Consumer Behavior Regarding Durable Goods

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INTRODUCTION

To better understand the behaviour of any creature, researchers need to conduct field studies in natural habits. However, compared with laboratory experiments, it's more challenging to do field studies because researchers have to conduct experiments in much larger environments, with much less control over contributing factors.

Consumer Behaviour (CB) is, *"the decision making process and physical activity individuals engage in when evaluating, acquiring, using or disposing off goods and services. Consumer buying behaviour is all psychological, social and physical behaviour of potential customers, as they become aware to evaluate, purchase, and tell other people about products and services."*

CONSUMER BUYER BEHAVIOR (CBB)

Abraham Mallow's hierarchy is triangular because as one moves up it, fewer and fewer people satisfy higher-level needs. Physiological needs such as food, air, water, heat, and the basic necessities of survival need to be satisfied. At the level of safety, a home protects people from the elements and predators. At the third level, one meets the social and belongingness needs i.e. marriage, or joins groups of friends, etc. The final two levels are esteem and self-actualization. Fewer people satisfy the higher level needs. Esteem means that one achieves something that makes him recognized and gives him/her personal satisfaction.

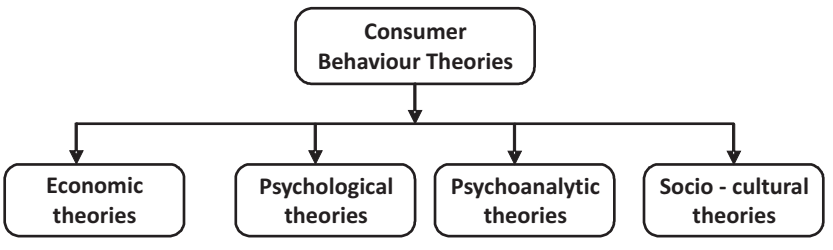
CONSUMER BEHAVIOUR (CB) THEORIES

CB theories explain the motivational processes that influence buying behaviour. These theories may be grouped as presented in the Figure 1.

❁ **Economic Theories** include Marginal Utility Theory *(MUT)* and Income & Saving Theory *(I & ST)*. While *MUT* states that a consumer will continue to buy such products that will deliver him the most utility or maximum satisfaction at relative prices, the *I & ST* reveals that the purchasing power is the real determinant of buying, which is dependent on disposable income. This concept is used in planning and analysis of demand.

❁ **Psychological Theories** lie in the fact that people learn from experience, and the results of experience will modify their actions on future occasions.

Figure 1 : Theories of Consumer Behaviour



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❁**Stimulus Response Theories** show that *"learning occurs as a person responds to some stimulus and is rewarded with need satisfaction for a correct response."*

❁**Cognitive Theories** show that stimulation of want is conditioned by a customer's knowledge, his perception, benefits and attitudes. Perception is the sum-total of physical stimuli and personal factors. Beliefs and attitudes are difficult to be changed.

❁**Gestalt And Field Theories** explain that learning and consequent behavior is not independent, but is a total process. They argue that human behavior must be viewed as individually patterned totalities. Behavior should be explained in terms of all the factors that are operating when an event happens.

❁**Psychoanalytic Theories (Sigmund Freud)** state that the personality has three basic dimensions, *the id, the ego, and the super ego*. The *id* refers to the free mechanism that leads to strong drives. *The Ego* refers to the act of weighing consequences and tries to reconcile with reality. *The Super ego* is a person's conscience. It is highly rationale and tries to keep the activities morally right. In essence, id urges an enjoyable act; the super ego presents the moral issues, and the ego acts as an arbitrator in determining whether to proceed or not.

❁**Socio- Cultural Theories (Veblen, T. ,1899)** known as Veblenion Model reveals that man is primarily a social animal, and his wants and behaviour are largely influenced by the group of which he is a member. The tendency of all people is to *"fit in"* a society in spite of their personal likes and dislikes. Culture, sub-culture, social classes, reference groups, family are the different factor groups that influence Buying Behaviour. Reference groups indicate the position of a particular group of persons in a society. Man is essentially a social being and interacts with other individuals in a variety of social groups.

REVIEW OF LITERATURE

Pickering, J. F., and B. C. Isherwood (1975), in their article entitled *"Determinants and Expenditure On Consumer Durables (CDs)"* were concerned with consumer attitudes and expectations, and it was suggested that attention should be paid particularly to obtain indications of expected households liquidity and the willingness to devote financial resources to the purchase of CDs.

Shivakumar, K. (1990), in his study entitled "*Relationship Between Marketing Stimuli and Consumer Response"* shows that the CB connected with purchase of the refrigerator reveals that irrespective of the income level and profession of the consumers, the refrigerators have been bought mainly to *"preserve food"*.

Forsythe, S. M. (1991), in a study *"Effect of Private, Designer, and National Brand Names on Shopper's Perception of Apparel Quality and Price"* showed that brand name does make a considerable difference in consumers' perceptions of price, yet not in terms of the quality perceptions' and found that consumers, more commonly, used garment characteristics such as colour, style, fabric, etc to determine garment quality.

Grewal, and M. Tein (1994), in their study entitled *"Market Variation, Perceived Price Variation, and Consumers Price Search Decisions for Durable Goods"* stated that consumer's willingness to undertake price-comparison shopping was used as the criterion variable rather than actual price search behaviour.

Nagaraja, B. (2003), in his study entitled *"Consumer Behaviour In Rural Areas: A Micro Level Study of Rural Consumers (RCs) in Kavali Mandal"* attempted to study RCs level of utility and found that it was influenced by changing tastes and preferences of young generation. Buying Behaviour is influenced by consumer experience, neighbours and their own family.

Nilofer (2004), in a study titled *"A Study On The Effect Of Personality On Advertisement Preference And CB Of Working And Non-working Women"* concluded that personality dimensions affect the advertisement preference of CB of women of different age groups.

Strebel, J., K. O' Donnell, and J. G. Myers, (2004), in their study entitled *"Exploring The Connection Between Frustration And Consumer Choice Behaviour In A Dynamic Decision Environment"* proposes that the probability of making a decision is significantly lower when consumers are frustrated with the pace of technological change.

Naidu, B. V. R. (2007), in his study entitled *"Buyers Perception Towards Prawn Feed : A Study In West Godavari District, Andhra Pradesh"* found that as per their income, farmers are changing their brands of feed from time to time, and concluded that the farmers do not have a specific preference towards a particular brand of feed.

SCOPE AND SIGNIFICANCE OF THE STUDY

The scope of the study is restricted to the *Household Product* of *MG* (Mixer Grinder), *CB* (Consumer Behaviour) on Durable Goods. The preference of a mixer grinder is based on the demographic variables viz, age, education and occupation, which may help the manufacturer to segment the market and produce the product to meet the needs of the consumers based on their taste, preference, etc. and the study is restricted to the Puducherry region only.

OBJECTIVES AND HYPOTHESES

The main objective of the study is to analyze the purchase behaviour of the consumers towards the product *"Mixer Grinder (MG)"*, keeping in view the following specific objectives:

- To evaluate the sources of information, motivating factors, after sales service, and cost of spares by MG brands.
- To study the CB towards selecting a particular brand of MG.
- To evaluate the difference in consumers' behavior towards brand selection by demographic characteristics.
- To study and evaluate the difference in consumers' satisfaction with various features of MG by demographic characteristics.

In order to fulfil the stated objectives, a few working hypotheses have been framed:

- **H_0^1 : "There is no significant association between use of a particular brand of *MG* and educational status of consumers."**
- **H_0^2: "There is no significant association between use of a particular brand of *MG* and occupational status of consumers."**
- **H_0^3:"There is no significant difference in the motivating factors in preferring the *MG* brands."**
- **H_0^4:"There is no significant relationship between the after sales service and choice of brands."**
- **H_0^5:"There is no significant relationship between the cost of spares and choice of *MG* brands."**
- **H_0^6:"*CB* towards making decision to purchase *MG* is independent of its demographic characteristics."**
- **H_0^7:"Consumers' satisfaction with various features of *MG* is independent of their demographic characteristics."**

METHODOLOGY

Sources Of Data : The study is based on primary data, which were collected from the users of *MGs*. *CB* towards durable goods *(DGs)*, being a broad area in view of time and money, (the study) is confined to the consumers of *MGs* in Puducherry.

Tools Used For Data Collection And Field Survey : Tools used for Data Collection were

- Observation method, and
- Interview schedule method.

Respondents were contacted in person during April-October 2009.

Sampling Technique : Systematic Random Sampling Technique had been used for selecting the respondents. A pre - test was conducted to check, and ascertain the schedule prepared, which was comprehensive, clear, standard and appropriate. Due importance was given while selecting the sample on various consumer's demographic characteristics viz, age, education, occupation and sources of income.

STATISTICAL TOOLS USED FOR THE ANALYSIS

The data collected from the sample respondents were analyzed for ascertaining the perception of respondents in respect of *CB* towards *DGs* using appropriate statistical techniques such as Kruskal - Wallis H test, Z-test, T-test, One Way ANOVA (F test) and Conjoint Analysis.

Kruskal - Wallis (H) Test : The *KW* test is also called as H test, which is an alternative procedure to a one-way ANOVA, assuming that the population variances are equal. And, unlike an ANOVA test, the *KW* non-parametric

alternative test can be used with ordinal or ranked data. The *KW* test calculates H-test value as test statistics. In order to calculate the H-test value using *KW* test, first place the combined observations, y_{ij} into order of magnitude and replace with their ranks, R_{ij}. Then calculate the sum of the ranks for the responses to each treatment, R_i and then calculate H-test by using the following formula:

$$H = \frac{1}{S^2}\left[\sum_{i=1}^{a}\frac{R_{i.}^2}{n_i} - \frac{N(N+1)^2}{4}\right]$$

where $S^2 = \frac{1}{N-1}\left[\sum_{i=1}^{a}\sum_{j=1}^{n_i} R_{ij}^2 - \frac{N(N+1)^2}{4}\right]$

N = Number of total observations.

❁**Z Test :** To determine whether the opinion of the respondents is in the *'agree'* range or the *'disagree'* range by comparing the mean value with the hypothetical value (neutral level), the statistical significance of the difference between observed and hypothetical value is ascertained using this test. The formula for calculating the Z-test statistic is:

$$Z = \frac{(\overline{X} - \mu)}{\frac{\sigma}{\sqrt{N}}}$$

Where,

$\overline{X}$ = Observed Mean Value;
μ = Hypothetical mean value (value for neutral opinion);
σ = Standard deviation;
N = Number of observations.

❁**'T' Test :** T test is used to determine the significant difference in mean perception scores between two respondent groups by demographic characteristics by use of the formula:

$$t = \frac{(\overline{X}_1 - \overline{X}_2)}{\sqrt{\left(\frac{\sigma_1^2}{n_1} + \frac{\sigma_2^2}{n_2}\right)}}$$

Where,

$\overline{X}_1$ = Mean of the group 1;
$\overline{X}_2$ = Mean of the group 2;
σ_1^2 = Variance of the group 1 ;
σ_2^2 = Variance of the group 2;
n_1 = Size of the Group 1;
n_2 = Size of the Group 2.

❁**F TEST :** F test, i.e., Analysis of Variance (ANOVA) is used to ascertain statistical significance of the difference in mean perception across more than two groups with different demographic characteristics by use of the formula:

$$F = \frac{S_B^2}{S_W^2}$$

Where,

F = Ratio of variance (F Value) ;
S_B^2 = Between group variance;
S_W^2 = Within group variance.

❁**Conjoint Analysis (CA) :** The statistical technique, CA is widely used in the marketing survey for measuring consumers' behavior / preference towards durable products. It assumes that consumer purchase decisions are not made

on a single factor, but are based on several factors, or attributes, which are *"considered conjointly"*. The CA decomposes the respondent's preference for offers to determine the person's inferred utility function for each attribute and the relative importance of each attribute. In this study, the CA is used to identify the relative importance of various attributes, like quality, brand image, colour, price, service support, etc towards preference of a particular brand of MG.

LIMITATIONS OF THE STUDY

Due to paucity of time and resources, the study is limited only to the residents of Puducherry region. Although there are many CDs in the market, the study is confined to only one product-MG (Mixer Grinders); the study area was in the village, and as most of the village people are uneducated, so some of the respondents hesitated to give accurate responses, and responses from few respondents were ineffective, as they did not furnish sufficient data.

SURVEY ANALYSIS AND RESULTS

The relationship between educational status of the consumers and preference of MG brand was analyzed by H-test between two factors (see Table1), and it is apparent that 45.7 per cent of the respondent group with education up to the school level was found to have been using the Preethi brand of MG, while 30.8 per cent of the respondents with higher secondary education had been using the Sumeet brand of MG. Use of Preethi brand of MG was also found to be more

Table 1 : Relationship Between *MG* Brands And Consumers' Educational Status

Brand	Educational Status			
	Up to School	Higher Secondary	Degree	Post Graduate Degree
Maharaja	12 (16.4)	5 (12.8)	2 (5.7)	4 (16.7)
Sumeet	10 (13.7)	12 (30.8)	5 (14.3)	5 (20.8)
Preethi	30 (41.1)	11 (28.2)	16 (45.7)	8 (33.3)
Kenstar	6 (8.2)	0 (0.0)	3 (8.6)	2 (8.3)
Crompton Greaves (CG)	6 (8.2)	2 (5.1)	3 (8.6)	2 (8.3)
Butterfly	6 (8.2)	2 (5.1)	3 (8.6)	1 (4.2)
Philips	1 (1.4)	3 (7.7)	3 (8.6)	0 (0.0)
Bajaj & Others	1 (1.4)	3 (7.7)	3 (8.6)	0 (0.0)
Kruskal Wallis ANOVA - H	1.91^{NS}			

Source: Primary Data. Figures in parentheses are percentages to column total.
NS : Not Significant

Table 2 : Relationship between *MG* Brand and Consumers' Occupation

Brand	Occupation			
	Professional	Govt. employee	Housewife/ Unemployed	Private/Self Employed
Maharaja	3 (18.8)	3 (6.4)	13 (15.7)	4 (16.0)
Sumeet	2 (12.5)	13 (27.7)	12 (14.5)	5 (20.0)
Preethi	4 (25.0)	16 (34.0)	37 (44.6)	8 (32.0)
Kenstar	1 (6.3)	4 (8.5)	4 (4.8)	2 (8.0)
Crompton Greaves	2 (12.5)	1 (2.1)	8 (9.6)	2 (8.0)
Butterfly	1 (6.3)	4 (8.5)	6 (7.2)	1 (4.0)
Philips	1 (6.3)	2 (4.3)	2 (2.4)	2 (8.0)
Bajaj & others	2 (12.5)	4 (8.5)	1 (1.2)	1 (4.0)
Kruskal Wallis ANOVA - H	1.09^{NS}			

Source: Primary Data. Figures in parentheses are percentages to column total. NS : Not Significant

by the number of respondents belonging to the group with education up to the school level. Hence, H_o^1 is accepted (see table 1; H= 1.91 ^{NS}).

Table 3 : Motivating Factors By *MG* Brands

Brand	Motivating Factors			
	Price	Quality	Guaranty/ Warranty	Style
Maharaja	4 (17.4)	15 (65.2)	4 (17.4)	0 (0.0)
Sumeet	0 (0.0)	19 (59.4)	11 (34.4)	2 (6.3)
Preethi	3 (4.6)	43 (66.2)	18 (27.7)	1 (1.5)
Kenstar	1 (9.1)	7 (63.6)	3 (27.3)	0 (0.0)
Crompton Greaves (CG)	3 (23.1)	7 (53.9)	3 (23.1)	0 (0.0)
Butterfly	0 (0.0)	8 (66.7)	4 (33.3)	0 (0.0)
Philips	0 (0.0)	5 (71.4)	2 (28.6)	0 (0.0)
Bajaj & others	1 (12.5)	3 (37.5)	3 (37.5)	1 (12.5)
Kruskal Wallis ANOVA - H	9.83^{NS}			

Source: Primary Data. Figures in parentheses are percentages to row total.
NS : Not Significant

Majority of the consumers in the housewife/unemployed category tend to use Preethi brand of MG (44.6%) followed by government employees (34.0%) (see Table 2). Use of Sumeet brand of MG was found among 27.7 per cent of the government employees' households, while 18.8 percent of the professionals tend to use the Maharaja Brand of MG. The percentage of respondents with CGs (12.5%), Bajaj & other (12.5%) brands of MGs was higher than that of those in the other occupational categories. Similarly, Kenstar and Butterfly brands of MGs were found to be used by 8.5 per cent (each) of the government employees and households. Hence, H_o^2 is accepted (see Table 2; H= 1.09 ^{NS}).

65.2 per cent of the respondents who used Maharaja Brand of MG used it for its quality (see Table 3). Each of the 17.4 percent of the Maharaja brand users were motivated by price and warranty factors. 59.4 percent, 66.2 percent, 63.6 percent, 53.9 percent, and 71.4 percent respectively of the Sumeet, Preethi, Kenstar, CGs, Butterfly and Philips brands of MG users were motivated to buy the respective brands due to the quality aspect. At the same time, more than 25 percent of Sumeet, Preethi, Kenstar, Butterfly and Philips brand users tend to buy the brands for guaranty / warranty offered by the manufacturers. Hence, H_o^3 is accepted (see Table 3; H= 9.83 ^{NS}). From KW-H statistical value, which is insignificant, it was found that the motivating factors do not vary with MG brands.

After-sales service was found to be *'good'* for 52.2 percent, 53.1 percent, 46.2 percent, 45.5 percent and 57.1 percent respectively for Maharaja, Sumeet, Preethi, Kenstar and Philips brand users (see Table 4). On the other hand, most of the consumers of CGs, Butterfly and Bajaj & other brands were just satisfied with *"after-sales service"* . The opinion *'fair'* was also expressed by 18.2 percent of Kenstar consumers, followed by 15.4 percent of CGs brand user groups. Hence, H_o^4 is accepted (see Table 4; H= 6.97 ^{NS}).

Most of the consumers of all brands perceived the cost of spares as moderate, i.e. 78.3 percent of the Maharaja brand users, 81.3 percent of the Sumeet brand users , 64.6 percent of the Preethi brand users , 54.6 percent of the Kenstar brand users , 92.3 percent of the CGs users , 66.7 percent of the Butterfly brand users , 57.1 percent of the Philips brand users, and 50 percent of Bajaj & other brands (see Table 5). At the same time, cost of spares of brands like Philips followed by Bajaj & others, and Preethi brand of MGs was found to be low as a sizeable number of consumers in the sample had expressed the opinion as *'low'*.

The cost of spares was seen to be higher in the case of 45.5 percent of Kenstar and 33.3 percent of the Butterfly brand users. Hence, H_o^5 is accepted (see Table 5; H=10.31 ^{NS}). Therefore, from the analysis by brand name, it can be concluded that the cost of spares has been at a moderate level for MGs, irrespective of brands.

The mean scores of opinion in respect of all factors, except the factor *"quality of the product is important"*, *"price of the product is important"* , and *"give preference to ease of operation (EoO)"*, the calculated F values were found to be insignificant (see Table 6). There was found to be a significant difference in the opinion across age groups *"quality of*

Table 4 : Status of After Sales Service By MG Brands			
Brand	**Status of After Sales Service**		
	Good	**Satisfactory**	**Fair**
Maharaja	12 (52.2)	8 (34.8)	3 (13.0)
Sumeet	17 (53.1)	14 (43.8)	1 (3.1)
Preethi	30 (46.2)	28 (43.1)	7 (10.8)
Kenstar	5 (45.5)	4 (36.4)	2 (18.2)
Crompton Greaves	2 (15.4)	9 (69.2)	2 (15.4)
Butterfly	4 (33.3)	8 (66.7)	0 (0.0)
Philips	4 (57.1)	3 (42.9)	0 (0.0)
Bajaj & others	3 (37.5)	4 (50.0)	1 (12.5)
Kruskal Wallis ANOVA - H	6.97^{NS}		
Source: Primary Data. Figures in parentheses are percentages to row total. NS : Not Significant			

the product is important" (F value = 4.24, $p < 0.05$), *"price of the product is important"* (F value = 2.70, $p < 0.10$) and *"give preference to EoO"* (F value = 2.87, $p < 0.10$).

Table 5 : Cost of Spares by *MG* Brands			
Brand	**Cost of Spares**		
	Low	**Moderate**	**High**
Maharaja	2 (8.7)	18 (78.3)	3 (13.0)
Sumeet	1 (3.1)	26 (81.3)	5 (15.6)
Preethi	11 (16.9)	42 (64.6)	12 (18.5)
Kenstar	0 (0.0)	6 (54.6)	5 (45.5)
Crompton Greaves	0 (0.0)	12 (92.3)	1 (7.7)
Butterfly	0 (0.0)	8 (66.7)	4 (33.3)
Philips	2 (28.6)	4 (57.1)	1 (14.3)
Bajaj & others	2 (25.0)	4 (50.0)	2 (25.0)
Kruskal Wallis ANOVA - H	10.31^{NS}		
Source: Primary Data. Figures in parentheses are percentages to column total. NS : Not Significant			

However, the mean scores for all the three age groups in the case of the said three factors were very well in the agree range, hence, there is a significant difference in the level of agreement among the respondent groups by age only. Furthermore, insignificant F values for 7 out of 10 factors provide evidence that the respondents, irrespective of age, are in agreement with each other regarding their behavior towards making a decision to purchase MGs. Therefore, it is concluded that the CB towards making a purchase decision was independent of the respondents' age.

The comparison of opinion between male and female consumers has been carried out with t-test, and the results show that the male respondents tend to show a higher level of agreement, when compared to that of female groups in respect of F1, F5, and F6 (see Table 7), which shows that the importance given to AGMARK, brand and colour of the MG by female consumers is less than that of those in the male group. In case of the remaining F7, the opinion of female groups is strongly positive, and higher than that of their male counterparts.

The t-values for the difference between male and female group mean scores are not statistically significant, thereby indicating that the opinion by gender is similar. So, from the inference, it is found that there is no significant difference

Table 6 : *CB* towards *MG* - Comparison of Perception By Age

Measurement Factors	Age (in years)			
	Below 30	31 - 50	> 50	F Value (df=2,168)
Give preference to ISO 9001:2000 products.	4.50 (0.55)	4.31 (0.81)	4.50 (0.71)	1.26
Prefer to buy a particular brand on seeing the ad.	3.36 (1.12)	3.36 (0.99)	3.44 (1.15)	0.05
Quality of the product is important for me .	4.34 (0.78)	4.69 (0.68)	4.39 (0.85)	4.24**
Prefer low price with high quality product.	3.98 (0.88)	4.12 (0.98)	3.83 (1.04)	0.87
Don't consider the brand of the mixer.	2.91 (1.34)	2.49 (1.23)	2.72 (1.32)	1.81
Don't give preference to the colour of the mixer.	3.52 (1.19)	3.20 (1.19)	3.00 (0.97)	1.68
Price of the product is important for me.	3.80 (0.95)	4.12 (0.88)	4.28 (0.83)	2.70*
Give preference to the overload prevention mechanism.	4.09 (0.94)	4.01 (1.01)	4.06 (0.80)	0.11
Give preference to ease of operation.	4.20 (0.85)	4.31 (0.65)	4.67 (0.49)	2.87*
Service provided by the manufacturer is good.	3.84 (1.08)	3.99 (0.90)	3.94 (0.87)	0.40

Source: Primary Data. Figures in parentheses are standard deviations.
*Significant at 10% level; **Significant at 5% level.

Table 7 : *CB* Towards *MG* - Comparison of Perception By Gender

Features of MG	Gender		
	Male	Female	t Value (df = 169)
Giving preference to ISO 9001:2000 product (F1).	4.50 (0.66)	4.36 (0.76)	0.85
Prefer to buy a particular brand on seeing the ad. (F2).	3.29 (1.16)	3.38 (1.02)	-0.39
Quality of the product is important for me (F3).	4.50 (0.78)	4.58 (0.73)	-0.48
Prefer low price with high quality product (F4).	3.96 (0.86)	4.07 (0.98)	-0.52
Don't consider the brand of the mixer (F5).	2.96 (1.46)	2.56 (1.24)	1.41
Don't give preference to the colour of the mixer (F6).	3.42 (1.41)	3.24 (1.14)	0.69
Price of the product is important for me (F7).	3.88 (0.80)	4.08 (0.92)	-1.04
Give preference to the overload prevention mechanism (F8).	4.00 (0.78)	4.04 (1.00)	-0.19
Give preference to ease of operation (F9).	4.29 (0.86)	4.33 (0.67)	-0.23
Service provided by the manufacturer is good (F10).	3.67 (1.24)	3.99 (0.88)	-1.58

Source: Primary Data. Figures in parentheses are standard deviations.
*Significant at 10% level; **Significant at 5% level.

Table 8 : CB towards MG - Comparison of Perception By Educational Status

Features of MG	Educational Status				F Value
	Up to School	Higher Secondary	Degree	Post Graduates	(df=3,167)
Give preference to ISO 9001:2000 product (F1).	4.23 (0.84)	4.38 (0.71)	4.51 (0.61)	4.63 (0.58)	2.24*
Prefer to buy a particular brand on seeing the ad. (F2).	3.48 (1.02)	3.33 (1.01)	3.14 (1.09)	3.42 (1.06)	0.87
Quality of the product is important for me (F3).	4.67 (0.65)	4.46 (0.76)	4.49 (0.85)	4.54 (0.78)	0.91
Prefer low price with high quality product (F4).	4.07 (1.00)	3.85 (0.99)	4.17 (0.89)	4.17 (0.87)	0.90
Don't consider the brand of the mixer (F5).	2.41 (1.15)	2.97 (1.50)	2.69 (1.25)	2.58 (1.21)	1.72
Don't give preference to the colour of the mixer (F6).	3.08 (1.14)	3.18 (1.19)	3.51 (1.09)	3.58 (1.32)	1.79
Price of the product is important for me (F7).	4.12 (0.80)	3.97 (0.93)	3.94 (1.03)	4.13 (0.99)	0.47
Give preference to the overload prevention mechanism (F8).	4.00 (1.04)	3.82 (1.02)	4.14 (0.91)	4.33 (0.64)	1.59
Give preference to ease of operation (F9).	4.30 (0.74)	4.38 (0.49)	4.37 (0.69)	4.21 (0.88)	0.39
Services provided by the manufacturer is good (F10).	3.88 (0.91)	4.03 (1.01)	3.94 (0.97)	4.04 (0.91)	0.30

Source: Primary Data. Figures in parentheses are standard deviations.
*Significant at 10% level.

Table 9 : CB towards *MG* - Comparison of Perception By Occupation					
Features of MG	**Occupation**				
	Professional	**Govt. employee**	**Housewife / Unemployed**	**Private/Self Employed**	**F Value (df=3,167)**
Give preference to ISO 9001:2000 product (F1).	4.63 (0.50)	4.53 (0.62)	4.18 (0.86)	4.60 (0.50)	4.16***
Prefer to buy a particular brand on seeing the ad (F2).	3.44 (0.89)	3.06 (1.19)	3.47 (0.97)	3.56 (0.96)	1.97
Quality of the product is important for me (F3).	4.25 (1.18)	4.55 (0.69)	4.65 (0.67)	4.52 (0.65)	1.40
Prefer low price with high quality product (F4).	4.13 (1.02)	4.11 (0.98)	4.07 (0.95)	3.84 (0.94)	0.50
Don't consider the brand of the mixer (F5).	2.75 (1.00)	2.70(1.35)	2.47 (1.20)	2.88 (1.51)	0.85
Don't give preference to the colour of the mixer (F6).	3.06 (1.00)	3.47 (1.20)	3.13 (1.13)	3.44 (1.36)	1.16
Price of the product is important for me (F7).	4.25 (0.58)	3.98 (1.01)	4.16 (0.80)	3.72 (1.10)	1.89
Give preference to the overload prevention mechanism (F8).	4.00 (1.10)	4.28 (0.83)	3.92 (1.07)	4.00 (0.71)	1.42
Give preference to ease of operation (F9).	4.50 (0.52)	4.34 (0.70)	4.30 (0.68)	4.24 (0.88)	0.49
Service provided by the manufacturer is good (F10).	3.38 (1.31)	4.06 (1.09)	3.87 (0.85)	4.04 (0.61)	0.55
Source: Primary Data. Figures in parentheses are standard deviations. ***Significant at 1% level.					

in the opinion of the male and female consumers in respect of selecting a MG.

The F value is significant only for the F1, *"giving preference to ISO 9001:2000 product"* (F value = 4.16, $p < 0.05$), indicating that the level of opinion about the factors varied from respondents who belong to one educational group to others (see Table 8). From the observation of mean scores pertaining to the factor, it is apparent that the respondent group with education up to *'school level'*, followed by the group with education up to *'Higher Secondary level'* does not give much importance to ISO 9001:2000 of the product as given by the respondents who belong to the *'higher-education group'*. However, the F values for the remaining F9 are not statistically significant. This reveals that the consumers tend to behave in a similar manner in respect of making a decision to purchase a MG, hence, it is concluded that CB towards purchasing a MG is independent of their educational status.

The mean scores for all occupational groups are in the agree range pertaining to most of the factors (see Table 9). However, the mean score of opinion was found to be at the neutral level for government employees in respect of *"prefer to buy a particular brand on seeing the advertisement"* (Mean = 3.06), professional for *"don't give preference to the colour of the mixer"* (Mean = 3.06). The F value is significant only for F1 (F value = 4.16, $p < 0.01$). An observation of mean scores for F1 across occupational groups reveals that the housewives / unemployed do not give much importance to ISO 9001:2000 of the product as given by the other occupational groups. For the remaining factors (F3, F4, F5, F6, F7, F8, F9 & F10), obtained F values are not statistically significant, which shows that the CB towards MG selection is independent of the occupation of the consumers.

The consumers' level of satisfaction with various features of the MG was evaluated and the mean perception of the entire sample respondents against each of the 10 features, along with the Z value for the difference in observed mean and hypothetical mean (score 3 for neutral level) ranges from 3.90 (C8) to 4.45 C1 (see Table 10). The Z value for the difference between observed and hypothetical mean is significant at 1 per cent level for all the 10 features, which shows that the consumers are satisfied with various features of the MG. From the high mean score of 4.45 for general features, followed by 4.31 with regard to grinding capacity, and 4.27 for speed of the MG, it is concluded that the consumers were very much satisfied with general features of the MG followed by its grinding capacity and speed. The F-test results, comparing the level of satisfaction about different features of MGs across respondent categories by age, shows that the level of satisfaction among consumers with silent motor with low noise differs significantly by age groups as F value (3.72) is significant at the 5 per cent level (see Table 11). Regarding other features, the level of satisfaction was found to be similar across the age groups, as the F value obtained from one-way ANOVA test, comparing group means for all the factors is insignificant, hence, it is concluded that the consumers' satisfaction with most of the features of MGs is similar for all the age groups.

The level of satisfaction with various features of the MG between male and female consumers was compared using the t-test. Both, male and female consumers were perceived to be satisfied with various features, as the mean scores are

Table 10 : Consumer's Level of Satisfaction With Various Features of *MGs* (N = 171)

MG Characteristics	Mean	SD	Z Value
Features of the mixer (C1).	4.45	0.55	34.18***
Model of the mixer (C2).	4.03	0.56	24.14***
Grinding capacity of the mixer (C3).	4.31	0.64	26.97***
Power consumption (C4).	4.04	0.81	16.87***
Speed of the mixer (C5).	4.27	0.77	21.57***
Mixer jar with quality / stainless steel blades (C6).	4.17	0.79	19.36***
Big handle for better grip (C7).	3.95	0.75	16.44***
Silent motor with low noise (C8).	3.90	1.08	10.93***
Overall performance of the product (C9).	4.09	0.70	20.27***
Maintenance cost of the product (C10).	3.96	0.80	15.68***

Z table value @ 10% = 1.64, @5% = 1.96, and @1% = 2.57.
***Significant at 1% level.

Table 11 : Consumer's Level of Satisfaction With Various Features of *MGs* - Comparison of Perception by Age

MG Characteristics	Age (in years)			F Value
	Upto 30	31 - 50	> 50	(df=2,168)
General features	4.55 (0.55)	4.40 (0.56)	4.50 (0.51)	1.11
Model	4.02 (0.59)	4.02 (0.58)	4.11 (0.32)	0.22
Grinding capacity	4.30 (0.67)	4.31 (0.65)	4.33 (0.49)	0.02
Power consumption	3.86 (1.11)	4.10 (0.67)	4.11 (0.68)	1.44
Speed of the mixer	4.25 (0.94)	4.29 (0.74)	4.22 (0.43)	0.10
Mixer jar with quality / stainless steel blades	4.02 (0.88)	4.19 (0.79)	4.39 (0.50)	1.51
Big handle for better grip	4.02 (0.82)	3.89 (0.76)	4.11 (0.47)	0.96
Silent motor with low noise	4.20 (0.76)	3.73 (1.18)	4.17 (0.92)	3.72**
Overall performance of the product	4.16 (0.78)	4.06(0.71)	4.06 (0.42)	0.31
Maintenance cost of the product	3.89 (0.95)	3.97 (0.79)	4.06 (0.42)	0.33

Source: Primary Data. Figures in parentheses are standard deviations.
**Significant at 5% level.

Table 12 : Consumer's Level of Satisfaction With Various Features of *MGs* - Comparison of Perception By Gender

MG Characteristics	Gender		t Value
	Male	Female	(df = 169)
General features	4.67 (0.48)	4.41 (0.56)	2.08**
Model of the mixer	4.08 (0.58)	4.02 (0.55)	0.51
Grinding capacity	4.21 (0.72)	4.3 (0.62)	-0.84
Power consumption	3.63 (1.13)	4.11 (0.72)	-2.78***
Speed of the mixer	4.00 (1.06)	4.32 (0.70)	-1.91
Mixer jar with quality / stainless steel blades	4.08 (0.93)	4.18(0.77)	-0.58
Big handle for better grip	3.96 (0.81)	3.95 (0.75)	0.08
Silent motor with low noise	4.21 (0.66)	3.85 (1.12)	1.52
Overall performance of the product	4.00 (0.72)	4.10 (0.70)	-0.66
Maintenance cost of the product	4.08 (0.78)	3.94 (0.80)	0.82

Source: Primary Data. Figures in parentheses are standard deviations.
**Significant at 5% level;
***Significant at 1% level.

Table 13 : Consumer's Level of Satisfaction With Various Features of *MGs* - Comparison Of Perception By Educational Status

MG Characteristics	Educational Status				F Value
	Upto School	Higher Secondary	Degree	Post Graduates	(df=3,167)
General features (C1)	4.45 (0.58)	4.51 (0.56)	4.43 (0.50)	4.38 (0.58)	0.33
Model of the mixer (C2)	4.00 (0.53)	4.15 (0.59)	3.91 (0.66)	4.08 (0.41)	1.29
Grinding capacity (C3)	4.45 (0.60)	4.26 (0.55)	4.11 (0.76)	4.26 (0.61)	2.56*
Power consumption (C4)	4.04 (0.79)	4.08 (0.77)	4.03 (0.75)	4.00 (1.02)	0.05
Speed of the mixer (C5)	4.41 (0.70)	4.15 (0.74)	4.23 (0.69)	4.13 (1.03)	1.45
Mixer jar with quality / stainless steel blades (C6)	4.22 (0.80)	4.31 (0.66)	4.09 (0.89)	3.92 (0.78)	1.46
Big handle for better grip (C7)	3.90 (0.78)	4.10 (0.68)	3.89 (0.72)	3.92 (0.83)	0.72
Silent motor with low noise (C8)	3.81 (1.17)	3.82 (1.07)	3.94 (1.08)	4.25 (0.68)	1.11
Overall performance of the product (C9)	4.11 (0.66)	4.13 (0.77)	3.86 (0.73)	4.29 (0.62)	2.04
Maintenance cost of the product (C10)	3.97 (0.78)	3.92 (0.84)	4.03 (0.89)	3.88 (0.68)	0.21

Source: Primary Data. Figures in parentheses are standard deviations.
*Significant at 10% level.

Table 14 : Consumer's Level of Satisfaction With Various Features of *MGs* - Comparison of Perception By Occupation

Characteristics of MG	Occupation				F Value
	Professional	Govt. employee	Housewife/ Unemployed	Private/Self Employed	(df=3,167)
General features (C1)	4.56 (0.51)	4.40 (0.50)	4.37 (0.60)	4.72 (0.46)	2.92**
Model of the mixer (C2)	3.81 (0.54)	4.13 (0.61)	4.02 (0.52)	4.00 (0.58)	1.33
Grinding capacity (C3)	4.31 (0.60)	4.28 (0.71)	4.37 (0.58)	4.16 (0.69)	0.78
Power consumption (C4)	4.00 (0.82)	4.06 (0.89)	4.10 (0.76)	3.84 (0.80)	0.67
Speed of the mixer (C5)	4.25 (1.06)	4.06 (0.67)	4.47 (0.61)	4.04 (1.02)	3.95***
Mixer jar with quality / stainless steel blades (C6)	3.81 (0.91)	4.17 (0.76)	4.27 (0.77)	4.08 (0.81)	1.62
Big handle for better grip (C7)	3.69 (0.70)	4.19 (0.61)	3.92 (0.75)	3.76 (0.93)	2.94**
Silent motor with low noise (C8)	4.13 (0.72)	3.89 (1.03)	3.83 (1.23)	4.00 (0.82)	0.41
Overall performance of the product (C9)	3.81 (1.05)	4.11 (0.52)	4.16 (0.69)	4.00 (0.76)	1.23
Maintenance cost of the product (C10)	3.44 (0.96)	4.17 (0.84)	3.92 (0.75)	4.04 (0.61)	3.70***

Source: Primary Data Figures in parentheses are standard deviations.
**Significant at 5% level; ***Significant at 1% level.

well above the neutral level for all (see Table 12).

At the same time, the degree of satisfaction was found to be significantly higher among male consumers (Mean = 4.67), when compared to that of the female consumers (Mean = 4.41) in the case of *"features of the MG"* (t value = 2.08, $p < 0.05$). On the other hand, the level of satisfaction among female consumers tends to be significantly higher than that of the male consumers in respect of *"power consumption"* (t-value = -2.78, $p < 0.01$). At the same time, both male and female consumers tend to show a similar level of satisfaction, with the other remaining features as t-values for the difference in group mean scores against those features are insignificant, hence, it is found that the consumers' satisfaction with various features of MGs does not vary by gender.

The mean score of the level of satisfaction with each of the ten features of MGs across four respondent groups with different educational status shows that the consumers, irrespective of the different educational status, were perceived to be satisfied with various features of MGs, as the mean values for the respondents belonging to all the educational groups against all features are very well above 3, the neutral level, and they are in the *'satisfied'* range (see Table 13). Moreover, F values for all the features, except for C3, are insignificant. Even for C3, the F value is significant only at the marginal level (F value = 2.56, $p < 0.10$). Hence, it is concluded that the consumers are satisfied with various

features of MGs and the degree of satisfaction was similar across the respondents belonging to all the educational groups.

The level of satisfaction among private / self employed groups (Mean = 4.72) was notably higher than that of the professionals (Mean = 4.56), government employees (Mean = 4.40), and housewives / unemployed (Mean = 4.37) with regard to overall features of the MGs (C1 in the list) (see the Table 14).

The F value 2.92, which is significant at the 5 per cent level, confirms a remarkable difference in the level of satisfaction with the features by occupation of the consumers. Similarly, the satisfaction of housewives / unemployed (Mean = 4.47) and professionals (Mean = 4.25) with *"speed of the MGs"* (F Value = 3.95, $p < 0.01$) and satisfaction of government employees with *"big handle for better grip"* (Mean = 4.17) (F value = 2.94, $p < 0.05$) and *"maintenance cost of the product"* (Mean = 4.17) (F value = 3.70, $p < 0.01$) was significantly higher than that of their other counterparts regarding the features.

However, for 6 out of 10 features, there is no significant difference in the level of consumer satisfaction by the occupational status. Therefore, on the whole, it can be inferred that the satisfaction of the consumers with most of the features of the MGs is not associated with the occupational status of the consumers.

CONJOINT ANALYSIS *(CA)*

For measuring CB (Consumer Behaviour) towards DGs (Durable Goods) , the statistical technique of CA (Conjoint Analysis) was used in conducting the survey for the MG brands. CA was used to identify the various factors based on MG brands, they are: Maharaja brand of MG gave more importance to the *'ISO 9001:2000 product'*, Sumeet and Kenstar gave importance towards the *'price'* factor, Preethi gave importance to the *'quality'* factor, Butterfly and other brands of MGs gave importance to the *'price'* factor.

CONCLUDING REMARKS

The study has mainly focused on women, and their perception about the buying behavior of Mixer Grinders (MGs). The study proves that the Preethi brand stands for its *quality*, so both the educated women and housewives prefer this brand; hence, there is no significant difference between preference of brand and educational status.

Quality serves as a motivational factor for a MG. Socio- demographic characteristics influence mainly the *"ISO 9001:2000"* for its preference. The consumers are satisfied based on the MGs' features, grinding capacity, and speed. Among the brands, Preethi for its *"quality"*, Sumeet and Kenstar for their *"price"*, Maharaja and Crompton Greaves (CGs) for their *"ISO 9001 : 2000"* have been preferred.

The consumer respondents who were educated *'up to degree level'* preferred the *Preethi* brand of Mixer Grinder (MG). However, there is no significant association between use of a particular brand of MG and educational status of consumers. Majority of the housewives preferred the Preethi brand of MG, so there was no significant association between use of a particular brand of MG, and occupational status of consumers.

Quality of the MG served as a motivational factor, so there is no significant difference in the motivating factors in preferring the MG brands. Most of the MG users received satisfactory after-sales service, so there was no significant relationship between the after-sales service and choice of brands. The cost of the spare parts was not high; the prices were reasonable, so there was no significant relationship between the cost of spares and the choice of MG brands.

While comparing the perception by age, *'quality'* stood first, by gender *'ISO 9001:2000'*. Brand was not important by occupation; *'ISO9001:2000'* was given more importance. With reference to the level of satisfaction with various features of MGs, the variable *'age'* preferred MG's motor's advantage, *'gender'* preferred the MG's features; *'educational status'* preferred grinding capacity; *'occupation'* preferred the speed of the MG.

The Conjoint Analysis concludes that the Maharaja brand of MG gave more importance to the *'ISO 9001:2000 product'*, Sumeet and Kenstar gave more importance to the *'price'*, Preethi gave more importance to its *'quality'*, Butterfly and other brands of MGs gave importance to its *'price'* aspect.

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