CHAPTER 3
SCOPE AND METHODOLOGY

3.1 Introduction and statement of the problem

The consumption of personal care products is on the increase especially among the youth. Many of these products are low involvement and are primarily used to enhance and maintain the appearance of an individual. Promise of physical attractiveness leading to better social acceptance is a recurring theme used in many advertisements to promote personal care products. People buy and use these products motivated by their desire to enhance their physical attractiveness. There are individual differences in consumption and this study attempted to relate these differences in consumption to personality variables. What make some people heavy users of personal care products? How can the differences in consumption of personal care products be explained with the help of personality factors if it can be done? These are major problems addressed in the study.

3.2 Objectives

The major objective of the research was to study the interaction between personality factors that explain differences in consumption of personal care products. Another objective was to explain the linkages between personality variables that contribute to differences in consumption and offer a theoretical model and explanation for the phenomenon. A third
objective was to find out whether personality variables can be used to predict consumption. The researcher attempted to draw from existing research in personality to provide a theoretical explanation for the phenomenon of individual differences observed in the consumption.

3.3 Theoretical background

Several different streams of research reported by various authors suggested different approaches to explain the consumption using psychological factors. One such stream is on the interaction of the ‘self’ with the environment that determines consumption. The self concept is considered to be an important factor that influence the purchase behaviour. The general consensus is that there is a congruence between the perceived self image and the consumption. Different aspects of the perceived self are reported to be related to consumption of certain brands, products and services.

An important stream of thought from the self-concept domain is the social comparison theory proposed by Festinger (1954). Individuals develop their sense of self and form self-perceptions based on comparisons with relevant others since there is no objective standard. Here the relevant others need not be friends and family, but include the idealized media images to which one is exposed in daily life. An individual is exposed to a large number of idealized media images especially that perpetuated by the advertising and many of these images represent an unattainable standard to
which comparisons are made. These comparisons, which are essentially upward, result in negative perceptions and evaluations of the self. It is suggested that this poor evaluations may act, as a motive to improve and enhance one’s self to conform better to the advertised ideal. A specific instance of this process is used to explain the prevalence of eating disorders quite common in western societies. Comparisons with idealized body projected in the media result in poor evaluations of one’s own body and this may act as a motive to improve one’s body to conform to the ideal. Commonly this leads to an obsession with dieting which may manifest itself as anorexia nervosa or bulimia.

It is reasonable to expect that there may be individual differences in the susceptibility to the social comparison process. Generally, the self-concept and specifically the body-concept may determine differences in consumption especially for a product that has the benefit of improving the physical attractiveness of an individual. The number of studies on self-concept reported show a diversity in terms of the variables used to conceptualise and measure the self. Conceptually many of these variables may be understood to represent two aspects of the self namely self-evaluation and self-awareness.

Self-evaluation is about an individual’s perceived worth which is both an antecedent as well as an outcome of the social comparison process. Upward comparisons with idealized media images may result in a poor self-

72
evaluation. Similarly, a poor self-evaluation may lead to an individual internally attributing the cause in an upward comparison. It is a vicious cycle.

Self-awareness is the awareness of one as a social object. This is a form of self-consciousness which may lead to an individual trying to manage his image as it appear to others.

Another relevant area of research surveyed was about the differences in persuasibility of individuals. There are individual differences in susceptibility to persuasion from various sources including advertising. Many products are purchased and consumed by people because of the effect of persuasion whether from relevant others or advertising. The marketing process works on persuasion. There is a lot of evidence relating self-concept variables to persuasibility. It may be expected that to some extent the differences in consumption personal care products may be explained by differences in persuasibility.

The three fundamental factors therefore considered in the study were self-evaluation, self-awareness and persuasibility. The theoretical model linking these factors to the consumption is provided below.
Diagram 3.01. Theoretical model of the study

In addition to the three factors, gender was also considered important since it is expected that gender wise differences are significant in the consumption of personal care products.

3.4 Scope of the study

The term personal care products refer to a large number of products used for different purposes, known by different names. One common classification scheme followed is grouping the products as personal hygiene products, personal grooming products and cosmetics. Personal hygiene products include toilet soap and tooth paste and their use is almost universal. The cosmetics include products lipstick and mascara, which are used for make up and are predominantly used by women and on special occasions. It was decided to confine the study to personal grooming products only. This is because use personal hygiene products are almost universal and use of cosmetics is mostly confined to women and again often occasional
dictated by cultural patterns. The individual differences are likely to be more conspicuous in the case of personal grooming products.

When exploring the relationships between personality and consumption, the effect of a large number of other factors like age, marital status, family size and culture in addition to income and gender need to be considered, which may confound the relationships. In order to get a clear picture of the relationship between personality factors and consumption of personal care products, it is necessary to control for the effect of other factors. In the study, this is done by restricting the study to the state of Kerala and to the graduate and postgraduate students of colleges in the state. Gender and income were included in the study and the sample was selected randomly to get a representative sample.

3.5. Significance of the study

The study is significant from both an application perspective of marketing management as well as from an academic angle.

The market for personal care products is a highly fragmented one, with intense competition for specific niche segments. It is well known in marketing literature that the bulk of the volume of sale is accounted for by the minority who are the heavy users. This study will help the marketers to identify the personality profile of such a group and understand how the interaction of personality factors at least partially explains differences in
consumption. This knowledge might be useful for better segmentation using psychographic variables as well as for designing specific advertisement campaigns to target the vulnerable groups of customers.

From a theoretical perspective, the research may contribute to understanding how specific personality variables and their interaction lead to differences in consumption. The knowledge corresponding to self theory, social comparison theory, persuasibility, evidence from psychology of eating disorders: these all may be integrated into a common frame work for explaining consumption of products having a social function.

The personality correlates of the marginal groups who show vulnerability to consumption will also prove useful from a public policy perspective.

3.6 Variables in the study and measurement

The variables in the study and their definitions are listed below. In certain cases, available published inventories were used to operationally measure the constructs after verifying the reliability by pre-testing, the relevant statistics is provided later. In certain cases, the researcher developed and tested scales for other variables. The scale development procedure followed, and the relevant statistics in the case of those scales developed by the researcher is provided in the subsequent section.
Dependent variable

1. Use of personal care products

The dependent variable is the usage of personal care products. A definition of the personal care product is given below. A personal care product may be defined as any of several preparations that are applied to the human body for beautifying, preserving, or altering the appearance or for cleansing, colouring, conditioning, or protecting the skin, hair, nails, lips, eyes, or teeth.

Operationally, the usage of personal care product was measured on a four-point scale in the case of seven commonly used products identified in the pilot study. The products were talcum powder, shampoo, fairness creams, moisturizing cream, moisturizing lotions, deodorants and perfumes. The total score obtained was taken as the measure for the variable 'use of personal care products'.

Independent variables

1. Self-Esteem

Rosenberg (1965) described Self-esteem as a favourable or unfavourable attitude toward the self. It refers to the degree to which an individual values himself or herself internally on a personal level or externally as a member of a group. Though several scales are available for
this construct, several criticisms are also leveled against the validity of many. The researcher developed a scale using a large number of items from many different scales. In its final form, the scale contained 10 items.

2. Public Self-consciousness

Public Self-consciousness measures the awareness of self as a social object.

Fenigstein, Scheier and Buss (1975) conceptualised the construct of self-consciousness as an individual difference variable related to self awareness. They observed that there are some people who constantly think about themselves, scrutinize their behaviour and mull over their thoughts to the point of obsession while some others show an absence of self-consciousness leading to an absolute lack of understanding of their own motives or how they appear to others. This consistent tendency of persons to direct attention inward or outward is termed the trait of self-consciousness.

Public self-consciousness was measured using the scale originally developed by Fenigstein, Sheier and Buss (1975) modified later by Martin and Debus (1999). It contains six items.

3. Social Anxiety

Social anxiety is defined as the discomfort one feels in the presence of others.
Social Anxiety is a feeling of fear, dread, unease, discomfort or apprehension that arises without a clear or appropriate real-life justification. Some authorities differentiate anxiety from true fear in that the latter is experienced in response to an actual threat or danger, such as those to one's physical safety.

For Social anxiety, the instrument developed by Fenigstein, Scheier and Buss (1975) modified later by Martin and Debus (1999) containing six items was used.

4. Consumer Susceptibility to interpersonal Influence (CSII)

Consumer Susceptibility to Interpersonal Influence (CSII) is defined as the need to identify or enhance one's image with significant others through the acquisition and use of products and brands, willingness to conform to the expectations of others regarding purchase decisions and or the tendency to learn about products and services by observing others and or seeking information from others.

Factor Analytic Studies revealed the scale is in fact composed of two dimensions termed Normative and Informational. Here the Normative component (Consumer Susceptibility to Normative Influence) is defined as the tendency to conform to the expectations of others. The Informational Component (Consumer Susceptibility to Informational Influence) is defined as the tendency to accept information from others as evidence of reality.
Consumer Susceptibility to interpersonal influence (CSII) was measured by the instrument developed by Bearden, Netemeyer and Teel (1989). CSII scale has twelve items of which eight measures the normative component and four the informational component.

5. Consumer Self Confidence (CS)

Bearden, Hardesty and Rose (2001) defined Consumer Self Confidence as the extent to which an individual feels capable and assured with respect to his or her market place decisions and behaviour.

Consumer Self Confidence reflects subjective evaluations of one’s ability to generate positive experiences as a consumer in the market place. It is multifaceted secondary disposition which is relatively stable self appraisal. Conceptually this construct is related to more basic constructs like Self-Esteem, perceived control and dominance.

Consumer Self Confidence (CS) was measured using selected items having the maximum factor loadings from the scale developed by Bearden, Hardesty and Rose (2001). In its final form, which was used for study, the scale contained twelve items.

6. Susceptibility to Television Advertising (STA)

Susceptibility to Advertising is defined as the extent to which individuals attend to and value commercial messages as sources of
information for guiding their consumptive behaviours. Susceptibility to Television Advertising (STA) is the extent to which individuals attend to and value television commercials as sources of information for guiding their consumptive behaviours.

Susceptibility to Television Advertising (STA) was operationally measured by the scale developed by Barr and Kellaris (2000) which contained six items.

7. Locus of control

The concept of locus of control was first proposed by Rotter (1966). Locus of control is understood as a form of generalized expectancy useful in explaining personality differences in people’s beliefs about the source of reinforcement. Locus of control is may be internal or external. Internal Locus of control may be defined as a belief that reinforcement is brought about by one’s own behaviour. External Locus of control is a belief that reinforcement is under the control of other people, fate or luck.

Locus of control was measured by the scale developed and tested by the researcher. It contained fourteen items.

8. Risk taking

Risk taking may be defined as the consistent behavioural disposition among individuals to prefer risky options in choice situations.
People with high-risk taking are more confident of their judgments and consider less number of alternative options. They are also tolerant of ambiguity.

Risk taking was measured by the scale developed by the researcher, which contained ten items.

9. **Body-Esteem**

Body-esteem may be defined as the self-perceptions of the attractiveness of the body. It is the worth dimension of one’s own body. It represents the favourable or unfavourable attitudes an individual has about his or her body.

Franzoi and Shields (1984) conceptualised the construct ‘body esteem’ which is an inventory measuring the feelings of subjects about a particular body part or asset. In the present study, researcher used a modified version of this inventory using items that tap the aspects of the body that are important in determining the external appearance enhancement product use. The scale had 19 items.

10. **Appearance anxiety**

Appearance anxiety is defined as the apprehension or worry about whether one’s physical appearance is adequate and about the way, one’s appearance is evaluated by other people.
There are several studies reported on the concept of appearance anxiety, which is an apprehension, or experienced unease of an individual about his or her appearance, body or physical attractiveness. It is conceptualised as an individual difference variable. In the study, appearance anxiety was measured by an inventory developed by the researcher. The scale contained fourteen items scored on a four-point scale.

**Other Independent Variables**

Two additional variables were conceptualised by the researcher and included in the study. They were appearance motive and social embarrassment. Also in order to have a check against the tendency of the respondents to give socially desirable responses, an L scale was included in the questionnaire.

1. Appearance motive

Appearance motive is the motivation of an individual to improve his appearance.

This variable was conceptualised by the researcher to represent the conscious desire of an individual to expend effort to improve the appearance. The variable was operationally measured as the self reported conscious desire to improve the appearance. In its final form, the scale contained three items.
2. Social embarrassment

The researcher conceptualised and developed a variable ‘Social embarrassment’, which represent the perceptions of respondents on the social embarrassment potential some common bodily problems, aspects or imperfections perceived to cause social embarrassment by reducing the physical attractiveness of an individual.

Social embarrassment represents the ‘embarrassibility’ of some common problems like dandruff or some aspects like dark skin. The individuals may have different perceptions about the extent to which these are embarrassing socially. The perceptions reflect the judgment of the society on these bodily aspects internalised by the individual or indicate the concept of a socially desirable body.

The variable was measured by a scale developed by the researcher, which contained eleven items corresponding to bodily aspects measured on a response scale from not at all embarrassing to very embarrassing.

3. L Scale

When responses are obtained on personality inventories, there is a tendency among respondents to provide socially desirable answers rather than their true responses. In order to have a check on this potential error, the
researcher used an L scale, which measure the social desirability bias of the respondents. It contained five items scored on a four-point scale. The score on the L scale was used to screen out those respondents who are more likely to provide a desirable response than the true response.

Demographic Variables

The researcher also collected information regarding the gender, age, degree of urbanization (urban or rural), and the income of the respondents.

3.7. Hypotheses

Researcher attempted to bring together the perspectives of the self-theory, persuasibility theory and social comparison theory to find an explanation to the observed differences in consumption of personal care products. A large number of studies relating to the problem of eating disorders demonstrated that a poor self-concept would lead to a person developing anxieties because of social comparison process. A poor self-evaluation, higher persuasibility and heightened self-awareness may determine a high consumption of personal care products. Gender and income may also have a role here. On the relationships between the variables, hypotheses were formulated. Gender and income were expected to be related to consumption. There is also evidence from theory that gender differences
may be expected in the case of some personality variables. Therefore, the following apriori expectations were there.

1) Significant gender differences are expected in consumption of personal care products as well as on independent variables like self-esteem, risk taking, CSII and body esteem.

2) Use of personal care products will show significant differences across various income groups.

Thirteen hypotheses were formulated on the anticipated relationships among the variables. They are listed below.

1. Persons with internal locus of control will have significantly higher self-esteem than those with external locus.

2. Persons with high self-esteem show significantly more risk taking than those with low self-esteem.

3. People with low self-esteem show significantly higher social anxiety than those with high self-esteem.

4. People with low self-esteem show significantly higher appearance anxiety than those with high self esteem.

5. People with low self-esteem show significantly lower body esteem than those with high self-esteem.

6. Consumer self confidence is significantly lower in persons of low self-esteem compared to those with high self esteem.
7. People with low self-esteem consider physical deficiencies more embarrassing socially than those with high self-esteem.

8. People of high public self-consciousness will have significantly higher appearance motive compared to those who score lower.

9. a. The scores on the normative dimension of CSII is significantly higher in the case of persons with low self-esteem compared to those with high self-esteem for both males and females.
   b. There is no difference in the scores of informational dimension of Susceptibility to interpersonal influence between people with high self-esteem and those with low self esteem for both males and females.

10. Use of personal care products is significantly more in the case of people with low self esteem compared to those with high self esteem.

11. The use of personal care products is significantly higher in people of high public self-consciousness compared to those who score low in this dimension.

12. a. Appearance motive is significantly higher for those with low self esteem and high public self-consciousness compared to all others.
   b. Use of personal care products is significantly more for those with low self-esteem and high public self-consciousness compared to all others.

13. Persons who score high in susceptibility to television advertising use more of personal care products compared to those who lower.
3.8 Pilot Study and Development of Tools

The researcher developed scales for measuring self-esteem, locus of control, risk taking, appearance anxiety, appearance motive and social embarrassment. For this an item pool was generated for each variable. Data was collected from a convenience sample of 300 respondents and the items were tested for the discrimination. A simple dichotomous scale having yes and no or agree and disagree options were used. In the case of certain items, it was observed that an overwhelming majority even more than 95% of the respondents had given the same answer. Such items were deemed not to discriminate between the respondents on the construct measured. Only those items where a 75% – 25% or better discrimination had been obtained was retained for the subsequent scale development procedure. Using the selected items from this step, item analysis was conducted for each variable to arrive at an inventory with the maximum reliability.

Further data was collected on all the variables from a convenience sample of 150 respondents using a five point Likert scale and the reliability was computed. The researcher also included items from standard inventories in the case of self-esteem and locus of control to check the validity of the developed scale. Factor analysis was performed for the items constituting each variable separately and factor structure was explored as an evidence of validity.
A sample of 35 respondents was used to establish the test re-test reliability. Wherever available, standard inventory measuring the same construct was correlated to the developed tool as further evidence of validity.

The use of personal care products was measured using a 4 point scale ranging from regular user to non user and responses were obtained for 7 products, talcum powder, shampoo, fairness cream, moisturizing cream, moisturizing lotion, deodorants and perfumes.

For Public Self consciousness and Social anxiety, the instrument developed by Fenigstein, Sheier and Buss (1975) modified later by Martin and Debus (1999) was used. Consumer Susceptibility to interpersonal influence (CSII) was measured by the instrument developed by Bearden, Netemeyer and Teel (1989). Consumer Self Confidence-Bearden, Hardesty and Rose (2001), Body Esteem-Franzoi and Shields (1984), Susceptibility to Advertising -Barr and Kellaris (2000) were used after adaptation and pre-testing. The variable social embarrassment was measured by a scale developed by the researcher, which contained eleven items corresponding to bodily aspects measured on a response scale from not at all embarrassing to very embarrassing.

The reliability figures obtained are provided in the table given below.
### Table 3.01 Reliability of scales

<table>
<thead>
<tr>
<th>Variables</th>
<th>No. of Items</th>
<th>Reliability-pretests</th>
<th>Reliability-Main study</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Chronbach alpha</td>
<td>Test Retest</td>
</tr>
<tr>
<td>Self Esteem</td>
<td>10</td>
<td>0.7979</td>
<td>0.8596</td>
</tr>
<tr>
<td>Risk taking</td>
<td>10</td>
<td>0.7625</td>
<td>0.7925</td>
</tr>
<tr>
<td>Locus of Control</td>
<td>14</td>
<td>0.8124</td>
<td>0.8232</td>
</tr>
<tr>
<td>Appearance Anxiety</td>
<td>14</td>
<td>0.7985</td>
<td>0.8362</td>
</tr>
<tr>
<td>Public Self-consciousness</td>
<td>6</td>
<td>0.8758</td>
<td>0.8996</td>
</tr>
<tr>
<td>Appearance motive</td>
<td>3</td>
<td>0.8236</td>
<td>0.8524</td>
</tr>
<tr>
<td>Social anxiety</td>
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<td>0.8458</td>
<td>0.8657</td>
</tr>
<tr>
<td>CSII</td>
<td>12</td>
<td>0.8992</td>
<td>0.8998</td>
</tr>
<tr>
<td>Customer Self Confidence</td>
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<td>0.9101</td>
</tr>
<tr>
<td>Susceptibility to Television</td>
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<td>0.7892</td>
</tr>
<tr>
<td>Advertising</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use of personal care Products</td>
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<td></td>
<td>0.8721</td>
</tr>
<tr>
<td>Body Esteem</td>
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<td>0.8565</td>
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</tr>
<tr>
<td>Social embarrassment</td>
<td>11</td>
<td>0.7254</td>
<td>0.8365</td>
</tr>
</tbody>
</table>

The reliability estimates are provided for the pilot study and the main study where Chronbach Alpha, which is a measure of inter-item correlation, is used. The scales were also tested for the test-retest reliability and the correlation coefficients are provided in the table. It may be seen that all the scales show a high and acceptable reliability.

The relevant scale parameters from the main study are provided in the table below. The number of items in each scale, arithmetic mean, standard deviation, minimum value, maximum value and the percentile scores (25, 50 and 75) are provided in the table.
### Table 3.02 Scale parameters - Variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>No. of Items</th>
<th>Mean</th>
<th>Std. Deviation</th>
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</thead>
<tbody>
<tr>
<td>Self Esteem</td>
<td>10</td>
<td>27.8359</td>
<td>4.8231</td>
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<tr>
<td>Risk taking</td>
<td>10</td>
<td>29.5521</td>
<td>5.4204</td>
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<tr>
<td>Locus of Control</td>
<td>14</td>
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<td>Appearance Anxiety</td>
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<td>33.9379</td>
<td>5.4594</td>
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<td>Public Self-consciousness</td>
<td>6</td>
<td>17.9202</td>
<td>3.2718</td>
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<tr>
<td>Appearance motive</td>
<td>3</td>
<td>8.2506</td>
<td>2.2943</td>
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<td>Social anxiety</td>
<td>5</td>
<td>12.6452</td>
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<td>CSII</td>
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<td>Customer Self Confidence</td>
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<td>Susceptibility to Television Advertising</td>
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<td>14.9845</td>
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</tr>
<tr>
<td>Use of personal care Products-</td>
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<td>4.6699</td>
</tr>
<tr>
<td>Body Esteem</td>
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<tr>
<td>Social embarrassment</td>
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<td>27.4678</td>
<td>6.639</td>
</tr>
</tbody>
</table>

### 3.9 Data Collection

#### Population

The population of the study was the students of graduate and postgraduate programmes of the colleges of Kerala.

#### Sample size and sampling plan.

Researcher targeted a sample size of 450. The final questionnaire was administered to 510 respondents who are students of graduate and postgraduate courses in different colleges in Kerala. Twenty colleges were identified for the study from five districts in Kerala. A cluster sampling
procedure was used where from each college, a batch was selected at random and all the students in the cluster were administered the questionnaire. The administration normally took 30-45 minutes.

3.10 Statistical Methods and Analysis

The data was edited coded and analysed using SPSS 10.0 for windows and Lisrel 8.54 student version. After screening and scrutiny, those questionnaires that were incomplete in the responses to the inventories were eliminated. Also those questionnaires where the score on L Scale above 75th percentile was eliminated. Finally 451 questionnaires were included in the analysis. Factor analysis with rotation was used to explore the underlying patterns in the relationships between variables. The variables were divided into high and low on median split. Variables self esteem and use of personal care products were divided into 4 groups based on quartiles. Student’s t Test, Analysis of Variance and Chi-square Test were used to test the hypothesis. The tests of significance were conducted and interpreted according to the methodology suggested by Henkel(1976) In addition, correlations were worked out using the Pearson method. The researcher also used the method of logistic regression to predict the use of personal care products from the orthogonal factors obtained in the factor analysis.
3.11 Limitations of the study

1. The study was restricted to the students of graduate and postgraduate programmes of the colleges in Kerala state. Therefore, the results need not be generalizable to all the age groups.

2. Majority of the respondents were from upper income groups having a monthly family income of ten thousand rupees or above. Therefore, the patterns observed in consumption need not be applicable to people of lower income groups.

3. The study was on personal care products as a category and the researcher did not undertake a microanalysis on specific products or variants.

4. There may be personality variables or situational factors that were not included in the study that may have a significant influence on consumption.