view is often associated with price; the higher the price, the better the product. The *user-based* definition of quality involves the presumption that quality is determined by what a customer wants, in short 'fitness for use'. In the *value-based* criteria, the usefulness or satisfaction can be related to the price of the product. From this point of view a quality product is one that is as useful as competing products and is sold at a lower price or one that offers greater usefulness or satisfaction at a comparable price.

The fifth criterion is the *manufacturing-based* one. For this criterion, quality can be described as the desirable outcome of engineering and manufacturing practice, or conformance to specifications. These specifications include targets with tolerances, as specified by the designers of products and services. Evans and Lindsay (2006) suggested that a criteria used for defining quality depend on one's situation in the production-distribution cycle. Customers generally view quality from the judgmental or product-based perspective. Marketing people are focused on 'consumer needs' and often consider quality from the user-based view. The value-based definition is most useful for product designers who balance between performance and cost to meet marketing objectives. Conformance to product specifications is the major goal in production, and therefore for production personnel the manufacturing-based definition of quality is most practical.



### **2.1.2 Intrinsic and extrinsic quality attributes**

A product has physical features that are turned into quality attributes by the perception of the consumer. With respect to agro-food products, quality perception may be affected by different types of attributes. Relevant attributes for consumers involve safety, nutritional value, sensory properties (such as taste, flavor, texture and appearance), shelf life, convenience and product reliability (correct weight, right composition, etc.). These attributes can be defined as *intrinsic* attributes and are directly related to the physical product properties. *Extrinsic* attributes refer to the production system characteristics and other aspects, such as environmental impact or marketing influence. They do not necessarily have a direct influence on physical properties but can affect acceptance of products by consumers (Evans and Lindsay, 2006).

### **2.2 Food Quality Management and Business Performance**

The relationship among quality, profitability and market share has been studied in depth by the Strategy Planning Institute of Cambridge, Massachusetts (United States of America). Their conclusion was unequivocal; “One factor above all others – quality – drives market share. When superior quality and large market share are both present, profitability is virtually guaranteed. In addition to profitability and market share, quality favours growth and can reduce costs. Return of investment will increase due to better productivity. Moreover, by increasing quality it is possible to drastically decrease the need for intermediate stock in logistic supply chain”. The linkages between these correlates of quality are shown in the “quality spiral” (Figure 2-2) below (Bergman and Klefsjö 2004; Ahlmann 2009).

Several research supports statements that customers are prepared to pay more for a product of higher quality than the costs required to achieve higher quality. In food production systems and food chains- quality pays. Quality does not cost extra money; it is non-quality that creates additional costs. Costs arise when defective products are manufactured in such ways that rework in different forms is necessary; for example, when process quality is so uncertain that special inspection has to be performed, or even worse, when recalls have to be made. In order to be one of the best, it is important to invest in quality improvements and developing new products, resulting in an increased margin of profit.

Quality has been defined in many ways; today most managers agree that the main reason to pursue quality is to satisfy customer demands. A common definition of quality from American Society for Quality Control (ASQC) is “the total of features and characteristics of a product or service that bears on its ability to satisfy given needs” (ASQC 1978). The view of quality as the satisfaction of the customer needs is often called fitness for use. In highly competitive markets, merely satisfying the needs of customers will not achieve success. In order to beat competition, organizations should exceed customers’ expectations. More progressive organization now define quality as follows, “Quality is meeting or exceeding costumers expectations”.

### **2.2.1 Food Quality and Customer Satisfaction**

Food quality has been described in a number of ways by many scholars. This makes it difficult to have a generalised definition for the concept. As a result, Clewes (2003) suggests that one unresolved issue in the service quality field includes finding an

appropriate definition for service quality and a suitable model for measuring service quality. However, Crosby (2009) provides one of the earliest definitions of quality, suggesting that it is “the conformation to specifications”. While this definition is not specifically related to a service, Lewis and Booms (2003) defined quality in terms of services. They defined service quality as: “a measure of how well the service level delivered matches customer’s expectations”.

Parasuraman *et al.*, (1994) also described service quality as a comparison of a consumer’s general expectations with their actual perceptions of a firm. As a result, Lovelock and Wirtz, (2011) indicated that the level of service quality can be measured by how much the service provided to consumers exceeds their expectations. Inferring from the definitions so far, the concept of service quality could be linked to the concepts of perception and expectations. Therefore, service quality perceived by customers is the result of comparing the expectations about the service to be received and the customers’ perceptions of the service provider’s actions.

## **2.3 Factors Influencing Customers Perception of Food Quality Management in Hotels**

### **2.3.1 Taste and preferences**

Taste appeared to be a crucial factor in making decision about food choice and eating behaviour among customers in many studies (Brug & Klepp, 2007; Neumark-Sztainer *et al.*, 2009). For example, results from a focus group of American adolescents identified that taste was mentioned the most frequently and extensively when they talked about why they eat specific foods (Neumark-Sztainer *et al.*, 2009). Another qualitative study examined health and nutrition beliefs and perceptions in 29 male and female

Australian customers by Giskes *et al.*, (2005). This indicated that the greatest barrier to Australian customers “ healthy eating was that healthy foods were less tasty (n=21). Similarly, a study by O’Dea (2003) also demonstrated that adolescents perceived taste as the barrier to healthy eating.

Generally, expectations about short-term consequences of eating behaviour including taste, satiety, and pleasure are more important than longer-term outcomes in making food-choice decisions of customers (Brug & Klepp, 2007). For example, taste and appearance are short-term outcomes of major significance that were frequently and extensively mentioned by 141 adolescents from 2 urban high schools in Minnesota, USA, when they discussed why they selected their food choices. The results also demonstrated that a lack of sense of urgency about personal health (long-term outcome) is perceived as a barrier to eating more fruit and vegetables (Neumark Sztainer *et al.*, 1999). Similarly, taste (lack of) is the biggest impediment to eating a healthy diet in 106 children in Northern Ireland, United Kingdom (McKinley, Lowis, Robson, Wallace, Morrissey, Morrissey *et al.*, 2005).

### **2.3.2 Food Safety, Quality and Consumer Protection**

The terms food safety and food quality can sometimes be confusing. Food safety refers to all those hazards, whether chronic or acute, that may make food injurious to the health of the consumer. It is not negotiable. Quality includes all other attributes that influence a product’s value to the consumer. This includes negative attributes such as spoilage, contamination with filth, discoloration, off-odours and positive attributes such as the origin, colour, flavour, texture and processing method of the food. This distinction

between safety and quality has implications for public policy and influences the nature and content of the food control system most suited to meet predetermined national objectives.

Food control is defined as:

*....a mandatory regulatory activity of enforcement by national or local authorities to provide consumer protection and ensure that all foods during production, handling, storage, processing, and distribution are safe, wholesome and fit for human consumption; conform to safety and quality requirements; and are honestly and accurately labelled as prescribed by law* (Codex Alimentarius, 2007).

The foremost responsibility of food control is to enforce the food law(s) protecting the consumer against unsafe, impure and fraudulently presented food by prohibiting the sale of food not of the nature, substance or quality demanded by the purchaser (Codex Alimentarius, 2007). Confidence in the safety and integrity of the food supply is an important requirement for consumers. Foodborne disease outbreaks involving agents such as *Escherichia coli*, *Salmonella* and chemical contaminants highlight problems with food safety and increase public anxiety that modern farming systems, food processing and marketing do not provide adequate safeguards for public health. Factors which contribute to potential hazards in foods include improper agricultural practices; poor hygiene at all stages of the food chain; lack of preventive controls in food processing and preparation operations; misuse of chemicals; contaminated raw materials, ingredients and water; inadequate or improper storage, etc. Specific concerns about food hazards have usually focused on:

- Microbiological hazards;
- Pesticide residues;
- Misuse of food additives;
- Chemical contaminants, including biological toxins; and
- Adulteration.

The list has been further extended to cover genetically modified organisms, allergens, veterinary drugs residues and growth promoting hormones used in the production of animal products. Consumers expect protection from hazards occurring along the entire food chain, from primary producer through consumer (often described as the *farm-to-table* continuum). Protection will only occur if all sectors in the chain operate in an integrated way, and food control systems address all stages of this chain. As no mandatory activity of this nature can achieve its objectives fully without the cooperation and active participation of all stakeholders *e.g.* farmers, industry, and consumers, the term Food Control System is used in these Guidelines to describe the integration of a mandatory regulatory approach with preventive and educational strategies that protect the whole food chain. Thus an ideal food control system should include effective enforcement of mandatory requirements, along with training and education, community outreach programmes and promotion of voluntary compliance. The introduction of preventive approaches such as the Hazard Analysis Critical Control Point System (HACCP), have resulted in industry taking greater responsibility for and control of food safety risks. Such an integrated approach facilitates improved consumer protection, effectively stimulates agriculture and the food processing industry, and promotes domestic and international food trade (Codex Alimentarius, 2007).

### **2.3.3 Codex Alimentarius Commission**

The Codex Alimentarius Commission (CAC) is an intergovernmental body that coordinates food standards at the international level. Its main objectives are to protect the health of consumers and ensure fair practices in food trade. The CAC has proved to be most successful in achieving international harmonization in food quality and safety requirements. It has formulated international standards for a wide range of food products and specific requirements covering pesticide residues, food additives, veterinary drug residues, hygiene, food contaminants, labelling etc. These Codex recommendations are used by governments to determine and refine policies and programmes under their national food control system. More recently, Codex has embarked on a series of activities based on risk assessment to address microbiological hazards in foods, an area previously unattended. Codex work has created worldwide awareness of food safety, quality and consumer protection issues, and has achieved international consensus on how to deal with them scientifically, through a risk-based approach. As a result, there has been a continuous appraisal of the principles of food safety and quality at the international level. There is increasing pressure for the adoption of these principles at the national level (Codex Alimentarius, 2007). The constitution of Ghana provides the Ghanaian the right to health and safety. This right is protected through the regulatory work of state institutions such as the Foods and drugs Authority (FDA). Part seven of the Public Act, 2012, Act 851 mandates the food and drugs authority (FDA) to protect the Ghanaian public through the regulation of food, household chemical substances, cosmetics and medical devices. Unsafe food at best will be unpleasant but in the worst case, it could lead to hospitalization or death. The loss of human capital and productivity through the

consumption of unsafe food is therefore a critical regulatory issue. The food safety division (FSD) executes the food and drugs authority's (FDA) mandate to protect public health and safety through the regulation of the food service industry, the control of meat production as well as assuring the safety of genetically modified organisms for food, feed and processing. It also provides technical support to the food industry to promote the production of safe and quality food through the application of contemporary food safety management systems (Codex Alimentarius, 2007).

#### **2.3.4 Food Safety**

Food safety is a vital issue both in developed and developing countries; given that food borne illnesses cause a lot of distress and thousands of deaths each year (Pilling et al., 2008). In view of this, the issue of food safety is becoming a key public health priority considering the large number of people who take their meals outside the home. As a result of this change in lifestyle, many people are exposed to food borne illnesses that originate from food stands, restaurants and other food outlets. Food service employees are a very crucial link between food and consumers (Rahman *et al.*, 2012), as there are high contamination tendencies on their part. Considering the numerous people who patronize food from vendors worldwide, that is about 2.5 billion people (Nyarango *et al.*, 2008). The World Health Organization (WHO) has established five main keys to safer food including keeping clean hands, separating raw and cooked food, cooking thoroughly, keeping food at safe temperatures, and using safe water and raw materials (WHO, 2007). These five keys to safer food are of utmost importance in developing



countries, and equipping caterers with such information could impact significantly on food safety.

Food poisoning occurs from different places, this could be from their homes, work places, schools, hospitals or other catering services patronized. Commercial catering services included hospital caterers, restaurants, hotels, finished products from retailers and food vendors. The Food and Drugs Authority (FDA) is the national regulatory body under the Ministry of Health with the responsibility of implementing food policies and ensuring the safety and wholesomeness of food for consumers. FDA roles include food manufacturing and processing site inspections, licensing, product registration and monitoring. They also provide good hygiene practices training for food handlers. In the light of these efforts it appears that foods served within the restaurants and hotels still do not meet healthy standards.

Attempts have been made severally to classify food-borne disease outbreaks into those contracted from home-made meals and those contracted from restaurants and hotels. In the United States for instance, research has implicated food from commercial or institutional establishments (79%) and 20% from homes. An estimated 25% of these reports could have been avoided by safe food handling practices (Haapala and Probart, 2004). However, as popularly proposed by researchers, identifying the exact number of cases has proven a difficult task as incidents of illnesses are usually underreported (McCarthy, 2007)

### **2.3.5 Food Borne Diseases**

According to studies done in Africa on restaurants foods, their tremendous unlimited and unregulated growth has placed a severe strain on city resources, such as

water, sewage systems and interference with the city plans through congestion and littering adversely affecting daily life (Canet and N'diaye, 1996; Chaulliac and Gerbouin-Renolle, 1996). FAO states that, restaurant foods raise concern with respect to their potential for serious food poisoning outbreaks due to improper use of additives, the presence of adulterants and environmental contaminants and improper food handling practices amongst restaurant operators (FAO, 1997).

The food handler has a vital role to play in food businesses, and that is to guarantee that meals served are hygienic for consumption. Conscious or inadvertent contamination of such foods, places buyers at risk of suffering from food-borne illnesses (Annor & Baiden, 2011). Foods that are usually related with food-borne diseases include salads (potato, tuna, chicken, and macaroni), raw vegetables, bakery products (e.g., cream-filled pastries), sandwich fillings, milk, dairy products and poultry. Most cases of food-borne illness are caused by eating food or drinking water which is contaminated by faeces. In the case of food, the main cause of contamination is often poor personal hygiene among food handlers (Esen & Owusu, 2013). Reliable statistical evidence reveals that 70% of all bacterial food poisoning is caused by caterers whilst the remaining thirty percent can be attributed to cross-contamination (Wilson, 1997).

Over two hundred different diseases have been found to be spread by food. Several factors have been identified as contributory to the transmission of such food-borne diseases. The main ones are as proposed by Paiva de Sousa, (2008) include: i) inadequate food manipulation; ii) improper holding temperatures (failing to properly refrigerate food); iii) inadequate cooking; iv) contaminated equipment (failure to clean and disinfect kitchen or processing plant equipment) and v) poor personal hygiene. Other factors that may contribute to the food-borne illness include: vi) preparing food a day or

more before serving with improper holding and reheating; vii) cross contamination (from raw to cooked products) and viii) adding contaminated ingredients to previously cooked food. In rare cases where infected people seek medical care and submit specimens, bacteria are more likely than other pathogens to be identified as causative agents. Bacterial agents most often identified in patients with foodborne illness are *Campylobacter*, *Salmonella*, and *Shigella* species, with substantial variation occurring by geographic area and season. Testing for viral etiologies of diarrheal disease is rarely done in clinical practice, but viruses are considered the most common cause of foodborne illness (CDC, 2013).

## **2.4 Food Quality Models**

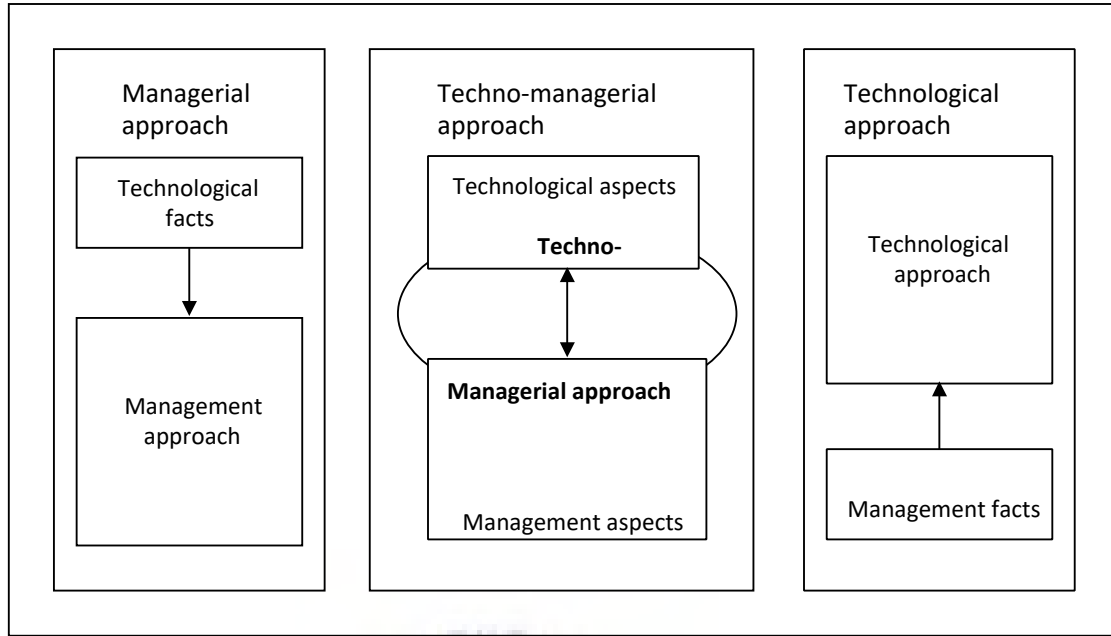
### **2.4.1 Techno-managerial approach for food safety and quality management**

There are many approaches for implementing chain food safety quality control. One, for instance, is an integrated and science-based approach as presented by Sheridan *et al.*, (2006). This approach is based on shared responsibility, the use of HACCP principles/practices and the introduction of leading technologies and detection methods within government and across the food industry. The process involves defining accountabilities more clearly across the entire food continuum and working with partners and stakeholders more closely. Other approaches, such as the FAO approach, as well as the integrated approach of Kailis *et al.*, (2000), focus mainly on elements of general design and operation of hygienic premises, and equipment and training of personnel. However, the techno managerial approach indicated by Luning, *et al.*, (2002) and Poon & Lijanage (2003) ranks highly in solving research problems because there is an integration of managerial and technological sciences.

#### 2.4.2 Techno-managerial approach

Luning, *et al.*, (2002) and Poon & Lijanage (2003) mention that food quality management embraces the integrated use of technological disciplines as well as the integrated use of managerial sciences. The following figure describes three different approaches – the managerial, the technological and techno-managerial approach. They differ in their extent of integration of managerial and technological sciences.

- The managerial approach means that technological aspects are contemplated as facts: we can make everything we want to make. In fact, there are no technological restrictions.
- The technological approach means that management aspects are considered as boundary restrictions: We cannot make everything we want due to technological restrictions.
- The techno-managerial approach encompasses integration of both technological and managerial aspects. Quality problems are considered interactively from both a technological and managerial viewpoint. This approach is suitable for solving seafood quality problems in the restaurants because seafood supply chain problems in general are now faced with technological and managerial restrictions as well as technical and local infrastructure problems. Moreover, a good example of techno-managerial thinking is the HACCP system, wherein critical hazards are controlled by human control and monitoring systems, and consumers' wishes are translated into technological requirements through an intensive and organized collaboration of different departments in the company.



**Figure 2.1** Different approaches to food quality management

In addition, Banati *et al.*, (2002) emphasize in Food Safety and Quality that the ability to integrate technological and managerial knowledge is very important for food safety and quality design, control, improvement, and assurance. With a particular focus on food safety and quality the quality management skills needed are:

- ability to apply the techno-managerial approach in food production processes
- ability to develop and use models for (statistical) quality control
- ability to solve problems
- communication skills, with a focus on stakeholders
- ability to work in multidisciplinary teams

**Quality is a multidimensional concept:** Intrinsic data relating to the product itself are combined with more symbolic data, and each country or social group has its own set of evaluation criteria. According to Cazes-Valette (2001), seven distinct facets could be distinguished to define quality:

- Nutritional quality: the food's overall contribution to a balanced diet.
- Hygienic quality: when the food contains no harmful or toxic substance and is therefore supposedly good for your health.
- Functional quality: if the product is practical to purchase, handle, transport, prepare and use
- Organoleptic quality: the sensory pleasure that the product procures when it is purchased or eaten.
- Social quality: according to how the food position ourselves in terms of belonging to a group or in relation to a reference group.
- Symbolic quality: acceptability by the consumer's cultural background.
- Humanistic quality: if it's grown using environmentally friendly practices or providing farmers a fair price

The reason why imported goods are often perceived as being of lower quality is because of the different importance attached to each component of the overall quality of the good. (e.g. many United States consumers mainly identify quality with food safety, while Europeans tend to define with the same term perhaps less “sterilized” products but embedded with more cultural and environmental attributes). Moreover there is no single international regulation, so even the premises for a united vision of “quality” are lacking.

Quality may also be both identified with sensory capacities (taste, practicality of the product) or just claimed due to the impossibility to check (organic, traditional, local produce, animal welfare, traceable). In this case quality is underpinned by trust in predetermined organic criteria and other information. Therefore consumer goods may be divided into search, experience and credence goods (Nelson, 2010; Darby & Karni,

2013). A good is a search good when the consumer is capable of assessing its quality before buying it, an experience good when the consumer discovers the quality only after consuming it, and a credence good when the consumer never discovers the quality of the good (or does so only in the very long term). Many agro-food goods fall into the "credence" category (Bureau *et al.*, 2009).

Many consumers, especially European, consider that the soil, climate and traditional knowhow that exist in a region have a decisive influence on product quality. In the EU three systems of identification have been implemented:

- PDO (Protected designation of origin): food is produced, processed and prepared in a given geographical area using recognized know-how, when the origin determines the quality of the product.
- PGI (Protected geographical indication): the geographical link must occur in at least one of the stages of production, processing or preparation
- TSG (Traditional specialty guaranteed): does not refer to the origin but highlights traditional character, either in the composition or means of production

Unlike the EU, the US does not have legislation specifically geared towards GI in general (wines are an exception). The US provides property rights protection for GIs through its trademarks legislation. More specifically, GIs like Roquefort cheese and Colombian coffee are protected in the US as certification marks, according to the US trademark Act. The certification mark concept encompasses GIs, but is much broader and, by design, it cannot be used to control supply. Therefore the establishment of farmer owned brands in the US is not widespread, and only very few groups are aware of its

potentials. This stands in sharp contrast with the regulatory environment for GIs in the EU (Hayes *et al.*, 2005).

LIFs on the other hand are distinguished from non-LIFs by the methods used in their production and processing, rather than by observable or testable characteristics. Although there is no single international production regulation, all generally accepted LIF rules reduce or, in some cases, prohibit use of synthetic fertilizers, pesticides, growth regulators, and livestock feed additives, encourage long-term soil management, emphasize animal welfare and extensive record keeping and planning. Intermediate categories of LIFs, such as certified Integrated Pest Management (IPM) in the United States, Low-Chemical foods in Japan, and some classes of Green Food in China, fall short of the strict requirements of organic certification (Lohr, 2000).

Currently, there are numerous systems that growers can adopt to ensure safe food production, which include amongst others Good Agricultural Practices (GAP), Good Manufacturing Practices (GMP), Hazard Analysis Critical Control Points (HACCP), Good Hygiene Practices etc.

One of the GAP systems that have taken off within the European community is Eurep GAP. EUREPGAP was established in 1997 by the Euro-Retailer Produce Working Group (Eurep) with the aim of setting standard and procedures for the development of GAP, and represents the most accredited agricultural practices system worldwide.

There exist a number of models used to measure service quality. These models were developed by different scholars to be used to measure service quality in order to better understand the antecedents and consequences associated with the measurement of



service quality so that an improved model would be designed to achieve a competitive advantage and build customer loyalty (Abdullah, 2006).

## **2.5 The Participation of Staff and employees in Contributing to Food Quality**

### **Management**

In a study conducted by Neill, (1980), the aim of food vendors is to serve acceptable, safe, and nutritious meals to satisfy consumers. To achieve this aim, foods must be handled appropriately to ensure maximum quality and safety, which is the responsibility of all restaurant operators. This review of literature will focus on four main areas: incidence and causes of foodborne illness, food safety practices and enhancing food safety knowledge and strategies to ensure food safety. Correct handling of food during all stages of its preparation and storage is vital in reducing the incidence of foodborne illness (NHMRC, 2003). However, between 10 and 20% of foodborne illness are caused by poor consumer food handling behaviour (Food Authority NSW, 2008).

A systematic review of food safety studies identified that consumers commonly implement unsafe food-handling behaviours during domestic food preparation (Redmond & Griffith, 2003). Therefore increasing knowledge of correct food hygiene practices may be an important factor in changing behaviour. People may believe they are already implementing hygienic behaviours when in fact they are not. For instance; Research in Australia and the USA has suggested that young adults aged 18-29 in particular have less knowledge about food safety and are more likely to engage in risky food hygiene behaviours than other groups (The Food Safety Information Council, 2008).

A systematic review of food safety interventions (Milton & Mullan, 2009) found that they have been predominantly educational, using persuasive messages and targeting knowledge, for example the 'Fight Bac' intervention and 'Now You're Cooking... using a Food Thermometer' (Takeuchi, *et al.*, 2005). The 'Fight Bac' intervention was successful at increasing knowledge of food hygiene compared to non-exposed counterparts, however it only increased actual behaviours, such as defrosting meat in the refrigerator, by approximately 7% (Segura-Pérez, & Damio, 2004).

Few of these previous interventions have based their outcome measures on constructs from theoretical models, which weaken their methodological strength and foundations. In addition, there has been little support that knowledge alone can change behaviour, although the research does suggest that increasing knowledge can make it possible for the consumer to make more informed choices with regard to changing behaviour. Although there have been numerous calls for the development of interventions based on social cognition theory in the area of food safety (Seaman & Eves, 2010), there have in fact been very few theory based studies with the goal of changing consumer's behaviour. One intervention that did target changing behaviour was an observational study by Redmond and Griffith (2003).

The authors used a social marketing intervention (leaflets, posters, TV documentary, and newspaper articles) with the target behaviours including adequate hand washing and changing/washing chopping boards between preparation of raw chicken. Although the intervention was effectively immediately after the implementation, food safety behaviours had decreased at follow-up 4-6 weeks later. This supports the idea that increasing knowledge alone is not enough to change and maintain desired behaviours.

Kretzer and Larson (2008) recommended that when planning a theoretically based intervention for improving infection control practices, factors that have been shown to consistently predict or influence behaviour need to be incorporated into the design, in order to increase the likelihood of success.

## **2.6 Measures to Ensure Food Quality and Consumers Health**

The Educational Foundation of the National Restaurant Association (2009) lists four key areas of food handling practices to ensure food safety. These four areas are: "controlling time and temperature, practicing good personal hygiene, preventing cross-contamination, and purchasing from approved suppliers." Further, training of foodservice employees in food safety and the application of HACCP principles can further ensure safe food handling practices are followed. The FDA and the Educational Testing Service (ETS) began offering a food safety certification examination in 1985 for foodservice managers. There are several reasons why the certification process was established. The incidence of foodborne illness outbreaks in foodservice establishments had been increasing and the efficiency of restaurant food safety inspections was being questioned. Further, the rapid growth of the foodservice industry did not show an increase in surveillance measures conducted by regulatory health agencies due to budget cuts. A more effective method to control food safety was needed (Speer & Kane, 2010).

The certification process was established to upgrade management's knowledge of food safety and emphasized the need for training of foodservice employees in food safety. Specific topics in the certification courses included "basic principles of food safety and sanitation, personal hygiene, facilities construction, regulatory codes and

inspection reports, motivating employees, and others" (Metts & Rodman, 2013). Certification training courses are intended to provide information necessary to train employees in food safety and implement a food safety system. The goal of certification is to establish minimum standards of food safety practice. Certification can also provide foodservice operations with the "reasonable care" defense in the event of a lawsuit (American Food Safety Institute {AFSI}, 2000). Food manager certification is mandated in many states including California, Connecticut, District of Columbia, Delaware, Florida, Idaho, Illinois, Louisiana, Minnesota, North Dakota, Pennsylvania, Utah, and Wisconsin and also may be required by Local County or city authorities. The requirements for certification may vary slightly among different authorities, but most require some type of formal training and the passage of a nationally recognized exam to become certified. Many authorities require a certified food manager on site to renew the foodservice establishments' license. Re-certification is required every three to five years (AFSI, 2000).

For example, in California (CA), steps have been taken to improve the food safety within foodservice establishments. Assembly Bill (AB) 1978, which became effective January 1, 2000, mandates that "every food establishment, catering truck, and commissary that handles unpackaged food must have an owner or employee who has been certified and is knowledgeable in food safety. New technologies, scientific advances, and emerging pathogens make recertification necessary every three years" (CA State Department of Education, Nutrition Services Division {CDOE-NSD}, 2009). The minimum level of knowledge as established by the FDA Food Code has been incorporated into the California Uniform Retail Food Facilities Law (CURFFL) as a

standard for California food safety requirements. Certification is granted upon passage of a nationally recognized exam (CDOE-NSD, 2009).

However, certification is not a guarantee that safe food handling techniques will be followed. Speer and Kane (2010) conducted a study to determine the opinions of state food protection directors in 51 states toward certification. Many believed certification was not effective in improving food safety practices. While over 73% did think certification improved food safety practices in their state, many believed otherwise. The directors who responded negatively stated that many training programs had been tried in their state with little success. It was further stated that managers did not appear to be motivated to put food safety practices into effect, and certification would not change these practices. Although they felt the managers had basic food safety knowledge, they did not follow through. Motivation is the problem, and unless foodservice employees want to practice safe food handling techniques, the current situation will show no improvement (Speer & Kane, 2010).

According to this study, barriers to certification were time and money due to tight budgets and the perceived burden of certification programs. Also, the realness of a state was a barrier to certification. The ability to coordinate a state-wide program in these states would be difficult due to sparse populations and distances between towns. Penninger and Rodman (2014) found certification of managers improved food safety conditions in 20 foodservice facilities surveyed. Nine had voluntary certification programs in which 28.6% of managers were certified. Eleven had mandatory certification programs in which 83.6% of managers were certified. "Ninety-one percent of the directors from the mandatory programs stated that inspection scores improved with

certification of managers, as opposed to only 33.3% of directors from voluntary programs who stated this." Failure to monitor or follow standard procedures in food safety is a principal cause of foodborne illness today. However, a shortage of qualified foodservice personnel throughout the nation makes this task even harder. The increasingly complex task of preventing foodborne illness often is encumbered upon employees who are younger than in years past, less experienced, and less motivated (Zuckerman, 2008).

## **2.7 Food Safety Practices among Hotel Cooks**

The potential for a foodborne illness outbreak is possible in any restaurant operations system. In May of 1990 in Rhode Island, a staphylococcal outbreak occurred in an elementary centralized school foodservice system. Of the 600 lunches served, 100 children reported becoming ill after consuming the lunch. The cause of the outbreak was a foodservice employee who was infected with *S. aureus*. The employee had "removed the casings from two of nine warm ham rolls hours prior to service. Because of improper refrigeration, prolonged handling, and inadequate re-heating, the ham was held at temperatures estimated at 50-120 degrees F for a minimum of 15 hours" (Richards et al., 2003).

In another study, data were collected in 10 school foodservices that prepared food in a central kitchen and transported meals to satellite kitchens. The conditions and practices that might affect the safety of the food were observed. Hand washing facilities were available in the food production areas in most of the kitchens. However, poor hand washing practices were observed among most of the employees. Picking up food with hands to eat was observed as well as eating and drinking during food preparation (Brown *et al.*, 2012). Food safety abuses related to time-temperature procedures also were

observed. Five entrees in four of the school systems were held over one hour between preparation and the start of transportation. The transportation time for three entrees in two large foodservice systems exceeded one hour. In seven school systems, some of the entrees were held more than one hour between the end of transportation and the start of service. Two entrees, "macaroni and cheese and charbroiled beef, were held for 4.29 and 3.85 hours respectively from end of production to end of service." However, the holding temperatures for these entrees were 140 degrees F or above. Nine of the 20 entrees showed internal temperatures between 40-140 degrees F during hot holding (Brown *et al.*, 2012).

In a study by Connors, Bednar, Imhran, & Czajka-Narins (1999) a HACCP inspection was conducted to determine milk handling practices in 32 elementary schools in Texas. The results indicated that the milk temperatures were generally within the recommended 32 to 41 degree F range. However, inspection of individual kitchens found milk temperatures that were above 41 degrees F. Milk was ordered from an approved source for all schools. Many of the schools did not inspect the milk received or record temperatures upon delivery (Connors *et al.*, 1999). Gilmore, Brown, & Dana (1998) conducted a study in which data collection forms for measuring food quality were developed. Four schools with enrollments ranging from 862 to 40,265 students provided the data. Sanitation practices were evaluated in each kitchen where food was prepared. They found that hair was not fully restrained and hand washing was infrequently observed. However, when hand washing was performed it was done thoroughly. Hand washing and changing of gloves was evident in 50% of the observations. Frozen foods were thawed properly and foods were handled with utensils, clean hands, or gloves.

Sanitizing of surfaces, small equipment, utensils, and thermometers tended to be performed consistently or not at all. Work surfaces were cleaned between uses and surfaces of small equipment appeared clean (Gilmore *et al.*, 2008).

In a study by Spencer (2006), hazard analyses were conducted in six food preparation sites and 16 school canteens in the State of Bahrain. Hazards were primarily associated with the "preparation of foods too far in advance of service, bare handling of food items, and holding food items at room temperature for extended periods of time. Re-heating of foods was not observed" (Ali & Spencer, 2006). Raccach, Morrison, & Farrier (2005) conducted an analysis of public health hazards in a centralized school foodservice operation. "Food handling, personnel, equipment, storage, preparation, holding, distribution, serving, cleaning, and sanitation were observed." The researchers found that foods were stored at appropriate cold storage conditions and were rotated on a "first in first out" basis. Stored foods also were covered to protect them from overhead contamination. However, employees did a large amount of handling during food preparation. Employees used bare hands to prepare foods and only two employees were observed using gloves. Further, hair restraints were not used by employees. Cooking equipment was scraped from food items and hand cleaned, but not sanitized. During service, students picked up uncovered silverware from trays and sneeze guards were not used (Raccach *et al.*, 2005).

Kim and Shanklin (2009) conducted a study in three Midwestern elementary schools which were converting their food production system from centralized conventional to a centralized cook-chill system. Time and temperature histories were taken for three days for the two food production systems for spaghetti with meat sauce.



They found that for both systems food items were re-heated several hours before service and held in a steam table or hot cart until service due to time and equipment constraints. The average temperatures for the spaghetti with meat sauce served for lunch ranged from 118F to 143F.

## **2.8 The Benefits of Ensuring Quality Food to Customers in the Hospitality Business**

### **2.8.1 Food safety, quality and consumer protection in the hospitality business**

The terms food safety and food quality can sometimes be confusing. Food safety refers to all those hazards, whether chronic or acute, that may make food injurious to the health of the consumer. It is not negotiable. The foremost responsibility of food control is to enforce the food law(s) protecting the consumer against unsafe, impure and fraudulently presented food by prohibiting the sale of food not of the nature, substance or quality demanded by the purchaser. Confidence in the safety and integrity of the food supply is an important requirement for consumers. Food borne disease outbreaks involving agents such as *Escherichia coli*, *Salmonella* and chemical contaminants highlight problems with food safety and increase public anxiety that modern farming systems, food processing and marketing do not provide adequate safeguards for public health. Factors which contribute to potential hazards in foods include improper agricultural practices; poor hygiene at all stages of the food chain; lack of preventive controls in food processing and preparation operations; misuse of chemicals; contaminated raw materials, ingredients and water; inadequate or improper storage, etc. Specific concerns about food hazards have usually focused on:

1. Microbiological hazards;

2. Pesticide residues;
3. Misuse of food additives;
4. Chemical contaminants, including biological toxins; and
5. Adulteration.

The list has been further extended to cover genetically modified organisms, allergens, veterinary drugs residues and growth promoting hormones used in the production of animal products. Consumers expect protection from hazards occurring along the entire food chain, from primary producer through consumer (often described as the farm-to-table continuum). Protection will only occur if all sectors in the chain operate in an integrated way, and food control systems address all stages of this chain. As no mandatory activity of this nature can achieve its objectives fully without the cooperation and active participation of all stakeholders e.g. farmers, industry, and consumers, the term Food Control System is used in these Guidelines to describe the integration of a mandatory regulatory approach with preventive and educational strategies that protect the whole food chain (Adesiyun, 2003).

Thus an ideal food control system should include effective enforcement of mandatory requirements, along with training and education, community outreach programmes and promotion of voluntary compliance. The introduction of preventive approaches such as the Hazard Analysis Critical Control Point System (HACCP), have resulted in industry taking greater responsibility for and control of food safety risks. Such an integrated approach facilitates improved consumer protection, effectively stimulates agriculture and the food processing industry, and promotes domestic and international food trade (Adesiyun, 2003).

### **2.8.2 Quality food control management techniques**

Effective food control systems require policy and operational coordination at the national level. While the detail of such functions will be determined by the national legislation, they would include the establishment of a leadership function and administrative structures with clearly defined accountability for issues such as: the development and implementation of an integrated national food control strategy; operation of a national food control programme; securing funds and allocating resources; setting standards and regulations; participation in international food control related activities; developing emergency response procedures; carrying out risk analysis; etc. Core responsibilities include the establishment of regulatory measures, monitoring system performance, facilitating continuous improvement, and providing overall policy guidance (Gessner and Beller, (2004))

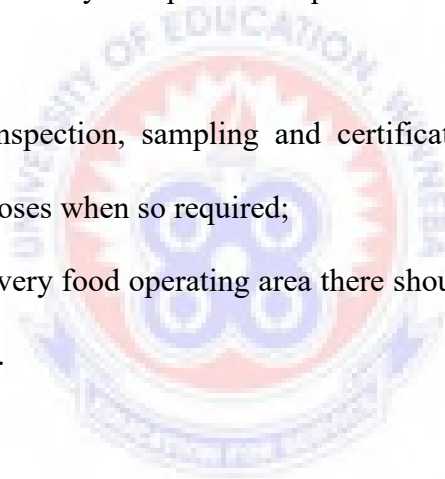
### **2.9 The Administration and Implementation of Food Laws**

The administration and implementation of food laws require a qualified, trained, efficient and honest food inspection service. The food inspector is the key functionary who has day-to-day contact with the food industry, trade and often the public. The reputation and integrity of the food control system depends, to a very large extent, on their integrity and skill. The responsibilities of the inspection services include:

1. Inspecting premises and processes for compliance with hygienic and other requirements of standards and regulations;
2. Evaluating HACCP plans and their implementation;

3. Sampling food during harvest, processing, storage, transport, or sale to establish compliance, to contribute data for risk assessments and to identify offenders;
4. Recognizing different forms of food decomposition by organoleptic assessment ; identifying food which is unfit for human consumption; or food which is otherwise deceptively sold to the consumer; and taking the necessary remedial action;
5. Recognizing, collecting and transmitting evidence when breaches of law occur, and appearing in court to assist prosecution;
6. Encouraging voluntary compliance in particular by means of quality assurance procedures;
7. Carrying out inspection, sampling and certification of food for import/export inspection purposes when so required;

In conclusion every food operating area there should be food quality management practice in the industry.



## **CHAPTER THREE**

### **METHODOLOGY AND METHODS**

#### **3.0 Introduction**

This chapter is organized under the following headings: research design, research approach, data collections and techniques, sources of data collections, population of study, sample size and analysis of data.

#### **3.1 Research Design**

A research design provides a framework for the collection and analysis of data. A choice of research design reflects decisions about the priority been given to set of dimensions of the research process. The researcher used descriptive research design for the study. This refers to a research which specifies the nature of a given phenomena. It determines and reports the way things are done (Kerlinger, 1986). Descriptive research thus involves collecting data in order to test hypotheses or answer research questions concerning the current status of the subject of the study (Kerlinger, 1986). The researcher used both qualitative and quantitative type of research design. These types of research were used because it eventually enables the researcher to make judgment about the effectiveness, relevance or desirability of the programme.

#### **3.2 Research Approach**

According to Halvorsen (1992), there are two approaches that can be used in conducting a study as the qualitative method and the quantitative method. The research adopted qualitative research and quantitative research approach.

### **3.2.1 Qualitative research**

Qualitative research methods focus on providing a complete picture of the situation with the aim of increasing the understanding of social processes and interrelations. It is defined as a research to explore and understand the opinions and strive for in-depth understanding of different kind of findings in library research (Arezu&Alireza, 2006).The study uses largely the qualitative approach. The study adopts this approach based on its effectiveness in helping to understand the factors under study, and its suitability for the purposes of addressing the research questions.

### **3.2.2 Quantitative research**

Quantitative research is seen as an extreme of empiricism in which theories are not only justified by the extent to which they can be verified, but also by an application of facts acquired (Amaratunga et al., 2002). A quantitative research was used in coming up with the sample size for the study. The researcher analyzes the data with the help of statistics. The researcher is hoping the numbers will yield an unbiased result that can be generalized to some larger population.

### **3.3 Study location**

The Kumasi Metropolitan is one of the 30 administrative districts in the Ashanti Region. The 2010 Population and Housing Census is the first census that has been conducted by the Ghana Statistical Service and has prepared a report for the KMA. The objective of this report is to share with the general public, policy makers and researchers

the key findings about KMA obtained from the 2010 Population and Housing Census (PHC).

Kumasi became the capital city of the new Asante State built from a voluntary amalgamation of about a dozen city states. The Asanteman Traditional Council, the traditional governing authority of the old Asante Kingdom, was restored by the British Colonial Authority in 1935 and Kumasi became the seat of the Council though without political powers which were kept by the British Colonial Government with its seat in Accra (Adu-Boahen, 1965).

Until 1995 the Metropolis was known as the Kumasi City Council. Its beautiful layout and greenery accorded it the accolade of being the “Garden City of West Africa”. It grew outwardly from Adum, Krobo and Bompata in a concentric form to cover an area of approximately ten (10) kilometers in radius. The direction of growth was originally along the arterial roads due to the accessibility they offered resulting in a radial pattern of development.

Today, KMA is the second largest most populous city in the country, next to the national capital (Accra). Its strategic location has also endowed it with the status of the principal inland transport terminal, thus giving it a pivotal role in the vast and profitable business of the distribution of goods in Ghana and beyond to other West African countries.

The physical features of the Metropolis are made up of the natural environment (climate, vegetation, relief and drainage), location and size. Together, with the social and cultural environment they determine the conditions under which the people live, develop and grow and ultimately derive their quality of life. The physical and natural environment

is therefore an essential element or factor contributing to the socio-economic development of the Metropolis.

Kumasi Metropolis is one of the thirty (30) districts in Ashanti Region. It is located between Latitude 6.35°N and 6.40°S and Longitude 1.30°W and 1.35°E and elevated 250 to 300 meters above sea level. The Metropolis shares boundaries with Kwabre East and Afigya Kwabre Districts to the north, Atwima Kwanwoma and Atwima Nwabiagya Districts to the west, Asokore Mampong and Ejisu-Juaben Municipality to the east and Bosomtwe District to the south. It is approximately 270km north of the national capital, Accra. It has a surface area of approximately 214.3 square kilometers which is about 0.9 percent of the region's land area. However, it accommodates about 36.2 percent of the region's population.

Finally, Miklin Hotel is located in Danyame a suburb of Kumasi Metropolis.

Source: (Ghana Statistical Service, 2016)

### **3.4 Population and Sampling**

#### **3.4.1 Population of the study**

Bryman *et al.*, (2003) describe a study population as the whole group that the research focuses on. In order to achieve the objectives of this research, the research population was chosen to include management and customers of Miklin Hotel. The total population of the study is 76. This includes Cooks and customers. The hotel enjoys patronage from numerous clientele. According to the human resource manager customers keep coming everyday which makes it difficult for them to give exact number of customers and he said it is against industry policy to disclose customer base.



### **3.4.2 Sampling Procedure and Sample Size**

Sampling technique is the statistical tool for selecting a fraction or percentage of a group of people to represent the total or entire population (McDaniel and Gates, 1998). This allowed the researchers select respondents who had the capacity to handle the issue being studied. Random sampling method was adopted for the study. The study used this sampling technique to allow the researchers to choose or select the respondents randomly. The ever increasing need for a representative statistical sample in empirical research has created the demand for an effective method of determining sample size. To address the existing gap, Krejcie & Morgan (1970) came up with a table for determining sample size for a given population for easy reference. According to the Krejcie & Morgan (1970), table of determining sample size, a population of 76 requires a sample size of 63. In view of this, a sample size of sixty three (63) was chosen for the study. This includes 10 cooks and 53 customers. The researcher approached the cooks in their kitchens with the designed questionnaires and they filled the questionnaire at their leisure period. Moreover, one questionnaire was deposited on each dining table for the customers to fill.

### **3.5 Sources of Data Collection**

Kotler & Keller (2006) identified two main sources of data collection namely, primary data and secondary data.

### **3.5.1 Primary data**

Primary data are data freshly gathered for a specific purpose or for a specific research project. The primary data was derived from the respondents through the distribution of questionnaires.

### **3.5.2 Secondary data**

The secondary data are data that was used to collect for another purpose and already exist somewhere (Kotler & Keller, 2006). The secondary data was derived from the findings stated in published documents and literatures related to the research problem. These were based from the recent literatures related to green marketing and the concepts cited by the respondents. The researcher also made use of other secondary information such as already researched materials on the subject matter from journals, magazines, book, the internet and news broadcast. In this study both the secondary and primary data were used. The secondary data helped the researcher to examine variety of information already existed to whether problem could partly or wholly be solved; articles "reports journals and the internet would use. The primary data were obtained based on questionnaire.

### **3.6 Data Collection Techniques**

The researcher used structure questionnaire for the study. The questionnaire was designed for the management and staff of Miklin Hotel. Items on the questionnaire were structured to consist of close-ended and open ended questions. The open-ended questions

were used to encourage the interviewees to provide an extensive answers and obtained facts about the research (Grummitt, 1980).

### **3.6.1 Questionnaires**

The researcher used questionnaire to obtain information from respondents of Miklin Hotel. Items on the questionnaire were structure to consist of close-ended and open ended questions. Close-ended questions were used to provide a “yes” or “no” response in other to give appropriate answers to the research questions. The open-ended questions were used to encourage the interviewees to provide an extensive answers and obtained facts about the research (Grummitt, 1980). The questionnaires were given to management and staff of Miklin Hotel to obtain the needed information. Moreover, questionnaires were designed for the study. The questionnaire consisted of four sections. Sections 1 contain the demographic information of the respondents, including the respondent’s gender, age and highest qualification. Section 2 investigated the participation of staff and employees in contributing to food quality management. Section 3 identified the link between food quality and customer satisfaction and section 4 assessed the benefits of ensuring food quality in the hospitality business.

### **3.6.2 Interviews**

The researcher conducted face to face interviews with the general manager and human resources manager. This is to obtain further information and also ascertain their commitment to providing food quality services to customers. Interviews help for better supervision of how questions are answered. And also solves the problem or

misunderstanding of questions. That is to say that, interviews allows for probing, prompting, and clarification of answers.

### **3.7 Analysis of Data**

Computer software program would use in analysing the responses obtained from the questionnaires administered. The data would code and entered into the computer database. The data would analyse use Statistical Package for the Social Science (SPSS) software version 12.0 for MS Windows. 95.5 percent valid responses would analyse. Variables of interest included in the analysis would gender, age, marital status, and position. Respondents would categorize into age groups of 18-25, up to 70years.

### **3.7 Ethical Consideration**

The researcher followed and maintained relevant ethical issues. All ethical issues were followed and maintained by the researcher include-honesty, integrity, acknowledgment, confidentiality, objectivity and fairness. The researcher has acknowledged all previous works that have been used in this research report. In similar ways, the researcher followed and maintained other relevant ethical during the collection of primary and secondary data and information from the parties involved in this study.

## CHAPTER FOUR

### RESULTS AND DISCUSSION

#### 4.1 Analysis of Customer's Questionnaires

The study selected 53 customers from the Miklin Hotel and used them as respondents for the study. Out of 53 questionnaires sent out for primary data, 53 questionnaires were retrieved. This indicates that the analysis of the study was based on 100% response rate.

#### 4.2 Demographic Information of the Respondents

This section contains Tables, frequencies and percentages that depicts the respondent's gender, age, educational qualification, occupation and frequency of dining outside home.

**Table 4.1: Gender of Respondents**

Gender of Respondents	Frequency	Percent
Male	38	71.7
Female	15	28.3
<b>Total</b>	<b>53</b>	<b>100.0</b>

**Source:** Field Survey, (2016)

Table 4.1 shows that majority (71.7%) of the respondents were males and 28.3% were females. The study revealed that more males patronise the hotel restaurants foods than females.

**Table 4.2: Age of the Respondents**

<b>Age of the Respondents</b>	<b>Frequency</b>	<b>Percent</b>
19-29 years	9	17.0
30-39 years	16	30.2
40-49 years	14	26.4
50-59 years	9	17.0
60-69 years	2	3.8
above 70 years	3	5.7
<b>Total</b>	<b>53</b>	<b>100.0</b>

**Source:** Field Survey, (2016)

Table 4.2 indicates that 30.2% of the respondents were between the ages 30-39 years, 26.4% were between the ages 40-49 years, 17% were between the ages 19-29 years and 50-59 years respectively, 5.7% were above 70 years and 3.8% were between the ages 60-69 years.

**Table 4.3: Educational Qualification of Respondents**

<b>Educational qualification</b>	<b>Frequency</b>	<b>Percent</b>
Diploma	5	9.4
Bachelor's degree	14	26.4
Masters degree	34	64.2
<b>Total</b>	<b>53</b>	<b>100.0</b>

**Source:** Field Survey, (2016)

Table 4.3 indicates that 64.2% of the respondents were Master’s degrees holders, 26.4% were Bachelor’s degrees holders and 9.4% were Diploma qualification holders.

**Table 4.4: Occupation of Respondents**

<b>Occupation of Respondents</b>	<b>Frequency</b>	<b>Percent</b>
Managerial Office worker	36	67.9
Student	6	11.3
Entrepreneur/self-employed	6	11.3
Retiree	5	9.4
<b>Total</b>	<b>53</b>	<b>100.0</b>

**Source:** Field Survey, (2016)

Table 4.4 indicates that 67.9% of the respondents were managerial office workers, 11.3% were students and entrepreneur/self-employed and 9.4% were retiree.

**Table 4.5: Frequency eating outside home**

<b>How many times have you been eating outside home?</b>	<b>Frequency</b>	<b>Percent</b>
4 times	10	18.9
5 or more	43	81.1
<b>Total</b>	<b>53</b>	<b>100.0</b>

**Source:** Field Survey, (2016)

Table 4.5 shows that 81.1% of the respondents confirmed that they have eaten outside home more than 5 times while 18.9% said that they have eaten outside home 4 times.

### 4.3 Customer’s Perceptions Regarding Food quality at the Miklin Hotel

Table 4.6 shows the customers perception regarding food quality at the hotel.

**Table 4.6: Customers Perceptions Regarding Food Quality**

<b>Customers Perceptions Regarding Food quality</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>Total</b>
	<b>Freq.</b>	<b>Freq.</b>	<b>Freq.</b>	<b>Freq.</b>	<b>Freq.</b>	<b>Freq.</b>
	<b>(%)</b>	<b>(%)</b>	<b>(%)</b>	<b>(%)</b>	<b>(%)</b>	<b>(%)</b>
The food has good taste and aroma	-	-	9 (17%)	34 (64.2%)	10 (18.9%)	53 (100%)
The food is healthy and has good flavour	3 (5.7%)	4 (7.5%)	10 (18.9%)	25 (47.2%)	11 (20.8%)	53 (100%)
Food presentation is good	4 (7.5%)	5 (9.4%)	5 (9.4%)	33 (62.3%)	6 (11.3%)	53 (100%)
Freshness of the food (e.g. raw fish)	-	-	10 (18.9%)	37 (69.8%)	6 (11.3%)	53 (100%)
Efficiency of service	-	-	6 (11.3%)	24 (45.3%)	23 (43.4%)	53 (100%)
Cleanliness & hygiene	-	-	5 (9.4%)	32 (60.4%)	16 (30.2%)	53 (100%)
Variety of menu (e.g. vegetarian menu)	-	-	6 (11.3%)	38 (71.7%)	9 (17%)	53 (100%)

1=Extremely undesirable 2= Somewhat undesirable 3=Neutral 4=Somewhat desirable  
5=Extremely desirable

**Source:** Field Survey, (2016)

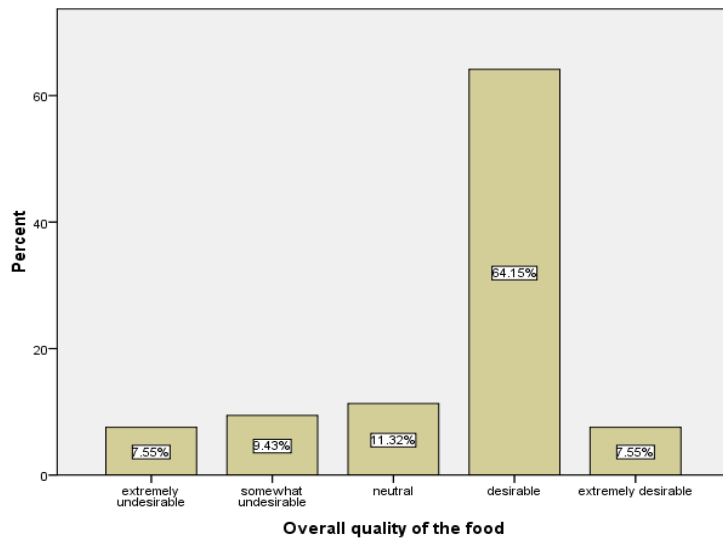
Table 4.6 affirmed that 83.1% of the respondents said that the taste and aroma of the food is desirable whiles 17% were neutral. Taste appeared to be a crucial factor in making decision about food choice and eating behaviour among customers in many studies. (Brug & Klepp, 2007; Neumark-Sztainer *et al.*, 2009). For example, results from



a focus group of American adolescents identified that taste was mentioned the most frequently and extensively when they talked about why they eat specific foods (Neumark-Sztainer *et al.*, 2009).

The study shows that 68% of the respondents affirmed that healthiness and flavour of the food is desirable, 18.9% of the respondents were neutral, while 13.2% of the respondents said the healthiness and flavour of the food is undesirable. The study revealed that 73.6% of the respondents affirmed that the presentation of the food is desirable, 16.9% of the respondents said that the presentation of the food is undesirable and 9.4% of the respondents were neutral. The study revealed that 81.1% of the respondents affirmed that the freshness of the food is desirable while 18.9% were neutral. The study shows that 88.7% of the respondents believed that the efficiency of service is desirable while 11.3% of the respondents were neutral. Moreover, 88.7% of the respondents said that the variety of menu is desirable while 11.3% were neutral. The findings of the study revealed that 90.6% of the respondents affirmed that the cleanliness and hygiene of the cooks were desirable while 9.4% were neutral. This agrees with Adesiyun, (2003), Consumers expect protection from hazards occurring along the entire food chain, from primary producer through consumer (often described as the farm-to-table continuum). Protection will only occur if all sectors in the chain operate in an integrated way, and food control systems address all stages of this chain. As no mandatory activity of this nature can achieve its objectives fully without the cooperation and active participation of all stakeholders e.g. farmers, industry, and consumers.

Figure 4.1 shows the respondents perceptions regarding the overall quality of the food.



**Figure 4.1: Overall quality of the food**

**Source:** Field Survey, (2016)

Figure 4.1 shows that 71.7% of the respondents said that the overall quality of the food is desirable, 16.9% of the respondents affirmed that the overall quality of the food is undesirable and 11.3% of the respondents were neutral. This agreed with the research conducted by Codex Alimentarius, (2007), the finding asserted that, this distinction between safety and quality has implications for public policy and influences the nature and content of the food control system most suited to meet predetermined national objectives.

Food control is defined as:

*....a mandatory regulatory activity of enforcement by national or local authorities to provide consumer protection and ensure that all foods during production, handling, storage, processing, and distribution are safe, wholesome and fit for human consumption; conform to safety and quality*

*requirements; and are honestly and accurately labelled as prescribed by law*  
(Codex Alimentarius, 2007).

#### 4.4 Food quality and customer satisfaction in the Miklin Hotel

Table 4.7 indicates the impact of food quality on customer satisfaction

**Table 4.7: Food quality and customer satisfaction**

<b>Food quality and customer satisfaction</b>	<b>Frequency</b>	<b>Percent</b>
Extremely satisfied	16	30.2
Somewhat satisfied	12	22.6
Somewhat unsatisfied	20	37.7
Extremely unsatisfied	5	9.4
<b>Total</b>	<b>53</b>	<b>100.0</b>

**Source:** Field Survey, (2016)

Table 4.7 indicates that after the dining experience, 52.8% of the respondents affirmed that they were satisfied with the quality of the food while 47.2% of the respondents said that they were unsatisfied with the quality of the food. The foremost responsibility of food control is to enforce the food law(s) protecting the consumer against unsafe, impure and fraudulently presented food by prohibiting the sale of food not of the nature, substance or quality demanded by the purchaser (Codex Alimentarius, 2007).

#### 4.5 The Benefits of Providing Quality Food to Customers in the Hospitality Business

Table 4.8 depicts the benefits of ensuring quality food to customers in the hospitality business

**Table 4.8: Respondent’s views on the benefits of providing quality food to customers**

<b>The benefits of ensuring food quality</b>	<b>Frequency</b>	<b>Percent</b>
improvement in customer satisfaction	27	50.9
customers come back to do business	14	26.4
increase in profitability	5	9.4
good organisational reputation	3	5.7
improves consumers health	4	7.5
<b>Total</b>	<b>53</b>	<b>100.0</b>

**Source:** Field Survey, (2016)

Table 4.8 indicates that 50.9% of the respondents said that the providing quality food improves customer satisfaction, 26.4% of the respondents said that food quality enhances repeat business, 9.4% affirmed that providing quality food increase the hotels profitability, 7.5% said that quality food improves consumers health and 5.7% said that providing quality food enhances the hotel’s reputation. This agreed with Codex Alimentarius, (2007), that asserted that confidence in the safety and integrity of the food supply is an important requirement for consumers and improves organizational reputation.

## Results of the Qualitative study

### 4.6 Analysis of Cooks Questionnaires

The study chose 10 cooks from the hotel and used them as sample for the study. Out of 10 questionnaires sent out for primary data, 10 questionnaires were retrieved. This indicates that the analysis of the study was based on 100% response rate.

#### 4.6.1 The participation of cooks in contributing to food quality management.

Table 4.9 shows the participation of cooks in contributing to food quality management.

**Table 4.9: The participation of cooks in contributing to food quality management.**

<b>The participation of cooks in contributing to food quality management.</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>Total</b>
	<b>Freq.</b>	<b>Freq.</b>	<b>Freq.</b>	<b>Freq.</b>	<b>Freq.</b>	<b>Freq.</b>
	<b>(%)</b>	<b>(%)</b>	<b>(%)</b>	<b>(%)</b>	<b>(%)</b>	<b>(%)</b>
The cooks must participate and contribute to food quality management by washing their hands properly and frequently to avoid food contamination	5 (50%)	5 (50%)	-	-	-	10 (100%)
The cooks must participate and contribute to food quality management by wearing clean and proper uniforms	3 (30%)	7 (70%)	-	-	-	10 (100%)
The cooks must participate and contribute to food quality management by using disposable tissues	4 (40%)	6 (60%)	-	-	-	10 (100%)
The cooks must participate and contribute to food quality management by providing hygienic food to customers	5 (50%)	5 (50%)	-	-	-	10 (100%)
The cooks must participate and contribute to food quality management by practicing proper Personal hygiene practices to improve food quality and consumers health	6 (60%)	4 (40%)	-	-	-	10 (100%)

**1- Strongly agree, 2-Agree, 3-Undecided, 4-Disagree, 5-Strongly disagree**

**Source:** Field Survey, (2016)

The study shows that 100% of the respondents agreed that the cooks must participate and contribute to food quality management by using disposable tissues. Table 4.9 shows that 100% of the respondents agreed that the cooks must participate and contribute to food quality management by wearing clean and proper uniforms. The study results revealed that 100% of the respondents agreed that the cooks must participate and contribute to food quality management by providing hygienic food to customers. The findings shows that 100% of the respondents agreed that the cooks must participate and contribute to food quality management by practicing proper Personal hygiene practices to improve food quality and consumers health. The study results revealed that 100% of the respondents agreed that the cooks must participate and contribute to food quality management by washing their hands properly and frequently to avoid food contamination. Gilmore, Brown, & Dana (1998), conducted a study in which data collection forms for measuring food quality were developed. Four schools with enrollments ranging from 862 to 40,265 students provided the data. Sanitation practices were evaluated in each kitchen where food was prepared. They found that hair was not fully restrained and hand washing was infrequently observed. However, when hand washing was performed it was done thoroughly. Hand washing and changing of gloves was evident in 50% of the observations.

## CHAPTER FIVE

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 Summary

The purpose of the study was to investigate the food quality management practice in hospitality industry, using Miklin Hotel Kumasi as a case study. The researcher used descriptive research design for the study. The research used both qualitative and quantitative research approach for the study. The total population of the study was 76. Random sampling method was used to select 63 respondents for the study. Primary and secondary data sources were used for the study. The main instrument used for data collection was questionnaire. The collected data was coded and entered into the computer database. The data was analysed using Statistical Package for the Social Science (SPSS) software version 12.0 for MS Windows. The findings of the study were presented using Tables, frequencies, percentages and charts.

#### 5.2 Key Findings of the Study

##### 5.2.1 Customers Satisfaction Regarding Food quality

The study affirmed that 83.1% of the respondents said that the taste and aroma of the food is desirable. Moreover, 68% of the respondents affirmed that healthiness and flavour of the food is desirable. Also, the study revealed that 73.6% of the respondents affirmed that the presentation of the food is desirable. To add more, 81.1% of the respondents affirmed that the freshness of the food is desirable. The study shows that 88.7% of the respondents believed that the efficiency of service is desirable. The findings of the study revealed that 90.6% of the respondents affirmed that the cleanliness and

hygiene of the cooks were desirable. Moreover, 88.7% of the respondents said that the variety of menu is desirable. The study shows that 71.7% of the respondents said that the overall quality of the food is desirable.

### **5.2.2 Food quality and customer satisfaction**

The study indicates that after the dining experience, 52.8% of the respondents affirmed that they were satisfied with the quality of the food.

### **5.2.3 The benefits of providing quality food to customers**

The study indicates that 50.9% of the respondents said that providing quality food improves customer satisfaction, 26.4% of the respondents said that food quality enhances repeat business, 9.4% affirmed that providing quality food increase the hotels profitability, 7.5% said that quality food improves consumers health and 5.7% said that providing quality food enhances the hotel's reputation.

### **5.2.4 The participation of cooks in contributing to food quality management.**

The study shows that 100% of the respondents agreed that the cooks must participate and contribute to food quality management by using disposable tissues. Moreover, 100% of the respondents agreed that the cooks must participate and contribute to food quality management by wearing clean and proper uniforms. The study results revealed that 100% of the respondents agreed that the cooks must participate and contribute to food quality management by providing hygienic food to customers. The findings shows that 100% of the respondents agreed that the cooks must participate and contribute to food quality management by practicing proper Personal hygiene practices to



improve food quality and consumers health. The study results revealed that 100% of the respondents agreed that the cooks must participate and contribute to food quality management by washing their hands properly and frequently to avoid food contamination.

### **5.3 Conclusions**

The study concluded that the taste and aroma of the food, healthiness and flavour of the food, the presentation of the food, the freshness of the food, the efficiency of service, the cleanliness and hygiene of the cooks were desirable. Moreover, the variety of menu and the overall quality of the food are desirable. Providing quality food improved customer satisfaction, enhanced repeat business, increased the hotels profitability, improved consumer's health and enhanced the hotel's reputation. Moreover, the cooks must participate and contribute to food quality management by using disposable tissues, wearing clean and proper uniforms, providing hygienic food to customers, practicing proper Personal hygiene practices, wash their hands properly and frequently to avoid food contamination.

### **5.4 Recommendations**

According to the conclusion remarks stated above, the researcher recommended that;

1. The management of the hotel should organize periodic seminars and workshops to train cooks regarding the modern methods of storing and preserving food to avoid food contamination at the hotel restaurant.

- 2- There is the need to improve constant supervision of the food quality to ensure that quality food is readily available to customers to improve repeat purchase.
- 3- The management of the hotel must review their policies regarding customer safety to ensure that safe and quality foods are provided to customers to improve consumer's health.

### **5.5 Suggestions for Further Research**

Based on the recommendations of the study, the researcher recommended that a similar study should be embarked upon to investigate the impact of food safety on consumer's health, using all the hotels in the Kumasi Metropolis as a case study.



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## APPENDIX A

### QUESTIONNAIRE FOR THE COOKS AT MIKLIN HOTEL

The researcher is a product of UEW, Kumasi Campus conducting a piece of research to investigate the food quality management practice in hospitality industry, using Miklin Hotel Kumasi as a case study. I respectfully request that you form part of this research by completing the attached questionnaire. It is my fervent hope that you participate in the study. May I thank you for your valuable cooperation.

#### Section A: Demographic Information of the Customers

1. Gender:      female       male
2. Age: below 18 years  19-29 years  30-39 years  40-49 years  50-59 years   
]      60-69 years  above 70 years
3. Education background:  
Never  BECE  SSSCE/WASSCE  NVTI  Diploma  Bachelors' degree   
Masters' degree  PhD

#### SECTION B: The participation of cooks in contributing to food quality management.

Please use the following Likert scale to assess the participation of staff and employees in contributing to food quality management at the Miklin Hotel.

1- Strongly agree, 2-Agree, 3-Undecided, 4-Disagree, 5-Strongly disagree

<b>The participation of hotel Cooks in contributing to food quality management.</b>	1	2	3	4	5
4. The cooks must participate and contribute to food quality management by washing their hands properly and frequently to avoid food contamination					
5.The cooks must participate and contribute to food quality management by wearing clean and proper uniforms					
6.The cooks must participate and contribute to food quality management by using disposable tissues					
7.The cooks must participate and contribute to food quality management by providing hygienic food to customers					
8.The cooks must participate and contribute to food quality management by practicing proper Personal hygiene practices to improve food quality and consumers health					

**Section C: The link between food quality and customer satisfaction in theMiklin**

**Hotel**

9. What is the link between food quality and customer satisfaction?

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**SECTION D: The benefits of ensuring food quality in the hospitality business**

10. What are the benefits of ensuring food quality in the hospitality business?

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Thank you so much for your time and cooperation!



## APPENDIX B

### Questionnaire for the Customers

The researcher is a product of UEW, Kumasi Campus conducting a piece of research to investigate the food quality management practice in hospitality industry, using Miklin Hotel Kumasi as a case study. I respectfully request that you form part of this research by completing the attached questionnaire. It is my fervent hope that you participate in the study. May I thank you for your valuable cooperation.

### Section A: Demographic Information of the Customers

1. Gender:      female       male
2. Age: below 18 years  19-29 years  30-39 years  40-49 years  50-59 years   
60-69 years  above 70 years
3. Education background:  
Never  BECE  SSSCE/WASSCE  Diploma  Bachelors' degree  Masters' degree  PhD
4. Occupation:  
Professional (Dr. Lawyer etc)  Managerial Office worker  Teacher/Professor   
Student  Entrepreneur/self-employed  Retiree  Other  
(specify).....
5. How many times have you been eating outside home?  
0 times  1 times  2 times  3 times  4 times  5 times or more

**Section B: Customers Perceptions Regarding Food quality at the Miklin Hotel**

Please use the following likert scale to evaluate your perception regarding food quality at the Miklin Hotel.

1=Extremely undesirable 2= Somewhat undesirable 3=Neutral 4=Somewhat desirable  
5=Extremely desirable

Customers Perceptions regarding food quality at Miklin hotel	1	2	3	4	5
6. The food has good taste and aroma					
7. The food is healthy and has good flavour					
8. Food presentation is good					
9. Overall quality of the food					
10. Freshness of the food (e.g. raw fish)					
11. Efficiency of service					
12. Cleanliness & hygiene					
13. Variety of menu (e.g. vegetarian menu)					
14. Value for price					

**Section D: The link between food quality and customer satisfaction in the Miklin Hotel**

15. After the dining experience today, please give me your level of satisfaction about the quality of the food served at Miklin Hotel.

Extremely unsatisfied [ ] Somewhat unsatisfied [ ] Somewhat satisfied [ ] Extremely satisfied [ ] I do not know [ ]

**SECTION D: The benefits of ensuring food quality in the hospitality business**

16. What are the benefits of ensuring food quality in the hospitality business?

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Thank you so much for your time and cooperation!

Please leave the questionnaire on the table, when you leave.

**Interview guide for the respondents**

How does the participation of staff and employees contributes to food quality management?

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What is the link between food quality and customer satisfaction?

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What are the benefits of ensuring food quality in the hospitality business?

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