

## Consumer Perceptions of Street-Vended Local Foods in Urban Ghana

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### ABSTRACT

*This paper examines consumers' perceptions of the characteristics of three specific local dishes (Hausa koko, Waakye and Ga kenkey) sold in the streets and referred to as street vended local foods (SVLFs). Using data obtained from 631 randomly selected consumers of these three foods, perceptions statements were rated using a five-point Likert scale. A multi-dimensional theory of food quality was adopted and six scopes to food quality assessed; social, symbolic, humanistic, functional, hygienic and nutritional. Results showed that Hausa koko was perceived to be affordable, nutritious, convenient, within proximity and safe with mean scores of 4.05, 3.80, 3.59, 3.52 and 3.51 respectively. Waakye was perceived to be nutritious, safe, affordable and convenient with mean scores of 3.82, 3.56, 3.56 and 3.50 respectively. Ga kenkey was perceived to be also affordable, nutritious, convenient, safe and within proximity with mean scores of 3.81, 3.77, 3.55, 3.48 and 3.08 respectively. The results further show that the most affordable street vended local dish in Ghana is Hausa koko, followed by Ga kenkey and Waakye respectively. To enhance further patronage and consumption of these SVLFs in Ghana for enhanced incomes and livelihoods of the entire food values chain, there is the need to promote the availability of raw materials for the preparation of these foods to ensure its affordability. Such efforts could further be supported with training of local street food operators on critical areas of street-vending to enhance the nutrition, convenience and safety of SVLFs in most urban communities.*

### Keywords

Affordability, Consumer perceptions, Locality, Nutrition, Safety, Street vended local foods.

### Introduction

Street foods are defined as “any ready foods and beverages prepared and vended at outdoor public locations for immediate consumption” [1]. Street foods are on the increase in recent times due to their affordability, convenience and availability for consumers [2-4]. It is estimated that about 2.5 billion people depend on street foods daily across the world because they are economical and affordable [3]. They ensure the food security needs of many people in urban areas are met [1]. Actually, food preferences have been shown as a facet of food security [5], and street foods are preferred by many

people from different socio-economic background. People rely on street foods for their food and nutritional needs [6-8] and as a means of their livelihoods [1,9-11].

Street foods are however, associated with several negativities of not being safe due to the poor sanitation around their places of preparation and sale [8,12], and less nutritious because of the high carbohydrate base [13]. Furthermore, they are also labelled as not being affordable to the poor because of the high amount of their incomes spent on food [9,14,15]. Even with the local traditional dishes their local authenticity is questioned because of the global influences on the local foods [16].

Street foods proliferation in urban places cannot be underestimated, which is attributed to the growing population due to increasing urbanisation [3,17] and the demand for food in general. Albeit,

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there may be some other reasons for the increasing demand for these foods other than the increasing population due to urbanisation. Especially with the local or ethnic oriented dishes, it may be that different meanings are given to such foods to enhance their demand and thus their supply through street food vending. Subsequently, we refer to these foods in this paper as street vended local foods.

Although several factors such as low education with no gainful employment and knowledge in food vending drive people into food vending in urban areas [1,9,14]. The assumption here is that, consumers also patronise such foods based on several factors which determine their perceptions about these foods [18,19]. Consumers' give different meanings to SVLFs based on their perceptions on a number of factors including the quality characteristics of the food.

The safety, nutritional value and affordability are aspects of food quality characteristics discussed extensively in literature [20-22] with limiting interest in the social aspect of foods. However, food quality has been described as a multidimensional phenomenon [21,22]. Prigent- Simonin and Heralut-Fournier identified seven dimensions to food quality as nutritional, hygienic, functional, organoleptic, social, symbolic and humanistic qualities. In terms of dishes related foods, Rheinländer [22] in her analysis of street foods in Kumasi also recognised five dimensions, which are functional, hygienic, nutritional, social and aesthetic, the latter, she referred to as appearance. Using a qualitative approach, she noted that the dimensions were crosscutting and interrelated in the Ghanaian context.

Rheinländer et al. [23] focused on the perception of safety among street food vendors and consumers and analysed it from social anthropological concepts of purity, contamination, hygiene puzzles and impression behaviour. They found vendors and consumers to have some knowledge of food safety but based their criteria for safety on four main facets, which are aesthetic appearance of food and food stand, appearance of the food vendor, interpersonal trust in the vendor, and prioritizing food price and accessibility. Thus, their notion of safety was not based on any objective quality aspects of safety but on sensorial, social, and normative dimensions of food quality based on individual assessments and perceptions of food safety. Haleegoah et al. [24] indicated that actors of SVLFs including consumers based their quality aspect of safety on more significant characteristics relating to the preparation and consumption of foods such as a combination of hygienic conditions of the environment and the point of sale, wholesomeness of ingredients used for preparation, cleanliness of vendors and their experience in preparation of food.

However, in all these studies, other dimensions of quality such as the localness of foods, the nutritional and affordability aspects that are also linked to these social features of street foods safety are not discussed. Also limiting in these, is the local factor as an influencing factor in the choice of foods and how consumers perceive such localness of the SVLFs. Information on this is dearth, therefore, this study addresses the social facet of food quality by analysing consumers' perceptions on characteristics of SVLFs including localness. It includes perceptions on the social, symbolic and

humanistic dimension, combined as local, the hygienic (safety), nutritional, and functional (affordable) dimensions of three specific street vended local foods in urban Ghana. Street vended local foods are those local dishes associated with some specific ethnic groups in Ghana. These are Hausa koko associated with the Hausa speaking people, Waakye, associated with people from Northern tribes of Ghana and Ga kenkey associated with the Ga speaking people of Southern Ghana.

This study contributes to the literature on food quality and sociological knowledge on the quality of street foods by accounting for the social characteristics of street foods safety and state the others, which have been ignored in previous studies. Such information will provide vital evidence for policy to strengthen the street food provisioning systems in Ghana to ensure that the safety of the majority of the population who patronise SVLFs as well as their food security needs. Understanding these perceptions would ensure that consumers' needs are appreciated and considered in the preparation and delivery of SVLFs. Again, in order to attract the tourist community with the countries cuisine there is the need to improve this street food provisioning system.

### **Review of Food Quality Dimensions and Consumer Perceptions**

Food quality is multidimensional with an objective quality, which is scientific-oriented perspective and subjective quality, which is an individual-oriented perspective [20,21,22]. Brunso et al., [20] mentioned the importance of distinguishing between the objective and subjective quality when discussing consumers' perceptions on food quality. Scientific perspective of food quality dwells on the scientific microbiological explanations of quality that is the objective quality of foods. The individual perspective of food quality, on the other hand, dwells on people's views, that is, their subjective perceptions of food quality.

Consumers base their perceptions of food quality on their knowledge, which may be scientific, as well as on their experiences with food, which is also subjective. For example, the source, effect and type of information on food safety influences consumers' perceptions and attitudes in their choice of food [25,26]. Since knowledge and experiences differ among individuals, people give different meanings and perceptions to food as well as to its quality. This gives food quality a multidimensional perspective, which is interrelated and interlinked. Prigent- Simonin and Heralut-Fournier [21] focused on the European consumer trust in local producers using a multi-dimensional theory of food quality. Their study came up with seven dimensions to food quality. These are nutritional, hygienic, functional, organoleptic, social, symbolic and humanistic qualities.

Rheinländer [22] adopted this multi-dimensional quality approach to analyse street foods in Kumasi, Ghana. She noted that in the Ghanaian situation, some of the dimensions were crosscutting and interrelated, hence, resulted in a five-dimensional frame of food quality. These five perceived food qualities comprised functional, hygienic, nutritional, social and aesthetic. She referred to the latter as appearance. For this study consumer's perceptions of four crosscutting dimensions are analysed. The social, symbolic and humanistic are combined as local dimension relating to the SVLF

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originating from consumers' locality and having eating the food from their infancy and being part of their food culture. Nutritional dimension is the nutritional value that consumers perceive of SVLFs, functional dimension relates to the affordability of SVLFs while hygienic dimension relates to the safety of SVLFs; that is food not giving consumers any ailment upon consumption.

Consumers' perceptions of quality attributes to food is an important factor in their food choices. These factors, their interactions and inter-linkages influence the choice and consumption of foods [18,19]. Such factors include starvation, palatability, nutrition, family, environment, economics, emotion, cultural background, education, knowledge and skill as well as influences from the media and advertisements. Schroeter et al., [25] for instance, noted that the source, effect and type of information on food safety influenced consumers' perceptions and attitudes in their choice of meat in the US. Clark and Bagdan [19] found that apart from health and animal environmental ethics, issues of availability, affordability and concern over sensory quality influenced consumers' choice of plant-based proteins in their study in Canada. Samoggia, et al., [18] observed that women are apt towards healthy eating despite their income levels. Thus, once the food is perceived as healthy it did not matter the real income of these women. They are influenced by perceived behavioural control, attitudes towards healthy eating, subjective norms, and level of knowledge regarding healthy food. However, the factors that would stop them from having healthy foods were routine family habits, food affordability and availability. Asiegbu et al., [27] noted differences in responses regarding frequency of purchase and safety of street foods among people of different sexes, ages, and race and income levels. Taste, affordability and availability were the main reasons why people purchased street foods [27]. Although most of the consumers were not sure of the safety of street vended foods, it did not stop them from consuming them. In their study they found that gender, race, the level of education and monthly income affected the way consumers of street-vended foods perceived the safety of street-vended foods and their desire to purchase [27].

The literature focuses on the several factors that influence food choices. Affordability is a common factor for the choice of foods and is especially characteristic of street foods. Nutritional value and safety of street foods also featured in some of the studies. These influence food choices due to how consumers perceive of them, which is also based on other factors. Factors such as source and type of information about food, gender, race, educational level and income influenced safety of street vended foods from the literature. Limited in the literature is the local aspect as an influencing factor in the choice of foods and how consumers perceive of the localness of the SVLFs. Foods as cultural object have embedded in them symbols of identity, which people may perceive of and which may influence the consumption of such foods even with the negative features associated with them because they are sold on the streets.

## **Research Methods**

### **Study Area**

The study was carried out in the Accra, Kumasi and Tamale

metropolitan Cities of Ghana. Accra (which is also the nation's capital) is located in the Greater Accra Region; Kumasi is also the capital city of the Ashanti Region and Tamale is the capital city of the Northern Region. These cities were selected because of their cosmopolitan nature in providing a socio-cultural context for this study in which Hausa koko and Waakye are associated with some ethnic groups in the northern parts of the country and Ga kenkey is also associated with the Ga speaking people in south of the country. Kumasi, an Akan speaking people, represented a place where none of the SVLFs originated.

### **Research Design**

This study used a case study design, which allowed for the use of a mixed methods approach with multiple units of analysis. The cases used were three specific dishes associated with some ethnic groups in the country and sold on the streets (Hausa koko, Waakye and Ga kenkey and referred to as Street Vended Local Foods-SVLFs).

### **Sampling Technique and Data Collection Procedure**

Random sampling criteria was used to select consumers for the study. Consumers were randomly selected from an infinite population of all who patronised the SVLFs at the studied regional capitals. To ensure randomness, every third consumer was selected at the vending sites, giving every consumer of the SVLFs, an equal opportunity to participate in the study. Ultimately a total sample of 631 consumers including 403 males and 228 females were selected for the study consisting of 227 from Accra, 164 from Kumasi and 240 Tamale. The questionnaires were administered to consumers by trained enumerators through a face to face individual interviews.

### **Contextual Issues and Empirical Strategy**

The theoretical perspective for this study is symbolic interactionism. Generally, the theory claims that facts are based on and are directed by symbols and meanings given to them. Symbolic interactionism examines the meanings that emerge from the reciprocal interaction of individuals in social environment with other individuals. It focuses on the question of, which symbols and meanings develop from the interaction between people [28]. Street foods as a cultural symbol, get their several meanings through individual actor's social interactions with other actors and also with foods. These meanings provide the food and its consumers an identity. Foods are social phenomena that have created meanings from the interactions of their actors. It is these shared meanings that inform people's perceptions about food choices. Foods have several quality dimensions, such as social, functional, nutritional and safety aspects [22], which are defined subjectively or objectively based on the meanings given to these attributes. Local for instance has been defined differently [29-31]. Martinez et al. [29] for example stressed on the origin and geographical areas of food in defining local. Trivette [31] also stressed on food travel distances and relations with other food networks as well as some structural traits such as the size and operations in defining local. Several meanings are given to the safety of street foods [23]. Street foods are the main nutritional sources for many rural and urban dwellers as well as even children [6,7]. Further, affordability of SVLFs is also a common factor influencing the choice of foods

[19,27]. Thus, consumers' perceptions on the nutritional value, affordability, closeness of SVLFs inform food choices. To examine the perceptions of consumers on quality characteristics, primary data collected was analysed using Statistical Package for Social Sciences (SPSS) version 16. Descriptive statistics such as frequencies and cross tabulations were used to summarise and present the socio-demographic characteristics and other attributes of consumers.

### Estimating Consumer perceptions of Quality Characteristics of SVLFs

Consumers' perception on the three food choices were evaluated using a 5-point Likert scale [32], rated as strongly agree, agree, neutral/undecided, disagree and strongly disagree. A score of 5, 4, 3, 2 and 1 were assigned against each of the seven perception statements. The mean perception index for each perception statements was computed as:

$$\bar{X} = \frac{\sum n_i \chi_i}{N}$$

N

Where  $n_i$  = number of consumers who chose the  $i^{\text{th}}$  response;

$\chi_i$  = the  $i^{\text{th}}$  response;

N= the total number of consumers.

The values of the Likert scale suggest that, generally, a mean value of above 3 denotes agreement whereas a mean value below 3 signifies disagreement.

## Results

### Consumers Characteristics

Majority (67.7%) of respondents were within the age range 21 to 40 years. The mean age was 26.5 with a minimum age of 10 and a maximum of 64 years. Majority of consumers had the secondary (34.7%) and tertiary (39.6%) educational levels. About 9.8% had primary education, 6.2% vocational and 9.7 had no education at all among the respondents. Although consumers had various occupations, most (39.1%) of the respondents were students. We had 21.4 % of them in government or paid employment, 15.7% were traders and 7.4% were artisans. The other occupations including drivers, driver mates, farmers, those working with NGOs and others in the private sector were 4.8% of respondents and 11.6% were unemployed (Table 1).

### Reasons for Consuming SVLFs

Consumers had several reasons for consuming SVLFs. These included convenience, closeness to vendor that is proximity or availability, safety, nutrition, affordability, food coming from one's locality, and food eaten since their infancy.

From the results all these food characteristic variables influenced the consumption of SVLFs and reasons for the consumption for majority of the respondents (Table 2). The results show that for 90.6%, 88.9% and 93.2% of Hausa koko, Waakye and Ga kenkey consumers, respectively, affordability was the most important reason for their consumption.

Characteristics	Frequency	%
Sex		
Male	403	63.9
Female	228	36.1
Age Range		
10-20	159	25.2
21-40	427	67.7
41-60	42	6.7
> 60	3	.5
Mean age 26.5, Minimum 10 and Maximum 64		
Educational Level		
No Education	61	9.7
Primary	62	9.8
Secondary	219	34.7
Tertiary	250	39.6
Vocational	39	6.2
Occupation		
Unemployed	73	11.6
Govt. worker/ paid salary	135	21.4
Trader	99	15.7
Artisan	47	7.4
Student	247	39.1
Other (driver, driver mate, farmers, NGO, private)	30	4.8
N=631		

**Table 1:** Sex, Age, Educational level and Occupation of Consumers  
Source: Consumer Survey, 2014

This implies that indeed price is of great essence when it comes to the purchase of SVLFs. The price of the food should be such that it can be afforded by the ordinary consumer in the street to enhance its patronage and consumption. These findings resonate with that of FAO, 2016b [3] and Bellia et al., 2016 [2] who found affordability as an important feature attracting consumers to street foods.

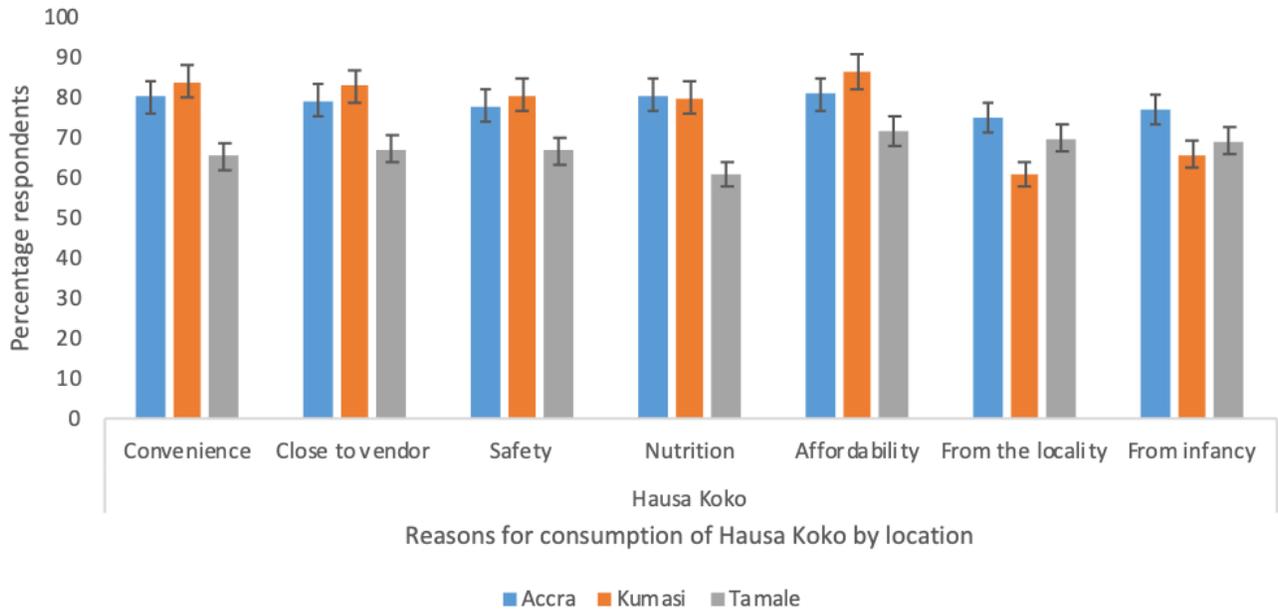
### Reasons for Food Quality Characteristics by Location

Figures 1-3 show the results of the preference for food quality characteristics by location. The result shows great similarities in the drivers though few variations are obvious. The error bars were used to represent confidence interval measured at 95% interval level and to determine whether differences in the data were statistically significant. Majority of the consumers cited nutrition, affordability, safety, convenience and closeness to vendor as the main food quality attributes that enhanced their consumption of Waakye. However, many people in Kumasi were influenced by these factors than in Accra and Tamale. The localness factors on the other hand influenced many consumers in Accra and Tamale than in Kumasi.

Many people considered nutrition, affordability, safety, convenience and closeness to vendor to influence their kenkey consumption in Accra and Kumasi than in Tamale (Figure 2). All the seven factors assessed influenced averagely 60% of consumers in Tamale and the localness factors (From locality and from infancy) influenced higher numbers of consumers in Accra than the other two study locations. Results for consumption of Hausa koko followed similar pattern like that of Kenkey across locations. However, the localness factors affected both Accra and Tamale than Kumasi.

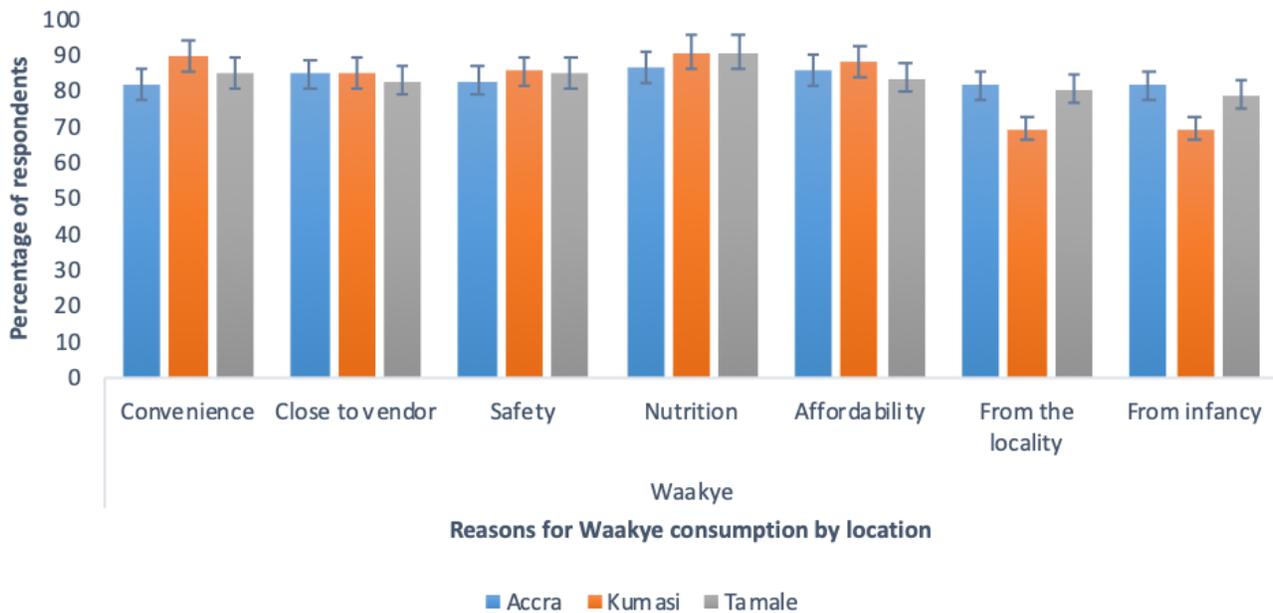
Reason	Hausa koko		Waakye		Ga Kenkey	
	Least Important	Most Important	Least Important	Most Important	Least Important	Most Important
Convenience	16.2	83.8	12.1	87.9	16.9	83.1
Close to vendors	19.3	80.7	27.7	72.3	19	81.0
Safe	15.8	84.2	13.9	86.1	12.2	86.8
Nutritious	9.8	90.2	6.4	93.6	9.4	90.6
Affordability	9.4	90.6	11.1	88.9	6.8	93.2
From ones locality	31.0	69.0	39	61	32.2	67.8
Eaten from Infancy	21.1	72.9	29.3	70.7	32.7	67.3

**Table 2:** Reasons for Consuming SVLFs



**Figure 1:** Reasons for Hausa Koko consumption by location

Source: Consumer Survey, 2014



**Figure 2:** Reasons for Waakye consumption by location

Source: Consumer Survey, 2014



**Figure 3:** Reasons for Ga kenkey consumption by location

Source: Consumer Survey, 2014

### Consumer Perceptions

The study further analysed the consumers' perceptions of SVLFs. The results of consumer perceptions using a five-point scale are presented in Tables 3, 4 and 5. From the results Hausa koko was perceived to be affordable, nutritious, convenient, within proximity and safe with mean scores of 4.05, 3.80, 3.59, 3.52 and 3.51 respectively (Table 3).

The results showed that consumers highly rated and agreed with the statement that the choice of "Waakye" was made based on its nutritive value, safeness, affordability and convenience with mean scores of 3.82, 3.56, 3.56 and 3.50 respectively. Closeness of the food to consumers, food being from consumer's locality and food consumed from infancy had mean scores of 2.63, 2.59 and 2.49 respectively which represented moderate to low ratings (Table 4).

The moderate to low ratings demonstrate participants' indecisiveness as to the factors influencing their choice of the SVLFs. This further implies that consumers are in disagreement to the perception statements and thus not affirming that such factors influenced their choice of the SVLFs. The localness of food component in the food quality should be addressed again from different perspective probably with the traditional cooking practices which have some relations with the nutritional value of food indicating their relatedness [33].

Consumers' choice of Ga kenkey based on affordability, nutrition and convenience had mean scores of 3.81, 3.77 and 3.55 respectively. Safeness, closeness, from locality and being consumed from infancy had 3.48, 3.08, 2.86 and 2.67 mean scores respectively (Table 5).

### Comparison of the Perception Indices for the Various SVLFs

Table 6 presents a comparison of perception indices across SVLFs. The result shows that consumers agreed with the statement that Hausa koko was more affordable followed by Ga kenkey and then Waakye with mean scores of 4.05, 3.81 and 3.56, respectively. This is the case because purchasing of Hausa koko with its

accompaniments requires a relatively low amount of money compared to Ga kenkey and Waakye with their accompaniments. In-depth meanings given to affordability showed the relativity of the term depending on the location of study and even specific places within same location. Affordability was also defined by comparing different street foods of which Hausa koko was the most affordable.

Waakye on the other hand was classified as more nutritious and safer than Hausa koko and Ga kenkey. This may be due to the fact that Waakye already contains plant protein source from the beans, which Hausa koko and Ga kenkey consumers need to buy as accompaniments (in the form of Koose for Hausa koko and beans stew for Ga kenkey) separately. Subsequently, Waakye appears to be a more balanced diet because it comes with more vegetables that consumers have to buy, and which serve as source of vitamins needed by the body for its development.

Tugli et al., [34] found that the use of the Waakye leaves for their preparation enhanced their nutritional value. Waakye can be classified as a complete meal with all the six classes of nutrients compared to Hausa koko and Ga kenkey. These accompaniments come with cost, which also makes Waakye relatively more expensive compared to Hausa koko and Ga kenkey.

Convenience and closeness to vendor were more associated with consumers' food choice behaviour towards Hausa koko than the other local dishes. In the Ghanaian culture, Hausa koko is easily available and accessible in most communities. This may be because of the relatively low capital requirement for vendors to prepare the food for sale compared to Ga kenkey and Waakye. Hausa koko is the only food choice that had connection with the food originating from the locality of the consumer.

Additional information shows that Hausa koko and Waakye for instance was mostly prepared and sold by people from the Northern tribes compared to Ga kenkey.

Perception	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Mean	SD
Convenience	26.8	20.3	25.2	11.5	16.1	3.59	1.43
Closeness	21.0	21.0	21.8	17.0	19.3	3.52	1.47
Safe	21.3	19.4	22.0	21.5	15.8	3.51	1.42
Nutritious	36.7	21.7	21.0	10.8	9.8	3.80	1.32
Affordable	46.0	21.1	15.7	7.8	9.4	4.05	1.27
From locality	21.6	18.0	14.1	15.3	31.0	2.84	1.55
From infancy	34.7	14.5	9.6	14.1	27.1	3.16	1.65

**Table 3:** Perception on Hausa Koko  
Source: Consumer Survey data, 2014

Perception	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	SD
Convenience	24.6	21.4	26.6	15.3	12.1	3.50	1.53
Closeness	12.8	20.6	23.0	15.8	27.7	2.59	1.46
Safe	21.4	23.7	26.5	14.5	13.9	3.56	1.51
Nutritious	46.1	27.3	12.9	7.3	6.4	3.82	1.44
Affordable	26.7	29.7	21.0	11.5	11.1	3.56	1.47
From locality	15.0	16.3	15.0	14.6	39.0	2.63	1.66
From infancy	25.8	17.8	12.1	15.0	29.3	2.49	1.57

**Table 4:** Perception on Waakye  
Source: Consumer survey data, 2014

Perception	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Mean	SD
Convenience	26.3	20.2	24.1	12.6	16.9	3.55	1.44
Closeness	19.0	22.8	24.0	15.2	19.0	3.08	1.38
Safe	22.6	22.2	25.2	17.1	12.9	3.48	1.37
Nutritious	28.5	23.4	24.3	14.4	9.4	3.77	1.27
Affordable	33.8	30.9	18.2	10.2	6.8	3.81	1.22
From locality	14.3	15.9	14.1	23.4	32.2	2.67	1.47
From infancy	20.7	16.6	13.6	16.4	32.7	2.86	1.57

**Table 5:** Perception on Ga kenkey  
Source: Consumer survey data, 2014

Perception statement	Waakye		Ga Kenkey		Hausa koko	
	Mean	SD	Mean	SD	Mean	SD
Convenience	3.50	1.53	3.55	1.44	3.59	1.43
Closeness	2.59	1.46	3.08	1.38	3.52	1.47
Safe	3.56	1.51	3.48	1.37	3.51	1.42
Nutritious	3.82	1.44	3.77	1.27	3.80	1.32
Affordability	3.56	1.47	3.81	1.22	4.05	1.27
From Infancy	2.63	1.66	2.67	1.47	2.84	1.55
From Locality	2.49	1.57	2.86	1.57	3.16	1.65
Overall perception	3.16		3.32		3.50	

**Table 6:** Summary of Means of Perception Indices for the Various SVLFs  
Source: Consumer survey data, 2014

## Discussion

An extensive review by FAO (2016a) [1] showed that, there is lack of statistical data that present the demographic characteristics of street foods consumers. Very few studies have studied street food consumers and their consumption practices [23,24,35-37] and have also provided the profile for such consumers [24]. The study thus enriches the literature by providing information on consumers profile and also covering the widest geographical area [1]. Findings on educational levels, occupational levels and sex are consistent with other consumer studies [35,37]. The study reveals that, irrespective of the social classes, street foods provide an important source of an inexpensive ready to consume food for

all classes of people with the socio-economic strata; both the rich and poor, educated and uneducated, diverse occupation, males and females as was observed by other authors [35,37].

Understanding consumers' behaviours in making food choices can be complex from the symbolic interactionist perspective. This is because people give different meanings that influence their choices with foods. These meanings could be negative or positive. Evaluating consumers' perception of SVLFs also means evaluating consumers' perceived needs. Gaining knowledge on consumers' perceived needs could help food vendors better understand the demands for local foods and make informed business decisions regarding how food should be prepared, packaged, presented and

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the appropriate location to sell it. The motives that led consumers in making choices of the local food were mainly purchasing power, health concerns and proximity of the local food which were expressed in terms of affordability, nutritive value, safety and closeness.

A study found that participants gave high rating for safety as it was perceived to be considered in the consumption of beef in the US [26]. Rheinländer et al. [23] in their study indicated that consumers defined safety on social, sensual and normative dimensions of food quality. Data from this same study indicated that SVLFs actors including consumers give different meanings to safety, which was more substantial relating to food preparation and consumption [24]. It included a combination of the hygienic conditions of the environment and the point of sale, wholesomeness of ingredients used for preparation, cleanliness of vendors and their experience in preparation of food. Again, if foods were served and eaten hot then they were considered to be safe. Furthermore, if consumers had no immediate health problems or ailments after eating, then food was considered to be safe. Besides, to some consumers, the use of indigenous ingredients made street foods safe for consumption. Further still some few consumers considered these foods as not safe for consumption especially with flies around Hausa koko vendors, the milling machine used for milling vegetables eaten raw with Ga kenkey and the vegetables served with Waakye exposed over a long period of time [24]. These contrasting perceptions are in line with the symbolic interactionist perspective, the theoretical stance of this study. With these contrasting meanings of safety, consumers' perceptions are framed to guide their choices of SVLFs.

Hausa koko had some geographical connection and this fitted into how some authors [29-31] had defined the term local food. According to Martinez et al. [29], the term local food was defined based on the origin or geographical enclave. The locality in which they are found could play a role in influencing what one consumes as people become attached to what they are familiar with, take pride in it and consume to improve local economies. Defining local in terms of the distance food travels [31] confirms this study as Hausa koko originating from the Hausa's having travelled through to the whole of Ghana and into the cities as a preferred street food. Studies have shown that the local takes on different forms but maintain their local identities [38,39], which are symbols of a particular culture of such who identify with that particular food.

Street foods consumption can be an important source of nutrition for many people all over the world [4,6-8]. Imathui [4] even identified street foods as a possible means for micronutrient fortification in an effort to prevent any nutritional deficiency diseases. Consumers' affirming the nutritional value of Waakye in this study is in consonance with these other studies [4,7,8,34]. Tugli et al. [34] in their recent study, showed that Waakye leaves used for the preparation of the food provided fibre, fatty acids, antioxidant and polyphenols nutritionally to Waakye consumers that improves their metabolism and digestion. The multidimensional nature of food quality is shown with this results. The use of Waakye leaves for the preparation of Waakye noted here to improve food nutrition is also related to the local facet of food, which is to maintain the original food colour with a change from the use of the original

red or brown beans (cowpeas) to the use of white beans for the preparation of Waakye [33].

Consumers perceiving of Hausa koko as the most affordable among the other street foods, and Ga kenkey and Waakye also being affordable confirms other studies that show that street foods are generally affordable, available and convenient to all those who patronize them [1-3,15]. Thus, in sum consumers in this study agreed that these attributes triggered their affinity for a particular local food and these are in confirmation with other studies.

## Conclusion

The study addressed the perception of consumers on the food quality characteristics including the social, symbolic and humanistic characteristic, combined as local, the hygienic (safety), nutritional, and functional (affordable) characteristics of Hausa koko, Waakye and Ga kenkey, which are specific SVLFs in urban Ghana. Consumers were mostly within their youthful ages, had high educational levels and of different ethnic background despite the dominance of the Akan ethnic group. Consumers' perceived Hausa koko to be more affordable, then Ga kenkey and then Waakye. Waakye was also perceived to be of high nutritional value compared to the other two foods. Hausa koko was also rated high in terms of their affordability, nutrition, convenience, closeness within proximity or availability and their safety. The medium to low ratings by the consumers on the food originating from the consumer's locality and food consumed from infancy also showed consumers' disagreement to such perception statements. Waakye consumers gave a high rating and agreed to the choice of "Waakye" based on its nutritive value, safeness, affordability and convenience. Here again, food consumed from infancy and food originating from consumer's locality had medium ratings. Ga kenkey had all the statements agreed on as influencing their decision to consume it with affordability being the most influencing factor.

It can therefore be concluded that most of these food characteristics are perceived as having influence on consumers' decisions to patronise the studied SVLFs. Although, affordability is paramount for Hausa koko and Ga kenkey consumers, nutrition and safety were of higher importance to Waakye consumers. Food coming from ones locality and food consumed from infancy had medium ratings for all the three foods. These food characteristics address consumers' needs and should inform the development and strengthening of SVLFs supply in urban Ghana. Again, it is recommended that policy on street foods should be addressed at all levels with all stakeholders' perceptions on the quality of foods considered to ensure demand driven SVLFs are provided to meet the needs of both vendors and consumers. These could be negative or positive from the interactionist perspective. Vendors must be advised by local authorities on the consumption influencing factors and be made to present the foods in the form appreciated by consumers in order to maximize returns and improve livelihoods as street vending serves as the main and longstanding employment for many especially the less educated women [1]. Lastly, in

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addition to the medical certificate, street food vendors should be issued a formalized vending license and their operations frequently monitored to build consumers trust.

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