



A STUDY ON FOOD SAFETY POLICIES AND PRACTICES TOWARDS STREET FOOD VENDORS IN COIMBATORE CITY

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ABSTRACT

Street food is a weak link in food safety supervision, a topic of academic study for many years. In addition to offering convenience for many, millions of low-income individuals rely on street food for their livelihood, which has a significant positive impact on the economies of many developing nations.

INTRODUCTION AND DESIGN OF THE STUDY

The term street food focus on the "street-vended foods" or its equivalent "street foods" which are defined as foods and beverages prepared and/or sold by vendors in streets and other public places for immediate consumption or consumption at a later time without further processing or preparation. This definition includes fresh fruits and vegetables which are sold outside authorized market areas for immediate consumption. Because of socioeconomic changes in many countries, this sector has experienced significant growth during the past few decades. Urbanization and population growth, especially in developing countries, are expected to continue into the next century and street-vended foods, which are largely but not exclusively an urban phenomenon, will expand accordingly. While street-vended foods are appreciated for their unique flavours as well as their convenience, they are also often essential for maintaining the nutritional status of the population. Street food vending assures food security for low-income urban populations and provides a livelihood for a large number of workers who would otherwise be unable to establish a business for want of capital. Street food vending also offers business opportunities for developing entrepreneurs. In contrast to these potential benefits, it is also recognized that street-food vendors are often poor and uneducated and lack appreciation for safe food handling.

OBJECTIVES OF THE STUDY

- To know the socio demographic status of street food vendors in Coimbatore city
- To assess street vendors food safety and Hygiene knowledge level
- To find the factors influencing the Hygiene knowledge, attitude and practices of street vendors
- To offer suggestion to improve the vendors food safety and Hygiene knowledge level in food production.

SCOPE OF THE STUDY

The present study covers the coimbatore city of tamilnadu. It deals with the policies and attitudes of food safety knowledge and hygienic practice among street food vendors the period of this study is about four months i.e. From December 2022 to March 2023.

RESEARCH METHODOLOGY

MEANING

Research methodology is a way to systematically solve the problem. It may be understood as a science of studying how research is done scientifically. A research design is a basic plan that helps in data collection or analysis.



DEFINITIONS

Research defines to a critical, careful investigation or enquiry or examination having as its aims newly discovered fact

RESEARCH DESIGN

The task of defining the research problem is the preparation of the design of the research project. The research design of the study is descriptive in nature. The term research is also used to describe an entire collection of information about a particular subject using the street food vendors.

DATA COLLECTION

Data collection is a term used to describe a process of preparing and collecting data for example as a part of a process improvement or similar project. The purpose of data collection is to obtain information to keep and processed to obtain results.

SAMPLE SIZE

Sample size refers to the number of items to be selected from the sample. 120 respondents are taken as a sample for this study.

SAMPLE DESIGN

A sample design is a definite plan for obtaining a sample frame from frame. It refers to the techniques or the procedure that would adopt in selecting some sampling unit from which inference about the population are drawn. The sample design adopted for this study is convenient random sampling.

METHODS OF DATA COLLECTION

PRIMARY DATA

The primary data are those, which are collected a fresh and for the first time and thus happen to be original in character. For the collection of primary data, questionnaire was used as a research instrument. It has both closed ended and open questions.

SECONDARY DATA

The secondary data, on the other hand are those which have already been passed through some statistical process. For the theoretical aspects secondary data were collected from books, journals and downloaded from websites.

TOOLS USED FOR THE STUDY

The study is done using

1. Simple percentage analysis
2. Likert Scale
3. Henry's Garrett Ranking
4. Two way table
5. Chi-square test

Simple Percentage analysis

The percentage analysis is mainly employed to find the distribution of different categories of respondents. As the values are expressed in percentage it facilitates comparison and standardization. This analysis describes the classification of the respondents falling under each category.

Formula

$$\text{PERCENTAGE} = \frac{\text{Number of Respondents}}{\text{Total Number of Respondents}} \times 100$$

Likert Scale

A Likert Scale is a type of rating scale used to measure attitude or opinion. With this scale, respondents are asked to rate items on level of agreement. For example,

- Highly Satisfied
- Satisfied
- Neutral



- Dissatisfied
- Highly Dissatisfied

Henry Garrett's Ranking

This technique was used to evaluate the problems faced by the researchers. The orders of merit given by the respondents were converted in to rank by using the formula. Garrett's ranking technique was used to rank the preference indicated by the components on different factors. As per this method, respondents have been asked to assign the rank for all factors and the outcomes of such ranking have been converted more value.

$$\text{Percent Position} = \frac{100 (R_{ij} - 0.5)}{N_j} \times 100$$

Where,

R_{ij} = Rank given for the i th variable by j th respondents.

N_j = Number of variables ranked by j th respondents.

With the help of Garrett's table, the percentage position estimated is converted into scores then for each factor, the scores of each individual are added and then total value of scores and 36 mean value of scores is calculated. The factors having highest mean value is considered to be the most important factor.

Two Way Table

A two-way or contingency table is a statistical table that shows the observed number or frequency for two variables, the rows indicating one category and the columns indicating the other category. Two-way frequency tables are also called contingency tables. Two-way frequency tables are a visual representation of the possible relationships between two sets of categorical data.

Chi-Square Test

A chi-squared test, also referred to as chi-square test or χ^2 test, is any statistical hypothesis test in which the sampling distribution of the test statistic is a chi squared distribution when the null hypothesis is true. Also considered a chi-squared test is a test in which this is asymptotically true, meaning that the sampling distribution (if the null hypothesis is true) can be made to approximate a chi-squared distribution as closely as desired by making the sample size large enough.

$$\chi^2 = \sum \frac{(O - E)^2}{E}$$

- Σ means to sum up
- O = each **Observed** (actual) value
- E = each **Expected** value

LIMITATION OF THE STUDY

- As the topic for the study is wide, all matters regarding the study could not be analysed and taken for the consideration.
- The study was undertaken only in Coimbatore city, and the result may not be the same in other of the state.
- Data's collected totally depend on respondent's view, which could be bias in nature.
- The study can't be 100% accurate at all the time. This is because of the inherent limitations that could be present in a study.
- Illiteracy and low educational attainment of the respondents of the respondents made the task of researchers more difficult to make them understand the purpose of research.
- Though large number of books available on food safety in general, publications regarding the food safety knowledge and hygienic practices among vendors are not available in numbers.

REVIEW OF LITERATURE

Jowan Choi, (2013)¹ in his study examined dimensions of consumer risk/benefit perception toward street food and tested their effects on attitude toward street food and behavioural intention. Exploratory factor analysis tested a five risk and two benefit factor model. A conceptual model was tested using structural equation modelling. This study found that perceived risks negatively affected consumer attitude toward street food, and perceived benefits positively affected attitude. In turn, risk perception negatively affected behavioural intention. The study found that attitude toward street food fully mediated the relationship between benefit perception and behavioural intention and partially mediated the relationship between risk perception and behavioural intention.



Ty Matejovsky (2013)² in his paper provides a critical food analysis of balut. These popular Filipino street snacks comprised of partially incubated duck eggs with a decidedly liminal character have become increasingly familiar to Westerners over recent years thanks to their most sensationalized depictions in various genres of popular culture. A number of pertinent examples from Western reality television, independent film, post-grunge alternative rock, international prizefighting, and myriad foodie/gastroporn websites, as well as my own ethnographic experience in the Philippines dating back to the mid-1990s, highlight balut's symbolic value both in the construction of identity for native Filipinos and as a rite of passage for others.

Lenore Lauri Newman, (2013)³ in his article street vending of snacks and small meals is growing in popularity, coinciding with a rising interest in local food systems and mixed-use planning in urban neighbourhoods. However, many cities have little or no urban street food due to historically strict bylaws, and in some centres, the move to relax the prohibition on street foods has been difficult. This paper examines the theoretical discourse surrounding street food and presents a case study of the city of Portland, Oregon, which is seen as a leader in the area of allowing a vibrant street food culture to develop. This study found that Portland's success is a product of both progressive municipal bylaws and intrinsic spatial and social qualities of the urban landscape. Lessons for cities trying to encourage a street food industry are discussed.

Jowan Choi ,(2013) “Journal of Travel & Tourism Marketing”: The Effects of Consumers Perceived Risk and Benefit on Attitude and Behavioural Intention, A Study of Street Food, 30.

Ty Matejovsky, (2013) “The Incredible, Edible Balut”: Ethnographic Perspectives on the Philippines' Favourite Liminal Food, 16.

Lenore Lauri Newman, “Street food and vibrant urban spaces”: Lessons from Portland, Oregon Local Environment, V-18, 2013.

TABLE 4.1.1
TABLE SHOWS THAT GENDER OF THE RESPONDENTS

S.NO	GENDER	NO.OF RESPONDENTS	PERCENTAGE(%)
1	Male	74	62
2	Female	46	38
Total		120	100

(Source: Primary Data)

INTERPRETATION

The above table shows that 62% of the respondents are belonging to Male category and 38% of the respondents are belonging to the Female category.

INFERENCE

The majority (62%) of the respondents are belonging to Male category.

TABLE No – 4.2.1
TABLE SHOWING THE LEVEL OF SATISFACTION TOWARDS THE ATTITUDE OF STREET FOOD VENDORS

Range	Level of Satisfaction	No. of. Respondent	Percentage%
Above 15	Satisfied	98	81.66
10 – 15	Neutral	22	18.34
Less than 15	Dis satisfied	Nil	Nil
Total		120	100

INFERENCE

The above table shows that majority 81% of the respondents are satisfied with the attitude of street food vendors, followed by 18% of the respondents are neither satisfied nor dissatisfied and none of the respondents are dissatisfied with the attitude of street food vendors.



**TABLE NO – 4.3.1
PERCENTILE POSITION AND GARRETT VALUE**

S.No	$100 (R_{ij} - 0.5) \div 5$	Calculated Value	Garrett Value
1	$100 (1 - 0.5) \div 5$	10	75
2	$100 (2 - 0.5) \div 5$	30	60
3	$100 (3 - 0.5) \div 5$	50	50
4	$100 (4 - 0.5) \div 5$	70	40
5	$100 (5 - 0.5) \div 5$	90	24

INFERENCE

Position of the rank 1, 2, 3, 4 & 5 in the Garrett ranking table for the rank 1, the percentage position is calculated as 10 and the table value 75 and in the same way the Garrett value of rank 2 to 5 is identified.

TABLE 4.3.2 GARRETT RANKING TABLE

HYGIENE PRACTICES	1	2	3	4	5	Total	Rank
Use of Apron	1350	780	1700	1320	528	5678	V
Hair covered	1650	1320	1200	1040	624	5834	IV
Cleanfinger nails	1725	1680	1000	880	648	5933	III
Clean water	1650	2340	850	960	432	6232	II
Hand washing	2700	1080	1150	680	624	6234	I

INFERENCE

The above table sources that Garret score value and ranking. Firstly, the Garret rank are calculated by using appropriate garret ranking formula. Then based on the Garret ranks the Garrettable value is ascertained. The Garret value given in which are multiplied to record Garret scores in table.

Finally, by adding each row the total garret score is obtained. Then the garret scores are ranked according to their values: The First Rank is given to “**Hand washing regularly**” The Second Rank is given to “**Usage of clean water**” The Third Rank is given to “**Neat/clean finger nails**” The Fourth Rank is given to “**Hair covered**” The Fifth Rank is given to “**Use of Apron**”

TABLE No 4.4

TWO WAY TABLE SHOWING THE RELATIONSHIP OF THE DIFFERENT AREAS OF PEOPLE USING THE VARIOUS TYPES OF FUELS FOR COOKING

S.No	Location	Fuel used for cooking				Total
		Gas cooker	Electric stove	Charcoal	Fire wood	
1	Rural	20 (44.44%)	18 (39.14%)	6 (66.66%)	08 (40%)	52
2	Urban	10 (22.23%)	20 (43.4%)	2 (22.23%)	4 (20%)	36
3	Semi-urban	15 (33.33%)	8 (17.39%)	1 (11.11%)	8 (40%)	32
		45 (100%)	46 (100%)	9 (100%)	20 (100%)	120

INFERENCE

The above two way table shows that majority (67%) of the respondents are using Charcoal as a fuel for cooking in rural area, followed by (44%) of the respondents uses Gas cooker, followed by (40%) of the respondents uses firewood, and at last (39%) of the respondents use Electric stove as a fuel for their cooking purpose.

The above two way table shows that majority (43%) of the respondents are using Electric stove as a fuel for cooking in urban area, followed by (22%) of the respondents uses Gas cooker, (22%) of the respondents uses Charcoal, and at last (20%) of the respondents use Fire wood as a fuel for their cooking purpose.



The above two way table shows that majority (40%) of the respondents are using Fire wood as a fuel for cooking in semi-urban, followed by (33%) of the respondents uses Gas cooker, followed by (17%) of the respondents uses Electric stove, and at last (11%) of the respondents use Charcoal as a fuel for their cooking purpose.

TABLE No 4.5

CHI-SQUARE TABLE SHOWING THE RELATIONSHIP BETWEEN THE DIFFERENT AREAS OF PEOPLE USING THE VARIOUS TYPES OF FUEL FOR COOKING

Observed Frequency	Expected Frequency	O - E	$(O - E)^2$	$\frac{(O - E)^2}{E}$
20	19.5	0.5	1	0.05
10	13.5	-3.5	12.25	0.90
15	12	3	9	0.75
18	19.9	-1.9	3.16	0.18
20	13.8	6.2	38.44	2.75
08	12.2	-4.2	17.64	1.44
06	3.9	2.1	4.41	1.13
02	2.7	-0.7	0.49	0.18
01	0.075	0.92	0.84	11.2
08	8.66	-0.66	0.43	0.04
04	6	-2	4	0.66
08	5.33	2.6	6.76	1.26
TOTAL				20.57

$$\begin{aligned} \text{Degree of freedom} &= (r - 1)(c - 1) \\ &= (3 - 1)(6 - 1) \\ &= 2 \times 5 \\ &= 10 \end{aligned}$$

Tabulate chi-square at 5% for 9df = 18.307 since, the calculated value of chi square is greater than the tabulated value of chi-square at 5% level of significant it is significant and null hypothesis is rejected. Hence the study concluded that the location has significant effect on the fuel used for cooking.

FINDINGS, SUGGESTIONS AND CONCLUSION

5.1 FINDINGS

5.1.1. SIMPLE PERCENTAGE ANALYSIS

- ❖ Majority 62% of the respondents are male.
- ❖ Most of the respondents with 39% belongs to the age group of below 20 years.
- ❖ Majority 67% of the respondents are married.
- ❖ Mostly 47% of the respondents are having 3-4 members in their family .

LIKERT SCALE

- ❖ Majority 82% of the respondents have satisfied for the attitude of the street food vendors.
- ❖ 18% of the respondents have responded neutral for the attitude of the street food vendors.

5.1.3. GARRET RANKING

- ❖ The Garret ranking table shows the overall ranks given by the respondents
- ❖ The first rank is given to “Hand washing regularly.” ❖ The second rank is given to “Usage of clean water”. ❖ The third rank is given to “Neat/Clean finger nails”
- ❖ The fourth rank is given to “Hair Covered”
- ❖ The fifth rank is given to “Use of apron”



5.1.4. TWO WAY TABLE

- ❖ Majority 67 % of the respondents who are residing at rural areas are using Charcoal for the purpose of cooking food.
- ❖ 11% of the respondents who are residing at the semi urban areas are using charcoal for the purpose of cooking food.

5.1.5. CHI- SQUARE

- ❖ The study calculated that the respondents residing at the rural areas have no significant effect on the types of fuel used for cooking .

5.2 SUGGESTION

- ❖ Utensils have to be washed and cleaned regularly.
- ❖ Method of washing can be significantly improved for cleaning the utensils.
- ❖ High technology can be used for the purpose of disposing the waste.
- ❖ Left over foods can be disposed in an efficient manner.
- ❖ Hygiene practices can be significantly improved.
- ❖ Various methods can be improved for the purpose of handling the food.
- ❖ The street vendors have to have the thorough knowledge, attitudes and practices of street food vendors.
- ❖ There is a need to draw attention of state government, for establishing an integrated plan for street food vending business.
- ❖ Mostly the vendors are college dropouts, Hence some educational awareness is required to them.
- ❖ The government can help to boost the infrastructure and this can help the vendors' business to be regional development for particular region.
- ❖ As storage is the major problem for street vendors, government can take proper initiative like it can provide monetary incentives to vendors to maintain proper cleanliness and storage to minimize their loss and wastage of food.

5.3 CONCLUSION

- Street vendors are contributing to the well-being of the urban and rural population by providing goods and products at cheaper rates. The contribution of street vendors is important to the overall economy and labour market. This study investigated in one twenty respondents of street vendors randomly selected in Coimbatore city to address the problem faced by them, through direct interview. The study found that most of the respondents are facing problems due to climatic change, health conditions, and less awareness among street vendors about government policies provided to the street vendors. But they are not aware that such policies
- Street food vending plays an important role in the urban food system, providing affordable and accessible food options to a large segment of the population. However, street food vendors often face challenges such as legal recognition, inadequate infrastructure and health safety concerns. Thus the food vending industry can develop effective policies that can promote its growth and sustainability.

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