

# Buying Behavior of Meat Consumption Relates To Food Safety from North and South Part of the Coimbatore City

R. Arun, R. Bhuvaneshwari

**ABSTRACT:** The food choice of consumer differ from person to person and the aim of the study is to identify how many of them are aware of food safety relates to meat consumption in Coimbatore the study area is divided into two sections south part of Coimbatore and north part of Coimbatore from where the respondents selected randomly 150 samples. Coimbatore is a metro city where the population growth increases every day for education, employment and for tourism. Most of the shop sold the mutton, chicken, fish combine in one shop it creates the food borne illness. Meat retail shops are near to snacks shops and tea stall are near to the meat shop. The bacteria can spread through insect fly to ready – to eat – food, which would create the illness. Here the attempts considered knowing the consumer buying behavior and awareness of meat consumption to find out the buying decision relate to preference of meat with food safety regulation from national level to international level. Simple percentage and chi-square are used for analysis with demographic variables. How many of them are aware of the standards and regulation of the food safety. It is essential to avoid the risk of food borne illness because each and every year children's pregnant women and old age people are getting affected. According to the consumer point of view food safety becomes most important. It controls the consumer health and eliminating contaminants of pathogens.

**Keywords:** consumer perception, food safety standards, buying behavior, meat consumption

## I. INTRODUCTION:

<sup>1</sup> R.A Mdins, Y. Motarjemi, F.K. Kaferstein, (2001), suggested that the population growth is seriously considering the social and economic impact of human purchasing of meat consumption result food borne disease with the complexity of pathogenic organisms due to improper handling of equipments and processing provides hazards <sup>2</sup>Neelabadrine (2006), suggested that there is a need of awareness of food safety in Trinidad. The consumer must be aware of how to handle the equipments while preparing the food and how to

purchase the meat in a shop. 150 samples were selected for the study to analyze the risk of food borne illness.<sup>3</sup>It is very difficult to identify the viruses and bacteria that are unknown for our eyes. Basically the hazard is three types namely biological hazards physical hazards and chemical hazards.

### A. tatement Of Problem

<sup>4</sup>Every year the risk of food poisoning case are increasing among the people who suffer that was estimated by (FSA) Food Standard Agency of United Kingdom has more than 850,000 cases of people suffering from poisoning per year, the survey calculated 5.5 million people who had suffered from food poisoning of which 4.2 million people who believed their illness caused outside the home. Recent FSA survey identified campylobacter in 65% of retail chickens and it is estimated that 60% - 80% of cases of campylobacter can be attributed to chicken by reducing the cross contamination of home in United States.

## II. OBJECTIVES OF THE STUDY:

The objectives of the study are presented below

1. To know the consumption of meat preference
2. To explore the awareness of the food safety standards and regulations from national and international level.

### A. Research Hypothesis

1) **Null hypothesis (H<sub>0</sub>):** There is no significance difference between age wise classification awareness of food safety standards and regulation in north and south part of Coimbatore.

**Alternative hypothesis (H<sub>1</sub>):** there is significance difference between age wise classification awareness of food safety standards and regulation in north and south part of Coimbatore.

### B. Consumer Perception

<sup>5</sup>Lijiamo, (2013), in her article he explains the consumers demand in US is empirically tested in four major categories of poultry: broiler (young chicken), eggs, turkey and other chicken (mature or non - broiler chicken) from 2000 to 2004 in poultry food safety inspection service (FSIS) "The study access the market demand by linking the poultry demand with the contamination information and understanding its implications for food policy".<sup>6</sup> In developing countries there is a need of information to the consumer awareness to food safety on how the food become unsafe in home and outside.

### C. Food Safety Standards

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# Buying Behavior of Meat Consumption Relates To Food Safety from North and South Part of the Coimbatore City

<sup>7</sup>S. Rybka – Rodgers, (2001), points out that food safety is necessary to check the temperature control of refrigerators there is the risk in the hazards of pathogen with 2 week storage which is an ineffective immune competent people of (Sutherland & porritt, 1997) thus, hygiene practice destruction of vegetative pathogen during cooking, low storage temperature and limited. <sup>8</sup>William C. Frazier Dennis C. and westhoff, (1995) according to this study is concerned with food safety is inevitable many of the developed standards quite different from one country to another. <sup>9</sup>India updated the food safety standards and achieved to the implementation of WTO/HACCP and CODEX alimentrix recommended the government for the prevention of food adulteration act (PFA). The HACCP (Hazard analysis critical control point) the diagram 1: explains the seven principle of HACCP system.



Secondary source: HACCP report

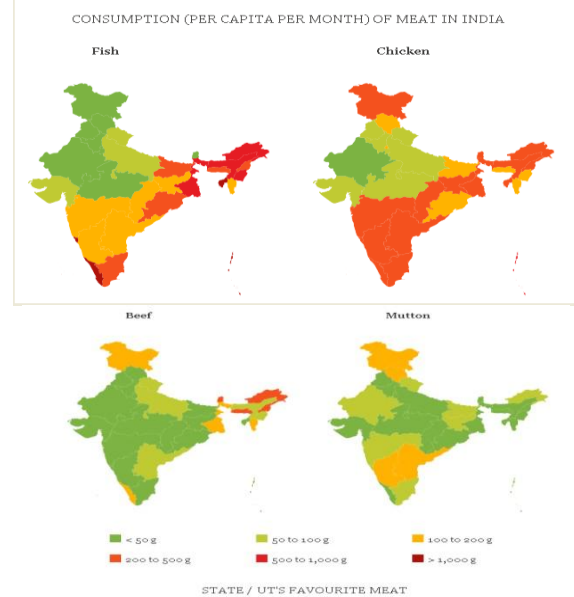
### D. Behavior Of Consumer

<sup>10</sup>Today the food choice of consumer relates to nutritional concerns consumption of meat, beef, chicken and pork there is an interaction between the varieties of factors which involves social, individual, economic and cultural. <sup>11</sup>The Chinese people have more awareness of consumers who have high awareness of safe food related to the quality of the food nutrition of the food and also the taste of the food. They are more willing to give importance to the purchase of safe food and healthy food.

### E. Meat Consumption

Demand of meat consumption relates to price, taste and convenience of availability. <sup>12</sup>The study explained by theoretical model to identify the response of consumer related to meat consumption with response of food safety of beef, pork, and poultry (chicken, turkey). It helps to recall the food safety information to people. How they get

information from media there is lot of pathogen risk (bacteria, viruses) (E.coli), and salmonella, Listeria monocytogenes, (BSE) Bovine spongiform encephalopathy<sup>13</sup> here the investigation of meat demand of respondent changes by the preference, health concern, relatives of price and convenience of food preparation in the united states and the factors influence the individual and groups of consumers about the knowledge, attitudes, nutrition of diet and health. The data collected from the national samples of individual during the period of 1994 – 1996 obtain from the US population. By using the analysis of SAS (version of 6.12, 1996, Cary, NC). here men mostly like beef and pork, Women and children slightly like the chicken. The below diagram 2: explains the meat consumption of India.



### F. Secondary Source: The Hindu 2006

In India the lifestyle of people are from different culture. Each and every culture has different food habits in generally most of the people are Hindus. The first preference of meat captures the place of fish the second place goes for chicken the third place goes to mutton and the fourth place for beef. Here the coastal region people are consider as the biggest eaters of fish (Kerala, Tripura, Goa and West Bengal) North and south part of Indian people eat chicken, east and west part of the people eat very less, beef is eaten by large number of people in Kerala, Jammu & Kashmir and west Bengal. And mutton is liked by Andhra and Karnataka people.

Coimbatore is also known with familiar name of Kongu Nadu. It's an industrial place and also many people come here for education and employment. Coimbatore is considered as Manchester of Tamil Nadu. Here People live from different regions. The people of north and south part of Coimbatore respondents give first preference for chicken and the second preference for mutton and the third preference for fish and fourth for beef. Table 1: explains the consumption of meat varieties (chicken, mutton, fish and beef) red meat and white meat red meat means (mutton, beef and pork) white meat (poultry and fish).



G. Verities of meat consumption

Particulars of meat consumption	Percentage
Chicken	50%
Mutton	20%
Fish	15%
Beef	5%
Pork	-

Source: primary data

The respondents choose the meat for their convenience. Majority of the respondent eat chicken and the community people from Muslims and Kerala eat beef very less people eat pork but they hesitate to tell the information of eating pork.

III. RESEARCH METHODOLOGY

The study is descriptive in nature the study is based on primary and secondary data primary data is collected from the Coimbatore district. The area is divided into two sections one is south part of Coimbatore and north part of Coimbatore. Using simple random sampling method 150 consumers were selected for the study. Primary data is collected through structured questionnaire and the secondary data collected from journals. The questionnaire is divided

Table: 2. Show the Analysis and interpretation of demographic variables

Variables	Factors	Frequency	Percentage
Gender	Male	56	37.3%
	Female	94	62.7%
Age	Below 18	36	24.0%
	19-28	87	58.0%
	29-39	20	13.3%
	40-50	4	2.7%
	Above 51	3	2.0%
Education	School level	27	18.0%
	SSLC	59	39.3%
	Higher secondary	2	1.3%
	Under graduation	41	27.3%
	Post-graduation	21	14.0%
Occupation	Private employee	36	24.0%
	Government employee	20	35.3%
	Businessman	53	13.3%
	House wife	31	20.7%
	Student	10	6.7%

Source: primary data

E. Interpretation:

The above table describes the demographic information of the respondent's Age, Gender, Education and Occupation. Majority of people were female 62.7% the respondents age are classified into five categories age group of below were 18 24% 19 -28 age group of 58.0% age group 29-39 were 13.3% the age group 40 -50 were 2.7% and the age group of above 51 were 2.0% the majority of age groups were between 19-28. Education is essential to know the knowledge level of respondents here the respondents are classified into five types school level, SSLC, higher secondary, under graduation and post-graduation. Most of the respondents were SSLC (10th standard). Occupation of the respondent is the identification of job in a society are categorized into five Private employee were 24.0%

into two sections one is based on demographic information and another one is based on consumer buying behavior.

A. Source of data

The data collected for the first time by using the instrument through questionnaire the researcher get little assistance from already existed work of previous researchers and from various journals then the structured questionnaire is prepared for interpreting by using the statistical tools which results with the hypothesis. Both primary and secondary data are used primary data from the respondents and the secondary data from published journals and reports.

B. Sample design

The questionnaire was distributed by the researcher to the customers in the selected area of Coimbatore districts. 200 hundred respondent's opinions are collected. From that 150 is valid for the study. Convenience sampling method is followed to collect the information of preference of meat and the awareness of consumer buying behavior relates to the food safety standards and regulations.

B. Statistical tools

Simple percentage analysis and chi - square test are used for the study.

D.Simple percentage analysis:

Government employee were 35.3% businessman were 13.3% housewife were 20.7% student were 6.7%. The majority of respondents were government employee.

Table 3: Purchasing behavior of meat consumption

Particulars	Frequency	Percentage
Every day	39	26.0%
Weakly once	43	28.7%
Weakly twice	15	10.0%
Monthly once	43	28.7%
Monthly twice	10	6.7%
Total	150	100%

Source: primary data



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**F. Interpretation:** Buying behavior of meat consumption of mutton chicken fish and beef 28.7% majority of the respondents buy meat weakly once and 28.7% buy meat monthly once meat is considered as rich in protein so many of them consuming meat for weakly once. The respondents believe that eating meat is healthy for getting more calcium for bones and teeth and lot of minerals and vitamins are available for children but too much of taking meat is not good for health. Cholesterol may create the risk of cardiovascular disease and the risk of cancer. In foreign countries are now days concentrated to buy lean meat. Here the north and south part of the Coimbatore respondents buy meat consumption of every day were 28.0% weakly twice 10% monthly twice 6.7%. Preference of meat consumption are increasing it creates the demand of meat in future it was estimated WTO ( world health organization) and animal husbandry report of India so the risk of consumption also increase.

**Table 4: Awareness of food safety standards and regulations**

Particulars	Frequency	Percentage
Strongly disagree	30	33.3%
Disagree	44	29.3%
Neither agree nor disagree	43	28.7%
Agree	3	2.0%
Strongly disagree	10	6.7%

Source: primary data

**G. Interpretation:** 33.3% of the respondents from north and south part of Coimbatore are not aware of food safety standards and regulations so there is a need of awareness and consumer education it is essential to avoid the risk of food borne illness the people move to urban area for improve their lifestyle of her children for higher studies and employment opportunities.

**Table 5: Awareness of hazard analysis critical control point (HACCP)**

Particulars	No of respondents	Percentage
Strongly disagree	40	26.7%
Disagree	41	27.3%
Neither agree nor disagree	43	28.7%
Agree	16	10.7%
Strongly agree	10	6.7%

Source: primary data

**H. Interpretation:** 28.7% majority of the respondents from north and south part of Coimbatore are not aware of hazard analysis critical control point which is used for meat and poultry control standards to avoid the risk of food borne illness.

### I. Chi-square test

**Table 6: The test is used to determine the significance in the analysis of frequency distributions it allows to test the differences two are more variables are interrelated or associated.**

Particulars	Value	Difference	Asymp.sig
Pearson chi-square	43.056	5	.000
Likelihood ratio	53.657	5	.000
Likelihood – by – linear association	1.083	1	.298
No of valid cases	150		

Source: primary data

a.5cells (41.7%) has expected count less than 5. The minimum expected count is .37.

**J. Interpretation:** There is no significance difference between age wise classification awareness of food safety standards and regulation towards north and south part of Coimbatore respondents.

## IV. FINDINGS AND SUGGESTION

62.7% Majority of people are female they spend their time with the researcher with kind cooperation to give their answers

Most of the respondent is at the age group of 19 years – 28years

33.3% of the respondent is educationally qualified up to 10<sup>th</sup> standard

35.3% Majority of the persons belongs to government employee

28.7% of the respondent purchase meat weakly once

28.7% of the respondents are not awareness of food safety standards and regulation.

28.7% of the respondent is not having awareness of hazard analysis critical control point.

The researcher finds the risk of meat consumption in the north and south part of Coimbatore. It is because most of the retail shop sold their meat combine mutton, chicken, and fish in one shop there is a chance of cross contamination of food borne illness. They are giving more preference to make available of all the meat items in one shop to save the time and money. But it is not good for health. The researcher suggests the government municipality to make arrangement of meat consumption market in a separate place with good sanitary condition. Then most of the meat retail shops are near to the snacks and tea stall and fruit shop. Example: Ukkadam bus stand, Fast foods outlets are directly affected by the insect. It causes the food borne illness to the people who eat the food. The bacteria and viruses are not seen through the eye of customers.



## V. CONCLUSION

There is a need of consumer education how to handle the raw meat and how to handle the equipment clean and clear example: cutting board and knife.

- It is necessary to educate the shopkeepers about how to handle the raw meat and how to handle the equipments clean and clear. Example: Cutting Board and Knife.
- Always hands should be washed thoroughly after touching the raw meat.
- There is a need of training to the meat shop workers related to food safety.
- There is a need of education related to food safety to consumer.
- The rules and regulation of food safety should be taught in school and college to avoid the risk.
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- Food safety manual should be freely given to the respondents both the language of Tamil and English.

Why it is consider important food borne illness is a diseased caused by viruses, bacteria and parasite most of the study find that the hazard are happened through the contamination due to poor food handling.<sup>14</sup> **Beverly j. Mc cabe sellers and Samuel E. Battle** pointed out that annually in United States of America between 250 million to 350 million Americans suffer from food borne illness it was estimated that most of the people were elders pregnant women and children. The hazards are basically three types they are biological hazard physical hazards and chemical hazards. Biological risks happen when the out breaks of campylobacter affects the equipments which used for cutting board and knife improper handling of temperature. HACCP guidelines explains with the plan and the employees in restaurants and shop to prevent the food borne disease. These suggestion are given by the researcher to avoid the risk of food borne illness in future and prevent to control the disease according to the proverb prevention is better than cure.

The researcher focused only the micro biological risk. Future research may concentrate on physical and chemical risk. And also the study concentrate only the raw meat not the processed meat because Tamil Nadu people only buy fresh consumption of meat not the processed meat in future the change will happen means the person concentrate on processed meat.

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