

## THE MOTIVATIONAL FACTORS IN PATTERNS OF CHANGE IN PURCHASE BEHAVIOR

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### Abstract

*Consumer Buying Behavior refers to the buying behavior of the ultimate consumer. Many factors, specificities and characteristics influence the individual in what he/she is and the consumer in his decision making process, shopping habits, purchasing behavior, the brands he buys or the retailers he goes. A purchase decision is the result of each and every one of these factors. An individual and a consumer is led by his culture, his subculture, his social class, his membership groups, his family, his personality, his psychological factors, etc.. and is influenced by cultural trends as well as his social and societal environment. The questionnaire results conducted on 500 consumers of Green Bathing Soaps (GSB) in Bangalore are evaluated statistically. The study indicates that varying the product motivating factors has an influence on the customers.*

### Introduction

Businesses and consumers today confront one of the biggest challenges - to protect and preserve the earth's resources and the environment. They have become more concerned with the natural environment and are realizing that their production and consumption purchasing behavior will have direct impact on the environment (Laroche, Bergeron, and Barbaro-Forleo, 2001). This awareness is congruent with the belief that the world's supply of natural resources is finite and the ecological balance of the environment may be at a critical disruption stage (Hayes, 1990). In addition, the great majority of our environmental problems - excess garbage, pollution, waste of energy and material, etc. are the result of consumers' consumptive behaviors. The focus of this research paper is to analyze various motivational factors also involved in making decision of the green products in special reference to Green Bathing Soaps (GBS).

### Objectives of the study

- To know about the motivational factors faced by the customers in purchase of Green Bathing Soaps.
- To study how the various motivational factors change purchasing patterns and decision making in buying of Green Bathing Soaps
- To critically view the various motivational factors that influences the customers in purchase of Green Bathing Soaps
- To suggest solution on the basis of the findings of the study.

**Limitation of the study**

- The sample size is 500. And it does not represent the whole population.
- The period of the study is very short.

**Scope of the study**

The researchers had collected the primary data by taking surveys from those who frequent the commercial malls.

**Research methodology**

Research is a scientific and systematic way of searching for correct information on a specific topic. The purpose of research is to seek solutions to problems through the application of scientific methodology, which guarantees that the information is reliable and unbiased.

**Method of sampling**

The researchers have used convenience sampling method. A convenience sampling is a non- probability sampling technique where subjects are selected because of their convenient accessibility and proximity to the researcher.

**Tools of Analysis**

To analyze the primary data the researcher has used the following tools;

- Multiple Regression
- Factor analysis
- Mean Raking Method
- Cluster Analysis

Multiple regression analysis between Determinants in Patterns of Changing in Buying Behavior and age, individual income, family income and family size of the respondents. Multiple linear regressions had been employed in the study to assess the strength of the relationship between multiple independent variables (IV) and a single dependent variable (DV). The IVs used in the present study are age, individual income, family income and family size of the respondents and the DV is Determinants in Patterns of Changing in Buying Behavior. Beta coefficient had been used to examine the expected change in the DV due to the change in one unit of the IVs;  $R^2$  coefficient had been used to investigate the strength that the IVs can explain the DV. The predictors are stronger when the  $R^2$  value is nearer to 1.

P-value had been used to determine the significant relationship between IVs and DV. There was a significant relationship between the IVs and DV if the p-value is less than 0.05. Meanwhile, F-test had been used to investigate the fitness of the regression model. The regression model is considered as fit if the p-value is less than 0.05.

### Hypothesis

$H_0$ = There is no significant relationship between Determinants in Patterns of Changing in Buying Behavior and age, individual income, family income and family size of the respondents.

The regression test results are indicated in the following table 1

**Table 1**  
**Regression analysis between Determinants in Patterns of Changing in Buying Behavior and age, individual income, family income and family size of the respondents**

Dependent Variable	Independent Variables	Standardized B	R <sup>2</sup>	F value
Determinants in Patterns of Changing in Buying Behavior	Age	.139*	.439	12.043*
	Individual income	.043		
	Family income	.210*		
	Family size	.314*		

\* Significance at 5 per cent level

### Regression Results

As per the results in table 1, there is a significant relationship between Determinants in Patterns of Changing in Buying Behavior with Age ( $\beta = 0.139$ ,  $p < .05$ ), Family Income ( $\beta = 0.210$ ,  $p < .05$ ) and Family Size ( $\beta = 0.314$ ,  $p < .05$ ). The F-statistics of 12.043 is significant at the 5% level indicating that this is a highly significant relationship. These dimensions explain the variance in Attributes by 43.9 %. Among these three significant dimensions Family size has the highest contribution as it has the highest beta value. However the dimension Individual Income ( $\beta = 0.043$ ,  $p > .05$ ) was found not to significantly influence Determinants in Patterns of Changing in Buying Behavior.

### Motivational Factors in Patterns of Change in Purchase Behavior

In this chapter, an attempt has been made to identify the important Motivational Factors in Patterns of Change in Purchase Behavior. For this, 32 statements relating to purchasing behavior have been selected so as to identify the significant and important dimensions with the help of an exploratory factor analysis technique. The inter-item consistency reliability of these 32 items was tested before factor analysis was carried out. Before carrying out factor analysis, in order to test the appropriateness of the factor model, Bartlett's test of sphericity was used to test the null hypothesis that the variables are inter-correlated in population. The test statistic for sphericity is based on a Chi-square transformation of the determinants of the correlation matrix.

In order to test whether it was appropriate to apply the exploratory factor analysis technique to this dataset, we used the Kaiser Meyer Olkin test as a measure of sample adequacy. This measure varies between 0 and 1, and values closer to 1 are better. Kaiser (1974) recommends accepting values greater than 0.5 as acceptable, whereas the level of significance in Chi-square test is at 5 per cent level.

The results in table 2 a show that the KMO value is 0.716 which denotes that the factor analysis is applicable with the current data. The chi Square value for Bartlett's test of Sphericity is 10280.941 and the significant value is 0.000 which is significant at one percent level of significance. Hence it is clear that the data is suitable for factor analysis. Communalities symbolized as h<sup>2</sup> shows how much of each variable is accounted for by the underline factor taken together. The amount of variance, a variable shares with all other variables included in the analysis is referred to as communality. The co-variation among the variables is described in terms of a small number of common factors plus a unique factor for each variable. These factors are not over observed. A high value of communality means that not much of the variable is left over after whatever the factors represents is taken into consideration.

The factors with factor loadings of 0.40 or greater are considered as significant factors. This limit is chosen because it has been judged that factors with less than 40 per cent common variation with the rotated factor pattern are too weak to report.

The factor analysis yielded eight important dimensions of Motivational Factors in Patterns of Change in Purchase Behavior of GBS and is displayed in table 48. The number of variables loaded under each factor, its reliability, Eigen value and the per cent of variance explained by the factor are explained in Table 2.

**Table 2 Purchase Behavior**

Variables	Rotated Factor Loading							
	F1	F2	F3	F4	F5	F6	F7	F8
The gender of the customer plays vital in choosing GBS	0.851							
The age of the customer affects the purchase of GBS	0.842							
The purchase of GBS is influenced by the income of the	0.815							
The educational qualification of the customer plays a vital role in purchase of GBS	0.812							
In purchasing of GBS, the size of the family plays greater romle	0.747							

The occupation of the customer changes the purchase of GBS	0.71							
The interest in environmental issues motivates to buy GBS		0.918						
High awareness of ecology of the customer induces to		0.874						
The interest in natural ingredients promotes the purchase of GBS		0.869						
The perception towards Recycling influences the purchase of GBS		0.854						
The attraction towards green packaging of the soap encourages to buy GBS		0.663						
The values of the customer influences the purchase of GBS			0.89					
The personality of the customer boosts in choosing GBS			0.843					
The purchase of GBS is stimulated because of the attitude of the customer			0.821					
Social status of the customer influences the purchase GBS			0.819					
The relatives of the customer play a part in choosing GBS				0.852				
The purchase of GBS is motivated due to the influence of				0.807				
Amplification of purchase as a result of the influence of parents of the customer				0.798				
The siblings of the customer play a vital aspect in purchasing GBS				0.704				
The values of a particular culture plays an important role to choose GBS					0.808			

The Philosophy of Non - Violence motives the customer to buy GBS					0.791			
Boosting of purchase of GBS as a result of the values of customer					0.764			
The intension to support the cause of poverty inspires the customer to buy GBS					0.645			
The advice of the doctor induces to a pattern of change in purchase behaviour						.792		
Having the consciousness of fitness induces to buy GBS						.776		
The purchase of GBS is encouraged due to the customer having of right knowledge of the product						.749		
The taste of the family influences the buying of GBS							.837	
The life style of the family helps in purchase of GBS							.694	
The type of family play an important role in purchase of GBS							.600	
The patriotism of the country encourages to buy GBS								.729
The policies of the country encourages to purchase GBS								.723
The policies of the country of the customer influences the choosing of GBS								.574
Kaiser Meyer Olkin Measure of Sampling Adequacy	0.716							
Bartlett's Test of Sphericity Approx. Chi-Square	10280.941*							

\* Significant at one per cent level

Extraction Method: Principal Component Analysis

### SCREE PLOT

Scree plot is used to graphically determine the Eigen values for each factor and suggest the predominant factor. A scree plot is a plot of Eigen values against the number of factors in order of extraction. As shown in Figure 1, it indicates that there are eight factors which have Eigen values greater than one based on 32 items. According to the scree test criterion, eight-factor structure was thought to be meaningful because the break between the steep slope and levelling off was between factor number eight and nine.

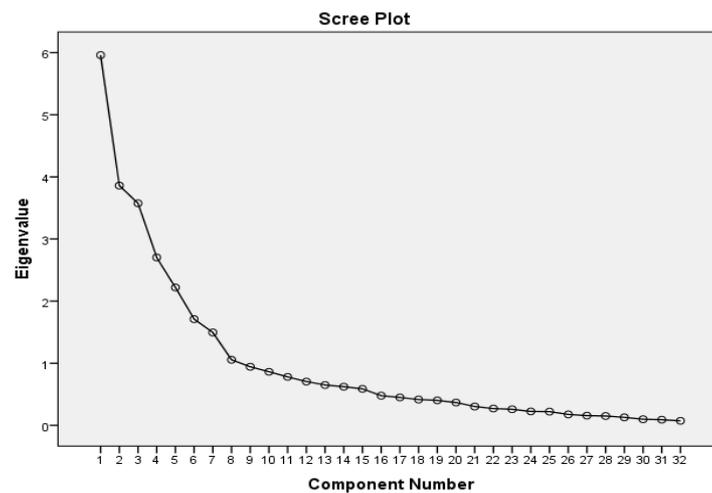


Figure 1: Scree plot

Table 3

Dimensions of Motivational Factors in Patterns of Change in Purchase Behavior

Sl. No.	Factors	Variables Included	Eigen Value	Percent of variation explained	Reliability Coefficient
1	Demographical Factors	6	4.182	13.069	.895
2	Environmental Factors	5	3.666	11.457	.917
3	Individual Characteristics	4	3.131	9.784	.881
4	Friends & Relatives	4	2.931	9.159	.833
5	Values & Ethics	4	2.599	8.121	.773
6	Health Orientation	3	2.179	6.809	.754
7	Family Orientation	3	1.998	6.243	.709
8	Country Orientation	3	1.895	5.921	.738
	<b>Total</b>	<b>32</b>		<b>70.562</b>	

It is evident from table that all the 3 items have been extracted into eight factors.

According to table 3 it is clearly evident that the extracted eight factors explain the variables of Motivational Factors in Patterns of Change in Purchase Behavior of GBS to the extent of 70.562 per cent. Based on the characteristics of each loaded variable, the eight factors were termed as Demographical Factors, Environmental Factors, Individual Characteristics, Friends & Relatives, Values & Ethics, Health Orientation, Family Orientation and Country Orientation.

The most important factor explaining Motivational Factors in Patterns of Change in Purchase Behavior of GBS is “Demographical Factors” with an Eigen value of 4.182 and a reliability coefficient of .895. The second most important factor is “Environmental Factors” with an Eigen value of 3.666 and a reliability coefficient of 0.917. The other factors explaining the motivation in purchase behavior of GBS are “, Individual Characteristics, Friends & Relatives, Values & Ethics, Health Orientation, Family Orientation and Country Orientation ” with an Eigen value of 3.131, 2.931, 2.599 , 2.179 , 1.998 and 1.895 respectively.

#### **Mean Ranking of Dimensions of Motivational Factors in Patterns of Change in Purchase Behavior**

The important Motivational factors Dimensions in Patterns of Change in Purchase Behavior in the study area were analysed with mean rank. The mean score of the eight Dimensions were computed and then these dimensions were ranked on the basis of their mean scores. The major dimensions are Demographical Factors, Environmental Factors, Individual Characteristics, Friends & Relatives, Values & Ethics, Health Orientation, Family Orientation and Country Orientation. The results are presented in Table 4.

**Table 4 Mean Ranking of Dimensions of Motivational Factors in Patterns of Change in Purchase Behavior**

Dimensions	Mean score	Overall Ranking
Demographical Factors	4.13	I
Environmental Factors	3.01	VIII
Individual Characteristics	3.95	IV
Friends & Relatives	3.42	VII
Values & Ethics	3.59	VI
Health Orientation	3.98	III
Family Orientation	4.09	II
Country Orientation	3.86	V

Table 4 shows that the Demographic factors (M = 4.13) secured the first rank with the highest mean score, followed by family orientation (M = 4.09), health orientation

(M = 3.98), Individual Characteristics (M = 3.95) and Country Orientation (M = 3.86) occupying the second third, fourth and fifth ranks respectively.

#### **Classification of respondents based on their Motivational Factors Dimensions**

In this study the Motivational Factors in Patterns of Change in Purchase Behavior consists of eight dimensions such as Demographical Factors, Environmental Factors, Individual Characteristics, Friends & Relatives, Values & Ethics, Health Orientation, Family Orientation and Country Orientation. An attempt is made in the present study to classify the respondent's Motivational Factors Dimensions.

The K-means cluster analysis is applied on these factors by identifying the coefficient of hierarchical clusters. Based on the mean scores, the classification is obtained. After analysing the percentage variation of the agglomeration coefficient, it was decided to opt for a two-cluster solution. The cluster method used was Ward's method, and the interval measure was the Squared Euclidian distance.

The results, which were validated using non-hierarchical *k*- means clustering, strongly suggested the presence of three clusters. The final cluster centre and frequency of each cluster is exhibited below.

**Table -5**  
**Clusters of Respondents based on Motivational Factors Dimensions**

Motivational Factors Dimensions	Clusters	
	cluster 1	cluster2
Demographical Factors	4.25	4.02
Environmental Factors	3.85	2.92
Individual Characteristics	4.33	3.54
Friends & Relatives	3.74	3.09
Values & Ethics	3.84	3.32
Health Orientation	4.16	3.8
Family Orientation	4.27	3.91
Country Orientation	4.15	3.55

**Table - 6**  
**Number of cases in each cluster of respondents**

Clusters	Frequency
1	263
2	237

From table 6 it is observed that the sample respondents based on the dimensions of Motivation with regard to Patterns of Change in Purchase Behavior were classified into two groups, the first group consists of 52.60% of respondents, the second group consists of 47.40% of respondents.

The nature of cluster of respondents is described in the following manner. From the above table 6, it is identified that the respondents in the first cluster has higher level of motivation in all the dimensions Demographical Factors, Environmental Factors, Individual Characteristics, Friends & Relatives, Values & Ethics, Health Orientation, Family Orientation and Country Orientation than the second cluster. The first cluster is uniquely strong in the dimensions Demographical Factors, Individual Characteristics, Health Orientation, Family Orientation and Country Orientation. The second cluster exhibits moderate orientation towards all the dimensions of Motivational dimensions.

#### **Suggestions**

- The demographic factor plays a vital role in purchase of the green products. The companies must take essential steps to understand the customers information related to purchase of the green products.
- The companies of the green products must also increase essential ingredients that amplify the healing quality.
- The influence of the family also seems to be very strong factors in purchase of the green products. The companies need to concentrate to attract the families to buy the products.
- The orientation of the country is also plays factor in purchase of the green products. The companies need to use marketing techniques such as segmentation, targeting and positioning in order to promote the sale of the products.

#### **Conclusions**

The research findings reveal that consumers who are environmentally conscious are more likely to purchase green products. Traditional product attributes such as price, quality, and brand are still the most important attributes that consumers consider when making green purchasing decisions. In order to fulfill individual needs and wants, including ensuring customers' satisfaction, the marketers need to make sure that their products are of high quality and family based promotions. The marketers also need to adopt a better marketing mix for their products in order to change consumers' negative perception towards green products. Successful green marketing entails much more than simply adding an environmental attribute into a product. It is important that marketers integrate green marketing strategies carefully into the company strategic plan.

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