# An Empirical Study on Factors Determining Purchase of Organic CPG's – With Special Reference to Chennai City

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## ABSTRACT

*Among many of the top priority issues that hits the agenda, environmental issues and the crisis that have accompanied such issues have become a buzz word. This paper covers the buying behavior of consumers towards organic CPG's. The variables that affect buying behavior such as Quality, Skeptical Issues, and Quitting Toxic CPG's were chosen for the study. The survey was conducted among the residents of the Chennai city. Convenient sample techniques was chosen for the study and the sample size was determined as 100. The findings of the survey reveals that respondents don't buy organic CPG's since the peer group around them insist to do it or do it either. Many respondents feel that when claims are made by the manufacturers, stating that the products are organic it is in most cases false. When it comes to Quality Standards that are expected by the consumers, the need for improving the human, health is the most important factor that is expected by the consumers. Not much importance was insisted on the amount of the Quality that was received for the price paid.*

**Keywords:** Consumer Packaged goods, Quality, Quit Toxic CPG's, Skeptical Issues, Perceptions.

## INTRODUCTION:

Saving the environment has become a buzz word these days. During the late 1990's the results of the Industrialization and the growing population, leads to irreversible environmental damage. The results of such disaster leads to a series of problems both affecting the human and animal health. Therefore the need to save the environment became the order of the day.

## THE RISE OF GREEN MARKETING:

With people all around the world having understood about the seriousness of the environmental issues, preservation of the environment through simple day to day actions such as avoiding the use and throw lifestyle, self education on reuse, reduce and recycle etc was put in practice by the population around the world. And therefore this helped in providing a new market area, for manufacturers, to make and sell products that help both the environment, and human health. Therefore green marketing can be defined as, making of products and services that are presumed to be environmentally friendly.

## LITERATURE REVIEW:

Downs (1972), Lipsey (1977), and Corrado and Ross (1990), have stated commonly in their research paper that even during times of recession, and economic issues environmental issues are concerns for consumers.[1]
The authors such as Albrecht et al. (1982), Noe and Snow (1990), Roberts and Bacon (1997) have stated in their papers that, environmental concern may be more influential for some behaviors than others concerns and

environmental concern itself may be multifaceted, and consequently may reflect or be reflected in a wide spectrum of consumer activities.[2]

The NAAG report, (1990) reveals that Governmental bodies are forcing firms to become more responsible and Eco friendly competitor pressure makes the firms to change their environmental marketing activities.[3]

According to the authors like Ottaman, (1993) and Ken Peattie, (1993) conventional marketing is out and Green Marketing is in.[4]

.Azzone & Mazini, (1994) reveals that cost factors associated with waste disposal, or reductions in material usage forces firms to modify their behavior in favor of green marketing.[5]

Polonsky (2011) has defined Green marketing as "all activities designed to generate and facilitate any exchanges intended to satisfy human needs or wants such that the satisfaction of these needs and wants occurs, with minimal detrimental impact on the natural environment" [6]

## OBJECTIVES OF THE STUDY:

- To gauge the level of preparedness on Quitting Toxic CPG's
- To analysis about the Skeptical Issues faced by the consumers while purchasing Organic CPG's
- To check with the level of Quality standards excepted by consumers, when choosing eco friendly products.

## RESEARCH METHODOLOGY:

The study is empirical in nature. Questionnaire method was adopted for the purpose of the study. The questionnaire distributed was self explanatory in nature. Primary data collection method was adopted for the purpose of fetching the information for the study. A convenient sampling method was adopted for the study and the questionnaire was distributed among the residents of the Chennai city.

The data collected was analyzed through the SPSS version 20. Statistical tools such as Annova, t test, Correlation, Friedman test were used for the purpose of critically analyzing the data.

**Percentage of the Responsiveness for the Questionnaire:**
 = Number of Questionnaires Received (Reverted back) / Number of Questionnaires Distributed
= 115/120 *100 = 95.8

The percentage of the responsiveness of the questionnaire determines about the interest / how many respondents have attempted to take up the survey. Therefore the higher the percentage of the response the survey receives the better reliable the survey data is.

**Percentage of the Completeness for the Questionnaire:**
=  Number of Questionnaires filled up completely / Number of Questionnaires Received
= 100/115*100= 86.9

The percentage of the completeness of the questionnaire helps in determining how many respondents have completely filled up all the survey questions. Only the questionnaires that are completely answered are taken for the study. Incomplete questionnaires were rejected since; they don't provide the required details to come out with solid findings.

**Structural Equation Model / Theoretical Frame Work:**
A structural equation model that blends along with the objectives of the study was framed.
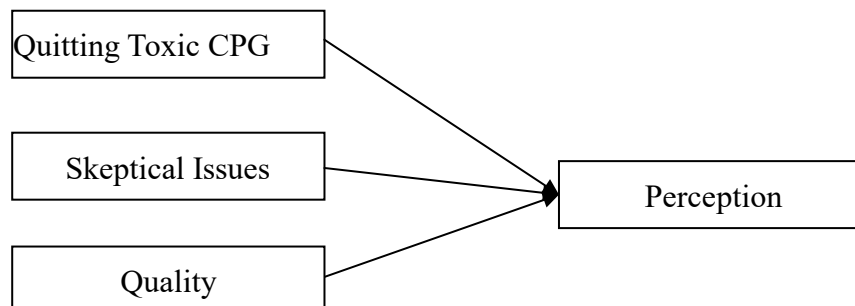
**DATA ANALYSIS AND INTERPRETATION:**

**Descriptive analysis:**

**Table 1: Descriptive Analysis**

| S.No | Demographic details: | Frequency | Percentage |
|------|----------------------|-----------|------------|
| 1 | **Marital Status:** Married | 48 | 48% |
| | Unmarried | 52 | 52% |
| 2 | **Educational Qualification:** Upto Higher Secondary School | 53 | 53% |
| | Undergraduate | 36 | 36% |
| | Postgraduate | 29 | 29% |
| | Professional | 13 | 13% |
| 3 | **Occupation:** Business | 8 | 8% |
| | Professional | 3 | 3% |
| | Government / Private Employee | 36 | 36% |
| | Student | 40 | 40% |
| | Others | 13 | 13% |

The analysis table regarding the demographic details reveals that 52% if the respondents were unmarried. About 53% of the survey population had higher education qualification. 40% of the respondents were students.

**t- Test:**

Null Hypothesis: There is no significant difference between Marital Status of the respondents with respect to Consumer Perceptions

**Table 2: t- test for significant difference between Marital
Status of the respondents to Consumer Perceptions on CPG's**

| Consumer Perceptions on CPG's | Marital Status | | | | t value | P value |
|-------------------------------|----------------|------|------------|------|---------|---------|
| | Married | | Unmarried | | | |
| | Mean | SD | Mean | SD | | |
| Quit Toxic CPG's | 17.81 | 5.51 | 15.42 | 5.57 | 2.153 | 0.034* |
| Skeptical Issues | 15.63 | 5.11 | 14.25 | 4.40 | 1.445 | <0.001 |
| Quality | 17.60 | 4.89 | 17.25 | 5.09 | 0.354 | <0.001 |

**Note:** *denotes significance at 5% level

Since the p value is less than 0.05, the null hypothesis is rejected at 5% level of significance with regards to Quitting Toxic CPG's. Hence, there is significant difference between Marital Status of the respondents with regards to Quitting Toxic CPG's.

There is no significant difference between Marital Status of the respondents in regards to Skeptical Issues and Quality, since the p value is greater than 5%. Hence the null hypothesis is accepted at 5% level of significant with regards to Skeptical Issues and Quality.

**ANNOVA:**

(a) Null Hypothesis: There is no significant difference among Educational Qualification with respect to Perceptions

**Table 3: ANNOVA for significant difference among Education
Qualification of the consumer with respect to Perceptions on CPG's**

| Consumer Perceptions on CPG's | Education Qualification | | | | F value | P value |
|---|---|---|---|---|---|---|
| | Upto Higher Secondary School | Under Graduate | Post Graduate | Professionals | | |
| Quit Toxic CPG's | 14.14[a] (6.60) | 18.22[a] (4.49) | 16.52[a] (5.74) | 16.23[a] (5.64) | 2.518 | <0.001* |
| Skeptical Issues | 14.14[a] (5.29) | 15.36[a] (4.70) | 14.97[a] (4.52) | 14.85[a] (5.06) | 0.295 | <0.001* |
| Quality | 15.86[a] (6.01) | 18.56[a] (4.24) | 17.34[a] (5.06) | 17.08[a] (4.50) | 1.383 | <0.001* |

There is no significant difference between the variables chosen for the study such as Quitting Toxic CPG's, Skeptical Issues, Quality and Educational Qualification of the respondents, since P value is greater than 0.05. Hence null hypothesis is accepted at 5% level of significant with regards to Quitting Toxic CPG's, Skeptical Issues and Quality.

(b) Null Hypothesis: There is no significant difference among Occupation with respect to Perceptions

**Table 4: ANNOVA for significant difference among
Occupation of the consumer with respect to Perceptions on CPG's**

| Consumer Perceptions on CPG's | Occupation | | | | | F value | P value |
|---|---|---|---|---|---|---|---|
| | Business | Professional | Govt/ Private Employee | Student | Others | | |
| Quit Toxic CPG's | 16.13[a] (4.05) | 20.67[a] (2.31) | 17.33[a] (6.30) | 15.65[a] (5.41) | 16.62[a] (5.71) | 0.832 | <0.001* |
| Skeptical Issues | 15.13[a] (2.80) | 17.00[a] (3.46) | 14.97[a] (5.94) | 14.60[a] (4.39) | 15.08[a] (3.88) | 0.189 | <0.001* |
| Quality | 16.25[a] (3.01) | 20.33[a] (3.06) | 17.53[a] (5.63) | 17.55[a] (4.97) | 16.77[a] (4.59) | 0.425 | <0.001* |

There is no significant difference between the variables chosen for the study such as Quitting Toxic CPG's, Skeptical Issues, Quality and Occupation of the respondents, since P value is greater than 0.05. Hence null hypothesis is accepted at 5% level of significant with regards to Quitting Toxic CPG's, Skeptical Issues and Quality.

**Friedman test:**
**(a) Null Hypothesis:** There is no significant difference between Mean Ranks on Quitting Toxic CPG's

**Table 5: Friedman test for significant difference between mean ranks on Quitting Toxic CPG's**

| Quitting Toxic CPG's | Mean Rank | Chi Square Value | P Value |
|---|---|---|---|
| Switch over to eco-friendly products, since conventional CPG's are packaged in plastics which are toxic | 3.29 | 6.632 | <0.001** |
| Quit toxic CPG's (Like chemical cosmetics, toxic detergents etc) to obtain long-term health benefit and improvement | 2.95 | | |
| Boycott harmful and chemical CPG products since they are highly carcinogenic (trigger cancer) and endocrine disruptive (cause malfunctioning of human organs) | 2.98 | | |
| Excluding toxic CPG's from usage since I am able to assess the hazardous ingredients in the conventional ones | 2.97 | | |
| Quit toxic CPG's and replace it with organic ones since everyone around me wants to do it | 2.83 | | |

**Note:** ** denotes significance at 1% level

Since the p value is less than 0.01% the null hypothesis is rejected at 1% level of significance. Hence it can be concluded that there is significant difference among the mean rank on Quitting Toxic CPG's. Based on the mean rank, switching over to Organic CPG's since they are sustainably packaged has received the highest mean value of 3.29 and the least mean value of 2.83 is received for the intension to quit toxic CPG's since everyone around does it.

**(b) Null Hypothesis:** There is no significant difference between Mean Ranks on Skeptical Issues on Organic CPG's

**Table 6: Friedman test for significant difference between mean ranks on
Skeptical Issues on Organic CPG's**

| Skeptical Issues | Mean Rank | Chi Square Value | P Value |
|---|---|---|---|
| There is more cheating on consumers, claiming that products are completely organic | 3.23 | | |
| Cheated by the trips and tricks by looking at the labelling of the packaging which makes huge claims | 3.24 | | |
| Past experience on the false claims made by manufacturers | 2.82 | | |
| I think poorly understood principles of green marketing is a problem | 3.10 | | |
| I don't have the ability to evaluate the products environmental composition | 2.62 | 14.354 | <0.001** |

**Note:** ** denotes significance at 1% level

Since the p value is less than 0.01% the null hypothesis is rejected at 1% level of significance. Hence it can be concluded that there is significant difference among the mean rank on Skeptical Issues on Organic CPG's. Based on the mean rank, the highest mean rank (3.23) was received on the opinion stating about the cheating that happens on consumers, claiming that the products are completely organic. The least mean was received by the inability to evaluate the products environmental composition.

(c) Null Hypothesis: There is no significant difference between Mean Ranks on Quality on Organic CPG's

**Table 7: Friedman test for significant difference between mean ranks on Quality on Organic CPG's**

| Quality | Mean Rank | Chi Square Value | P Value |
|---|---|---|---|
| Better functioning of the eco-friendly product vs non eco-friendly product | 2.76 | | |
| Should be safe for usage/ consumption in a long run | 3.09 | | |
| Desirable quantity of the product | 2.46 | | |
| Should improve environmental health | 3.19 | | |
| Should improve human health | 3.51 | 35.271 | <0.001* |

**Note:** ** denotes significance at 1% level

Since the p value is less than 0.01% the null hypothesis is rejected at 1% level of significance. Hence it can be concluded that there is significant difference among the mean rank on Quality on organic CPG's. Based on the mean rank, improving human health received the mean value of 3.51. Desirable quantity of the product has received the least mean value of 2.46.

**COEFFICIENT CORRELATION:**

**Null Hypothesis:** There is no significant difference between Factors of Perception on Eco friendly CPG's

**Table 8: Pearson Correlation Coefficient between factors of Consumer Perceptions on CPG's**

| Factors of Perception on Eco friendly CPG's | Quit Toxic CPG's | Skeptical issues | Quality |
|---|---|---|---|
| Quit Toxic CPG's | 1.000 | 0.587** | 0.844** |
| Skeptical Issues | . | 1.000 | 0.582** |
| Quality | - | - | 1.000 |

**Note:** ** denotes significance at 1% level

The coefficient correlation between Quit Toxic CPG's and other factors such as Skeptical Issues and Quality are 0.587, 0.844 respectively, which indicates 58% positive correlation between Quitting Toxic CPG's and Skeptical Issues, and 84.4% positive correlations between Quality Toxic CPG's and Quality.

The coefficient correlation between Skeptical Issues and Quality is 0.582, which indicates 58.2% positive correlation between Skeptical Issues and Quality.

## RESULTS AND DISCUSSION:

By interpreting the demographic data, it can be understood that a major portion of the respondents were unmarried and were pursuing education. Therefore the demography characteristics of the chosen population consisted of a huge chunk of respondents with higher secondary educational qualification.

By analyzing the **t test**, it can be understood that the mean value of men, in all three variables chosen for the study is higher in comparison to the women and therefore, concerns about Skeptical Issues, seeking Quality standards on purchase of eco friendly CPG's and Quitting Toxic CPG's is higher among men than women.

By interpreting the Annova table, the values received by the respondents who fall under the undergraduate group for all the three variables chosen for the study is significantly higher in comparison to the respondents who fall under the other educational qualification. Therefore respondents, who are under graduates, have escalated interest in quitting toxic CPG's and also have escalated skeptical issues as well. They also give importance to the Quality of the organic CPG's when making purchasing decisions.

An critical analysis of the Friedman test revealed that: with respect to the options provided about the intensions and reasons for Quitting Toxic CPG's, the most predominant reasons was to switch over to organic CPG's since they are in majority of the cases packaged responsibly and therefore provides a healthier medium for the protection of the product packaged and is safe and better for the environment. Respondents don't buy organic CPG's since the peer group around them insist to do it or do it either.

Many respondents feel that when claims are made by the manufacturers, stating that the products are organic it is in most cases false.

When it comes to Quality Standards that are expected by the consumers, the need for improving the human, health is the most important factor that is expected by the consumers. Not much importance was insisted on the amount of the Quality that was received for the price paid.

The Coefficient Correlation, among the variables chosen for the study is positively related to each other.

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