



A Study On Awareness About Food Adulteration Among Urban Consumers With Reference To Kalapatti

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ABSTRACT: This study investigates consumer awareness regarding food adulteration in an urban setting, highlighting the prevalence of harmful substances in commonly consumed food products. Through a descriptive research design, data was collected from a sample of urban consumers to identify perceptions, knowledge gaps, and the impact of food adulteration on health. The findings reveal significant levels of chemical contamination and low-quality materials, necessitating urgent consumer education and stricter regulatory measures.

Key words: Awareness, adulteration, Consumer education

I. INTRODUCTION:

Food is vital to human existence because it supplies the nutrients needed for survival and health. However, food adulteration has grown in concern in recent years and poses major health risks to consumers. The deliberate degradation of food quality through the addition of toxic substances or the removal of essential nutrients is known as food adulteration. Although this practice is frequently used to boost profit margins, it can have severe effects on public health.

Urban consumers are especially vulnerable to adulteration because they consume a lot of packaged and processed foods. Understanding food adulteration is essential to maintaining consumer safety in places like Coimbatore, where there is a high demand for convenience foods. Many customers might unintentionally buy adulterated food items, which could result in long-term illnesses, organ damage, and food poisoning, and other health problems.

Creating awareness about food adulteration is essential in ensuring public health and safety. Consumers should be informed about common adulterants, simple home tests for detection, and the importance of choosing certified and high-quality food products. This study aims to assess the level of awareness among urban consumers in Kalapatti, explore their knowledge about adulterants in various food items, and examine their buying behaviour regarding food safety. The research will also identify challenges in preventing food adulteration and suggest effective strategies to educate consumers and promote safer consumption practices.

By understanding consumer awareness and behaviour, this study will contribute to efforts in strengthening food safety regulations and encouraging stricter enforcement of laws. Raising awareness through public campaigns, educational initiatives, and government interventions can help empower consumers to make informed choices, thereby reducing the risks associated with adulterated food.

II. REVIEW OF LITERATURE:

Kumar, Singh, and Sharma (2021) explored the health impacts of food adulteration, emphasizing the widespread presence of synthetic chemicals and non-edible substances in commonly consumed food products. Their study highlighted that long-term exposure to adulterated foods significantly increases the risk of chronic illnesses such as cancer, organ damage, and metabolic disorders. The authors stressed the need for stringent food safety laws and public awareness campaigns to mitigate these health hazards.

Mishra, Gupta, and Pandey (2020) conducted a systematic review of food adulteration detection methods, examining both chemical and advanced spectroscopy techniques. Their findings revealed that while laboratory-based testing is effective, consumer-level identification methods remain limited. The study advocated for the development of portable food testing kits to enable consumers to detect adulteration at the point of purchase, ensuring safer food choices.

III. SCOPE OF THE STUDY:

This study focuses on assessing the awareness of food adulteration among urban consumers in Coimbatore city. It aims to explore the extent of consumer knowledge regarding adulterants in commonly consumed food products, their ability to identify adulterated items, and their purchasing behaviours concerning food safety. The research will help in understanding the effectiveness of existing food safety measures and the need for further awareness programs to educate consumers.

IV. STATEMENT OF THE PROBLEM:

Food adulteration is now a major issue that involves consumer safety and public health. It entails the purposeful addition of toxic ingredients to food items in order to make money, frequently at the expense of nutritional value and quality. The growing tendency of food adulteration, in spite of current food safety rules, suggests weaknesses in consumer understanding, enforcement, and moral business conduct.

A major challenge in addressing this issue is the extent of consumer awareness and perception. A large number of consumers are still uninformed about the degree of adulteration, its health effects, and how to detect contaminated food items. Moreover, elements like strong demand for inexpensive food, lax regulatory enforcement, and immoral business practices play a role in the increasing trend of food adulteration.

This research seeks to investigate consumer views on food adulteration, explore the factors contributing to its rising prevalence, and raise awareness among consumers. This research aims to offer insights that will foster informed decision-making, advocate for tougher regulations, and support a healthier society by comprehending consumer viewpoints and the underlying reasons for adulteration.

V. OBJECTIVES OF THE STUDY:

- To generate awareness about food adulteration and its health risks among urban consumers in kalapatti.
- To analyse the reasons behind the increasing trend in food adulteration among urban consumers in kalapatti.
- To examine the opinions about food adulteration among urban consumers in kalapatti.

VI. DATA COLLECTION:

The data was collected through primary data.

PRIMARY DATA:

Primary data refers to information collected firsthand by the researcher. This data is original and tailored to the specific research objectives. It is collected through methods such as surveys, interviews, or observations, providing reliable and valid insights directly related to the topic.

SAMPLE TECHNIQUE:

The purposive sampling technique was employed, selecting participants who regularly purchase food products and are likely to be impacted by food adulteration. This ensures that the sample aligns with the study's objectives.

SAMPLE SIZE:

In this study, Leslie Kish's formula was used to determine the required sample size, ensuring that the selected respondents adequately represent the target population.

Survey sampling formula by Leslie Kish:

$$n = \frac{Z^2 \cdot p \cdot (1 - p)}{E^2}$$

Where:

- $Z=1.96$ (95% confidence level)
- $p=0.5$ (maximum variability)
- $E=7.5\%$ (margin of error)

Calculation:

$$n = \frac{(1.96)^2 \times 0.5 \times (1 - 0.5)}{(0.075)^2}$$

$$n = \frac{3.8416 \times 0.25}{0.005625}$$

$$n = \frac{0.9604}{0.005625}$$

$$n = 170.74$$

For a population of 55,000 (kalapatti), applying the finite population correction:

$$n = \frac{170.74}{1 + \frac{169.74}{55,000}}$$

$$n = \frac{170.74}{1.0031}$$

$$n = 170.21$$

Thus, the final sample size is 170 respondents, ensuring:

- Margin of error: 7.5%
- Confidence level: 95%

VII. TOOLS FOR ANALYSIS:

- Weighted average ranking method
- Descriptive analysis

IX. ANALYSIS AND INTERPRETATION OF THE STUDY:**TABLE 9.1 SHOWING THE FACTORS CONSIDERED WHILE TRUSTING A FOOD BRAND**

S.NO	FACTORS	RANK 1	RANK 2	RANK 3	RANK 4	RANK 5	HIGHEST SCORE	RANK ORDER
1	Brand Reputation	$108 \times 5 = 540$	$28 \times 4 = 112$	$22 \times 3 = 66$	$8 \times 2 = 16$	$4 \times 1 = 4$	$108 \times 5 = 540$	I
2	Certification Marks	$40 \times 5 = 200$	$91 \times 4 = 364$	$27 \times 3 = 81$	$9 \times 2 = 18$	$3 \times 1 = 3$	$91 \times 4 = 364$	II
3	Price	$55 \times 5 = 275$	$40 \times 4 = 160$	$67 \times 3 = 201$	$6 \times 2 = 12$	$2 \times 1 = 2$	$67 \times 3 = 201$	VI
4	Customer Support	$36 \times 5 = 180$	$56 \times 4 = 224$	$45 \times 3 = 135$	$26 \times 2 = 52$	$7 \times 1 = 7$	$56 \times 4 = 224$	IV
5	Word of Mouth	$37 \times 5 = 185$	$55 \times 4 = 220$	$47 \times 3 = 141$	$16 \times 2 = 32$	$15 \times 1 = 15$	$55 \times 4 = 220$	V
6	Product Availability	$37 \times 5 = 185$	$51 \times 4 = 204$	$55 \times 3 = 165$	$20 \times 2 = 40$	$7 \times 1 = 7$	$55 \times 3 = 165$	VII
7	Packaging	$42 \times 5 = 210$	$55 \times 4 = 220$	$50 \times 3 = 150$	$16 \times 2 = 32$	$7 \times 1 = 7$	$55 \times 4 = 220$	V
8	Transparency in Labelling	$55 \times 5 = 275$	$47 \times 4 = 188$	$37 \times 3 = 111$	$23 \times 2 = 46$	$8 \times 1 = 8$	$55 \times 5 = 275$	III

INTERPRETATION:

The above table 9.1, reveals that Brand Reputation (540) is the top factor influencing consumer trust, followed by Certification Marks (364) and Transparency in Labelling (275). Customer Support (224), Word of Mouth (220), and Packaging (220) also matter, while Price (201) is less significant. Product Availability (165) ranks the lowest, showing quality outweighs accessibility.

TABLE 9.2 SHOWING THE AWARENESS CAMPAIGNS ON FOOD ADULTERATION

CATEGORY	N VALID	MEAN	MEDIAN	MODE	STANDARD DEVIATION
Govt Health Depts	170	4.13	5.0	Always	1.1
Consumer Protection Organization	170	3.82	4.0	Very Often	0.86
FSSAI	170	3.88	4.0	Always	1.02
Educational Institutions	170	3.68	4.0	Sometimes	1.07
Farmer Association	170	3.51	4.0	Very Often	1.12
Online Food Review Platforms	170	3.64	4.0	Always	1.25
Social Media Campaigns	170	3.78	4.0	Always	1.07
NGOS	170	3.28	3.0	Very Often	1.3

INTERPRETATION:

The table 9.2 shows that Govt Health Departments, FSSAI, social media, and Online Food Review Platforms are the most trusted sources for food safety awareness, with higher mean values and frequent "Always" responses. Consumer Protection Organizations, Farmers' Associations, and NGOs have moderate influence, while Educational Institutions have the least impact. Lower standard deviations indicate consistent responses, whereas higher deviations (e.g., NGOs) suggest varying opinions. Overall, government agencies and digital platforms play a key role, while NGOs and educational institutions are less influential.

X. FINDINGS:

- Brand reputation is the most important factor in trusting a food brand, followed by certification marks and transparency.
- Dairy products, packed snacks, and soft drinks face the highest adulteration concerns.
- Government health departments and social media are the most trusted awareness sources.
- Most of the respondents prefer organic stores, showing trust in certified products.

XI. SUGGESTIONS:

- Enforce stricter food safety laws with severe penalties to deter adulteration and ensure proper regulatory enforcement at all levels.
- Conduct frequent inspections and quality checks across the food supply chain to detect and eliminate adulterated products.
- Launch nationwide consumer awareness programs to educate the public on identifying adulterated food and making safer choices.
- Mandate transparent labelling and certification on all food products, ensuring accurate ingredient details and expiry dates.

XII. CONCLUSION:

Food adulteration is a widespread and persistent issue that poses serious risks to public health and consumer trust. This study highlights that the majority of respondents are aware of food adulteration and its harmful effects, with health risks being the primary concern. Despite awareness, many consumers still struggle to identify adulterated products, emphasizing the need for stricter regulations and improved monitoring. The findings suggest that businesses often engage in adulteration due to profit motives, lack of enforcement.

Stronger laws, frequent inspections, and severe penalties for violations can detect unethical practices and ensure better food quality. Transparency in food labelling, such as verified certifications and clear ingredient details, can help consumers make informed choices. Additionally, encouraging the consumption of organic and certified food products through subsidies and awareness campaigns can further reduce the prevalence of adulterated goods.

By implementing these measures, food adulteration can be significantly reduced, ensuring safer consumption for the public. A collective effort from authorities, businesses, and consumers is required to promote ethical food production and maintain trust in the market. Only through strict enforcement, technological advancements, and informed consumer choices we can achieve a healthier and safer food environment.

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