

A Study of the Against Food Adulteration in Social Traditions

Rashika Singh Chandel^{1*}, Dr. Rachna Sharma²

¹ Research Scholar, Shri Krishna University, Chhatarpur M.P.

² Assistant Professor, Shri Krishna University, Chhatarpur M.P.

Abstract - Food is one of the most essential aspects of existence and a fundamental need for all living things. Many foods are now tainted by various additives. An adulterant diminishes the significance of food. In order to compete with the market, adulterants such as metanil yellow (an artificial hue) and chalk powder, brick powder, and hazardous compounds have been added to turmeric powder. Anemia, paralysis, brain damage, stomach issues, and cancer may all result from ingesting food tainted with these substances, according to a recent research. Experience in filing food-adulteration allegations Food adulteration accusations aren't being filed because of these reasons. The respondents' domicile, social worth, and purchasing habits, as well as Food contamination

Keyword - consumer, adulteration

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INTRODUCTION

Food adulteration is the method through the inclusion of inferior content or by the separation of valuable components, by which the consistency of food is lowered. It not only comprises the aim of adding or replacing ingredients but also biological and chemical pollution, which is responsible for diminishing or worsening the consistency of food products throughout the period during which food products manufacturing, packing, refining, transportation and delivery. Adulterants are the chemicals used to prevent human intake of food products. Food adulteration happens occasionally in its crudest form, when forbidden medicines are only partially or entirely substituted. Adulteration occurs for a variety of reasons, including financial gain, negligence, and a lack of acceptable treatment, storage, transportation and sales hygienic conditions. The buyer is either misinformed or is generally exploited by disease. This sort of adulteration is widely encountered in backward or industrialized nations. Consumers have to be wary of prevalent adulterants and their health impacts. The market regularly imports enormous amounts of food, enabling the producers to exploit and mislead customers. Few farmers apply ethical regulations, others perform food adulteration since it is exceedingly challenging to discern between them. A person's religious and social value is both diminished when food is tainted. Market knowledge is crucial in preventing adulteration of goods. Unconsciousness and commercial behavior may risk the health of customers and lead to poisoning. Specific evaluations should also be communicated to common folks. The lack of awareness among ordinary masses, correct food standards, corporate ethics among money-

minded manufacturers and the uniformity of food ingredients is the key cause in food adulteration. Small numbers die without food; nevertheless enormous societies are plagued by complicated food-adulteration illnesses that may also lead to mortality. For all of these reasons, food adulteration must be removed from our society. The customer is the key economic sector in all marketing initiatives and the primary emphasis. The growth in people's earnings has boosted the cost, quantity and complexity of consumer products. The latest items based on complicated breakthroughs almost overflow on the market. For customers, picking one food product is particularly tough because of fraudulent advertising, misleading media attention and food adulteration.

Food adulteration

Adulteration was classified in order to boost the sales or profits as the dishonest addition to some other product. Adulteration is a term used to describe the mixing of diverse foods, medications, and other items for minimal or no cost. To produce a substance impure, the impurities are introduced or a vital element is removed, as shown in the Oxford diagram. Either by inclusion of foreign goods means decreasing the consistency of the foodstuffs. As an adulterant, a substance administered to a food product to diminish its consistency to increase its amount. Adulteration of foodstuffs is what this adulterant is considered to be. It might be planned or inadvertent to incorporate adulterant. But the adulterant addition is typically purposeful. The major reason for the intentional use of these adulterants is to maximize profit at the expense of environmental

or consumer health. It is undeniably a societal ill that is the result of a complex web of social, economic, technological, and human variables coming together. In the eyes of the law, it's a crime on par with burglary, theft, and murder since it's a sign of a sick society. Like any other crime, food adulteration is predicted to persist in our society as long as the current reasons which create crime will remain. Eradicating food adulteration is a near-impossible undertaking. What is truly required for consideration is the deployment of measures which may regulate this crime to a level which will not pose health danger among the consumers.

LITERATURE REVIEW

Ameeta Sharma, Neha Batra, Anjali Garg, Ankita Saxena(2017) As the title suggests, "An Overview of Food Adulteration." Adulterants like metanil yellow are added to turmeric powder to make it seem more golden in hue. An increasing number of adulterants are being added to products in order to boost revenues and cut expenses in order to compete in the business. Adulterants such as these may cause anaemia, blindness, brain damage, digestive issues, and even cancer in some people who take them. Depending on how they are cultivated and handled, spices might get contaminated. Spices have been connected to food poisoning and spoilage in certain cases. as well as Substances. The growth of the processed food and consumer goods sectors in the second half of the twentieth century coincided with an increase in the study of sensory assessment. Nowadays, the food business relies heavily on sensory assessment, which interacts with the most important areas of food production. Nutrition, convenience, and image may all be purchased in a single meal purchase. Consumers, on the other hand, are more concerned with the quality and consistency of the product's sensory characteristics and performance. The use of sensory assessment in establishing and monitoring product quality is, thus, essential. QC/sensory programmes should be supported, developed, and implemented by every quality-conscious firm.

Anita singh ,shuchirai bhatt and sheendra m. Bhatt (2010) Food adulteration is on the increase in many subway towns in India, and officials are often slow to respond to the problem. Adulterated milk, ghee, and oils are the most terrible disaster that may arise. Following validation of wet lab procedures in the wet lab, Varanasi has been researched for its eating habits and protective measures. Individuals have been selected for this questionnaire based on their age, sex, and educational attainment. A statistical analysis of the total number of respondents (N = 300) depending on gender was conducted. Data from this research was used to run chi square tests, which were then used to compare measured values to the t-test value (0,05). Regardless of their age, wealth, or religious affiliation, both types of people were aware of the dangers of food adulteration, and the likelihood of it occurring was lower among those who had received education. Both

businesses sold branded products that had a lower percentage of adulteration than local commodities. There may be an increase in adulteration due to dormant organisations or lengthy legal proceedings. Except for generations who have had excellent experiences with food practices, research suggests that food practices have fallen behind all other generations.

Ankita Choudhary, Neeraj Gupta, (2020) Food is a mixture of carbohydrates, water, fats, and proteins that is consumed or drunk by people or animals in order to provide them with nutrition or to fulfill the most basic needs of their existence. Adulteration is one of the primary goals of food additives, whereas manufacturing lines often deal with perishable goods that might be harmful to consumers if not handled properly. Economic adulteration is a long-term problem for the food industry. Food adulteration has been a concern since the beginning of civilization because of the reduction in the quality of food and the detrimental effect on health. Food adulteration necessitates the infusion of harmful, unneeded, and superfluous additives into food, which decreases its consistency. Inadequate treatment by adulterers results in unsafe and unsanitary food items that we utilize in our daily lives. Food goods that have been tampered with may have a profound impact on our health, even if we don't know it. We can ensure a secure future for future generations by making wise investments in these changes.

Bagchi(2000) It is undeniably a societal ill that is the result of a complex web of social, economic, technological, and human variables coming together. Crimes such as theft, burglary, and murder are examples of how a sick society may express itself. Food adulteration, like any other crime, is likely to persist in our society as long as the underlying causes that give rise to it persist. Food adulteration can never be completely eliminated. Implementing actions that reduce this criminal activity to a level where it does not endanger the health of customers should be the primary focus. Admixture or replacement with inferior ingredients or the removal of an important element is examples of food adulteration, which is illegal. The term "food adulteration" encompasses not only the intentional addition, substitution, or abstraction of substances that detract from the natural composition and quality of food, but also the unintentional contamination that occurs during the process of growing, harvesting, storing, processing, transporting, and distributing food. Adulterated food is one whose nutritional value has been diminished or whose quality has been compromised due to the addition or removal of harmful or unnutritious ingredients. Substituting or admixing lesser substances, or removing important ingredients, is considered to be the act of purposefully degrading the quality of food for sale.

Lohumi, Santosh; Lee, Hoonsoo;(2018) People are more concerned than ever before about food safety and cleanliness because of concerns that powdered food items might be tampered with to

enhance powder content or obtain the desired aesthetic content of low-cost grinding or harmful ingredients. It is critical to create a rapid, label-free, and non-invasive method of adulteration across a wide variety of food products because of the potential health threat to consumers. Rapid Raman hyper-spectral imaging has been used to detect and assess food adulteration. System components include a custom-built laser illumination setup, a sensor unit and an interface for the image machine. The laser light device generates a 785 nm high-intensity laser line, and the diffuser in the laser beam's intensity distribution is called Gaussian. Using the laser line, Rayleigh filters, imaging spectrometer, and detectors are gathered for the sensing module. The machine used for the simultaneous identification of paprika, benzyl peroxide, or allowance monohydrate adulteration in wheat meal at six (w) levels ranging from 0.05 percent to 1 percent of Sudanese dyeing and red Congo dye adulteration in paprika was specifically designed to acquire Raman hyper spectral pictures that also enable Raman chemical samples to be displayed in real time. The obtained Raman image data of the contaminated samples was evaluated in order to create binary imagery of every individual tainted item. Raman adulterant chemical pictures showed a strong correlation ($R > 0.98$) between the measured adulterant concentration and the pixel-based concentration of the extra adulterant. As a result, the Raman imaging system built is considered to be robust.

METHODOLOGY

Three types of people were surveyed for this report: women users, activists, and representatives of several consumer organisations, as well as government officials. Because each home is a unit of society, four hundred families were selected as a sample for the study because of their common preferences, views, ideals, and interests in consuming food items. This study used the term "woman purchasers" to refer to the moms or housewives who made the bulk of household purchases. Consumer safety groups were found to be the primary administrators of food-adulteration prevention regulations throughout the nation, according to a new report. As a consequence, the study enlisted the help of 50 activists from these organisations. In order to protect customers from being exploited by food dealers, the government is either directly or indirectly active in preventing food adulteration. It's also important for home scientists to keep an eye out for tainted food in their own homes. As a result, fifty people who are in charge of putting these laws into action and coming up with relevant policies fell into the third group of respondents. The samples were selected by the use of a random sampling procedure. As a result, the people and organisations involved were carefully selected

Statistical Tests Applied

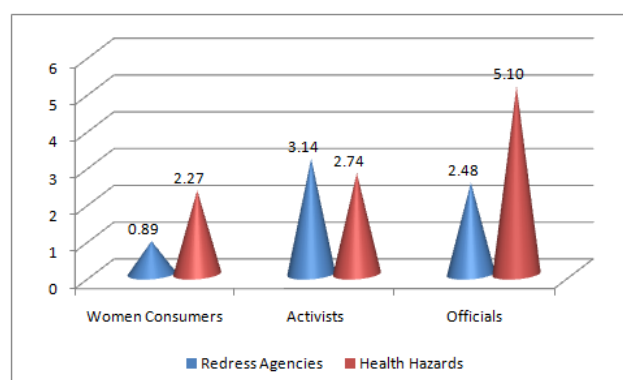
The data obtained from respondents will analyze using the following methodological techniques.

1. Pearson Product Moment Correlation is a kind of Pearson Product Moment Correlation.
2. Chi-square is a method of calculating the square root of a number.
3. A paired t-test was used.
4. Anova is number four.

DATA ANALYSIS

The Action Taken By the Respondents against Food Adulteration

Any solution to the social problem of food adulteration lies in the hands of the consumer. Consumer movement is still in its infancy in India. Frequent exploitation by unscrupulous traders, ignorance, lack of self-confidence, and lack of courage to resist such social evils, can be considered the major factors influencing the behavior of Indian consumers. Data pertaining to this are furnished in detail in Table. Among the respondents in all the three categories, namely, women consumers (94 percent), activists (74 percent), and officials (82 percent), had not attempted to lodge complaints against adulteration. Awareness of rights against such problems was very low among women consumers (1 percent), activists (6 percent) and officials (2 percent). According to Mishra (1991), the average Indian consumer is incapable of lodging any complaint against shopkeepers who are socially and economically in better positions. Lack of interest, time, and authority to deal with the situation was also found to be influencing the consumers in this respect, as reported by Devadas, et al. (1975). Sen (1989) reported that the illiteracy, ignorance and complacent attitude of the consumer had led to a state of mass inertia, with the result that the entire burden of controlling the quality of food would rest with the Government and its enforcing agencies.



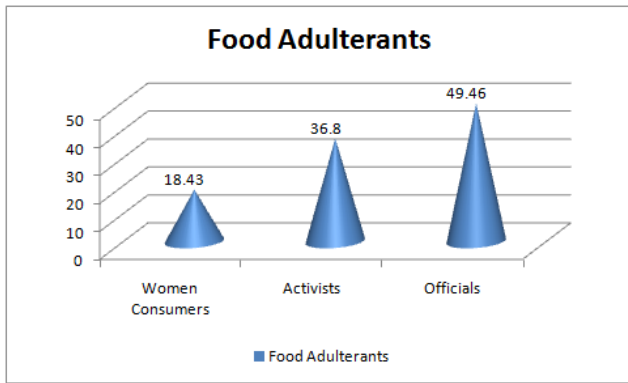


Figure 1: Experience in registering complaints

Table 1: Experience in registering complaints on food adulteration

Experience level	Distribution of respondents		
	Women Consumers	Activists	Officials
No experience	94 (376)	74 (37)	82 (41)
Some experience	5 (20)	20 (10)	16 (8)
Good experience	1 (4)	6 (3)	2 (1)
Total	100 (400)	100 (50)	100 (50)

(Figures in parenthesis denote actual number)

Women consumers (44 percent), activists (44 percent) and officials (38 percent) admitted that they refrained from such matter in order to avoid risk, while indifference to such issues was reported by women consumers (11 percent), activists (8 percent) officials (8 percent). Hence, self-centered motive of consumer can be considered mainly responsible for his passive attitude.

Table 2: Reasons for not registering complaints on food adulteration

Reasons	Distribution of Respondents		
	Women Consumers	Activists	Officials
No interested	44	44	38
Individual action will not benefit	17	10	10
Accepted the fact	4	8	–
Lack of confidence in the government	10	8	20
Considered as a simple problem	2	10	2
Total	100 (400)	100 (50)	100 (50)

(Total not arrived at owing to multiple responses)

Table 3: The place of residence of the respondents and the social value and consumer behavior indices

Place of the residence	Distribution of respondents				Total
	Social value indices		Consumer behavior indices		
	Low	High	Low	High	
Women consumers					
Rural	72 (58)	53 (42)	72 (58)	53 (42)	125 (100)
Suburban	14 (31)	31 (9)	25 (56)	20 (44)	45 (100)
Urban	109 (47)	121 (53)	99 (43)	131 (57)	230 (100)
Total	195 (49)	205 (51)	196 (49)	204 (51)	400 (100)
χ^2	9.69*		7.74*		
Activists					
Rural	5 (56)	4 (44)	2 (22)	7 (78)	9 (100)
Urban	23 (56)	18 (44)	24 (59)	17 (41)	41 (100)
Total	28 (56)	22 (44)	26 (52)	24 (48)	50 (100)
χ^2	0.12 ^{NS}		2.58 ^{NS}		

Officials					
Rural	5 (45)	6 (55)	5 (45)	6 (55)	11 (100)
Urban	24 (62)	15 (38)	25 (64)	14 (36)	39 (100)
Total	29 (58)	21 (42)	30 (60)	20 (40)	50 (100)
χ^2	0.91 ^{NS}		1.24 ^{NS}		

* – Significant at 5% level

NS – Not Significant

However, the place of residence was not found to be associated positively with the consumer behavior index and social value index of the other two categories of respondents, namely, the activists and officials.

Regarding social values, no difference was observed between the activists living in rural and urban areas. However, the place of residence did not have a statistically significant association with these two factors.

In the case of officials, the respondents residing in rural areas were observed to have a high social value index and consumer behavior index than the city-dwellers. But, these values were not statistically significant.

The results concluded that the activists and officials were independent in making decisions regarding purchasing and consuming food articles within the family, irrespective of the place of residence.

CONCLUSION

It is clear from the findings of several studies that many food items have been adulterated, and that this adulteration is resulting in a wide range of health problems for those who eat these goods. However, it is unclear to what extent customers are aware of the adulteration, given that the majority of them are impoverished, illiterate, and uninformed about the significance of factors such as quality and packaging. Degradation of values in life is also a

result of food adulteration, which has a depressing influence on societal values, Degradation of values in life is also a result of food adulteration, which has a depressing influence on societal values. Traders' malpractices such as stockpiling and back marketing, as well as various types of corruption in the enforcement authorities, have thrown our society into a world of twisted ideals. As with corruption on all fronts, it seems that food tampering, mislabeling, short-weighting, and overpricing have become accepted truths. Consumer behavior ratings for government officials and activists were found to be 33% and 18% higher than those for female customers. Officials and activists' social values were judged to be merely 8 percent and 18% greater than the results attained by women customers. Social value indices of female consumers and officials were found to be correlated with their spouse's educational background and food-adulteration detection experience, while young family members were found to have a negative and significant impact on the social value indices of female consumers and activists

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Corresponding Author

Rashika Singh Chandel*

Research Scholar, Shri Krishna University, Chhatarpur M.P.