AKENTEN APPIAH-MENKA UNIVERSITY OF SKILLS TRAINING AND ENTREPRENEURIAL DEVELOPMENT

ASSESSING CONSUMER AWARENESS AND PERCEPTIONS ABOUT STREET FOOD SAFETY AT OLD TAFO IN THE ASHANTI REGION

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JANUARY, 2022

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BY

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A PROJECT REPORT SUBMITTED TO THE DEPARTMENT OF HOSPITALITY AND TOURISM EDUCATION, FACULTY OF VOCATIONAL EDUCATION, AKENTEN APPIAH-MENKA UNIVERSITY OF SKILLS TRAINING AND ENTREPRENEURIAL DEVELOPMENT, IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR AWARD OF THE MTECH (CATERING AND HOSPITALITY) DEGREE.

JANUARY, 2022

DECLARATION

STUDENT'S DECLARATION

I, KONADU REGINA OSEI declare that this project report, with the exception of quotations and references contained in published works which have all been identified and duly 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 work was supervised in accordance with the guidelines for supervision of Project report as laid down by the University of Education, Winneba.

NAME OF SUPERVISOR: DR. GILBERT SAMPSON OWIAH

SIGNATURE:…….....…….

DATE:…….....….

DEDICATION

I dedicate this work to my husband Mr. Adjei Gyapong, my parents Mr and Mrs Osei, my children Kwaku Agyei Darko Gyapong and Afia Serwaa Gyapong, My siblings Elizabeth Osei Nuamah, Sampson Osei Ampofo and Christopher Sarfo and finally to my friend Mr Edward Jumah. Without their help and efforts, I would not have reached this far.

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ABSTRACT

Research has shown that most reported foodborne outbreaks are caused by food prepared and consumed at home and on the streets, thus emphasizing the importance of consumer food safety awareness and knowledge. To achieve this aim, the researcher used the quantitative descriptive survey methodology in the conduct of this study. The population for the study covered all the consumers of street foods in the Old Tafo. 100 respondents were randomly selected for the study. The researcher used questionnaire to collect data related to the objectives of the research and used simple frequencies, percentages and mean to analyse the obtained data. The study concludes that consumers do not know of the safe food handling practices and do not think of food safety when buying street food. It was also seen that consumers do not trust that street food vendors have capability to ensure that street foods are safe and therefore do not have trust in street food vendors. Finally, consumers have serious concerns about food safety issues. However, there is a significant disparity relating to the corresponding change in consumers' food consumption habit. The study concludes that Food and Drugs Authority should conduct frequent periodic supervision of the operations of the street food vendors and certify them accordingly. Television and other mass media, government publications and food labels which have wide reach and are more 'trusted' by consumers should be used more effectively in educating consumers on safe food handling practices. Also, consumers should take personal responsibility for the food they buy and pay conscious attention to food safety practices.

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CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Street food is any ready to eat food or beverage sold and sometimes prepared in outdoor public spaces (e.g. streets, squares, parks, open-air markets, etc.) by vendors or cooks on the move (hawkers) or stationary, from an outlet with or without indoor space to accommodate consumers (e.g. van, cart, bicycle, stall, kiosk, take-away shop with kitchen overlooking the street). In Africa, street food vending and consumption have proliferated in the last three and a half decades (Marras, Ag Bendech 2016). The street food sector has expanded rapidly in urban areas of low- and middle-income societies, both in terms of providing access to a diversity of inexpensive foods for low-income households (Maxwell et al, 2000) and in offering job opportunities for many urban residents. On the other side, the increased commuting distances and the faster living and working pace have accentuated the demand for ready-to-eat, inexpensive, quick and nutritious food near the workplace among the growing urban low and middle working class. Given all the available solutions street food is the one that best suits the needs of these urban dwellers. The street food sector also contributes to the economy of an urban and peri-urban agricultural sector (Amoah et al, 2006).

Food safety is a growing concern for consumers and professionals in the food and foodservice sectors (Scheule & Sneed, 2001). It has been defined as the conditions and measures that are necessary during production, processing, storage, distribution and preparation of food to ensure that it is safe, sound, wholesome, and fit for human consumption (WHO, 1984). Foodborne illnesses were estimated to be the cause of 76 million illnesses, 325,000 hospitalisations, and 5000 deaths in the United States each year (DeWaal, 2003; Mead et al., 1999). The Caribbean

Epidemiology Centre (CAREC, 2002) reported that there were 2597 reported cases of food-borne illness in 2000 and 1905 cases in 2001 (as up to 8th February, 2002) for CAREC member countries. Research among 160 street food stalls in the Ga district in Ghana showed that only three (1.8%) of the proprietors met the requirements for basic hygiene based on a five-point checklist (King et al, 2000). Research among 117 street vendors in Accra showed that all vendors exhibited good food hygiene, but none of the vendors associated dirty hands with the transmission of diarrheal pathogens. Most of the food samples collected in this study had acceptable limits of contamination, but samples of salads, macaroni, fufu, omo tuo, and red pepper had unacceptable levels of pathogens. Shigella sonnei and enteroaggregative Escherichia coli were isolated from macaroni, rice, and tomato stew, and Salmonella arizonae from light soup (Mensah et al, 2002). Recent research has highlighted the low quality of vegetables sold in urban markets in Ghana, including Kumasi, which are bought and prepared by many street vendors. Of a total of 180 vegetable samples (lettuce, cabbage, and spring onion) from major markets in three major Ghanaian cities, most samples had pesticide residue levels exceeding the maximum limit for consumption, and all were fecally contaminated (Amoah et al, 2006). Several studies have highlighted peoples' tendencies to express illusion of control over food-related risks. Trust has also been found to compensate for knowledge of food risks (Hansen et al, 2003). These studies all indicate that food risks are dealt with by using a variety of strategies and acknowledging that food risks are often not the core dimension of food quality assessments. Other food-related studies have underlined the importance of looking at perceptions of food quality, including the wider social and cultural practices, symbolic meanings of food as well as food and its role in everyday life (Knox, 2000). Nowadays, African national and local authorities, and international organizations agree on the nutritional, economic, social and cultural importance of street food. They are also aware of the

critical issues associated with it, especially food safety issues and widespread informality of the sector. For this reason, since the 1980s, the Food and Agriculture Organization of the United Nations (FAO) has been promoting the development of the safety and quality of street food as well as of vendors' livelihoods and working conditions in the Region through the implementation of several targeted projects and initiatives (e.g. surveys and assessment studies, training of vendors and health inspectors, workshops, institutional capacity building, etc.).

As part of FAO programming towards eliminating hunger, food insecurity and malnutrition, and support the provision of safe, nutritious and healthy food to the population of Ghana; FAO has a three-fold aim of backing efficient policies, acknowledging and inspiring other vendors, and developing and supporting a deserved positive image of the sector. In 2013, the FAO and the Government of Ghana agreed upon a three-year Country Programming Framework (CPF), to enhance ongoing efforts at improving good practices among street food vendors with support for raising consumer awareness on food safety. Considering the importance of food safety, other researches into consumer awareness and perceptions about street food safety needs to be intensified.

1.2 Statement of Problem

The issue of food safety to the wellbeing of the general public who patronise street food is paramount since foodborne diseases are transmitted through the food preparation stage to the consumption stage. Moreover, the probability that consumers would be infected with foodborne diseases from contaminated foods from street food is higher. This is attested to by Campos *et al*., (2009) when they indicated that some food premises neglect the importance of hygiene and sanitation and thus, increase the risk of foodborne illnesses among the consumers. Consequently, the awareness and perceptions of consumers about street food safety plays an important role in

prevention of foodborne diseases. In this regard, this study looks at assessing consumers' awareness and perceptions about food safety at Old Tafo. The objective of this study was therefore to explore local perceptions of food safety and hygiene among consumers in Old Tafo a suburb in Kumasi, Ghana. With this study, we seek not only to understand health related aspects of food safety but aim at gaining in-depth understanding of consumers' values and prioritizations when choosing and consuming street foods.

1.3 Main Objective

The main objective of this study is to assess consumers' awareness and perception of food safety of street food in Old Tafo.

1.4 Specific Objectives

Specifically, the study sought to:

1. To explore the perceptions of consumers about street food safety at Old Tafo.
2. To evaluate consumers awareness and interest in food safety information at Old Tafo.
3. To determine consumers concerns about food safety issues and corresponding change in street food consumption habits

1.5 Research Questions

The study would be guided by the following research questions;

1. What are the perceptions of consumers about street food safety at Old Tafo?
2. To what extend are consumers aware and interested in food safety information at Old Tafo?
3. What are the consumers' concerns about food safety issues and the corresponding change in street food consumption habits?

1.6 Significance of the Study

It is the hope of the researcher that the study, in the end, will be beneficial to food vendors, consumers and health service workers.

Also, this research will seek to educate people on the importance of safety food and for that matter, the need to check food safety information. Again, the outcome of the study will help encourage the general public at large to be conscious of the foods that they either eat form home or buy and consume.

1.7 Scope of the Study

For practicability purposes, the study would be delimited to inhabitants of Old Tafo suburb of the Ashanti Region. Commercial food vendors were excluded from the study. The study would be restricted to issues related to consumers' awareness and perceptions of street food safety in the study area.

CHAPTER TWO

LITERATURE REVIEW

2.1 Consumers' Knowledge of safe food handling

Research has shown that most reported foodborne outbreaks are caused by food prepared and consumed at home and on the streets, thus emphasizing the importance of consumer food safety knowledge. Food safety is the "assurance that food products do not cause adverse effects on the health of the consumer when it is prepared and or eaten according to its intended use" (FAO/WHO, 2007). This means that when food has been exposed to harmful agents could be potentially harmful to consumers when safety guidelines are not followed. Over the years, most countries have documented increase in the diseases and pathogens in food, e.g. Salmonella sp., Escherichia coli, Staphylococcus aureus and parasites such as Cryptosporidium (WHO, 2007). Satin (2008) explains food safety as a scientific discipline in handling, preparation, and storage so as to prevent foodborne illness with steps that are followed to avoid hazards. The World Health Organization defines the term ''food safety'' as any measure taken to avoid physical, chemical, biological, and any other kind of damage that may occur in food. Millions of people have fallen ill, and many of them have died, as a result of consuming unsafe food. In addition to health problems, there are also losses in economic productivity, increases in medical cost, and delays in studies and work (Redmond and Griffith, 2003). When World Health Organization surveillance programs for the control of foodborne diseases in Europe investigated the outbreaks reported from 42 countries from 1993 to 1998, private homes were identified as the single location where more than 40% of foodborne outbreaks occurred (WHO, 2002). Limited food safety knowledge, poor personal hygiene, improper food handling, inadequate raw materials and cooking, cross-contamination, and

unsuitable storage and thawing conditions are the main reasons for foodborne illnesses associated with private homes (Bermudez-Millan et al 2004, Gorman et al 2002, Knight et al 2003).

Rahman et al., (2012) stated that food safety is a relevant global issue, because foodborne illnesses caused by microorganisms result in many illnesses and deaths annually. Microbial contamination of foods revealed high levels of Total coliforms and Vibrio cholerae which causes diarrhoea, vomiting and sometimes death in most developing countries especially in at-risk groups (Yeboah-Manu et al., 2010). It has been revealed that controlling and supervising large number of people is difficult when they are to be served with inadequate utensils (WHO, 2010).

It is important for food handlers to adhere to adequate personal cleanliness to avoid contaminating or transmitting foodborne pathogens to susceptible consumers who patronize their food. Ackah et al., (2011) posited that public health requirements in Ghana enjoins food vendors to undergo medical check-ups to prevent diseases e.g. tuberculosis, cholera, typhoid fever, dysentery and other contagious diseases. Food handlers must therefore be screened by appropriate regulatory bodies to ensure that they are in good health before selling to the public (WHO, 2008). In Ghana, one way of ensuring food safety is by periodic medical screening and certification of food vendors (Kissiedu and Tano-Debrah, 2002). Musa and Akande (2007) posited that the common means by which foodborne diseases can be regulated in developing countries is through medical screening.

Prevention of foodborne disease requires the cooperation of all those who are involved in the food chain (25). Gilbert (1983) described consumers as the ‘‘final defenders’’ in the prevention of foodborne diseases. Therefore, educating consumers on food safety issues is very important. Several studies have been conducted to assess consumer knowledge, attitudes, and awareness about food safety. Numerous studies show that consumers are aware of and concerned about food safety, but there is still a need for the continued education of consumers about food safety issues

(Badrie et al 2006, Bas et al 2007, Sanlier 2009). In Turkey, one study showed that 47.8% of people working in food companies lack basic knowledge of food safety (Bas et al, 2007). In addition, Unusan (2007) examined the knowledge and behaviors related to food safety among consumers who had the primary responsibility of food preparation at home in Konya, Turkey. The study showed that there were significant differences among the education levels concerning attitudes towards food safety and knowledge. In another study, the meat purchasing, storage, preparation, cooking, and serving behaviors of Turkish consumers in the domestic kitchen were investigated, and it was found that many individuals failed to store meat at the correct temperature or did not defrost meat correctly. It was also reported that food handling practices differed according to the socioeconomic group and the level of education of the consumers (Karabudak et al, 2008). Sanlier (2009), who also studied the food safety knowledge and food preparation practices of young and adult consumers, reported significant behavioural differences between young and adult consumers (P , 0.001).

The street food industry plays an important role in cities and towns of many developing countries. It also contributes substantially to meeting food demands of city dwellers and provides an income to many female-headed households (Tracy, 2011). It is estimated that street foods contribute up to 40% of the daily diet of urban consumers in developing countries (Afoi et al., 2015). The term street food as quoted by Tracy (2011) refers to a "wide variety of ready-to eat foods and beverages sold and sometimes prepared, in public places". Street food may be consumed where it was purchased or can be taken away and eaten elsewhere (Tracy, 2011). The people who sell these foods are referred to as street food vendors (WHO, 2008). Food passes through a lot of steps in the food supply chain before it gets to the consumer. Food should be handled, prepared and stored in ways that prevent the occurrence of foodborne illnesses like cholera and gastroenteritis (WHO,

2008). Millions of people fall ill and many suffer from serious disorders, long-term complications or die as a result of eating unsafe food (FAO, 2007). Foodborne and waterborne diarrheal diseases kill an estimated 2.1 million people annually, most of whom are children in developing countries (Fleury et al., 2008). The high prevalence of diarrheal diseases in these countries suggests major underlying food and water safety problems. One out of every three Africans suffers foodborne illness every year (WHO, 2012). In Ghana, it is estimated that the total number of out-patients that report with a foodborne disease is about 420,000 per year, with 65,000 dying annually. Twenty-five percent are children under five years (Mensah et al., 2009). Street food safety is influenced by many environmental factors. These include knowledge and awareness of food safety measures, poor food hygiene and low socio-economic status of food vendors, poor attitude of food vendors towards food safety, socio-cultural beliefs and trust (Thilde, 2008), and limited effectiveness of food safety regulatory bodies. All these play a role in determining the safety and quality of street food consumed by people.

Rheinländer's (2008) study together with his coresearchers study investigated local perceptions of food safety among street food vendors and their consumers in Kumasi, Ghana in order to identify the most important aspects to be included in future public health interventions concerning street food safety. This qualitative study included data from a triangulation of various qualitative methods. Observations at several markets and street food vending sites in Kumasi were performed. Fourteen street food vendors were chosen for in-depth studies, and extensive participant observations and several interviews were carried out with case vendors. In addition, street interviews and Focus Group Discussions were carried out with street food customers. The study found that although vendors and consumers demonstrated basic knowledge of food safety, the criteria did not emphasize basic hygiene practices such as hand washing, cleaning of utensils,

washing of raw vegetables, and quality of ingredients. Future public health interventions within the street food sector should give emphasis to the importance of appearance and neatness when designing communication strategies. Neglected aspects of food safety, such as good hand hygiene and cleanliness of kitchen facilities, should be emphasized. Local vendor networks can be an effective point of entry for future food hygiene promotion initiatives (Rheinländer et. al, 2008).

2.2 Consumers' Trust in street food vendors

Consumer choice of foods is affected by factors such as socio-demographics, consumer beliefs, available income, cultural and religious beliefs, health, convenience, climate conditions and perception (Du et al., 2004; Blazos, 2007).

Unlike home cooked meals where consumers are ultimately responsible for food handling and preparation, consumers must place their trust in chefs and foodservice workers to ensure that the foods they eat are handled and prepared properly when eating at restaurants. While the 1993 Jack in the Box outbreak ushered in an era of increased food safety measures by suppliers and large restaurant chains in the USA, a substantial number of foodborne outbreaks have been associated with food prepared or served at restaurants since then (Buchholz et al., 2002; Cochran-Yantis et al., 1996; Cotterchio et al., 1998; Green et al., 2005; Lewis and Salsbury, 2001; Medus et al., 2006; Rudder, 2006; Wheeler et al., 2005).

Outbreaks and individual cases of foodborne illness can be costly to the implicated chain. Quite a few European based studies on food perceptions have focused on lay peoples' perceptions of food dangers and food risks (i.e. Frewer et al. 1996, Hansen 2003, Redmond 2004, and Knox 2000). These studies plead that in order to change risk behaviours, individuals have to perceive that their current behaviours endanger health and need to be changed and that taking action has a strong likelihood of reducing such risks. Therefore, they have concentrated on investigating to what

extend people perceive and acknowledge food related risks such as food contamination. Studies have found that people tend to express optimistic bias towards food risks, underestimating or ignoring risks of encountering harmful effects from foods (Redmond 2004). In others studies people tended to express illusion of control over food related risks (Frewer et al. 1996) and Hansen et al. found trust to compensate for knowledge of food risks (Hansen 2003). Hence, food related risks and dangers are coped with using many strategies and these studies have concluded that perceptions of food risk are often not the core dimension of food quality assessments.

On the issue of food safety, while almost all of the participants thought that the foods, they prepared at home are hygienic and healthy, the rate of participants who consider foods in restaurants to be hygienic and healthy was 21%. While 27% of the participants stated that they purchase foods from street vendors, the rate of participants who consider these foods to be safe was only 2%. These rates demonstrate that customers bought foods from street vendors even though they did not consider them to be hygienic. Even though the results indicate that the participants trusted the foods they prepared, studies carried out throughout the world have determined that customers are not aware of the sources of contamination and behave in ways that might cause contamination while preparing food (Bermudez-Millan, 2004).

2.3 Consumers' concerns about food safety issues and corresponding change in street food consumption habits

Street food serves as the nutritional source of food for consumers who may be particularly vulnerable and more seriously affected by an infection than a normal healthy person. These vulnerable groups include children, pregnant and lactating women, malnourished and the immune-compromised (Buccheri et al., 2007; Lund et al., 2000). Food supply sources should be protected from hazards right from the farm to the table to ensure its safety. The potential sources of physical

contaminants for example insect parts, hair pieces, finger nails, and others which may not be seen, poses a great danger especially to the consumer (WHO, 2004). They are likely to cause fatalities in these vulnerable groups especially children sometimes by obstructing the airways or by lacerating internal organs when swallowed.

While food hygiene can be a key factor in deciding where to dine (Ungku Fatimah et al., 2011; Worsfold, 2006a), most people do not think of food safety when choosing a place to eat (Aksoydan, 2007; Leach, 2003). Customers who do consider safety often use aesthetics, visible cues, and restroom cleanliness to reflect the kitchen environment (Aksoydan, 2007; Barber & Scarcelli, 2009; Worsfold, 2006a). For what they cannot see, health inspectors' reports, specifically posted green, yellow, and red colors or A, B, C letter grades, can remind customers about the potential risk prior to entering the restaurant. Posted inspection results provides a sense of trust to the customers and creates a positive feedback loop through increased business revenues (Editorial, 2002; Hume, 2003).

Many consumers express concern about food safety, yet relatively few appear to be changing their food buying behavior in view of their concerns (1). For example, a survey the NPD (National Panel Diary) group in the USA evaluating the gap between consumer attitude and behaviour reported that people expressing concern about health problems associated with French fry consumption rose to 39% between 1985 and 1990, yet the number eating them at least once in 2 weeks declined just 7% (2). In a national survey in the USA, more than 50% of the respondents said they preferred to buy organically grown fresh fruits and vegetables, yet only quarter said they actually bought them on a regular basis (3).

In the USA, many local and national surveys have revealed consumer concern regarding fat an cholesterol contents of foods, pesticides, microbial contamination. Such concerns are likely to

translate into market behaviour. Therefore, food industry and government policy makers will have to respond to consumers' health concerns without significantly increasing costs to them (4). In this regard, inconsistency in consumer attitude and behaviour becomes particularly important.

The hygienic aspects of vending operations, according to Mensah, et al (2002) are a major source of concern for food control officers. For example, stands are often crude structures, and running water may not be readily available. Also, toilets and adequate washing facilities are rarely available. The washing of hands, utensils, and dishes is often done in buckets or bowls. Disinfection is not usually carried out, and insects and rodents may be attracted to sites where there is no organized sewage disposal. Finally, food is not adequately protected from flies and refrigeration is usually unavailable.

The health risk of food is not only determined by the concentration of various additives and contaminants in a food product, but also by the cumulative daily intake of a certain contaminant or additive throughout a consumer's diet. Although some street foods have been found to be contaminated and serious illnesses have been related to them, in general very few cases of food poisoning have been found. A survey involving 135 street foods in Iloilo, the Philippines found that only one item caused diarrhea among the study participants (Tinker, 1987; Winarno, 2000). It may be that illnesses occur but are not reported to medical authorities. It has also been suggested that individuals develop immunities to food borne diseases, although detailed studies are needed to confirm immunity development. The site where street foods are prepared and sold affects their safety significantly; access to a safe water supply can greatly improve food hygiene. Dr. Ahmed al-Safani (2008), an internist advised all Muslims in the month of Ramadan to avoid consuming the unsafe kinds of food, such as street foods, which become more prevalently purchased and eaten during Ramadan. Such foods can lead to infection by many diseases especially typhoid fever.

Typhoid fever is a potentially life-threatening illness that is caused by the bacteria Salmonella typhi (S. typhi). Persons with typhoid fever carry the bacteria in their bloodstream and intestinal tract and can spread the infection directly to other people by contaminating food or water. Anyone can get typhoid fever if they drink water or eat food contaminated with the S. typhi bacteria. Dr. al-Safani (2008) added that fasting during the Islamic month of Ramadan can be good for one's health and personal development. But people should be careful of having such kinds of street foods, which are mostly contaminated and cooked in bad hygiene, to maintain their bodies in good health during the month of Ramadan. People also must maintain their personal hygiene to avoid health problems.

The researchers reviewed some literatures locally published which discussed the street food as part of the culture in the Philippines. According to Fernando, "These foods did not undergo proper food preparation. Oftentimes, the vendors do not even bother to cover the foods they are selling. Fernando stressed that they have the legal mandate to drive away these street food vendors, especially those in the sidewalks. The Department of Health (DOH) has earlier urged the public not to patronize street delicacies and food outlets that have no health permits, citing an increase in the number of diarrhea cases, cholera and other gastrointestinal diseases among children, particularly in slum areas (PNA, 2009). Marero (1994) suggested that the research and development sector should continue to do its part in developing appropriate technologies in this aspect. It now remains for policy makers to create a suitable policy environment that will enable fish and meat by products utilization contribute to the country's nutritional and economic objective.

CHAPTER THREE

METHODOLOGY

3.1 Research Design

The research design used in this study was the quantitative descriptive survey. A descriptive survey is a type of research that has its major objective as a description of phenomena associated with a subject, population or to estimate proportions of the population that have certain characteristics (Malhotra, 1996). A quantitative approach was used in gathering the necessary information for the study. The descriptive survey technique was used in this study because the researcher, per the nature of the study being conducted, judged it to be the most appropriate technique in order to achieve the study objectives. In this regard, the methods of data collection and data analysis was all done in line with principles laid down for quantitative descriptive surveys.

3.2 Study Area

For the purpose of this study, the study would be delimited to Old Tafo a suburb of Ashanti region. Old Tafo Municipal is one of the 260 Metropolitan, Municipal and District Assemblies (MMDAs) in Ghana and forms part of the 43 MMDAs in the Ashanti region. It was carved out of the Kumasi Metropolitan Assembly (KMA).

3.3 Population

The population for this study covers the entire inhabitants in the Old Tafo Municipality. The total population of Old Tafo Municipal is 146, 024 (Ghana Statistical Service, 2010). Of particular interest to this study were the consumers who patronize street foods at the municipal.

3.4 Sampling Technique and Sample Size

Simple random sampling technique is used to sample respondents for the study. This technique was used to give individual respondents of the population an equal chance of being selected. In all hundred (100) street food consumers were selected for the study. One of the best ways to achieve unbiased results in a study is through random sampling.

3.5 Data Collection Instruments

As a means of collecting reliable data for the study, questionnaire was used as data collection instrument. Structured questionnaire was devised base on the objectives of the study to elicit information about the awareness and perceptions of consumers of street foods on food safety. A questionnaire made of 30 questions was administered to a sample of street food consumers in Old Tafo Municipal, with the aim to collection information on:

- Street food consumers' profile (e.g. gender, age, education level, employment)
- Consumers' knowledge of safe food handling practices by street food vendors at Old Tafo
- Consumers' trust in street food vendors at Old Tafo
- Consumers' concerns about food safety issues and the corresponding change in street food consumption habits.

To determine consumers' concerns and corresponding change in food consumption habits, a five scale likert in which respondents specify their level of agreement to statements about various food safety issues and were willing to change their behavior with regard to the food they ate. A scale of 1 to the level of food safety concern indicates that the respondent had an extremely low level of concern about the particular food safety issue, while a scale of 5 indicate the he/she is extremely concerned. Seven food safety issues used to measure concerns were pesticide residues, animal drug residues, growth hormones, food additives, bacteria, irradiation and naturally occurring

toxins. The corresponding change in food consumption habits due to the seven food safety issues was also measured. A scale of 1 indicate that the respondent had not changed food consumption because of a particular food safety issue, while a scale of 5 indicate that he/she had taken extreme precautions in buying street food items that were safe from the particular food safety threat.

3.6 Data Collection Procedure

The study relied on primary data sources. The researcher collected primary data using a structured questionnaire. The questionnaire made use of multiple response options and Likert scale items. Street food joints were visited to obtain sample for the study and street food consumers were briefed on the purpose of the study and its educational implications after permission granted. The respondents were approached and informed of the study and its purpose. On the whole, about three weeks were spent for the administration and collection the survey questions. Two pre-test surveys were done to test the reliability and validity of the survey questions. By comparing the answers respondents gave in the first pre-test with answers in the second pre-test, the survey questions were answered by respondents the same way each time and the survey questions accurately measured the same concepts they were intended to measure thereby making the questionnaire valid and 95% reliable.

3.7 Ethical Considerations

The study payed attention to the ethics of research. The researcher wrote officially to the offices, market and lorry station to seek permission to start the study. The information provided by respondents were used only for the purposes of the study. Again, in line with ethical principles in research, respondents' rights to self-determination, anonymity, confidentiality and informed consent were observed. The respondents were informed of their rights to voluntarily participate or decline in the study. They were informed about the purpose of the study and assured of not

reporting any aspect of the information they provide in a way that will identify them. They were assured that there will be no potential risks involved in the process. Finally, references to works that were used are acknowledged and cited for easy reference and also to make the study more credible.

3.8 Data Analysis

The data collected was sorted and coded to ensure complete analysis. The organized and coded data was then fed into the Statistical Package for Social Sciences (SPSS Software version 20) for analysis and interpretation. To answer the research questions, simple frequencies, percentages and means were applied to analyze the data using descriptive statistics. This gave the researcher the opportunity to present detailed information on the collected data.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.1 Socio-Demographic Data of Respondents

The socio-demographic information of respondents is presented in tables and discussed under this section.

Table 4.2 Socio-Demographic characteristics of respondents

Variables	Frequency (f)	Percentage (%)
Gender		
Male	65	65%
Female	35	35%
Total	**100**	**100.0**
Age		
20 – 30 years	45	45%
31 – 40 years	31	31%
41 – 50 years	19	19%
50 and above	5	5%
Total	100	100.0
Marital Status		
Single	75	75%
Married	25	25%
Total	**100**	**100.0**
Level of Education		
Basic	25	25%
SHS	47	47%
Vocational	13	13%
Tertiary	15	15%
Total	**100**	**100.0**

The socio-demographic characteristics of the 100 respondents included in the study are shown in Table 4.1. Overall, 65% of the street food consumers were male and 35% were female with 45% between the ages of 20-30 years, 31% between 31-40 years, 19% between 36-50 years and remaining 5% 50 years or older. With respect to marital status, 25% were married and 75% were

single. In terms of educational level, 47% were Senior High School leavers, 25% were Junior High School leavers, 13% were Vocational School leavers and 15% had Tertiary education.

4.2 Consumers' Knowledge of safe food handling practices by street food vendors

Research has shown that most reported foodborne outbreaks are caused by food prepared and consumed at home and on the streets, thus emphasizing the importance of consumer food safety knowledge. In this regard, the researcher sought to find out from respondents their knowledge about safe food handling practices by street food vendors in the Old Tafo. The resulting responses are presented below.

Table 4.2. Frequency of how often respondents eat from street food vending

Responses	Frequency (f)	Percentage (%)
Frequently (every or several times/days a week)	49	49%
Occasionally (about once or twice a week)	30	30%
Rarely (less than once a week or never)	21	21%
Total	100	100%

As per the responses obtained and shown in Table 4.2, it is seen that majority of the respondents frequently (every or several times/days a week) eat from street food vending probably because majority of them are single. This age group constituted 49% of the sample and 30% occasionally (about once or twice a week) eat from street food vending whilst 21% rarely (less than once a week or never) eat from street food vending.

Table 4.3. Frequency of whether respondents know of and think about food safety when buying street food.

Responses	Frequency (f)	Percentage (%)
Yes	31	31%
No	49	49%
I am not sure	20	20%
Total	100	100%

Results on whether whether respondents know of and think about food safety when buying street food, indicated that majority of the respondents do not know of and think about food safety when buying street food. With regards to whether they know of and think about food safety when buying street food, 31 respondents representing 31% responded yes whilst 49 respondents representing 49% responded no and the remaining 20% responded that they were not sure.

Table 4.4. Frequency of respondents rating vendors on food safety

Variables	Frequency (f)	Percentage (%)
How do you rate street food vendors on their performance, capability and commitment to food safety?		
Good	2	2%
Average	43	43%
Poor	55	55%
Total	**100**	**100.0**
How do you rate the attitudes of street food – handlers towards food safety?		
Good	2	2%
Average	31	31%
Poor	67	67%
Total	100	100.0
How well will you rate street food vendors' knowledge in safety food handling?		
Good	1	1%
Average	40	40%
Poor	59	59%
Total	**100**	**100.0**

Results on how respondents rated street food vendors at Old Tafo on food safety is presented in table 4.4. Generally, the respondents rated street food vendors' attitude, knowledge, performance, capability and commitment to food safety poor. With regards to rating street food vendors on their performance, capability and commitment to food safety, the study showed that majority of the respondents, 55%, rated them poor, 43% rated them average whilst only 2% rated them good. Again, the results show that 66 respondents representing 66% rated street food vendors poor on their attitudes towards food safety**,** 31% rated them average and 2 respondents representing 2% rated them good. Finally, the results show that 59 respondents representing 59% rated the street food vendors' knowledge in safety food handling poor, 40% (40 respondents) rated them average whilst on 2% (2 respondents) rated them good. The analysis shows that street food vendors' performance, capability and commitment to food safety in Old Tafo is poor, the attitudes of street food-handlers towards food safety is equally poor, and the knowledge of street food vendors in safety food handling is poor. This result is in contrast to the findings of Knight et al (n.d) who examined the perceptions of the food system and respondents were asked to rate a set of actors on their performance, capability, and commitment to food safety and the majority of respondents rated the performance of restaurants as good (68 percent).

Table 4.5. Consumers' knowledge of safe food handling practices by street food vendors

Variables	SD (1)		D (2)		A (3)		SA (4)		Mean
	F	%	F	%	F	%	F	%	
Considerable proportion of food borne diseases is owing to unsafe food handling practices.	0	0%	5	5%	55	55%	40	40%	3.35
Knowledge of critical temperatures are insufficient amongst street food-handlers.	2	2%	15	15%	11	11%	72	72%	3.53
The hands of food-handlers can serve as vectors in the spread of foodborne diseases due to poor personal hygiene.	0	0%	0	0%	26	26%	74	74%	3.74
Street food vendors must use gloves during the selling of unpackaged foods.	1	1%	1	1%	52	52%	46	46%	3.43
Street food vendors must use aprons or wear mask when handling food.	0	0%	1	1%	78	78%	21	21%	3.24
The health status of street food vendors should be assessed prior to the permission to cook on the street.	1	1%	1	1%	52	52%	46	46%	3.43

Key: SD = Strongly Disagree, D = Disagree, SA = Strongly Agree, A = Agree.

Data from table 4.4 depicts the analysis of data collected on consumers' knowledge of safe food handling practices by street food vendors. It has been found that consumers know that considerable proportion of food borne diseases is owing to unsafe food handling practices, knowledge of critical temperatures are insufficient amongst street food-handlers, the hands of food-handlers can serve as vectors in the spread of foodborne diseases due to poor personal hygiene, Street food vendors must use gloves during the selling of unpackaged foods, street food vendors must use aprons or wear mask when handling food, and the health status of street food vendors should be assessed prior to the permission to cook on the street (3.35, 3.53, 3.74, 3.43, 3.24, 3.43, respectively). This indicates that respondents are aware and agree to the statements on knowledge of safe food handling practices by street food vendors presented to them. This is in consonance with findings

from Acheampong (2005), who reported that respondents had some knowledge about causes of food borne-illnesses and cited inherent pathogens in food as one of the causes of food-borne illness. This has also been proven by several studies conducted by various researchers in both developing and the developed world. For instance, Hillers (2003) found in their study that leaving food at room temperature for long or serving food that is not hot can result in harmful bacteria such as *Bacillus cereus* to grow in high enough numbers to cause food borne illnesses. Also, Priyadarshini (2015) recommended in her study that investing in food safety education for food handlers and food vendors, particularly women are an essential and wise investment which would reduce food borne illnesses and lead to a healthy population.

Table 4.6. Frequency of recommended temperature for freezer is from (-17°C to -18°C)

Responses	Frequency (f)	Percentage (%)
Yes	31	31%
No	49	49%
I am not sure	20	20%
Total	100	100%

Results on whether whether respondents know of the recommended temperature for freezer is from17°C to -18°C, indicated that majority of the respondents do not know that the recommended temperature for freezer is from -17°C to -18°C. With regards to whether they know recommended temperature for freezer is from (-17°C to -18°C), 31 respondents representing 31% responded yes whilst 49 respondents representing 49% responded no and the remaining 20% responded that they were not sure.

4.3 Consumers' trust in street food vendors at Old Tafo

Consumers' views and their level of trust in street food vendors at Old Tafo were ascertained. The resulting responses and finding are presented below.

Table 4.7. Frequency of whether consumers believe that street food vendors have enough resources to ensure that street foods are safe

Responses	Frequency (f)	Percentage (%)
Yes	2	2%
No	69	69%
I am not sure	29	29%
Total	100	100%

Results on whether whether respondents believe that street food vendors have enough resources to ensure that street foods are safe, indicated that majority of the respondents do not believe that street food vendors have enough resources to ensure that street foods are safe. This is evidence in the results presented in table 4.7, 69 respondents representing 69% responded no and 29 respondents representing 29% were not sure. However, the remaining 2% believed that street food vendors have enough resources to ensure that street foods are safe in Old Tafo.

Table 4.8. Frequency of whether Street food vendors capable of ensuring that street foods are safe

Responses	Frequency (f)	Percentage (%)
Yes	2	2%
No	69	69%
I am not sure	29	29%
Total	100	100%

Results on whether whether respondents believe that street food vendors have the capability of ensuring that street foods are safe, indicated that majority of the respondents do not believe that street food vendors have capability to ensure that street foods are safe. This is evidence in the results presented in table 4.8, 69 respondents representing 69% responded no and 29 respondents representing 29% were not sure. But, the remaining 2% believed that street food vendors have the capability of ensuring that street foods are safe in Old Tafo.

Table 4.9. Frequency of how do you rate your trust in street food vendors in terms of safety

Variables	Frequency (f)	Percentage (%)
How well will you rate street food vendors' knowledge in safety food handling?		
Good	1	1%
Average	13	13%
Poor	86	86%
Total	**100**	**100.0**

Consumers' views and ratings on the level of trust in street food vendors in terms of safety were ascertained. Majority of the consumers rated their trust in street food vendors in terms of safety as poor (86%), 13% rated theirs as average and only 1% rated it as good. This result indicates that consumers in Old Tafo do not trust street food vendors in terms of safety.

Table 4.10. Frequency of the bases for which consumers trust street food vendor

Responses	Frequency (f)	Percentage (%)
My knowledge of safe food handling practices by the vendor.	69	69%
My knowledge of the vendor and I know he/she is safe.	2	2%
My personal relationship with the vendor through family relations or close friendship	29	29%
Total	100	100%

Results on the basis for which consumers trust street food vendor, indicated that majority of the respondents responded that they trust street food vendors on grounds of their knowledge of safe food handling practices by the vendor. This is evidence in the results presented in table 4.10, 69 respondents representing 69% responded that they trust street food vendors on basis of their knowledge of safe food handling practices by the vendor, 29% on the basis of their personal relationship with the vendor through family relations or close friendship, and 2% on the basis of their knowledge of the vendor and they know he/she is safe.

Table 4.11. Consumers' trust in street food vendors in Old Tafo

Variables	SD (1)		D (2)		A (3)		SA (4)		Mean
	F	%	F	%	F	%	F	%	
With the advent of the preventive measures of COVID-19 pandemic, the attitudes of street food vendors towards the prevention and control of food-borne diseases have improved.	47	47%	50	50%	3	3%	0	0%	1.56
The quality of food bought outside the homes can never be compared to food prepared at home.	0	0%	2	2%	1	1%	97	97%	3.95
Vendors do not care much about the safety of the food; they just sell it and want to make money.	0	0%	0	0%	10	10%	90	90%	3.90
I purchase street foods from the same vendor, in whom I had developed trust.	0	0%	15	15%	6	6%	79	79%	3.64

Key: SD = Strongly Disagree, D = Disagree, SA = Strongly Agree, A = Agree,

The data from the table shows that, with a mean of 1.56 out of 4.0, respondents disagreed that with the advent of the preventive measures of COVID-19 pandemic, the attitudes of street food vendors towards the prevention and control of food-borne diseases have improved. From the table, a mean 3.95 out of 4.0 was the response of respondents to the assertion that the quality of food bought outside the homes can never be compared to food prepared at home. Evidence from the table shows that, 90% of respondents strongly agreed to the statement that street vendors do not care much about the safety of the food; they just sell it and want to make money and remaining 10% agreed. This

produced the mean of 3.90 out of 4.0 which indicates that respondents strongly supported this assertion.

4.3 Consumers' concerns about food safety issues and the corresponding change in street food consumption habits

Research has shown that consumers' actual behaviour is often inconsistent with their reported attitudes or concerns. In this regard, data regarding consumer food safety concerns and change in food consumption behavior was obtained using seven food safety issues. The resulting responses are presented below.

Table 4.12. Consumers' food safety concerns

Variables	Little or no problem		Moderate problem		Serious problem	
	F	%	F	%	F	%
Pesticide residues	19	19%	20	20%	61	61%
Animal drug residues	23	23%	27	27%	50	50%
Growth hormones.	21	21%	27	27%	52	52%
Food additives	25	25%	32	32%	43	43%
Bacteria	34	34%	26	26%	40	40%
Irradiation	25	25%	24	24%	51	51%
Naturally occurring toxins	24	24%	20	20%	56	56%

The results indicate 61% of the respondents perceived pesticide residues to be a serious or extremely serious food safety threat. Pesticide residues were followed by growth naturally occurring toxins (56%), growth hormones (52%), irradiation (51%), animal drug residues (50%), food additives (43%), and Bacteria (40%). This finding is consistent with findings of Rimal et at

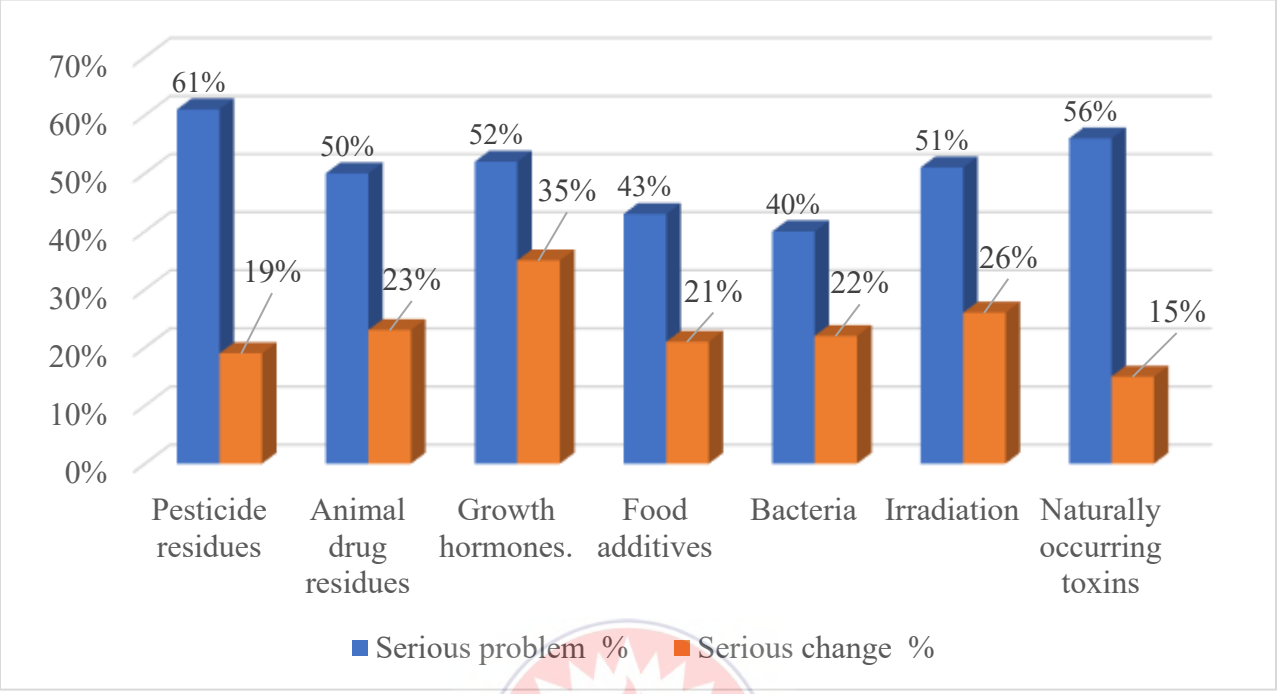
(2001), where pesticides residues (54.2%), growth hormones (51.6%) and animal drug residues (50.7%) were perceived as more serious safety threats than other safety issues. Contrary to this result, naturally occurring toxins was perceived as little or no serious safety issue in their findings.

Table 4.13. Consumers' change in food consumption behaviour

Variables	Little or no change		Moderate change		Serious change	
	F	%	F	%	F	%
Pesticide residues	71	71%	10	10%	19	19%
Animal drug residues	50	50%	27	27%	23	23%
Growth hormones.	45	45%	20	20%	35	35%
Food additives	47	47%	32	32%	21	21%
Bacteria	49	49%	26	26%	22	22%
Irradiation	51	51%	23	23%	26	26%
Naturally occurring toxins	63	63%	23	23%	15	15%

Table 4.13 shows the change in food consumption behaviour in relation to each of the food safety issues. As indicated in the table, only 35% of the respondents reported that they take serious or extremely serious precaution in buying food items because of the perceived threat of growth hormones. Compared with the percentages of respondents who thought growth hormones in food was a serious or extremely serious threat, the corresponding response rate in terms of change in food consumption habit was substantially small. Similar disparity between perceived threat and change in food consumption behaviour is found in relation to the remaining food safety threats. The disparity is highest for pesticide residues followed by naturally occurring toxins, growth hormones, irradiation, animal drug residues, food additives and bacteria evident in figure 4.1 below.

Figure 4.1. Food safety issues vs change in consumption behaviour



CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary of the Findings

From the analysis of the data collected through questionnaire administration, several findings were arrived at. These findings are presented in a summarized manner in accordance with the research objectives.

5.1.1 Consumers' Knowledge of safe food handling practices by street food vendors

The data presented and discussed in the chapter four of this study showed that, a majority of the consumers do not know of and think about food safety when buying street food. Generally, consumers rated the attitude, knowledge, performance, capability and commitment of street food vendors to food safety poor. Date from table 4.4 revealed that consumers know that considerable proportion of food borne diseases is owing to unsafe food handling practices, knowledge of critical temperatures are insufficient amongst street food-handlers, the hands of food-handlers can serve as vectors in the spread of foodborne diseases due to poor personal hygiene, Street food vendors must use gloves during the selling of unpackaged foods, street food vendors must use aprons or wear mask when handling food, and the health status of street food vendors should be assessed prior to the permission to cook on the street. However, it was found that majority of the respondents do not know that the recommended temperature for freezer is from -17ºC to -18ºC.

5.1.2 Consumers' trust in street food vendors at Old Tafo

Results on whether whether respondents believe that street food vendors have enough resources to ensure that street foods are safe, indicated that majority of the respondents do not believe that street food vendors have enough resources to ensure that street foods are safe. It also found that consumers do not believe that street food vendors have capability to ensure that street foods are

safe and therefore do not have trust in street food vendors. Consumers' level of trust in street food vendors in terms of safety was found to be poor. On the basis for which consumers trust food vendors, majority of the respondents revealed that they trust street food vendors on grounds of their knowledge of safe food handling practices by the vendor. Contrary to the believe that with the advent of the preventive measures of COVID-19 pandemic attitudes of street food vendors towards the prevention and control of food-borne diseases have improved, majority of the respondents disagreed. Thus, majority of the consumers know that street food vendors do not follow the COVID-19 preventive measures at Old Tafo.

5.1.3 Consumers' concerns about food safety issues and the corresponding change in street food consumption habits

According to the study, consumers perceived pesticide residues to be a serious or extremely serious food safety threat. Pesticide residues were followed by growth naturally occurring toxins (56%), growth hormones (52%), irradiation (51%), animal drug residues (50%), food additives (43%), and Bacteria (40%). As indicated in the table 4.12, only 35% of the respondents reported that they take serious or extremely serious precaution in buying food items because of the perceived threat of growth hormones. Compared with the percentages of respondents who thought growth hormones in food was a serious or extremely serious threat, the corresponding response rate in terms of change in food consumption habit was substantially small. Similar disparity between perceived threat and change in food consumption behaviour is found in relation to the remaining food safety threats.

5.2 Conclusion

From the findings of the study, it can be concluded that consumers do not know of and think of food safety when buying street food. Also, the attitudes, knowledge, performance, capability and

commitment of street food vendors to food safety is poor. Again, consumers have considerable knowledge that considerable proportion of food borne diseases is owing to unsafe food handling practices, knowledge of critical temperatures are insufficient amongst street food-handlers, the hands of food-handlers can serve as vectors in the spread of foodborne diseases due to poor personal hygiene, Street food vendors must use gloves during the selling of unpackaged foods, street food vendors must use aprons or wear mask when handling food, and the health status of street food vendors should be assessed prior to the permission to cook on the street.

It was also seen that consumers do not trust that street food vendors have capability to ensure that street foods are safe and therefore do not have trust in street food vendors. Finally, consumers have serious concerns about food safety issues. However, there is a significant disparity relating to the corresponding change in consumers' food consumption habit.

5.3 Recommendations

Based on the findings of this study, the researcher wishes to make the following recommendations:

i. The Food and Drugs Authority should conduct frequent periodic supervision of the operations of the street food vendors and certify them according to the safety standards they operate on.

ii. The results have important implications for food safety programmes and policies; educating consumers about preventive methods to reduce food safety threats will lead to reduced concerns and changes in food consumption habits.

iii. Television and other mass media, government publications and food labels which have wide reach and are more 'trusted' by consumers should be used more effectively in educating consumers.

iv. Also, the Ghana Health Service should conduct periodic mandatory medical check-ups for street food handlers to ensure that they do not carry-on communicable diseases to customers.

v. Also, consumers should take personal responsibility for the food they buy and pay conscious attention to food safety practices like proper hand washing with soap under running water, wearing of gloves and nose mask, and sterilising the utensils and working equipment used in serving food.

5.4 Suggestions for Further Studies

For future researchers who wish to conduct similar studies into this field, the researcher wishes to make the following suggestions:

i. A similar study like this one could be conducted on a wider sample in a different geographic location to investigate how demographics affect the results of such studies.

ii. Further studies needed on the gap between food safety concerns and food consumption habits.

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APPENDIX

QUESTIONNAIRE

The researcher is a student of Akenten Appiah-Menka University of Skills Training and Entrepreneurial Development (AAMUSTED). I am undertaking research on the topic: **Assessing consumer awareness and perceptions about street food safety at Old Tafo in the Ashanti Region**.

Important Note: Information supplied by you will be treated as strictly confidential. Identity of position will not be revealed. Information will be used for only academic work. I greatly appreciate your co-operation.

BACKGROUND OF RESPONDENTS

1. Gender: Male [ ] Female [ ]

2. Age: 20 – 30 years [ ] 31 – 40 years [ ] 41 – 50 years [ ] Above 51 years [ ]

3. Marital status: Married [ ] Single [ ]

4. What is your level of education?

Nil [ ] Basic [ ] SHS [ ] Vocational [ ] Tertiary [ ] Others [ ]

Others, specify ……..

SECTION B: CONSUMERS' KNOWLEDGE OF SAFE FOOD HANDLING PRACTICES BY STREET FOOD VENDORS.

5. How often do you eat from street food vending?

Frequently (every or several times/days a week) [ ]

Occasionally (about once or twice a week) [ ]

Rarely (less than once a week or never) [ ]

6. Do you know of and think about food safety when buying street food?

Yes [ ] No [ ] I am not sure [ ]

7. How do you rate street food vendors on their performance, capability and commitment to food safety? Good [ ] Average [ ] Poor [ ]

8. Considerable proportion of food borne diseases is owing to unsafe food handling practices.

I strongly agree [ ] I agree [ ] I disagree [ ] I strongly disagree [ ]

9. Recommended temperature for freezer is from (-17ºC to -18ºC)?

Yes [ ] No [ ] I do not know [ ]

10. Knowledge of critical temperatures are insufficient amongst street food-handlers.

I strongly agree [ ] I agree [ ] I disagree [ ] I strongly disagree [ ]

11. The hands of food-handlers can serve as vectors in the spread of foodborne diseases due to poor personal hygiene.

I strongly agree [ ] I agree [ ] I disagree [ ] I strongly disagree [ ]

12. How do you rate the attitudes of street food – handlers towards food safety?

Good [ ] Average [ ] Poor [ ]

13. Street food vendors must use gloves during the selling of unpackaged foods.

I strongly agree [ ] I agree [ ] I disagree [ ] I strongly disagree [ ]

14. Street food vendors must use aprons or wear mask when handling food.

I strongly agree [ ] I agree [ ] I disagree [ ] I strongly disagree [ ]

15. The health status of street food vendors should be assessed prior to the permission to cook on the street.

I strongly agree [ ] I agree [ ] I disagree [ ] I strongly disagree [ ]

16. How well will you rate street food vendors' knowledge in safety food handling?

Good [ ] Average [ ] Poor [ ]

SECTION C: CONSUMERS' TRUST IN STREET FOOD VENDORS AT OLD TAFO

17. Do you believe that street food vendors have enough resources to ensure that street foods are safe? Yes [ ] No [ ] I am not sure [ ]

18. Are Street food vendors capable of ensuring that street foods are safe?

Yes [ ] No [ ] I am not sure [ ]

19. How do you rate your trust in street food vendors in terms of safety?

Good [ ] Average [ ] Poor [ ]

20. With the advent of the preventive measures of COVID-19 pandemic, the attitudes of street food vendors towards the prevention and control of food-borne diseases have improved.

I strongly agree [ ] I agree [ ] I disagree [ ] I strongly disagree [ ]

21. The quality of food bought outside the homes can never be compared to food prepared at home.

I strongly agree [ ] I agree [ ] I disagree [ ] I strongly disagree [ ]

22. Vendors do not care much about the safety of the food; they just sell it and want to make money.

I strongly agree [ ] I agree [ ] I disagree [ ] I strongly disagree [ ]

23. I purchase street foods from the same vendor, in whom I had developed trust.

I strongly agree [ ] I agree [ ] I disagree [ ] I strongly disagree [ ]

24. I trust the street food vendor base on:

My knowledge of safe food handling practices by the vendor [ ]

My knowledge of the vendor and I know he/she is safe [ ]

My personal relationship with the vendor through family relations or close friendship [ ]

SECTION D: CONSUMERS' CONCERNS ABOUT FOOD SAFETY ISSUES AND THE CORRESPONDING CHANGE IN STREET FOOD CONSUMPTION HABITS

Consumer food safety issues

Instruction: Tick appropriate box

Safety Issues	Little or no problem	Moderate problem	Serious problem
25. Pesticide residues			
26. Animal drug residues			
27. Growth hormones			
28. Food additives			
29. Bacteria			
30. Irradiation			
31. Naturally occurring toxins			

Change in food safety consumption behavior

Instruction: Tick appropriate box

Safety Issues	Little or no change	Moderate change	Serious change
32. Pesticide residues			
33. Animal drug residues			
34. Growth hormones			
35. Food additives			
36. Bacteria			
37. Irradiation			
38. Naturally occurring toxins			