

A Survey on Adulteration of Food Products

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Abstract- Globally, Adulteration of food products is increasing on a mass scale by producers just to increase their profits and this degrades the food quality and pose threat to the life of consumers. Food Adulteration has become so common these days that even people have started ignoring it, which consequently has led to deterioration of human life. Even baby foods are not left untouched by adulteration. This is detrimental to human health of future generation. This disturbing fact led us to conduct a survey from randomly selected individual belonging to wide range of age bracket regarding their perspective on adulteration. This paper describes some disturbing trends of general public regarding their outlook on adulteration of food they are consuming. [1]

Keywords- Adulteration, Food Products Adulteration, Adulterated Milk, Adulterated Food, Food Fraud, Food Cheating.

I. INTRODUCTION

When a food product fails to meet the minimum legal standards, that food product is referred as adulterated food product. [2][3] This is generally done by mixing-up other consumable and/or non-consumable articles to main substance to increase the quantity of the product or by chemically making a different substance in laboratory and selling it by the name of another substance which looks alike physically. Generally, this is a serious issue, because this is affecting everyone and it all begins by adulterating the baby food. The food products fed to the baby maybe adulterated and consequently throughout the life, the human beings are exposed to adulterated food products. This is done by Industries and producers to increase their profits and to reduce the cost of raw materials. But in process they forget or conveniently ignore the impact of adulteration on the human life and in the future generations of human race. Due to lack of awareness, adulteration is getting carried away and being ignored by everyone. [3]

People have become so busy that they no longer have time to spend for themselves or their family. So, they buy the food products without finding/checking the nutritional values, other details, and as a result, companies are taking advantage of this and exploiting the people. Also, other factor is 'BUDGET', with increasing expense and increase in price of

commodities people are finding it hard to buy good food products. It is most common misconception is that good things cost more and so people prefer quantity over quality. Ignoring the quality of food product may not affect immediately but in long run it may prove lethal.

Recently, in India, it was found out that milk was adulterated with water and honey was adulterated with Jaggery (A product obtained from sugarcane). [4] Another famous issue was, when studies found out Lead (A dangerous substance for human body) in one of the famous noodle product in India. Some people became aware about what they consume but that's not enough, as everyone must be aware of what they eat and what contents are added/included in what they eat. In this regard, a survey was conducted about awareness of adulteration among Indian people.

II. METHODS

We designed a survey that contained questions based on awareness regarding adulterations of food articles. [5] The questionnaire was sent to 70 Indian volunteers staying in Pimpri Chinchwad area belonging to diverse age group, both genders, different origin and dialect, different religion and diverse occupations. Online google forms were created and sent through email to the participants. Questions were based on awareness of these people, of adulterations. Some questions are like whether they know food which they are consuming is adulterated or not, important points people keep in mind while shopping for food products, do they complain to company whose adulterated food they buy, are they aware of consumer court, do they know techniques of determining food adulteration at home and what are the most common form of adulterant they have come across?

III. RESULT AND DISCUSSION

Q1: Regarding if people knew whether the food they consume is adulterated or not.

Response:

Sr. No.	Description	%
1.	People who aren't sure about it.	58.2
2.	People who agree that their food is adulterated.	28.4
3.	People who disagree that their food product are not adulterated.	13.4

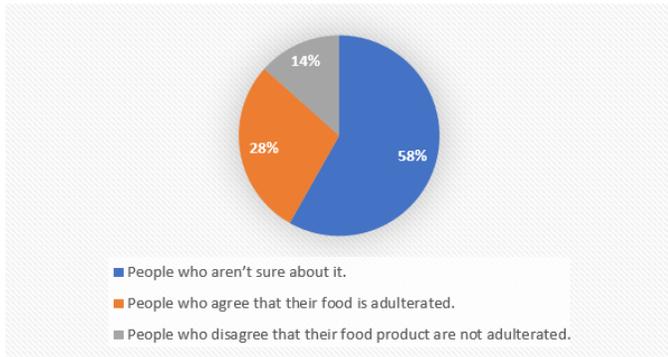


Fig 1: Pie Chart based on responses to question 1

Q 2. Important Points that people keep in their mind of people while buying food products:

Response:

Sr. No.	Description	%
1.	Checking Expiry Date and other Details	50
2.	Checking the price and not the quality	25
3.	Considering the quantity	15
4	Randomly buying stuff	10

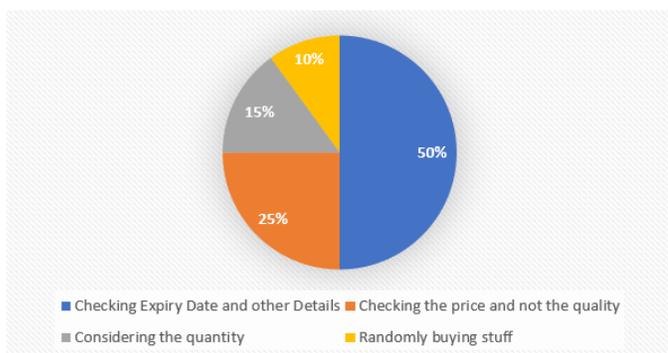


Fig 2: Pie chart on the above data.

Q3. Do people complain to respective food product companies about their adulterated food products?

Response:

Sr. No.	Details	%
1.	People who never reported about their Food Quality.	60.3
2.	People who reported about adulterated food product.	31
3.	People who don't know what can be done about a adulterated food product.	6.7
4.	People who have never come across a adulterated food products or think that their food product is of good quality.	2

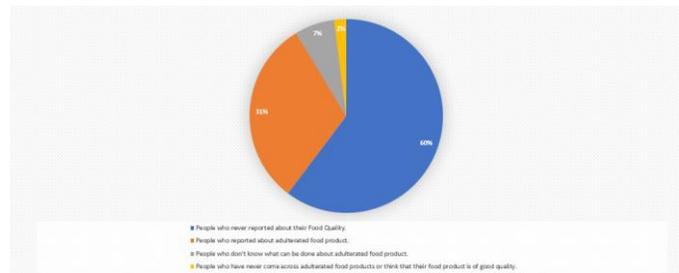


Fig 3: Pie Chart on above data

Q 4. Are people aware about Consumer Courts?

Response:

Sr. No.	Details	%
1.	People know about consumer courts	77.6
2.	People have never heard about consumer courts.	22.4

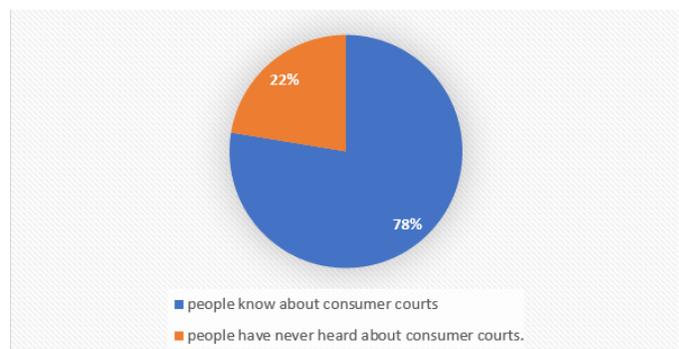


Fig 4: Pie Chart on above data

Q 5. Do people know, how to identify if their daily life food products are adulterated?

Responses:

Sr. No.	Details	%
1.	People who don't know how to find out if their food product is adulterated.	71.6
2.	People who know how to find out if their food product is adulterated.	28.4



Fig 5: Pie Chart on the above data.

Q 6. The most common adulterants, which people have come across in daily life:

Responses:

- Most people agreed that the milk they consume is adulterated.
- Some people have mentioned that the spices we use, are adulterated.
- Some people have mentioned Clarified Butter (Ghee) & Oils used for cooking.
- A very few people have mention about Yoghurt (Curd).

III. RESULT AND DISCUSSION

We have found that most people are trying to find quality food products but due to lack of resources/availability are unable to do it. Some people give more importance to money, when it comes to quality of food products. Some people try to give equal importance to money as well as the quality of food products. People are not very aware about what can be done when they find bad/ adulterated food stuff. In current times, most food products are adulterated and a change is needed to do something about the same. People aren't well aware, what should be done if their food products are adulterated or not. Awareness needs to be spread, about what should be done on this issue. There should be laws passed by the government about the same and it should be implemented strictly. People must be aware about whatever they consume.

IV. ACKNOWLEDGEMENT

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REFERENCES

- [1] <https://byjus.com/biology/food-adulteration/>
- [2] <https://www.sciencedirect.com/topics/food-science/food-adulteration#:~:text=Food%20adulteration%20is%20the%20act,removal%20of%20some%20valuable%20ingredient.>
- [3] <https://www.futurelearn.com/info/courses/nutrition-food-safety/0/steps/44731>
- [4] <https://www.sciencepubco.com/index.php/ijbas/article/view/1727>
- [5] <https://docs.google.com/forms/d/e/1FAIpQLSfSjcE-03IZHtSHGy17YFWUi7D6HvrEABfQBcy3PgviLvwXfA/viewform>