

## FOOD SAFETY AND ITS HEALTHY ENVIRONMENT

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### Abstract

Food safety and food practice is essential to make healthy environment for future generation lot of risk is find today most of the youngster are affected by obesity sugar problems and cardiovascular disease in the teenage itself so the people must aware of the risk what kind of food the person choosing for her healthy diet and how to manage their nutrition diet for day today living life the surrounding of market environment should be clean and clear for purchasing vegetable and fruits like that for meat and poultry also. The sanitary condition of market is also essential. The aim of the study is to avoid the risk of food borne illness and create the city with clean and clear environment for healthy life the researcher collected the sample of 150 respondents from the area of Erode district. The place is chosen by the researcher because the place of business area and also people move here for employment and for education the respondent gives their opinion to the researcher with kind cooperation in a busy schedule of her life.

**Statistical tools for analysis:** Percentage analysis

**Social implication:** The majority of people live in urban area the sanitary condition of the environment are important. The place of the shop located in which atmosphere here the researcher chosen retail shop atmosphere of Erode city the people who bought vegetable fruits and also meat and poultry in a same place it create the risk of food borne illness.

**Keywords:** Food hygiene, Food contact surface area, Marketing environment and Identifying the market condition

### Introduction:

Food safety is one of the most important systems for global of trade between developed and developing countries majority of the world's population now live in urban areas this results in the rapid in the growth of cities and pre-urban areas over the past few decades particularly in developing countries. Health problem in many cities are aggravated. Because of urban growth is unplanned and uncontrolled hence the municipal authorities to provide basic health and environment services and infrastructure, which are minimum prerequisites for a healthy

population. <sup>1</sup>Bulent ergonul (2013), according to him the main study relates to food safety preference of 600 customers in Turkey. Sixty six questions were differentiated into groups like demographic information of the respondent's perception of food safety awareness of food borne illness contaminants of food hazards food handling behavior and safety practice in her home the awareness from the public media like (television) here the study finds that there is a need of food safety program and improve the policy and there is a need of consumer education to avoid the risk of food borne illness.

## Food hygiene

<sup>2</sup>Preparing food hygienically is good for health before cooking hand should be washed with soap personal hygiene is very important in preparing food after finishing the cooking the cooked food should be covered with a lid. Before cooking wash the vegetables, fruits and poultry item in running water harmful bacteria, pesticides should be removed. Then cook the food in correct temperature separate the cooked food and raw food in a refrigerator don't keep the food so longer in a refrigerator check the food every seven days and label the food products before storing and also discharge the old foods. Cook the food in a correct temperature it avoids the biological contamination, before cooking check the vessels without crack it avoid the physical contamination avoid food color and taste maker it avoid the food allergens and chemical contamination.<sup>3</sup> There is a need of traceability and verifiable of food safety and quality the consumer must know the information origin of the product, processing, and retailing. It is the responsibilities shared by all government, industry and also includes the consumer due to the trade of globalization there is a long gap from producer to consumer in-between these gap from producer to consumer there is a chance for lack of food safety it becomes challenge to the food industry <sup>4</sup> "World health organization (WHO), (2011), the global incidence of food borne disease is difficult to estimate, however, reports have indicate that approximately 15.3% of deaths are caused by infection of parasitic disease globally and of these, 4.3% is accounted to diarrheal diseases". For this purpose there is a need of systematic rules and regulation, policies, procedures for giving guidance in the school level for children's and college students about food safety, risk assessment, risk communication, food handling behavior and nutrition of food. These are the best method for teaching the children and college student and giving training it will reduce the risk in future.

## Food contact surface area

<sup>5</sup>Consumers are suggested to take care for their safe food handling information consumers are unaware of pathogens. Keeping the cooking surface clean pesticide reduce in food or controlled bacterial contamination.<sup>6</sup> Clean and sanitize cutting boards and knife should be used. Separate knife should be used for cutting vegetables and poultry use the different color of cutting board.

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<sup>1</sup> Bulent Ergonul, (2013), "Consumer awareness and perception to food safety: a consumer analysis", DOI:org/10.1016/j.foodcont.2013.01.018

<sup>2</sup> G.M. Subha Rao, R.V .Sudershan, Pratima Rao, M. Vishnu, Vardhona rao, Kalpagam palasa,(2007), "food safety knowledge, attitudes and practices of mothers- findings from focus group studies in south India

<sup>3</sup> Myo min Aung, Yoon Seok Chang,(2014), "Traceability in a food supply chain : safety and quality perspectives", Food control, p. p, no:172, DOI: org/10.1016/j. food cont.2013.11.007

<sup>4</sup> Marquitta webb, Abbigail Morancie, (2014), "Food safety knowledge of foodservice workers at a university camps by education level, experience, and food safety training" , DOI :org/0.10161/j. food cont.2014.09.002

<sup>5</sup> Christine M. Bruhn, Howard G. Schutz, (1998), "consumer food safety knowledge and practices"

<sup>6</sup> BSI London (2005), "BSEN ISO 22000: 2005 " Food safety management systems requirement for any organization in the food chain", BSI, London

## Marketing environment and identifying the marketing condition

<sup>7</sup>Here the study suggests the similarities between African and American teen girls and adults perceived by the marketing environment. Marketing environment mainly focus on low nitrous, high calorie it becomes fatty, obesity problems children's adolescent and teens giving more preference to taste of the food the marketing environment target the adolescent and teens to sell their products<sup>8</sup>the domestic environment of the marketing place should be clean and clear then it reduce the disease of food borne illness. The domestic environment hygiene practice is based on the message wording; the risk is associated with the information in order to produce self protection to food related behavior, motivating the customer intentions to cook the food safely and reduce the risk relevant information of food safety should be informed to the customer to avoid the food borne illness. <sup>9</sup> How the consumers are conscious on her health behavior and how they explore the context of risks management of the consumers while purchasing the products The study is taken by the measure of using tools of multivariate analysis, cluster analysis, variance analysis, chi-square test, correlation calculations and the independent two-sample t-test.

### Research methodology

Research methodology helps the researcher to make the decision to find the answers to unanswered questions with the collection of data which relates to the methods that include for present the study. The researcher conduct the study with respondents by using the instrument of questionnaire the questionnaire is divided into two three parts, part one is based on the information demographic information second part identification of market condition and third one is market environment.

#### Objectives:

1. To identify the food hygiene and safe consumption to the customers of Erode districts

**Sampling area:** The study was conducted in the place of Erode district.

**Population:** The person of all consumers relates to various types of meat consumption.

**Sample size:** 200 respondents are gave their answers for the instrument of questionnaire from that 150 is valid.

**Sampling design:** the study is based on convenience sampling method.

**Source of data collection:** Both primary and secondary data

**Primary data:** The researcher collected the primary data through the structured questionnaire from the consumers of Erode district. **Secondary data:** The source of information was collected from international journals, thesis and annual reports.

### Analysis of data

The analysis are done through the software of spss version 20.0

### Data analysis

Simple percentage analysis

<sup>7</sup> Wendy s. bibeau, Brit saksvig, joel Gittelsohn, Sonja Williams, Lindsey Jones, Deborah Rohm Young, (2012) "Perception of the food marketing environment among African teen girls and adults wendy"

<sup>8</sup> Marten, J. Nauta, Arnout T. H. Fisher, Esther, D. Van Asselt, Aarieke, E. I. De, (2008), "Food safety in the domestic environment: the effect of consumer risk information on human disease risks, DOI: 10.1111/j.1539-6924.2008.01012.x

<sup>9</sup> Annamaria Furedi - Koyacs, (2009), doctoral thesis, school of management administration, Zent Istvan university

## Simple percentage analysis

1. Classification of respondents are based on their age
2. Classification of respondents are based on their education
3. Classification of respondents are based on their monthly income
4. Classification of respondents are based on their occupation

### 1. Classification of respondents based on the age

Respondents age	Frequency	Percentage
>18	45	30.0%
19-26	85	56.7%
27-35	20	13.3%
Total	150	100

#### Interpretation:

The age group of the respondents was categorized into four groups below 18 to above 35 the age group of there categorized people were met by the researcher Majority of the respondents are in the age of group of 19-26 were 56.7% in the age group of 27-35 were 13.3% in the age group below 18 of 45 were 30%

### 2. Classification of respondents are based on education

Particulars of factors	Frequency	Percentage
School level	8	5.3%
Diploma	48	32.0%
Undergraduate	86	57.3%
Post graduate	8	5.3
Total	150	100

**Interpretation:** The level of educational qualification of the respondent were described from the table the majority of the person completed the under graduation were 57.3% some people complete diploma were 32.0% the school level were 5.3% and completion of post graduations were 5.3%.

### 3. Classification of respondents based on their occupation

Particulars of factors	Frequency	Percentage
Businessman	69	46.0%
Private employee	63	42.0%
Government employee	6	4.0
Student	12	8.0

**Interpretation:** The occupation of the respondents are classified into three groups it is explained in the table majority of the respondents were business doing persons were 46.0% the occupation of private employee were 42.0%and the occupation of government employee were 4.0%

#### 4. Classification of respondents are based on their monthly income

Particulars of income	Frequency	Percentage
>15000	36	24.0%
15000-20000	81	54.0%
20001-30000	25	16.7%
<30000	8	5.3%
<b>TOTAL</b>	<b>150</b>	<b>100</b>

**Interpretation:** The majority of the respondents belong to the income group of Rs 15000-20000 were 54.0% below Rs 15000 were 24% in the income group of Rs 20001-30000 were 16.7% and in the income group of above 30000 were 5.3%.

#### Appearance of market place clean and clear

Particulars	Frequency	Percentage
Agree	24	16.0%
Strongly agree	126	84.0%
<b>Total</b>	<b>150</b>	<b>100</b>

**Interpretation:** Here the table describes the appearance of the market condition the researcher asked the respondents the market place of the purchasing vegetables fruit meat and poultry are available in clean and clear surrounding environment area in five point Likert scale the majority of the respondents strongly agree that the appearance of the market place is not in good sanitary condition were 84.0%. 16.0% agree it has to improve the sanitary condition of the market.

#### Near to open drainage found from the market place

Particulars	Frequency	Percentage
Agree	93	62.0%
Strongly agree	57	38.0%
<b>Total</b>	<b>150</b>	<b>100</b>

**Interpretation:** The respondent gave answer for the near the market place open drainage found 62.0% of the respondent agree that the drainage is in open place it is not closed 57% of the respondent strongly agree it find open this question is asked by the researcher to know the environment condition of the market in sounding area of Erode.

**Disposal of wastage from the market place is removed**

Particulars	Frequency	Percentage
Agree	58	38.7%
Strongly agree	89	59.3%
Strongly disagree	3	2.0%
Total	150	100

**Interpretation:** Disposal of wastage from the market place is removed the place (spoilage and waste materials of fruits or vegetables or meat and poultry properly from the place) it causes the food borne illness. Majority of the respondent 59.3% strongly agree it not properly removed from the place. 38.7% of the respondents agree it is not removed. 2.0% of the respondent strongly disagrees.

**Dustbin placed in the place of market**

Particulars	Frequency	Percentage
Agree	84	56.0%
Strongly agree	63	42.0%
Strongly disagree	3	2.0%
Total	150	100

**Interpretation:** The place of environment should be neat and the surface area of the market place should be neat it will avoid the risk of food borne illness. For that purpose the researcher asked the question to the respondents and they agree that the dustbin are placed were 56.0% and strongly agree 42.0% strongly disagree it is not placed in the market place were 2.0%.

**Marketing gave preference for taste not in the aspect of nutrition**

Particulars	Frequency	Percentage
Agree	74	49.3%
Strongly agree	76	50.7%
Total	150	100

**Interpretation:** the preference of marketing people is only concerned about the taste not in the aspect of nutritional food it should be asked to the respondents to know their choice of consumption it was strongly agree that 50.7% of the respondents are giving preference for taste not in the aspect of nutritional food

and 49.3% of the respondents also agree that giving preference for taste of the food.

### Health conscious and food safety is increase in the mind of consumer in future

Particulars	Frequency	Percentage
Agree	40	26.7%
Strongly agree	110	73.3%
Total	150	100

**Interpretation:** Here the respondents strongly agree that in food safety and health conscious are essential were 73.3% and the respondents agreeing that were 26.7%. Due to the increase of population the risk is also increasing.

### Findings and suggestions

- ✚ 56.7% were the majority of the respondents were in the age group of 19 years - 26 years
- ✚ 57.3% were the majority of the respondents education qualification are undergraduate
- ✚ Majority of the respondents are 46.0% were in the occupation of doing business person.
- ✚ The majority of the respondents belong to the income group Rs 15000- Rs 20000.
- ✚ The appearance of the market place is not clean and clear majority of the respondents strongly agree were 84.0%.
- ✚ In the market environment the disposal wastage are properly removed the majority of the respondents said that it is not removed from the palace were 59.3% strongly agree.
- ✚ The place of selling vegetables and fruits meat and poultry near any open drainage found the majority of the respondent said that it is in the open place 62.0% were agree.
- ✚ Health conscious and food safety is increase in the mind of respondents in future were 73.3% were strongly agree.
- ✚ 56.0% were the respondents agree the dustbin is placed in the market place.

### Discussion:

The researcher finds that most of the surroundings of the environment are not maintained in good sanitary condition Erode is famous for turmeric and textile and also it's the tourist place and it is the place of industries and also good in education so people came from different place. It is essential to concrete the condition of market environment and also give safe food to the consumers so the municipality of Erode has to make arrangement for the improvement of selling the fruits and vegetables meat and poultry in with the proper sanitary facilities. Today most of the developing countries face the problem of food borne illness it should be avoid the risk for consumers and make safe consumption to the consumers in future.

The study is based on the food safety and its healthy environment it is essential to know the condition of environment and surroundings of the market because today the

world health organization defines the food borne illness as a disease which cause the infections or toxins in nature by the agents that enter the body through the ingestion of food today it consider as a global problem and also it was estimated that 2.2 million people together annually kill around worldwide.

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2. Bulent Ergonul, (2013), "Consumer awareness and perception to food safety: a consumer analysis", DOI:org/10.1016/j.foodcont.2013.01.018
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### Demographic information:

1. Name:
2. Gender: a) female b) male
3. Age: A) below 18 b) 19-23 c)24-28 d) 29-33 e) 34-38 f) 39-43 g) 44-48 h) 49-53 I) above 55
4. Occupation: a) student b) government employee c) professional d) house wife e) business man f) farmers
5. Level of income: a) below 10000 b) 10001-20000 c) 20001-30000 d) above 30000
6. Geographical area: a) urban b) rural
7. Education qualification: a) school level b) Under graduate c) post graduate d) profession e) school drop outs

### Identifying the marketing condition

8. Appearance of market place is clean and clear
  - a) Good b) bad c) not good d) neither e) not bad

9. Vegetables, fruits and poultry of products are safely placed or displayed for the consumption

a) Strongly agree b) agree c) neither d) strongly disagree e) disagree

10. near the market place open drainage is found

a) Strongly agree b) agree c) neither d) strongly disagree e) disagree

11. Wastage of vegetables, fruits and poultry disposal are removed from the place

a) Strongly agree b) agree c) neither d) strongly disagree e) disagree

12. Dustbins are placed there to remove the wastages

a) Strongly agree b) agree c) neither d) strongly disagree e) disagree

### **Marketing environment**

13. Marketing aims only the taste preference of consumers not conscious in nutrients

a) Strongly agree b) agree c) neither d) strongly disagree

14. Buying preference of customers also depends on taste of the product not considering about health

a) Strongly agree b) agree c) neither d) strongly disagree e) disagree

15. Health conscious and food safety knowledge should be increase in the mind of consumer in future

a) Strongly agree b) agree c) neither d) strongly disagree e) disagree