

Sanitary Practices of Street Food Vendors in the Philippines

Kenneth L. Armas, Nueva Ecija University of Science and Technology, Cabanatuan City, Philippines
(sir.kennetharmas@gmail.com)

Abstract— This study was conducted to determine the quality, safety, and sanitary practices of street vendors in San Isidro, Nueva Ecija. The study used the descriptive method with structured questionnaire as the primary instrument in data gathering facilitated by the interview and observation. The total respondents of the study were 37 out of 41 vendors in Poblacion, San Isidro. Size of the sample was obtained through Sloven's Formula while respondents were identified through purposive sampling. Frequency distribution and measure of central tendency were used to analyse the data gathered.

The researchers were able to arrive to the following conclusion based on the findings of the study. Majority of respondents are 35 to 45 year's old, female, married, and high school graduate. As to their business profile most of the respondents are stationary type of vendors, existing for less than 5 years, used tricycle to sell their products, 500 to 1000 pesos daily, and do not have any helpers employed.

As to their business profile most of the respondents are stationary type of vendors, existing for six to ten, used tricycle to sell their products, earn 500 to 1000 pesos daily, and do not have any helpers employed. The most common type of foods being vended is siomai, siopao, kikyam, fishball, kwek-kwek, tokwa, nuggets and tokneneng. Most of the vendors got their supplies in Public Market and choose to prepared food on site. Their products are being displayed in an open area in the stall.

Vending stall of the vendors are not protected from the sun, dust and wind, exposed from animals or insects, not maintained the cleanliness, has no access to drinking water at the site and no available hand washing facilities. The stalls are far from the rubbish waste, open drains and toilet facilities.

As to the vendor's personal hygiene vendors, Vendors wash their hands in clean water before handling preparation and serving of food. Although they wear clean and presentable clothes, they did not wear apron, and their hair are not properly covered using hairnet, and they did not use gloves. It can be implied that majority were not concerned about their personal hygiene when preparing and handling foods.

Street food vendors consume four bags or more for their garbage, although majority of them have own a waste bin still they are not separating their garbage into biodegradable and non-biodegradable. Majority of the vendors were not complying any permit or requirements and sanitary standards implemented.

Most of the internal problems encountered by street foods were harassment or any demand for bribes and regarding on external problems they always faced high competition.

Keywords: Street foods, Sanitary, Ambulant Vendors, Food Sanitation

1. INTRODUCTION

Street foods described as ready-to-eat foods and beverages prepared and sold by vendors especially in streets and other similar public places (FAO, 2007). It was often sold from a portable food booth, food cart or food truck and meant for immediate consumption. nutritional and safety of the consumers.

Hence, the reason why the researchers conducted this study is to know how hazardous street foods it is and how it is made, does the street vendors aware in food hygiene and sanitation practices and if they are complying with all requirements, policies and safety standards implemented by the government. By this we can come up with answers for those questions of the other people wondering about street foods.

Conceptual Framework

The main concept of the study is to identify the quality management practices of street vendors in Poblacion, San Isidro, Nueva Ecija. The idea of the researchers is that there are three main factors affecting the quality management practices of the street food vendors. These factors are the profile of the business, external and internal problems encountered in the operation. On the other hand, the profile of the business is affected by the profile of the owners such as age, gender, status, and educational attainment.

External problems encountered by street food vendors may affect their quality, safety, and sanitary practices. These includes difficulty in finding secure places to sell, lack of services and infrastructure such as water, electricity, and waste removal, which might cause them to do unsanitary practices like improper handling of foods and not properly washed of utensils.

However, street food vendors also faced internal problems such as their personal safety while vending foods in the streets, sickness which might result to unsanitary behaviour like sneezing and coughing while vending street foods. Lack of supplies for their products and harassment, demands for bribes, evictions from selling places, arrest and confiscation of goods by authorities are also affect their personal safety.

Statement of the Problem

This study aimed to determine the Sanitary Practices of Street Food Vendors in Poblacion San Isidro Nueva Ecija. Specifically, it sought to answer the following questions:

1. How may the profile of the vendors be described in terms of:
 - 1.1 Age;
 - 1.2 Gender;
 - 1.3 Status; and
 - 1.4 Educational Attainment
2. How may the profile of the business be describe in terms of:
 - 2.1 Types of the Vendor;
 - 2.2 Years of Existence;
 - 2.3 Types of Vending Cart;
 - 2.4 Average daily income; and
 - 2.5 No. of Peddlers/Helpers
3. How may the Quality Management of street food vendors be describe in terms of:
 - 3.1 Product
 - 3.2 Sanitation
 - 3.3 Waste Management
 - 3.4 Legal Compliance
4. What are the common problems encountered by the street food vendors?

2. METHODOLOGY

Research Method

The descriptive method of research was used in this study. This is the most appropriate method to determine and describe the quality management practices of the street vendors. According to Burns and Grove (2003); descriptive research is a blueprint for conducting a study with maximum control over factors that may interfere with the validity of the findings.

Research Locale

The study was conducted in Poblacion San Isidro Nueva Ecija. The Poblacion of the town proper is a quasi-urban area. It is here where the municipal hall, the parish church, the Catholic cemetery, the post-elementary and high schools educational institutions are located. Barangay Poblacion San Isidro has a total land of 1,362 in hectares and it composed of nine (9) sitios or Puroks. According to 2012 census, it has a total population of 6,492.

The national highway traverses the length of the town. It passes in the front of the municipal building and the plaza where the monument of the national hero, Jose Rizal stands. This portion of the national highway named Rizal Street of the town.

Respondents

The street food vendors in Poblacion San Isidro Nueva Ecija were the chosen respondents and the source of the data to make the study realistic and complete. The researchers visit to the Barangay Hall of Poblacion San Isidro to get the list of street vendors, after selecting all street vendors, the researchers gathered 41 vendors selling in Poblacion, San Isidro as of March 2018. The total respondents of the study are 37 out of 41 vendors in Poblacion, San Isidro. The sample was obtained through Slovin's Formula.

Construction and Validation of Instruments

The construction and validation of instruments was made and based from the review of related studies and literature, done by the researchers. The first draft of the instrument was consulted to different experts in the field. Two from the field of Hotel and Restaurant Management, one food technologist, and two from the field of business administration. Comments and suggestions were incorporated in the study.

Prior to the finalization of questionnaire, an interview and pre-survey with the street food vendors was done to complete the list of types of products they vended and sanitation practices they do in handling foods.

After the finalization of questionnaire, the researchers conduct a field testing to other street vendors for further validation before it totally distributed to respondents.

Data Gathering Procedures

The researcher's desired output was achieved by data gathering instrument in the form of questionnaires, unstructured interviews, and research through internet sites. Statistical treatment utilized frequency counts and weighted mean.

Questionnaire –the questionnaire is composed of the profile of the vendors, business profile, quality management of street food vendors including their products, sanitation, waste management, legal compliance, and common problems encountered by street food vendors.

Unstructured Interview –the interview provided the researchers more knowledge on how they can make a better approach in doing the study and making the tools necessary to gather data.

Observation - The action or process of observing something or someone carefully in order to gain information.

Survey – the survey identified the profile of the respondents, profile of the business and the quality management of street food vendors.

The researcher made the following activities:

1. Visit to library to gather information on how to write a research paper.
2. Make a pre-survey and observe to the street food vendors in Poblacion San Isidro.
3. Browse to different websites to search for the concerned topic that may beneficial for our research.
4. Visit to the Barangay Hall of Poblacion San Isidro, to inquire and get the list of street food vendors.
5. Visit to the street food vendors in the area to administer the questionnaires and conduct personal interviews to the respondents.

Statistical Treatment of Data

The following statistics will be used for data analysis:

1. Frequency and percentage distribution – used to describe the profile of the vendors, and profile of the business. Data presented answered question number 1 and 2.
2. Weighted Mean – average weighted mean is used to compute question number 3 and 4 which are the quality management of street food vendors, internal and external problems encountered by street food vendors.

3. RESULTS AND DISCUSSION

1. Profile of the Respondents

There are four (4) variables used in describing the profile of the respondents interviewed such as: age, gender, status and educational attainment.

Table 1- Age of the Respondents

Age	Frequency	%
15-25 years old	8	21.62
25-35 years old	8	21.62
35-45 years old	11	29.73
45 and above years old	10	27.03
TOTAL	37	100

Table 1 shows the distribution of respondents according to their age. Based on the table, 29.73 % are 35-45 years old, 27.03 % are 45 and above years old and 15-25 years old and 25-35 years old has the same percentage which is 21.62 %.

Results showed that 35-45 years old has the highest percentage of the age of the respondents. Based on the observation, survey and unstructured interviews made by the researchers, the age of the street foods vendors are usually 35-45 years old. Normally, these ages were persons who have families and children and need more income.

Table 2- Gender of the Respondents

Gender	Frequency	%
Male	13	35.14
Female	24	64.86
TOTAL	37	100

Table 2 shows the distribution of the gender of the respondents. It can be seen that female vendors has the highest percentage which is 64.86 % and the lowest is male vendors with the percentage of 35.14 %.

As you can see on the table, majority of them are female because they had sufficient knowledge on how to prepare foods rather than male.

Table 3- Civil Status of the Respondents

Status	Frequency	%
Single	14	37.84
Married	23	62.16
Total	37	100

Table 3 shows that the highest percentage of the status of the respondents is married with the percentage of 62.16 % and 37.84 % of the respondents are single.

Based on some of the unstructured interviews made by the researchers while making the survey, most of the respondents that sell street foods are married. It implies that majority of the vendors were adults or those who have families that needs a daily income to support their basic necessities and expenses.

Table 4- Educational Attainment of the Respondents

Educational Attainment	Frequency	%
No formal education	0	0
Elementary	7	18.92
High School	25	67.57
College	5	13.51
TOTAL	37	100

Table 4 shows the distribution of the educational attainment of the respondents. The highest percentage of educational attainment of the respondents is high school with the percentage of 67.57%, followed by elementary attainment with 18.92 %, college attainment with the percentage of 13.51 % and no one answered that they had no formal education.

Result showed that the highest percentage of the educational attainment of the street food vendors is high school because the respondents were not given the chance to reach college level due to financial problem.

2. Profile of the Business

There were five (5) variables used in describing the profile of the business interviewed such as: types of vendor, years of existence, types of vending cart, average daily income and number of peddlers.

Table 5- Type of Vendor

Types of Vendor	Frequency	%
Stationary	27	72.97
Non-stationary	10	27.03
Total	37	100

Table 5 shows the distribution of the types of vendor of the respondents. It can be seen that stationary vendor has the highest percentage which is 72.97 %, and non-stationary vendor has the lowest percentage which is 27.03 %.

Based on the results, most of the street foods vendors in Poblacion, San Isidro are stationary or permanently staying in the place where they are selling. Some of the vendors are classified as non-stationary because they are selling occasionally or move to different places where there are possible customers.

Table 6- Years in the Operation

Years of Existence	Frequency	%
0-5 years	9	24.32
6-10 years	22	59.46
11-15 years	2	5.41
16-20 years	4	10.81
Total	37	100

Table 6 shows the distribution of the respondents based on the years of its existence in Poblacion, San Isidro. Existence years of six to ten years got the highest percentage which is 59.46 %, followed by those operating less than five years which is 24.32 %, sixteen to twenty years got the percentage of 10.81 % and eleven to fifteen years got the lowest percentage which is five (5) %.

Most of the street food vendors of Poblacion San Isidro where located near from the schools, Town Plaza and to those establishments that have many workers/employees and this is the reason why 6 to 10 years of existence has the highest percentage.

Table7- Types of Vending Cart

Types of Vending Cart	Frequency	%
Wooden	8	21.6 2
Push Cart	6	16.2 2
Concrete	6	16.2 2
Tricycle	9	24.3 2
Food Stall	8	21.6 2
Total	37	100

Table 7 shows the distribution of the type of vending cart of the respondents. Tricycle has the highest percentage which is 24.32 %, followed by the wooden and food stall with the same percentage of 21.62 %, push cart and concrete has the lowest percentage which is 16.22 %.

Table 8 showed that numerous of the street food vendors used tricycle as their vending cart.They used tricycle because it will allow them to sell their products to different places.

Table 8- Average Daily Income

Daily Income	Frequency	%
100-500 pesos	11	29.7 3
500-1000 pesos	15	40.5 4
1000-2000 pesos	8	21.6 2
2000 above	3	8.11
Total	37	100

Table 8 shows the distribution of average daily income of the respondents. The highest percentage daily income is 500-1000 pesos which 40.54 %, followed by 100-500 pesos with the percentage of 29.73 %, 1000-2000 pesos got the third rank with the percentage of 21.62 % and 2000 pesos above has the lowest percentage which is 8.11 %.

Since Poblacion, San Isidro is a quasi-urban area where the schools, universities, Catholic Church and town plaza are located there are many peoples especially the students who tend to eat street foods that’s why most of the vendors got 500 to 1000 pesos average daily income which is not too bad for them.

Table 9- Number of Peddlers

Peddlers	Frequency	%
One	21	56.76
Two	10	27.03
Three	5	13.51
Four	1	2.70
Total	37	100

Table 9 shows distribution of number of peddlers of the respondents. The highest percentage number of peddlers is one which is 56.76 %, followed by two peddlers with the percentage of 27.03 %, three peddlers has the percentage of 13.51 % and four peddlers has the lowest percentage which are 2.70 %.

Based on the results, most of the respondents answered that the number of peddlers they needed is only one because one peddler is enough to operate or sell street foods because it is easy to manage.

3. Quality, Safety and Sanitary Practices of Street food Vendors

There were five (3) variables used in describing the quality management of street food vendors interviewed such as: products, sanitation and waste management.

Table 10- Kinds of Food Offerings

Types of Foods	f	%
Sweetened Fried Banana and Sweet Potato	3	8.11
Barbecue and Grilled Chicken Organs	3	8.11
Streetfoods (Fishball)	6	16.22
Fried Squid (calamares)	5	13.51
Peanut, Toasted Corn, Beans	3	8.11
Mami, lomi, goto, lugaw	3	8.11
Siomai, Siopao	6	16.22
Buko Juice	5	13.51
Steamed Corn	1	2.70
Hotdog	2	5.40
Total	37	100

Table 10 shows the distribution of what type of food they vended. Siomai, siopao, Streetfoods (Fishball), has the same highest percentage which is 16.22 %, followed by buko juice, chicken skin, fried chicken and kalamares which is 13.51 %, next is banana Cue, kamote cue, turon, Barbeque, isaw, adidas, palong, Betamax, atay, Mani, binusa, beans, Mami, lomi, goto and lugaw with the same percentage which is 8.11 %, followed by hotdog with a percentage of 5.40 % and mais got the lowest percentage which is 2.70 %.

Results showed that siomai, siopao, kikyam, fishball, kwek-kwek, tokwa, nuggets, toknengneng, are the most common types of food vended by the street vendors. It indicates that these types of foods are mostly students and young people were looking for and it is also much affordable than any other available food in the area.

Table 11- Supplies of the Product

Answer choices	Frequency	%
Public Market	28	75.68
Other wholesaler/retailer	9	24.32
Total	37	100

Table 11 shows the distribution on where the vendor gets their products. Public market has the highest percentage which is 75.68 % and the lowest percentage is other wholesaler/retailer which is 24.32 %.

The public market has gained most of the percentage rather those other wholesalers/retailers because street vendors sell products which are perishable and it will be risky to buy wholesale products needed in the business because they can be wasted if not sold and consumed.

Table 12- Food Preparation

Food Preparation	<i>f</i>	%
On site	32	86.49
At home	5	13.51
Total	37	100

Table 13 shows the distribution on where the food does prepare. Most of the vendors prepare on site which is 86.49 % and the lowest percentage is preparing at home which is 13.51 %.

This indicates that food preparation is highly preferred on site rather than the two given choices because preparing the product in front of the customers on site can assure them that the product is prepared properly and it maintains the freshness of the foods.

Table 13- Food Storage and Display

Answer Choices	<i>f</i>	%
Openly in the stalls	15	40.54
In a pushcart	10	27.03
In sealed containers	12	32.43
Total	37	100

Table 14 shows the distribution on where does the food stored/displayed. In openly in the stalls has the highest percentage which is 40.54 % followed by in sealed containers which has percentage of 32.43 %, food displayed in a pushcart has the lowest percentage which is 27.03 %.

This table shows that vendors prefer the products to be displayed openly in the stalls because this method can attract the customers' attention easily rather than the two given choices.

Table 14- Separation of Partially Cooked and Cooked Food Products

Answer Choices	Frequency	%
Yes	26	70.27
No	11	29.73
Total	37	100

Table 14 shows if the food products are partially cooked and if cooked products are kept separate. Most of the respondents said yes which has 70.27 % and some of the respondents said no which has the percentage of 30.73 %.

This table shows that raw, partially cooked and cooked food products are kept separately to prevent spoilage and contamination. It also helps both customers and vendors to organize and easily classified the products.

Table 15- Handling of Leftovers

Answer Choices	Frequency	%
Give it as a free to the customers	8	21.62
Kept it to a cooler or refrigerator	8	21.62
Reheat and sell it again	12	35.14
No left overs	8	21.62
Total	37	100

Table 15 shows what the handling of the vendors on their leftover foods or unsold products. Most (35.14%) of the respondents said they reheat and sell it again, the same percentage (21.62%) of the respondents said their products are given to the customers as a free, kept it to cooler and no they have no left-over foods.

This table shows that most of the vendors prefer to reheat and sell the products that are left because there are certain products that are not easily spoiled and can still be consumed safely.

Table 16- Sanitation of the Facilities

Questions	Average Weighted Means	Verbal Description
1. Is vending stall protected from sun, dust and wind?	3.05	Neither Agree
2. Are animals or insects evident around the vending stall?	2.97	Neither Agree
3. Is the vending stall maintained in a clean condition?	3.22	Neither Agree
4. Is there access to potable water at the site?	3.03	Neither Agree
5. Is adequate hand washing facilities available?	3.11	Neither Agree
6. Is environment around the stall clean far from rubbish, waste, toilet facilities and open drains?	4.15	Agree

Table 16 shows the number of vendors agreed in the sanitation of their facilities. Vending stalls far from rubbish, waste, toilet facilities and open drains has the highest weighted mean which is 4.15 that means most of the vendors were agreed, vending stalls exposed from animals and insects has the lowest weighted mean which is 2.97 and falls to the category of neither agree.

Based on the survey and observation made by the researchers, almost all the questions have the same verbal description of “neither agree”. It implies that majority of the vendors do not maintain always the sanitation of their facilities due to animals and insects are difficult to prevent.

Table 17- Vendors’ Personal Hygiene

Questions	Average Weighted Means	Verbal Description
1. Does the vendor wash their hands in clean water each time before the handling preparation and serving of food?	3.51	Agree
2. Are the vendor clothes clean and presentable?	3.51	Agree
3. Does the vendor use an apron?	2.92	Neither Agree
4. Does the vendor handle food using; - Bare hands - Gloves - Thongs - Fork/Spoon - Ladle/Funnel	3.46	Agree
5. Does the operator have clean short nails?	3.22	Neither Agree
6. Does the operator coughing, sneezing while serving of foods?	2.68	Neither Agree
7. Is dirt or dust removed by means of an apron, dirty cloths, or bare hands?	3.51	Agree
8. Is dirt or dust removed by blowing?	2.92	Neither Agree
9. Does vendor smoke during the handling/preparation of foods?	3.22	Neither Agree

Table 17 shows the interpretation for vendor’s personal hygiene. Results showed that most of the respondents wash their hands before handling foods, and wear clean and presentable clothes which has the highest weighted mean of 3.51, that means respondents agreed. Using spoon/fork and ladle, wearing hairnet and aprons, coughing and sneezing while serving foods has the same verbal description of “neither agree”. Using gloves while handling foods has the lowest weighted mean of 1.84 which has verbal description of “disagree”.

Based on the survey and observation of the researchers, most of the vendors did not maintain their personal hygiene while serving foods because of many customers. It indicates that street vendors have not enough knowledge in proper handling of foods and sanitation practices.

Table 18- Cleanliness of Utensils

Questions	Weighted Mean	Verbal Description
Are utensils properly cleaned/washed?	4.27	Strongly Agree
Are utensils are covered?	3.51	Agree
Are utensils cleaned adequately every time after use?	3.86	Agree

Table 18 shows the cleanliness of utensils. Findings showed that most of the respondents strongly agree that their utensils are properly cleaned and washed with the highest weighted mean of 4.27. Majority of the respondents indicated that their utensils are covered with has weighted mean of 3.51 and adequately cleaned every time after use, 3.86 with the same verbal description of “agree”.

It shows that numerous of vendors were concerned regarding on the cleanliness of their utensils, because they were selling foods and it is important that the utensils and equipment they use are properly cleaned.

Table 19- Waste Management

Permits	Yes		No	
	<i>f</i>	%	<i>f</i>	%
Barangay Permit	14	38	23	62
Mayor’s Permit	14	38	23	62
Sanitary Permit	14	38	23	62
Barangay Ticket	23	62	14	38

Table 23 shows the distribution on what the respondents comply to make their business legal. Business permit, mayor’s permit and sanitary permit got the same percentage in both choices which is 38 % for yes and 62 % for no and barangay’s ticket got the percentage of 62 % in yes and 38 % in no.

4. Problems Encountered in the Operation

Table 20- Internal Problems in the Operation

Problems Encountered	Average Means	Weighted	Verbal Description
Injury or any unexpected accident while vending street foods	2.16		Rarely
Sickness	2.24		Rarely
Lack of supplies for their products	2.76		Often
Harassment or any demand for bribes	4.14		Sometimes
Evictions from selling places, arrest and confiscation of goods by authorities	2.38		Rarely

Table 20 show that most of the street vendors assessed the problems encountered regarding on selling street foods. Based on the survey and observation, the most common internal problems is harassment or any demand for bribes with the weighted mean of 4.14 are verbally interpreted as “sometimes”. Lack of supplies of their products with have weighted mean of 2.76. Evictions from selling places, arrest and confiscation of goods by authorities with 2.38 weighted mean. Sickness with 2.24 weighted mean and Injury or any unexpected accident while vending street foods with the weighted mean of 2.16

Table 21- Internal Problems in the Operation

Problems Encountered	Average Weighted Means	Verbal Description
Decrease in sales during rainy season.	2.68	Often
Difficulty in finding secure places to sell.	2.62	Often
Lack of services and infrastructure such as water , electricity and waste removal.	2.68	Often
High Competition	4.14	Sometimes
Non-payment of customers	2.38	Rarely

Table 21 shows that most of the street vendors assessed the problems encountered regarding on selling street foods. Based on the survey and observation, the most common external problems are high competition with the weighted mean of 4.14. Decrease in sales during rainy season and lack of service, infrastructure such as water, electricity and waste removal with both 2.68 weighted mean. Difficulties in finding secure places to sell with the weighted mean of 2.62 and non-payment of customers with 2.38 weighted mean.

Conclusion

The researchers were able to arrive to the following conclusion based on the findings of the study. Majority of respondents are 35 to 45 year’s old, female, married, and high school graduate.

As to their business profile most of the respondents are stationary type of vendors, existing for six to ten, used tricycle to sell their products, earn 500 to 1000 pesos daily, and do not have any helpers employed. The most common type of foods being vended is siomai, siopao, kikyam, fishball, kwek-kwek, tokwa, nuggets and tokneneng. Most of the vendors got their supplies in Public Market and choose to prepared food on site. Their products are being displayed in an open area in the stall.

Vending stall of the vendors are not protected from the sun, dust and wind, exposed from animals or insects, not maintained the cleanliness, has no access to drinking water at the site and no available hand washing facilities. The stalls are far from the rubbish waste, open drains and toilet facilities.

As to the vendor’s personal hygiene vendors, Vendors wash their hands in clean water before handling preparation and serving of food. Although they wear clean and presentable clothes, they did not wear apron, and their hair are not properly covered using hairnet, and they did not use gloves. It can be implied that majority were not concerned about their personal hygiene when preparing and handling foods.

Street food vendors consume four bags or more for their garbage, although majority of them have own a waste bin still they are not separating their garbage into biodegradable and non-biodegradable. Majority of the vendors were not complying any permit or requirements and sanitary standards implemented.

Most of the internal problems encountered by street foods were harassment or any demand for bribes and regarding on external problems they always faced high competition.

REFERENCES

M. Choudhury, L. Mahanta, J. Goswami, M. Mazumder, B. Pegoo **Socio-economic profile and food safety knowledge and practice of street food vendors in the city of Guwahati, Assam, India**
 Food Control, 22 (2011), pp. 196-203



I.O. Akinyele. **Street foods and their contribution to the food security and nutritional status of Nigerians** West Afr. J. Food Nutr., 1 (1998), pp. 6-20

A.M. Hiemstra, K.G. Van der Kooy, M. Frese **Entrepreneurship in the street food sector of Vietnam – assessment of psychological success and failure factors**
J. Small Bus. Man., 44 (2006), pp. 474-481

C. Muyanja, L. Nayiga, N. Brenda, G. Nasinyama. **Practices, knowledge and risk factors of street food vendors in Uganda** Food Control, 22 (2011), pp. 1551-1558

J.F. Lues, M.R. Rasephei, P. Venter, M.M. Theron **Assessing food safety and associated food handling practices in street food vending** Int. J. Environ. Health Res., 16 (2006), pp. 319-328

A.M. Omemu, S.T. Aderoju. **Food safety knowledge and practices of street food vendors in the city of Abeokuta, Nigeria.** Food Control, 19 (2008), pp. 396-402

P. Mensah, K. Owusu-Darko, D. Yeboah Manu, A. Ablordey, F.K. Nkrumah, H. Kamiya
The role of street food vendors in the transmission of enteric pathogens in Accra Ghana Med. J., 33 (1999), pp. 19-29

S. Sefa-Dedeh **Traditional Food Technology. Encyclopedia of Food Science, Food Technology and Nutrition**
Academic Press, London (1993), pp. 4600-4606

M.P.V. Azanza, C.F. Gatchalian, M.P. Ortega **Food safety knowledge and practices of street food vendors in a Philippines university campus** Int. J. Food Sci. Nutr., 51 (2000), pp. 235-246