



# A Study on The Impact of Cognitive Dissonance on Usage of White Sugar

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## ABSTRACT

Cognitive dissonance generally refers to difference in purchasing decision, based on the information received. This Paper explored the dissonance that has been created on white sugar. There are similar other products whose market has been declined due to the dissonance created. Some of the other examples are Noodles, Eggs, Chicken etc., This research is conducted with samples selected on the convenient sampling method and the sample size is 65. This is a descriptive type of research, and the primary objective is to find whether the dissonance created on white sugar has affected its market or not. As we know, there are many replacements for white sugar in market today and people are switching their sweeteners due to this dissonance and now the marketers are advised to consider this “Dissonance” in their market research in order to protect their market from fall.

## INTRODUCTION

Buying behaviour is an act of decision making. That is, deciding whether to buy a product/service or not. Cognitive Dissonance refers to a conflict in human brain due to difference of opinions or information received. Hence, people get confused whether to buy it or not, ultimately which affects the sale of product. There is many information received about White Sugar usage, some of them are:

### A. COGNITIVE DISSONANCE ON USAGE OF WHITE SUGAR

- Sugar is addictive
- Sugar damages our immune system
- Sugar robs our body of essential minerals
- Sugar can lead to development of cancer and diabetes
- Consumption of sugar is detrimental to liver
- Sugar causes diabetes and gain in weight
- Sugar causes Senescence (Premature Aging)
- Sugar leads to depression, anxiety, chronic fatigue, irritability, and mood swings
- Sugar increases hyper activity in children
- Sugar can affect your cholesterol

### B. EXAMPLES OF COGNITIVE DISSONANCE:

Let us consider a situation now. If a person wants to buy a movie ticket for which he was eager about. While he is proceeding to buy the awaited movie ticket, he came to know an information from his friend that the movie is not good and its so boring. Now, he will be in a conflict whether to buy that movie ticket or not. Now this confusion or mental conflict which influences a person to buy a product or service is called Cognitive Dissonance.

**A. OBJECTIVES OF STUDY:**

To study how the cognitive dissonance affects the consumer buying behaviour

- To know what is cognitive dissonance, its importance and its impacts on consumers
- To analyse how the cognitive dissonance affects the demand of the product (white sugar)
- To know and analyse why the usage of white sugar is reduced
- To know why the white sugars are replaced in daily life
- To know the list of replacements for white sugar
- To study the advantages and disadvantages of using white sugar in diets.

**AIM:** To conclude whether this cognitive dissonance has an impact on purchase and consumption of white sugars.

**II. REVIEW OF LITERATURE:**

**Sweeney, Hausknecht and Soutar (2000)** noted, „dissonance includes both cognitive aspects, as the title “cognitive dissonance” implies, as well as an emotional dimension, as many definitions, including Festinger’s original definition, imply”. The resulting dissonance motivates the individual to bring harmony to inconsistent elements and thereby reduce psychological tension. Dissonance is known to arise mainly in three ways –First, any logical inconsistency can create dissonance. Second, dissonance can be created when a person experiences an inconsistency either between his attitude and his behaviour or between two of his behaviours. Third dissonance can occur when a strongly held expectation is disconfirmed, notes Loudon & Della Bitta (2002).

The theory of cognitive dissonance was first introduced by **Leon Festinger in 1957** and developed rapidly as an approach to understanding common areas of human psychology, Communication, and Social Influence (Festinger, 1957)

In fact, in the past decade, we still found numerous scholars acknowledged the theory of cognitive dissonance as a widely recognized social theory and particularly for its significant and influential concepts in social psychology and human motivation areas (**Griffin, 2012; E. Harmon-Jones, 2012; Lucas, 2009; McGrath, 2017; Morvan & O’Connor, 2017**). In dynamic business environment, marketers have always been trying to not only acquire new customer base but also retain the existing one by providing value, satisfying customers’ exchange expectations. It has been found that customer retention is highly associated with customer satisfaction and customer satisfaction not only retains the customer with the company but also affects revenue, earning per share and stock price (Williams and Naumann, 2011).

Since consumer Behaviour and its extensive study has been a backbone of marketing strategy of every firm, a detailed and comprehensive study of all its aspects become imperative for the success of an Organisation. Hence, The Concept of Cognitive Dissonance and its effects on Consumer Behaviour has been a part of various significant research studies as well. One author even termed it as one of the social Psychology’s Greatest Theories (Aronson 1969).

**III. RESEARCH METHODOLOGY**

A Research is a significant process that helps us to find out the problem, provide a solution, analyse the factors, etc., It has a lot of benefits to the researcher as well as the society. There are different types of research. They are:

1. Exploratory Research
2. Descriptive Research
3. Cross sectional Research
4. Longitudinal Research etc.,

This study falls under the Descriptive Type of Research. Which deals with describing problem and the feasible solutions, to solve that problem. The Samples are the Chosen people from a set or Population. The Samples can be Chosen Out of Different Types:

1. Random Sampling
2. Non- Random Sampling

In This Study, Samples are selected on a basis of Non-Random Sampling method. The method used to select Samples is: Convenient Sampling Method. Sample Size is the number of samples taken into Consideration for conducting Research. In this study, the sample size is **65**. The Samples are all from Homogeneous Location: Chennai. The total Research Period is a month. Descriptive Research has been used, it involves survey and Fact- Finding enquires if different Kinds, The Use of descriptive research are the state of affairs, as it exists at present.

### A. Need For the Study

The Study took a major Objective on finding out the Impact of change in consumer behaviour due to difference in opinions. This difference is due to different ideas, facts, opinions, news etc., from different sources, which brings a conflict between Purchasing Behaviour and beliefs. In simple Terms, if a consumer is constantly purchasing a product called: Eggs, if they got any information, say the eggs are high in cholesterol and so avoid eggs to be healthy. That Consumer is now confused whether to buy eggs or not. This Mental Dilemma is Called Cognitive Dissonance. There are different types of information influenced on white sugar Consumption viz.,

1. It is Bad for health
2. White Sugar Increases Insulin
3. White Sugar causes Weight Gain
4. White Sugar causes Cancer etc.,

Now, we don't Know whether this information is true or false. But We are here to find whether this information has affected the consumer's Buying Behaviour or not. This is done through a proper Questionnaire and a Data Collection. Again, Data Collection methods are 2. They are:

1. Primary Data
2. Secondary Data.

In this study, the data collected is: Primary Data. Primary Data may be defined as those data we collected for the first time. Secondary Data are those which are already collected like literatures, newspapers, Journals, Books etc., The samples we Collected Concentrates only on Female Customers as they decide the Grocery Purchase at Home.

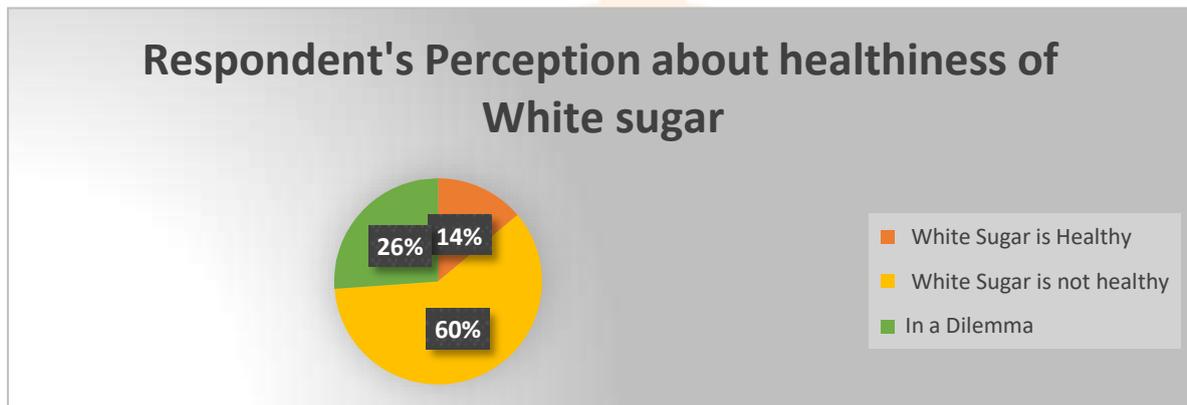
## IV. DATA ANALYSIS AND INTERPRETATION

### A. PERCENTAGE ANALYSIS

**TABLE 1: RESPONDENT'S PERCEPTION ABOUT HEALTHINESS OF WHITE SUGAR**

PARTICULARS	NO OF RESPONDENTS	% OF RESPONDENTS
White Sugar is Healthy	9	13.8
White Sugar is not healthy	39	60
In a Dilemma	17	26.2

**CHART 1: RESPONDENT'S PERCEPTION ABOUT HEALTHINESS OF WHITE SUGAR**



**INTERPRETATION:**

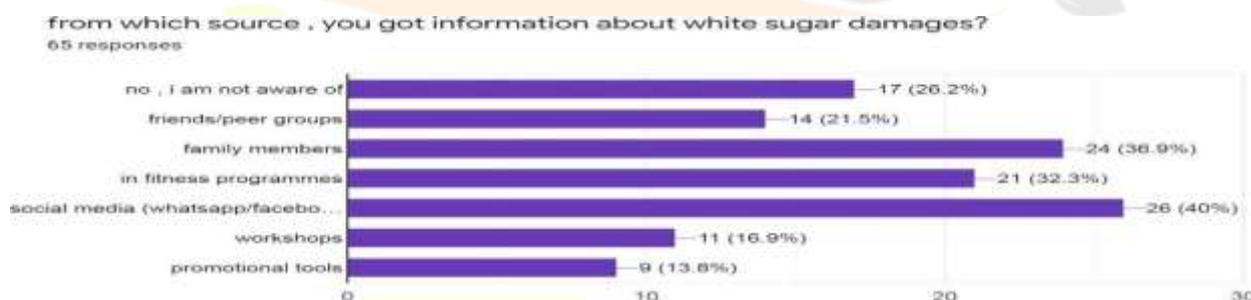
From the above table and chart, 13.8% of people says that White Sugar is Healthy, 26.2% of people says that White Sugar may or may not be Healthy, 60% of people says that White Sugar is Unhealthy.

**INFERENCE:**

The Majority of people (60%), says that White Sugar is Unhealthy.

**TABLE 2: SOURCE OF INFORMATION RECEIVED ABOUT WHITE SUGAR**

PARTICULARS	NO OF RESPONDENTS	% OF RESPONDENTS
Not aware of the information	17	26.2
From Friends/peer groups	14	21.5
From Family	24	36.9
From Fitness program	21	32.3
From social media	26	40
From Workshops	11	16.9
Through promotions	9	13.8

**CHART 2: SOURCE OF INFORMATION RECEIVED ABOUT WHITE SUGAR****INTERPRETATION:**

From the above table and Chart, it shows that 26.2% of people are not aware of information about White Sugar, 21.5% are aware of the information about white sugar through Friends and Peer Groups, 36.9% of people are aware of information through Family members, 32.3% are aware of information through Fitness Programmes, 40% of people are aware of information through social media like WhatsApp, Facebook etc., 16.9% are aware through Workshops and 13.8% of people are aware through Promotional Tools.

**INFERENCE:**

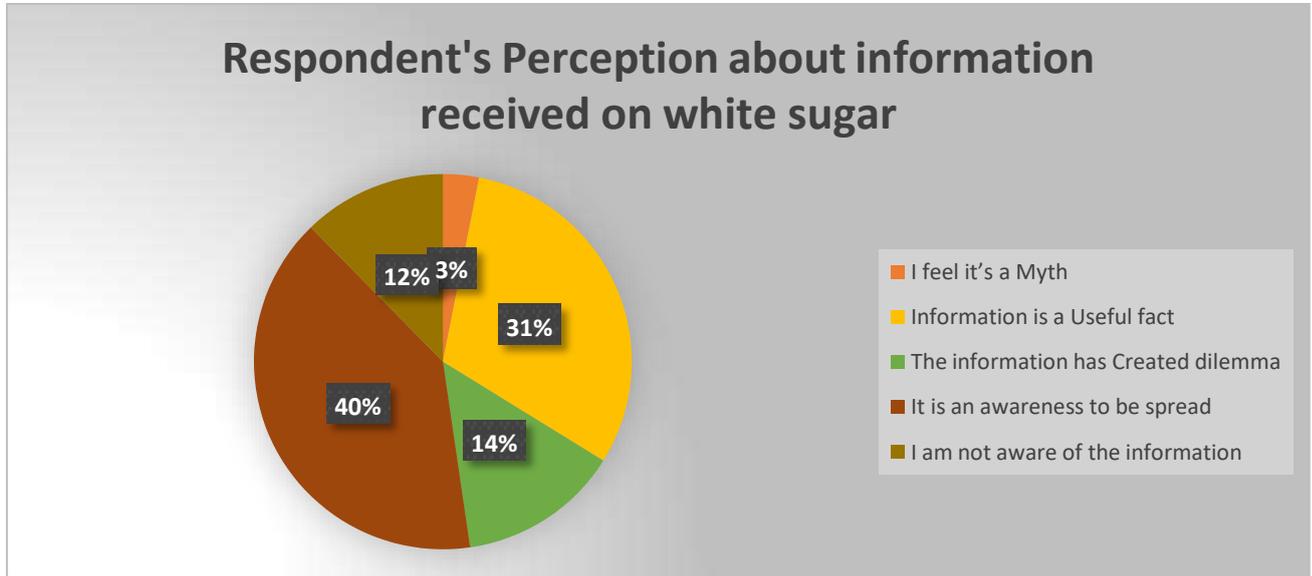
The information about White Sugar is majorly Known through social media (40%).

**TABLE 3: RESPONDENT'S PERCEPTION ABOUT INFORMATION RECEIVED ON WHITE SUGAR**

PARTICULARS	NO OF RESPONDENTS	% OF RESPONDENTS
I feel it's a Myth	2	3.1
Information is a Useful fact	20	30.8

The information has Created dilemma	9	13.8
It is an awareness to be spread	26	40
I am not aware of the information	8	12.3

**CHART 3: RESPONDENT’S PERCEPTION ABOUT INFORMATION RECEIVED ON WHITE SUGAR**



**INTERPRETATION:**

From the above table and chart, it shows that 40% of people thinks that the information received is an awareness to be spread, 13.8% of people thought the information received Created Dilemma in them, 30.8% of people thought that it is a Useful Fact received, 3.1% feels that information is a myth, 12.3% of people are not aware of the information.

**INFERENCE:**

The Majority of the respondents feels that the information is an awareness to be spread (40%).

**B. TESTING OF HYPOTHESIS**

**TEST 1: PAIRED T TEST**

The Hypothesis framed are:

H0: There is no significant difference in usage of white sugar before and after the information received.

H1: There is significant difference in usage of white sugar before and after the information received.

	Mean	N	Std. Deviation	Std. Error Mean	sig (2-tailed)
Pair 1 previous	5.11	65	2.346	.291	.021
present	4.23	65	1.818	.226	

**Interpretation:** As the p value is 0.021, which is less than 0.05, we reject null hypothesis (H0) and accept alternate hypothesis (H1)

**Result on test:** Thus, there is a significant difference in usage of white sugar before and after the information received.

**TEST 2: TO TEST RELATION BETWEEN AGE AND OPINION ON USAGE OF WHITE SUGAR (CROSSTABS)**

The Hypothesis framed is:

Ho: There is no significant difference between age and opinion on usage of white sugar

Ha: There is a significant difference between age and opinion on usage of white sugar.

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
age * opinion	65	98.5%	1	1.5%	66	100.0%

	Value	df	Assump. Sig. (2-sided)
Pearson Chi-Square	12.286	8	.139
Likelihood Ratio	12.437	8	.133
Linear-by-Linear Association	2.671	1	.102
N of Valid Cases	65		

**INTERPRETATION:**

As the P value is 0.139, which is greater than 0.05, the null hypothesis is accepted (H0) and the alternate hypothesis is rejected (H1).

**RESULT ON TEST:** Thus, there is no significant difference between age and Opinion on usage of white sugar. Thus, we conclude that all age group has more or less same opinion on usage of white sugar.

**V. FINDINGS, SUGGESTIONS, CONCLUSION**

**FINDINGS**

58.5% replaced white sugar for health reasons, 29.2% replaced for taste satisfaction, 23.1% replaced for price, 26.2% replaced because of options in market, 18.5% replaced based on others opinion, 23.1% replaced for weight management, 23.1% feels that it can be used. 23.1% feels it is not at all safe, 26.2% feels it is not safe, 33.8% feels neutral about safety, 12.3% feels safe, and 4.6% feels it's purely safe to use white sugar. 12.3% will suggest others to use white sugar. 58.5% will not suggest others to use white sugar, and 29.2% may/may not suggest others to use white sugar. Through data analysis and hypothesis testing in SPSS, it shows that the dissonance has affected the usage of white sugar.

**SUGGESTIONS**

- This research is conducted for a period of 1 month, if any further research is done, it may be done for a longer tenure.
- This research is conducted with 65 samples, if any further research is done, it is suggested to do with more samples
- This research is conducted with samples located in homogeneous location "Chennai", it is suggested to cover even more locations
- This research is focusing on cognitive dissonance created only on white sugar, the researchers are advised to take many products into their research considerations

## CONCLUSION

The study is on impact of cognitive dissonance on usage of white sugar, where it is resulted that the cognitive dissonance has affected the buying behaviour of Consumers. Thus, it is advised that the marketers take this into consideration and take necessary steps to resolve this dissonance in order to protect them from market fall.

## REFERENCES:

- Cognitive dissonance (2012). In Wikipedia, Retrieved March 14 from [en.wikipedia.org/wiki/Cognitive\\_dissonance](http://en.wikipedia.org/wiki/Cognitive_dissonance)
- Duesenberry, J.S. Income saving and theory of consumer behavior, Cambridge Havard University press, 1949
- Ferber, Robert and Research Method in Economics P.J.Verdourn and Business, Newyork: Macmillan, 1962
- Howard, John A. Consumer Behaviour – Application of theory, New York: McGraw Hill Book Co., 1977.

