# Brand image towards Soft drinks after Pesticide Residue 

Dr. S. Sakthivel Rani ${ }^{1}$

Brand is considered as an important issue in management in the recent years. In recent years every industry and business has started learning the brand business tool. The brand and image of a business are vital to the success of an organization. The brand image is a mirror reflection of the brand personality or product. It is what people believe about a brandtheir thoughts, feelings and exportations. The key in brand image research is to identity or develop the most powerful images and reinforce them through subsequent brand communications. The term "brand image" gained popularity as evidence began to grow that the feelings and images associated with a brand were powerful purchase influencers, through brand recognition, recall and brand identity. The present study was undertaken to assess the perception of the consumers through questionnaire based data from 200 consumers. It was observed that significant change has taken place in consumer's attitude towards pesticide residue. Even after this issue, soft drinks enjoy a good brand image especially due to its reputation of conforming quality in the market.

## Introduction

Fifteen years ago, brand was not considered as an important issue in management. 'Brand' was limited to the marketing department of consumer packaged goods enterprises as a tool of marketing. Suddenly every industry and every business had started learning the brand business model. The brand and image of a business are vital to the success of an organisation. Strong brands can generate customer trust, which is
particularly important. A brand is a name, sign, symbol or design or some combination of these used to identify a product and to differentiate it from competitor's products. A brand image may be developed by attributing a "personality" to or associating an "image" with a product or service whereby the personality or image is "branded" into the consciousness of consumers. Brands have become highly valued assets as evidenced by the sale of

[^0]Kraft for 13 billion or over 600 percent of book value (Aaker, 1990) leading to renewed attempts to understand the function they perform for consumers. It is believed that brands add value to consumer goods by supplying meaning (McCracten, 1993) and this appears to be borne out by a recent study which found that consumers throughout the world saw less differention between products which advertised using performance appeals that those that used image appeals.

A brand is unlikely to have one brand image, but several, though one or two may predominant. The key in brand image research is to identity or develop the most powerful images and reinforce them through subsequent brand communi cations. The term "brand image" gained popularity as evidence began to grow that the feelings and images associated with a brand were powerful purchase influencers, through brand recognition, recall and brand identity.

It is based on the proposition that consumers buy not only a product, but also the image associations of the product, such as power, wealth, sophistication, and most importantly identification and association with other users of the brand. According to Sigmund Freud, the ego and superego control to a large extent the image and personality that people would like others to have of them. The brand image is a mirror reflection of the brand personality or product. It is what people believe about a brand-their thoughts, feelings and exportations.

## Soft drinks players in the Market

The global soft drink industry is highly concentrated and largely controlled by the multinational companies like Coca Cola and Pepsi Co. Coca-Cola leads the carbonated soft drink market in most countries in the world with $60 \%$ of the global cola market. Other notable players include Cadbury Schweppes. These two global majors Pepsi Co and Coca-Cola dominate the soft drink market in India. In 1999 Coca-Cola brought local brands like Thumps up, Limca and Gold Spot from Parle Beverages and soft drink brands like Crush, Canada Dry and sport cola from Cadbury Schweppes.

## Regulations

In India the soft drink industry is virtually unregulated. Rule 65 of the prevention of food Adulteration Act (PFA) 1954 regulates the presence of insecticides and pesticides in food but 'food' is to defined in Rule 65 as to exclude 'beverages'. Hence this rule does not apply to soft drinks. Subsection A. 01.01 in appendix B of PFA defines standards of quality for nonalcoholic beverages but makes no mention of pesticide residues. In July 2004, the union ministry of Health and Family Welfare issued a notification stating that the water used in soft drinks should meet the bottled water standard. But this notification remained silent on the final product standard for soft drinks. For the past three years, the drinks and carbonated Beverages Sectional Committee, FAD 14, of Bureau of Indian Standards (BIS) has
been deliberating on the issue of pesticide residue standards for soft drinks. The sectional committee includes representa tives from Coca Cola and Pepsi Co and industry associations, food and nutrition scientists from the government scientific institutions, union ministry of health, union ministry of food processing and union ministry of consumer affairs and consumer and environmental groups. In October 2005, the committee finalized the limit of 0.1 ppb for total pesticides in soft drinks. The soft drink industry remains not only unregulated but it is also exempted from the provisions of industrial licensing under the industries (Development and Regulations) Act 1951. It gets license from the ministry of food processing industries, which includes a no objection certificate from the local government and a water analysis report from a public health laboratory. It also requires a no objection certificate from the concerned state pollution control Board. There is no mandatory requirement for Environment Impact Assessment or sitting relations for the industry. Its use of water-largely unpriced water which is not regulated.

## Literature Review

Sengupta ${ }^{1}$ explains the brand image as the totality of the impressions about the brand which includes physical, functional and psychological aspects of the brand.

Hirschman \& Elizabeth ${ }^{2}$ in a article titled point of view sacred, secular and mediating consumption Imagery in Television commercials" had expressed that image is influenced by the manufacturer's besides the brand's own personality.

Meryl Paule Gardner ${ }^{3}$ examines the constituents of brand image and calls brand thoughts and it constitute the image of the brand. But not all the consumers look at all these aspects. For example Blind tests were conducted for soft drinks, instant coffee and perfumes revealed that the consumers could not really differentiate the brands when the name was cancelled from them.

Ohanian ${ }^{4}$ conducted a research on image building through endorsement of celebrities show that there are three aspects that influence a consumer's attitude of a brand and they are 1. Attractiveness, 2. Trustworthiness, 3. Expertise. In the U.S., perceived expertise mattered more that the other two sources of influence namely attractiveness in shaping a consumer's attitude for a product.

Kapferer ${ }^{5}$ arranges the elements of Brand Identity in a difficult fashion. He represents brand identity diagrammati cally as a six-sided prism. The six faces of the prism are physique, personality, culture, relationship, reflection and self image.

The present study was undertaken to assess the perception of the customers and following were the main objectives of the study.

1. To identify the reasons behind the purchase of a soft drink brand.
2. To determine the perception of the consumers regarding pesticide residue.
3. To identify the satisfaction level with regard to soft drinks.

## Sample

The study was exploratory in nature with survey being the research approach. Keeping in mind the objectives of the study, non probability sampling was found more appropriate and the method used to select the subjects for the survey was convenience sampling.

## Results and Discussion

## Awareness level and consumption pattern

All the respondents are aware regarding the pesticide residue. An attempt was made to find out whether there is any change in the consumption pattern of the respondents. It is identified that $47 \%$ of the
respondents had switched over to another brand because of the pesticide residue, whereas $53 \%$ of the respondents remained with the same brand. After this issue $40 \%$ of the respondents are consuming soft drinks regularly, $23 \%$ are not consuming soft drinks, $10 \%$ had changed their consumption pattern and $27 \%$ remained unchanged. This reveals that this issue hasn't created much impact among the consumers.

## Occupation and consumption pattern

The type of respondents includes Business persons (23\%), Government employees (13\%), Private employees (27\%) and students ( $37 \%$ ). The research is made to find out whether there is any relationship between the occupation and consumption pattern of soft drinks among the respondents.

Hypothesis I: Relationship exists between the occupation and consumption pattern of soft drinks among the respondents.

| $n$ | Observed frequency $\left(\mathrm{O}_{\mathrm{i}}\right)$ | Expected frequency $\left(\mathrm{E}_{\mathrm{i}}\right)$ | $\Sigma\left(\mathrm{O}_{\mathrm{i}} \mathrm{E}_{\mathrm{i}}\right)^{2} / \mathrm{E}_{\mathrm{i}}$ |
| :--- | :--- | :--- | :--- |
| 16 | 200 | 12.25 | 28.34 |

The calculated value of $\mathrm{X}^{2}$ is 28.34 and the degrees of freedom are 15. The table value of $\mathrm{X}^{2}$ for 5 degrees of freedom at $5 \%$ level of significance is 24.996 . Comparing calculated and table values of $\mathrm{X}^{2}$, it is identified that calculated value is more than the table value. The result supports the hypothesis and can be concluded that the occupation of the respondent has impact on the consumption pattern of soft drinks.

HypothesisII: There has been no change in people attitude as a result of pesticide residue. For testing this hypothesis Mc Nemar test has been applied.

| Before Pesticide Residue |  |  |  |
| :--- | :--- | :---: | :---: |
|  | Factors | Favored | Unflavored Total |
| After Pesticide | Favored | 150 | $50 \quad 200$ |
| Residue | Unflavored | 150 | 150300 |
|  |  |  |  |

The formula is $\mathrm{x}^{2}$

$$
=\frac{(/ A-B /-1)^{2}}{[A+B)}=\frac{99 \times 99}{200}=49.005
$$

The table value of $x^{2}$ for 1 degrees of freedom at $5 \%$ level of significance is 3.84 . The calculated value is greater than the table value. Hence the hypothesis is rejected and conclusion is made that significant change has taken place in people's attitude towards pesticide residue.

Hypothesis III: There is no association between the consumption pattern and due to pesticide residue. ANOVA is applied to identify the relationship.

| Source of Variation <br> Variance Ratio(F) | Sum of Squares | Variance | Variance estimate |
| :--- | :--- | :--- | :--- |
| Between Columns | 612 | 3 | 204 |
| Between Rows | 200 | 4 | 50 |

The table value of F (for $\mathrm{V} 1=3$ and $\mathrm{v} 2=4$ ) at $5 \%$ level of significance is 6.59 . The calculated value of F is less than the table value hence the null hypothesis is accepted.

Hypothesis IV: Customers do not show any distinct brand preference towards the type of drink. To test this hypothesis Kendall's Coefficient if Concordance: W is considered to be an appropriate measure.

| Type of <br> drink | Observed <br> frequency | Observed <br> cumulative <br> frequency | Observed <br> cumulative <br> proportion | Theoretical <br> frequency | Theoretical <br> cumulative <br> frequency | Theoretical <br> cumulative <br> proportion | Difference <br> (Dn) |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Squash | 42 | 42 | $42 / 200$ | 50 | 50 | $50 / 200$ | $8 / 200$ |
| Fruit <br> Juice | 60 | 102 | $102 / 200$ | 50 | 100 | $100 / 200$ | $2 / 200$ |
| Bottled <br> soft <br> drinks | 70 | 172 | $172 / 200$ | 50 | 150 | $150 / 200$ | $22 / 200$ |
| Butter <br> milk | 28 | 200 | $200 / 200$ | 50 | 200 | $200 / 200$ | 0 |

$\operatorname{Max} \mathrm{Dn}=8 / 200=0.04$. The critical value of Dn for $\mathrm{a}=0.05$ and for N larger than 35 is $1.36 /$ square root of $200=1.36 / 14.14=0.09$. Since the computed value of Max Dn is 0.04 does not exceed the critical value Ho is not rejected

## Suggestion and Conclusion

Soft drinks enjoy a good brand image especially due to its reputation of confirming quality in the market. Maintaining the market share becomes vital for the manufacturers to maintain the brand image and the trust which the manufacturers have built over years. Companies can concentrate on the brand image since it is highly expensive to regain the lost consumers.

Consumer preferences often changes leading to the pattern of consumption and current trends. On one level, customers are more experimental and value customized choice. But 'choice paralysis' means consumers are simplifying the subset of brands in their 'consideration set' of product choices. Ethical consumerism will continue to migrate away from a small minority of consumers towards the mainstream. Consumers will increasingly expect brands to be more responsible for their buying choice.

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[^0]:    1. Senior Lecturer, Department of Management Studies, Kalasalingam University, Krishnankoil-626 190.
