

Street Vendors' Food Safety Knowledge, Attitudes and Practices and Consumers' Preference About Street Food Marketing in Chennai City

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KEYWORDS

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ABSTRACT

Purpose-The purpose of a study on "Street Vendors' Food Safety Knowledge, Attitudes, and Practices and Consumers' Preference About Street Food Marketing" typically revolves around several key objectives. The study would typically aim to inform public health efforts, regulatory policies, and the support structures needed for street vendors to improve food safety while meeting consumer demand. **Design/methodology/approach-**This study adopts a descriptive cross-sectional design to gather information on the current knowledge, attitudes, and practices of street vendors related to food safety. It also examines consumer preferences regarding street food marketing and their perceptions of food safety. This study adopts a descriptive cross-sectional design to gather information on the current knowledge, attitudes, and practices of street vendors related to food safety. A sample of approximately 150 street vendors and 150 consumers will be targeted for this study, providing a representative overview of the practices and preferences in Chennai's Street food sector. **Findings-Food Safety Knowledge Gaps:** Many street vendors in Chennai have limited formal knowledge about food safety, with gaps in understanding key areas such as personal hygiene, food handling, and the risks of cross-contamination. **Inconsistent Attitudes and Practices:** Vendors generally express positive attitudes toward maintaining hygiene, understanding its importance for consumer health and business success. **Originality/value-Underserved Research Area:** Street food vending is a significant part of the informal economy, particularly in developing regions, but often lacks sufficient formal research. This study explores an area where academic and policy-focused research may be limited, making it a fresh and critical investigation. **Focus on Food Safety in Informal Settings:** While food safety is well-documented in formal food industries, there is less research on how informal vendors manage food safety. This study provides original insights into how these vendors understand and practice food safety without formal training or resources.

1. Introduction

Street vending is a widespread economic activity, particularly in urban areas of developing countries, where it serves as a source of income for millions of people. Street vendors sell a wide variety of goods, from clothing and electronics to one of the most popular items—food. Street food vending is an essential part of many local economies and cultural landscapes, providing affordable, quick, and often unique meals to both locals and tourists.

Despite its popularity, street vending operates largely in the informal sector, with vendors often lacking access to formal business infrastructure, resources, and regulations. This informal nature presents challenges, especially in terms of regulation and public health. Street vendors often face obstacles such as limited access to clean water, proper sanitation, refrigeration, and waste disposal systems, which are vital for ensuring the safety of food.

Street vendors are often highly mobile and operate in crowded public spaces like markets, sidewalks, and bus stations. This flexibility allows them to cater to a broad customer base and adapt to shifting demands, but it also creates difficulties in enforcing food safety standards. Many vendors do not have formal training in food safety or business management, which may lead to inconsistent hygiene practices and increase the risk of foodborne illnesses.

Street food is not only a matter of convenience but also a cultural experience, reflecting the culinary traditions and innovations of different regions. However, the growing concern over the hygiene and safety of street food has prompted increased attention from public health authorities and consumers alike.

This introduction highlights the importance of street vendors in the economic and cultural spheres, while also

underscoring the challenges they face, particularly in ensuring food safety. Addressing these issues is crucial for supporting the livelihoods of street vendors and protecting the health of the consumers who rely on them.

Street food vending plays a significant role in urban food supply systems across the world, especially in developing nations. It provides affordable, convenient meals to a large segment of the population, often offering local delicacies that reflect the cultural and culinary heritage of the region. However, the informal nature of street vending presents challenges, particularly in ensuring that food safety standards are consistently met.

Food safety knowledge, attitudes, and practices (KAP) among street vendors are crucial factors influencing the safety and quality of the food they offer. These vendors typically operate with limited infrastructure, such as inadequate access to clean water, refrigeration, or waste disposal facilities, which increases the risk of contamination and foodborne diseases. Understanding how vendors perceive and handle food safety can help inform interventions aimed at improving hygiene and safeguarding public health.

Many street vendors lack formal training on food safety, relying on traditional methods or personal experience. While some may be aware of basic hygiene practices, others may not fully grasp the importance of proper food handling, storage, and preparation. The attitudes of vendors towards food safety are shaped by various factors, including economic pressures, cultural beliefs, and consumer expectations. Vendors who prioritize short-term profits over long-term safety may neglect essential hygiene practices, while others may be willing to adopt safer methods but are constrained by resources.

2. Background of the Study

Street food trade is a crucial component of the informal economy, providing affordable and accessible meals to millions of people globally. It is particularly significant in urban areas of developing countries, where it meets the needs of diverse populations, including low-income groups, daily commuters, and tourists. While street food plays an important role in food security, nutrition, and local culinary culture, its informal nature presents several challenges, especially in terms of food safety.

One of the primary concerns regarding street food is the potential for foodborne illnesses, which can arise from improper food handling, preparation, and storage practices. Food safety is a critical public health issue, and the practices of street vendors have a direct impact on the quality and safety of the food they provide. Vendors' knowledge of food safety measures, their attitudes toward maintaining hygiene, and the practices they follow all influence the risk of contamination and the potential spread of foodborne diseases.

Street vendors often operate in environments with limited infrastructure, such as inadequate access to clean water, proper sanitation, and refrigeration. These conditions increase the risk of bacterial contamination and make it difficult for vendors to consistently maintain hygienic standards. Furthermore, many street vendors lack formal training in food safety and rely on personal experience or traditional knowledge, which may not always align with best practices for food hygiene.

Research into the knowledge, attitudes, and practices (KAP) of street vendors concerning food safety is essential to understanding how well-prepared they are to manage these risks. Knowledge refers to their understanding of safe food handling and preparation techniques. Attitudes relate to their perception of the importance of food safety in their business operations, while practices involve the actual behaviours they exhibit in maintaining hygiene standards.

Various studies have found gaps in the food safety knowledge of street vendors, often due to a lack of education or training. For instance, many vendors may not fully understand the importance of handwashing, the proper use of protective clothing, or the risks associated with cross-contamination. Despite these knowledge gaps, some vendors may exhibit positive attitudes toward food safety but face challenges in implementing these practices due to resource constraints or economic pressures.

The increasing popularity of street food, combined with growing concerns over food safety, underscores the need for effective interventions. Public health campaigns, vendor training programs, and better regulatory frameworks could improve food safety standards within the street food sector. Additionally, understanding consumers' perceptions of food safety and their purchasing behaviour can provide insights into how to encourage vendors to adopt safer practices.

This study seeks to examine the level of food safety knowledge among street vendors, assess their attitudes toward hygiene and safety, and analyse the practices they follow in their daily operations. By identifying the

gaps between knowledge, attitudes, and practices, the study aims to provide recommendations for improving food safety in the street food industry, ultimately benefiting both vendors and consumers.

3. Review of Literature

Food vendors in traditional markets shoulder a heavy responsibility to keep food safe under often challenging conditions. The ability of these vendors to ensure food is safe is shaped by their knowledge, attitudes, and practices (KAP). Hence, understanding vendor KAP is important when designing interventions to improve food safety. (Fiona Wallace et.,al 2022)Controlling and ensuring the safety of street-vended foods in many countries is a challenge considering that these foods are often less expensive and readily available.(Chioma V. Asiegbuet.,al 2016) the risk and benefit perceptions of the consumers of street food vendors. It will identify the reasons which affect consumer's attitude and consumption patterns towards street foods, which bring about changes in their behavioural intentions.(Vikas Gupta et.,al 2018)Street food vending is still popular in developing countries despite the giant stride recorded in the areas of food processing and global food supply in the last century. Its contribution to the socio-economic development of the countries is evidenced by the volume of trade involved and provision of employment for significant portion of rural and urban populace. (BuliyaminuAdegbemiro Alimiet.,al 2015)This study has reaffirmed that street vended foods prepared, sold in hygienically unsatisfactory environments and there is a great potential for cross contamination. Despite street vended foods will continue to provide food source and income for a growing population. (Charles Muyanjaet.,al 2011)The street foods play an important socioeconomic role in meeting food and nutritional requirements of city consumers at affordable prices to the lower and middle income people (Md. Khairuzzamanet.,al 2014). Street food trading solves major social and economic problems in developing countries through the provision of ready-made meals at relatively inexpensive prices and employment for teeming rural and urban populace along its value chain. However, due to informal nature of the enterprise, the activities of the practitioners are not regulated(BuliyaminuAdegbemiro Alimi 2016) Thedemand from the food vending sector alone will not institutionalize domestic certification mechanisms; this underlines the need for public commitment to facilitating such change.(Lorenz Probst et.,al 2012).

STATEMENT OF THE PROBLEM

The street food industry in Chennai is a vital part of the city's economy and culture, providing affordable and diverse meals to many people, including residents, daily commuters, and tourists. However, the informal nature of street vending raises significant concerns about food safety. In Chennai, like many other urban areas, street vendors often operate under challenging conditions, such as limited access to clean water, sanitation, and proper food storage facilities. This makes the maintenance of food hygiene and safety a critical issue.

The problem of food safety in the street food sector is compounded by the limited knowledge and inconsistent practices of street vendors regarding hygiene and food handling. Many street vendors in Chennai lack formal training on food safety regulations and rely on traditional practices or personal experience, which may not always align with modern food safety standards. As a result, the risk of foodborne illnesses increases, posing potential health risks to consumers.

Despite these concerns, street food remains popular among consumers in Chennai, largely due to its convenience, affordability, and cultural significance. Consumers, however, may not always prioritize food safety in their purchasing decisions, often focusing more on taste, price, and accessibility. This creates a complex dynamic where vendors may not feel motivated to improve food safety practices if they perceive that consumers are primarily concerned with other factors.

OBJECTIVES OF THE STUDY

- To assess the level of food safety knowledge among street vendors.
- To evaluate the attitudes of street vendors toward food safety and hygiene.
- To analyse the actual food handling and hygiene practices followed by street vendors.
- To examine consumers' preferences and perceptions about street food safety.

4. Methodology

The methodology section outlines the research design, data collection methods, sampling techniques, and data

analysis procedures that will be employed to assess the food safety knowledge, attitudes, and practices (KAP) of street vendors, along with consumers' preferences regarding street food in Chennai.

4.1 Research Design:

This study adopts a descriptive cross-sectional design to gather information on the current knowledge, attitudes, and practices of street vendors related to food safety. It also examines consumer preferences regarding street food marketing and their perceptions of food safety.

4.2 Study Area:

The research will be conducted in Chennai, a major urban area with a vibrant street food culture. The study will cover different zones of the city, including high-traffic areas such as markets, bus stations, and popular tourist destinations, where street vendors frequently operate.

4.3 Target Population:

- **Street Vendors:** Street food vendors operating in various locations across Chennai, representing diverse food types (e.g., snacks, meals, beverages).
- **Consumers:** Individuals who frequently purchase and consume street food in Chennai.

4.4 Sample Size and Sampling Technique:

- **Sample Size:** A sample of approximately 150 street vendors and 150 consumers will be targeted for this study, providing a representative overview of the practices and preferences in Chennai's Street food sector.
- **Sampling Technique:** Convenience sampling will be used to select consumers, focusing on individuals who are purchasing street food during the data collection period.

4.5 Data Collection Methods:

To achieve the objectives of the study, both quantitative and qualitative data will be collected using the following instruments: Questionnaire Surveys A structured questionnaire will be used to assess Food safety knowledge, Attitudes toward food safety, Actual practices, Demographic information. For Consumers: A separate structured questionnaire will be used to evaluate: Consumer perceptions of street food safety, Factors influencing their preferences (e.g., taste, price, convenience, hygiene), Demographic data (e.g., age, gender, income level, frequency of purchasing street food).

4.5 Data Analysis

The data collected will be analysed using qualitative methods. The data from the vendor and consumer surveys will be analysed using descriptive statistics. ANOVA will be used to identify any significant relationships between variables such as the vendors' knowledge of food safety and their actual practices, as well as the relationship between consumers' preferences and perceptions of food safety. Statistical analysis will be performed using software like SPSS 16.0.

5. Data Analysis and Interpretation

The data collected from 150 respondents, consisting of both street vendors and consumers in Chennai, were analysed using statistical tools to understand the relationship between vendors' food safety knowledge, attitudes, and practices (KAP), as well as consumers' preferences about street food. The analysis is divided into two main sections: street vendors and consumers.

Table.1 Demographic Profile of the respondents

Personal Factors	Classification	No. of Respondents	Percentage
Gender	Male	93	62%
	Female	57	38%
	Total	150	100
Age	21 – 25	67	44.7 %
	26 – 30	35	23.3 %
	31 – 35	31	20.7 %
	Above 35	17	11.3 %
	Total	150	100
Educational Qualification	Illiterate	61	40.6
	School – Level	38	25.4

Marital Status	Diploma / ITI	30	20
	Under Graduate	21	14
	Total	150	100
	Married	75	50%
	Unmarried	75	50%
	Total	150	100

Source: Primary data

Table.1 shows that out of 150 respondents, 62% of the respondents are Male and the remaining 38 percent of the respondents are Female. Majority 44.7% of the age group of the respondent are 21-25 groups. Educational qualification majority of the respondents are illiterate 40.6 % of the respondents.50 percent of the respondents are married, 50percent of the respondents are unmarried.

WEIGHTED AVERAGE ANALYSIS

Table.2 Knowledge, Attitudes, And Practices Among Street Vendors

S. No	Source	Weight										Total	Weighted Average Rank	Rank
		9	8	7	6	5	4	3	2	1				
		Weighted Score												
1	Awareness of foodborne diseases	180	160	175	90	90	48	42	32	10	827	5.51	3	
2	Understanding of hygiene practices	162	128	140	186	115	68	30	16	7	852	5.76	1	
3	Food storage knowledge	144	152	161	78	90	60	60	20	16	781	5.20	4	
4	Knowledge of cross-contamination	135	144	84	84	80	40	69	40	22	698	4.65	9	
5	Knowledge of local food safety regulations	180	184	217	102	50	52	54	16	10	865	5.68	2	
6	Perceived importance of food safety	171	144	105	120	50	64	45	34	20	753	5.02	6	
7	Responsibility towards customers	126	128	70	102	75	88	84	30	13	716	4.77	8	
8	Risk perception	144	120	140	66	115	72	51	20	20	748	4.98	7	
9	Personal hygiene	153	152	84	78	90	112	36	36	13	754	5.03	5	

Weighted score = Weight x No. of Respondents. Weighted average rank: Total/sum of weight (Source: Primary Data)

It is evident from Table 2 that the first preference is for the statement "understanding of hygiene practices," and that knowledge of local food safety regulations. The attitude that " Food storage knowledge" is ranked third, " Food storage knowledge" is ranked fourth, " Personal hygiene" is ranked fifth, "the Perceived importance of food safety" is ranked sixth, and " Risk perception" is ranked seventh. The eighth preference of Responsibility towards customers. The lowest preference is that Knowledge of cross-contamination.

Table.3 Consumers' Preference About Street Food Marketing

Particular	Group	Sum Of Square	Df	Mean Square	F	Sig.
Food Safety Perception	Between Groups	2.691	1	2.691	1.656	.200
	Within Groups	240.482	148	1.625		
	Total	243.173	149			
Taste and Quality	Between Groups	5.936	1	5.936	10.566	.001
	Within Groups	83.138	148	.562		
	Total	89.073	149			
Price Sensitivity	Between Groups	.097	1	.097	.052	.819
	Within Groups	274.763	148	1.857		
	Total	274.860	149			
Convenience	Between Groups	119.275	1	119.275	129.275	.000
	Within Groups	136.059	148	.919		
	Total	255.333	149			
Brand Loyalty and Trust	Between Groups	8.633	1	8.633	4.226	.042
	Within Groups	302.327	148	2.043		
	Total	310.960	149			
Health Consciousness	Between Groups	4.155	1	4.155		

	Within Groups	147.718	148		4.163	.043
	Total	151.873	149	.998		
Cultural Preferences	Between Groups	0.124	1	.124	.146	.703
	Within Groups	125.236	148			
	Total	125.360	149	.849		
Peer Influence	Between Groups	45.706	1	45.706		
	Within Groups	129.468	148		52.248	.000
	Total	175.173	149	.875		
Advertising & Communication	Between Groups	6.691	1	6.691		
	Within Groups	239.309	148		4.138	.044
	Total	246.000	149	1.617		
Promotional Activities	Between Groups	10.490	1	10.490		
	Within Groups	310.343	148		5.003	.027
	Total	320.833	149	2.097		
Packaging & Presentation	Between Groups	79.931	1	79.931		
	Within Groups	145.729	148		81.177	.000
	Total	225.660	149	.981		
Online and Social Media Presence	Between Groups	136.465	1	136.465		
	Within Groups	177.729	148		113.638	.000
	Total	314.193	149	1.201		

Source: Primary data

From the table.3 one-way ANOVA was applied to test the significance difference between gender and Consumers' Preference About Street Food Marketing. The calculated value of Food Safety Perception 1.656, significant value was 0.200, hence null hypothesis is accepted. The calculated value of Taste and Quality 10.566, significant value was 0.001 hence the null hypothesis is rejected. The calculated value of Price Sensitivity 0.052, significant value was 0.819 hence the null hypothesis is accepted. The calculated value of Convenience 129.743, significant value was 0.000 hence the null hypothesis is rejected. The calculated value of Brand Loyalty and Trust 4.226, significant value was 0.042 hence the null hypothesis is rejected. The calculated value of Health Consciousness 4.163, significant value was 0.043 hence the null hypothesis is rejected. The calculated value of Cultural Preferences 0.146, significant value was 0.703 hence the null hypothesis is accepted. The calculated value of Peer Influence 52.248, significant value was 0.000 hence the null hypothesis is rejected. The calculated value of Advertising & Communication 4.138, significant value was 0.044 hence the null hypothesis is rejected. The calculated value of Promotional Activities 5.003, significant value was 0.027 hence the null hypothesis is rejected. The calculated value of Packaging & Presentation 81.177, significant value was 0.000 hence the null hypothesis is rejected. The calculated value of Online and Social Media Presence 113.638, significant value was 0.000 hence the null hypothesis is rejected.

6. Limitations of the Study

- **Limited Generalizability:** Since the study focuses only on street vendors and consumers in Chennai, the findings may not be fully generalizable to other cities with different socio-economic or cultural contexts.
- **Self-Reported Data:** There is a possibility of bias in the self-reported data from street vendors regarding their practices.

7. Findings of the Study

- **Food Safety Knowledge Gaps:** Many street vendors in Chennai have limited formal knowledge about food safety, with gaps in understanding key areas such as personal hygiene, food handling, and the risks of cross-contamination. While some vendors are aware of basic hygiene practices, this knowledge is often incomplete or not consistently applied.

- **Inconsistent Attitudes and Practices:** Vendors generally express positive attitudes toward maintaining hygiene, understanding its importance for consumer health and business success. However, these attitudes do not always translate into safe practices. Economic pressures, lack of resources (such as clean water and proper storage), and the absence of formal training often result in vendors prioritizing cost and convenience over food safety.
- **Environmental and Resource Constraints:** The ability of vendors to maintain proper food safety standards is influenced by external factors such as the availability of clean water, proper waste disposal, and access to refrigeration. In many cases, these limitations hinder the effective implementation of safe food practices, despite vendors' awareness of their importance.
- **Consumer Preferences and Awareness:** Consumers in Chennai continue to prefer street food for its affordability, convenience, and taste. While there is growing awareness about food safety, many consumers prioritize cost and flavour over hygiene. This lack of strong consumer demand for safe food practices reduces the incentive for vendors to invest in improved hygiene.

8. Suggestions

- **Training and Education:** Regular, accessible training on food safety standards for street vendors can significantly improve their knowledge and practices.
- **Infrastructure Improvements:** Local authorities should focus on providing better infrastructure, such as clean water access and waste management facilities, to support vendors in maintaining hygiene.
- **Consumer Awareness Campaigns:** Public health campaigns aimed at increasing consumer awareness of food safety can help drive demand for safer street food, encouraging vendors to adopt better practices.

Ultimately, improving food safety practices among street vendors in Chennai will require a collaborative approach involving government authorities, public health organizations, vendors, and consumers. By addressing both the vendors' challenges and consumers' preferences, the street food sector in Chennai can continue to thrive while ensuring the safety and well-being of all.

9. Conclusion

Street vendors in Chennai form a critical part of the city's food system, but the lack of formal training and resource limitations create significant food safety risks. Addressing these challenges requires targeted interventions, including vendor training programs, improved access to safe water and sanitation, and enhanced consumer awareness of food safety.

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