



## Relationship between food adulteration and handling process with consumption and expenditure pattern in consumer's life

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### Abstract

*Food is an essential part of every human being. No one can survive without food. Now a day technology in food has been so advanced. People consumed food in many variation such as fermented food, packed food, ready to eat food etc as a consumer. As food industry growing many factors effecting food quality in which food adulteration is much higher. And consumer awareness about food like handling process and their expenditure method is also a big deal with all components. This study was focused to evaluate the knowledge, attitude and practices about food adulteration with handling process and expenditure patterns in population. The cross – sectional design based study between male and female as a consumer conducted in Lucknow city with 250 samples in local market of different areas with different methodological tools. Result of the study was carried out with different statistical parameter use to evaluate their overall activity which included in questionnaire on the basis of low, medium and high income group. After comparison to whole collected data the conclusion was that Food expenditure visa versa consumption pattern was more than 75 % in excellent performance of high income group while Food adulteration with handling process and protection was also good of the population. Recommendation was frame out according to study that consumer should aware for food which they are consumed and after knowing the malpractices about food they should have an action to protect their health.*

**Keywords:** Fermented food, Processed food, Adulteration, Handling Process, Malpractice.

### Introduction

Food habits may have existed among a given ethnic group for centuries, and such a heritage may account for great conservatism in accepting change. These patterns reflect the social organization of the people, including their economy, religion, beliefs about the health properties of food, and their attitudes toward the various members of the family<sup>1</sup>.

The area of consumer behavior and attitude determine a lot of view. The process of the study to involvement the individual or group's selection, purchase, services, ideas or experiences to satisfy their needs and desires the quality about any product. Needs and desires satisfaction of consumer for hunger and thirst to love, status or even spiritual fulfillment. According to Walter and Paul, "Consumer behavior is the process whereby individuals decide whether, what, when, where and how and from whom to purchase goods and services"<sup>2</sup>.

Adulteration of food is commonly practiced in India by the trade. The consumers like to get maximum quantity for a price as low as possible. The seller must meet the needs of the buyers, to be able to exist. This is a vicious cycle. When the price of the food production is higher than the price which the consumer is prepared to pay, seller is compelled to supply a food product of inferior quality<sup>3</sup>.

Food is adulterated when its quality made down to add other foreign material to increase the quantity and makeable more profit. And the nutritive value of food losses during adulteration and the place where the food is grown is often contaminated. For example: when water is added with milk. Vanaspati fats are used as an adulterant for ghee. Chalk-powder is also used as an adulterant for refined and wheat flour. Such as many adulteration founded in food other ex: brick powder in red chilies, papaya seed for black pepper<sup>4</sup>.

Food safety from adulteration is a wide spreading public health issue to prevent or control health hazard. Food hazard comprise a broad spectrum harmful effect and are responsible for substantial morbidity and mortality in all over worldwide. Increasing the condition of food hazard, Governments are intensifying their efforts to improve food's condition with all criteria<sup>5</sup>.

Consumers' attitudes towards food safety and their handling practices are related to food producers and retailers, public authorities and health educators for food product which they consume. This issue reflected the discussions about consumers perceive for food safety and chosen the food item<sup>6</sup>.

Consumer behavior depends upon their likes and dislikes and expectations also of product. Consumer behavior has changed rapidly in recent years owing to enhance their awareness,

information technology and more importantly legislation intervention through government. Consumer Buyer Behavior refers to the buying behavior of household's product for consumption. All of these things determined the final expenditure for product in market<sup>7</sup>.

Food handling process plays a major role in consumer's life to deal the different aspect of food consumption eating parameter such as transmitting of harmful material can lead to various health hazards. Several studies have been conducted related to food handling process in reference of knowledge, attitude and practices of consumer. This shows the many aspect related to food handling process with adulteration<sup>8</sup>.

Consumers should be concerned about pesticides and additives as both are harmful impact on health to cause cancer. Most consumers are not concerned about microbiological and chemical contamination; these are solid evidence, of all the hazards which are most likely to occur. Many homes have unsafe method of cooking, storage and preparation practices for food. But Consumers did not consider their own food practices a hazard that can lead to health side effect<sup>9</sup>.

Many studies on food consumption pattern or expenditure pattern are very important to relate the poverty situation and standard status of our society. Expenditure on food is the first priority of people to live alive. It is necessary to study the changing scenario of consumption pattern under the changing situation of liberalization, privatization and globalization related to food<sup>10</sup>.

**Objective of the study:** The main objective of the study was to find out correlation between food protection and expenditure as per their consumption pattern and handle process at household level.

## Methodology

Present study was carried out in Lucknow city during the year (2015–2016) to analyze the response of consumer about adulterated food and their expansion criteria with handling process.

The detail of materials and methods used during the course of the present Dissertation are as follow:

**Area of the study:** Different areas from Lucknow city

Ward name of Zone	Basti name of Zone
Ambedkar Nager	Chitragupt Nager
Malviya Nager	Kharika
Rajendra Nager	Babu kunk Bihar Lal Yadav
Saishbagh Nager	Sharda Nager
Motilal Nehru Nager	Hind Nager
Chanderbhanu Gupt Nager	Keshrikheda
Rajabazar	Sardar patel Nager
Kundari Rakabganj	Ramji lal Nager

Ward name of Zone	Basti name of Zone
Labour colony	Guru govind Singh
Yahiyaganj	Sarojni Nager
Kunwar Jyoti Prasad 11	Thavrahimpur
Netaji Subhas Chandra Boss	Vidyavati 11
	Guru Nanak Nager
	Sarojni Nager 11
	Tam Nager
	Raja Bijli Pasi
	Geeta Palli

**Period of study:** The study was conduct for a period 11 month (July 2015 – May 2016).

**Study Design:** The approach adopted for this community based study was cross – sectional one.

**The Study Sample: Sample Size:** The sample size was 250 for the study.

**Sampling:** Multistage purposive random sampling was followed in the present investigation following stages were involved in arriving at the required sample size.

**Tools and Techniques of data collection: Interview Schedule:** This schedule consisted of two main parts: i. Family schedule: This part is related to family level variable such as religion cost type, o family, family size, household structure, income, per – capita income household amenities and socio – economic status. ii. Individual schedule: This part covers the variable age, literacy status, working status, and occupational status, K.A.P Knowledge, Attitude and Practices.

**Analysis and Tabulation of data:** After collection of data from the respondents were coded in tabulated foam and analyzed using different statistical techniques such as-

Formulas were as follow:

$$\text{Percentage (\%)} = \frac{\text{Observed value} \times 100}{\text{Expected value}}$$

$$\text{Mean Value} = \bar{x} = \frac{x_1 + x_2 + \dots + x_n}{n}$$

**Standard deviation (SD):** For statistical analyze Chi – Squared test were used for variance to determine the normal population that has a specified variance. In which the null hypothesis has founded.

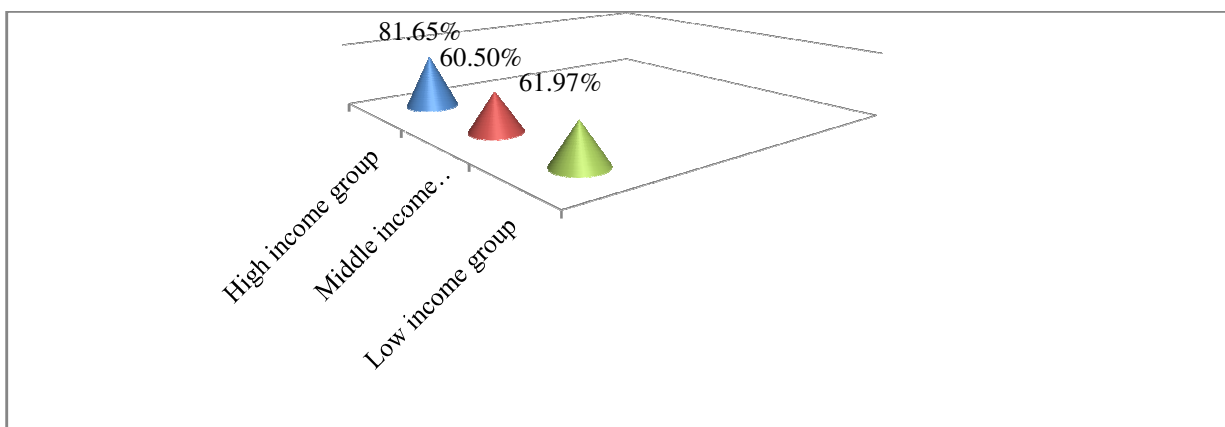
Assumptions = Normal population

## Results and discussion

**Major Findings:** The major findings of the study on the basis of different parameter used in methodology are as follow with statistical analyzed:

**Table-1:** To correlate food expenditure visa versa consumption pattern in different income group: with different parameter of finding it's analyzed that HIG, MIG and LIG have various adaptability in reference of food expenditure visa versa consumption pattern.

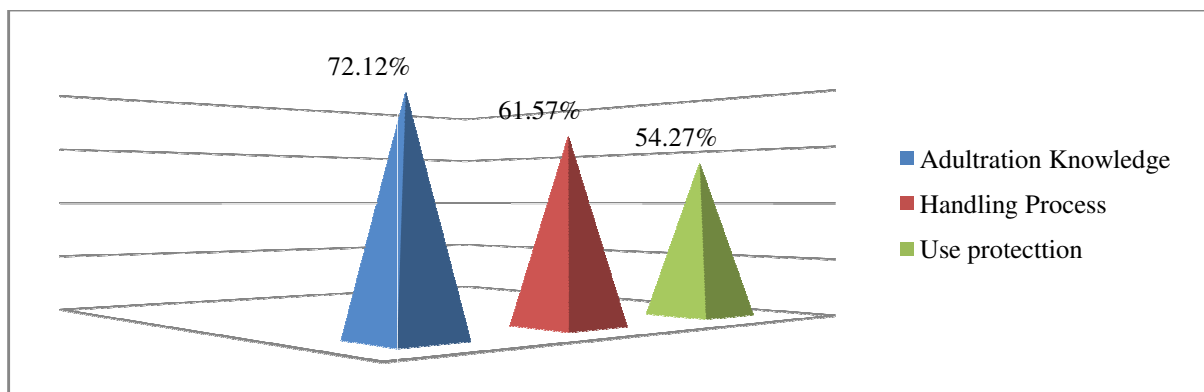
Particular	Poor		satisfactory		Good		Excellent	
	>40		40 %- 60%		60 % – 75%		75 % <	
Food expenditure visa versa consumption pattern.	No.	%	No.	%	No	%	No	%
High income group	-	-	-	-	-	-	250	81.65
Middle income group	-	-	-	-	250	60.5	-	-
Low income group	-	-	-	-	250	61.97	-	-



**Figure-1:** Represent the % according to income group.

**Table-2:** Associations of food adulteration with handling process and protection: correlation between food adulteration and handling process with protection of normal population were calculated as follow.

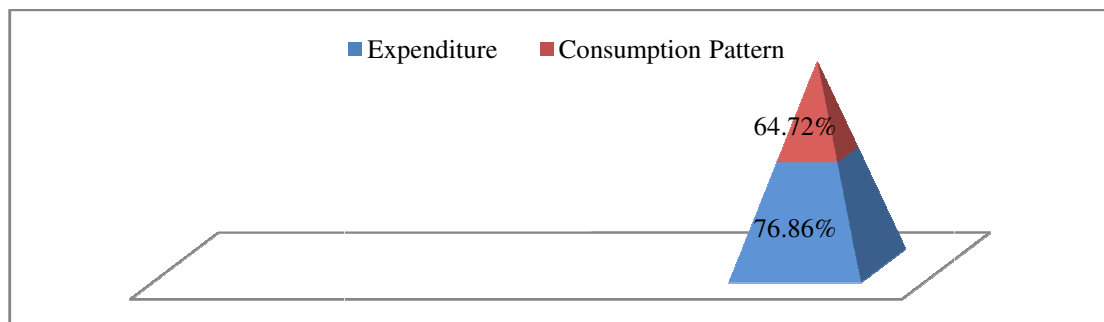
Particular	Poor		satisfactory		Good		Excellent	
	>40		40 %- 60%		60 % – 75%		75 % <	
Food adulteration with handling process and protection.	No	%	No	%	No	%	No	%
Adulteration Knowledge	-	-	-	-	250	72.12	-	-
Handling process	-	-	-	-	250	61.57	-	-
Use protection	-	-	250	54.27	-	-	-	-



**Figure-2:** Represent the % according to various parameter.

**Table-3:** Correlated food adulteration and handling process with expenditure and consumption pattern: after knowing the adulteration in various food products the selected population action was as follow with their expenditure pattern.

Particular	Poor		satisfactory		Good		Excellent	
	>40		40 %- 60%		60 % – 75%		75 % <	
Food adulteration and handling process with expenditure pattern	No.	%	No.	%	No	%	No	%
Expenditure	-	-	-	-	-	-	250	76.86
Consumption pattern		-		-	250	64.72		-



**Figure-3:** Represent the % of consumption and expenditure pattern.

## Conclusion

The correlation of food adulteration and handling process with expenditure and consumption pattern in whole study was: i. The correlation of food expenditure with consumption pattern in high income group was excellent, middle income group was good and low income group was also good. ii. Food adulteration knowledge was good and handling process was also good but use of protection was satisfactory of the target population. iii. The Correlation of food adulteration and handling process with expenditure was excellent and consumption pattern was good of the respondents on household level in selected population of the selected area.

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