3.1 The Problem

In India there have been gradual changes in the family structure, with extended families, which previously may have 'shared' a home, increasingly splitting into more than one unit; more women working, late marriages and urban families having comparatively fewer children wielding considerable influence (Dobhal, 1999). This trend may particularly be true for the burgeoning 250 million strong middle-class (almost the population of USA).

Traditionally, women, by and large, have been less involved in various activities related to purchase of consumer durables in India. However, due to increasing trend towards urbanization, impact of western cultural values, education and increasing material requirements of the urban life-style, women are moving out of the confines of their homes to take up both traditional and non-traditional jobs so as to contribute financially to the economic well-being of their families. Further, owing to increased media exposure and consequent availability of abundant information about product alternatives, it is expected that in the present scenario, the Indian wife might be exerting greater influence in purchase-decisions of products used by the entire family – a new refrigerator, for instance.

In comparison to developed countries, in India, the children continue to stay with their families even after attaining maturity, though they may not be
Another trend that is perhaps the fallout of the rising pressures of gender equality is that the concerns of the woman are now being shared by the man and vice-versa is also true. So when purchase decisions include these concerns, it is both the husband and wife who are expected to be involved. In fact the role of man in the urban family in India is gradually metamorphosing. According to Dobhal (1999) distinct changes are easily discernible:

1. The stereotypical hunter – the provider for the family – is giving way to the power-sharer, who is no longer, the sole authority by virtue of being the only earning member of the family.

2. The Veto power on purchases that flows from the status of sole breadearner is being diluted. Since the (working) woman and the children in the new urban settings are able to finance many of their own purchase decisions, what the man is being compelled to provide is approval and not rejection. But this transition is creating its own tensions as the male tries to adjust to the new power equations within the family.

In the context of the aforementioned changes it is interesting to note that most extant husband/wife influence studies classify family consumption decisions as husband-dominated, wife-dominated, joint (i.e. equal or syncratic) and autonomic (i.e. unilateral) (Herbst, 1952; Davis and Rigaux, 1974; and Lavin, 1985; and Corfman, 1991). All these refer to a structural arrangement in which only one individual is involved and only the syncratic category allows for interaction between two individuals or more. As the influence of the family members in all types of decisions including product purchase decisions will vary across cultures, the results of such US centric studies cannot be held to be true in the Indian context without verification.

Another aspect that deserves attention is that the family member influence is not static and is likely to shift, depending on the specific product or service, the family role structure orientation, and the specific stage in the decision
making process. These factors are also likely to be mediated by aforementioned cultural variations and changing lifestyles in the Indian context. Thus, a gap exists in the extant literature vis-à-vis the influence wielded by the husband, wife, children and elders. This study attempts to partially bridge this gap by taking into account the influence wielded by husband, wife and two children in the family decision making process. This type of exploratory research was also necessary to provide the impetus for future studies that can provide additional information about the complex nature of the Indian culture and the dynamics at work during the family decision making process.

3.2 The Objective

This study attempts to empirically investigate the following:

- to investigate the relative involvement of husband-wife & children in the purchase of specific products (i.e. product specific influences).

- to investigate the effect of family type on the husband-wife and children involvement in purchase decision. i.e. the relationship between the independent variable — type of family i.e. single earning family (SEF) where only the husband works and dual earning family (DEF) where both work, and the dependent variables — stages in the decision process (i.e. idea initiation, information collection and final decision) and the various product related sub-decisions (amount to be spent, when to purchase, what brand, type, size and colour to purchase and from which dealer) for five consumer durables — refrigerator, two-wheeler, music system, four-wheeler and electric mixer.

- to measure the relative role of husband-wife and children during the decisions making process with respect to three stages i.e. idea initiation, information search and final decision (i.e. stage specific influences).

- to measure the relative role of husband-wife and children during the sub-decisions regarding purchase viz. amount to be spent, when to purchase, brand to purchase, what size, colour and type to purchase. Thus, an attempt has been made to provide a more realistic picture of relative influence of family members during
the various stages of the decision making process by examining family *quatrads* (husband, wife, and two children).

- product specific involvement of various family members viz. husband, wife and children.

It is presumed that the findings from this study will build on existing knowledge regarding family decision making and specifically contribute to the same in the Indian context.

### 3.3 Rationale for Product Selection

The rationale behind the selection of the aforementioned products for the present study was that these products represent buying situations ranging from complex buying decisions (e.g. automobile) to relatively less complex ones (e.g. stereo) and also the number and type of role played by the various family members is expected to vary in each case (Davis, 1970; Ferber and Lee, 1974; Munsinger *et al.* 1975; Shuptrine and Samuelson, 1976; Yavas *et al.* 1994, Nathan, 1997; and Martinez and Polo, 1999). Further, since the products were of use to all members of the family their participation in decision making for the same was assumed. In addition some disagreement between the husband and wife with regard to the actual purchase was required. This disagreement might have occurred at any stage in the decision process — idea initiation, information collection or the final decision — or during any of the sub-decisions — whether or not to make the purchase, how much to spend, brand, style, and so on.
3.4 Hypotheses

For the purpose of achieving the objectives of the study hypotheses were presumed. These were formed on the basis of specific product categories, the stages of the decision process, and the sub-decisions involved in the purchase of each product.

The study is primarily based on the premise that the type of family — *independent variable* — and stages and sub-decisions in the purchase of specific products — *dependent variable* — are independent of each other as far as the relative involvement of different family members are concerned. The hypotheses in the following are reflective of this premise. These hypotheses have been tested in the next chapter i.e. Analysis and Interpretation of Data.

**For Refrigerator**

H$_{011}$: There is no relationship between the type of family and level of involvement of family members in idea initiation stage for refrigerator.

H$_{012}$: There is no relationship between the type of family and level of involvement of family members in information collection stage for refrigerator.

H$_{013}$: There is no relationship between the type of family and level of involvement of family members in final decision stage for refrigerator.

H$_{014}$: There is no relationship between the type of family and level of involvement of family members in the sub-decision “amount to be spent” for refrigerator.

H$_{015}$: There is no relationship between the type of family and level of involvement of family members in the sub-decision “when to purchase” for refrigerator.

H$_{016}$: There is no relationship between the type of family and level of involvement of family members in the sub-decision “brand to be purchased” for refrigerator.

H$_{017}$: There is no relationship between the type of family and level of involvement of family members in the sub-decision “which size” for refrigerator.
H_{018}: There is no relationship between the type of family and level of involvement of family members in the sub-decision “which colour” for refrigerator.

H_{019}: There is no relationship between the type of family and level of involvement of family members in the sub-decision “from which dealer” for refrigerator.

For Two-Wheeler

H_{021}: There is no relationship between the type of family and level of involvement of family members in idea initiation stage for two-wheeler.

H_{022}: There is no relationship between the type of family and level of involvement of family members in information collection stage for two-wheeler.

H_{023}: There is no relationship between the type of family and level of involvement of family members in final decision stage for two-wheeler.

H_{024}: There is no relationship between the type of family and level of involvement of family members in the sub-decision “amount to be spent” for two-wheeler.

H_{025}: There is no relationship between the type of family and level of involvement of family members in the sub-decision “when to purchase” for two-wheeler.

H_{026}: There is no relationship between the type of family and level of involvement of family members in the sub-decision “brand to be purchased” for two-wheeler.

H_{027}: There is no relationship between the type of family and level of involvement of family members in the sub-decision “what type” for two-wheeler.

H_{028}: There is no relationship between the type of family and level of involvement of family members in the sub-decision “which colour” for two-wheeler.

H_{029}: There is no relationship between the type of family and level of involvement of family members in the sub-decision “from which dealer” for refrigerator.
For Music System

H_{031}: There is no relationship between the type of family and level of involvement of family members in idea initiation stage for music system.

H_{032}: There is no relationship between the type of family and level of involvement of family members in information collection stage for music system.

H_{033}: There is no relationship between the type of family and level of involvement of family members in final decision stage for music system.

H_{034}: There is no relationship between the type of family and level of involvement of family members in the sub-decision “amount to be spent” for music system.

H_{035}: There is no relationship between the type of family and level of involvement of family members in the sub-decision “when to purchase” for music system.

H_{036}: There is no relationship between the type of family and level of involvement of family members in the sub-decision “brand to be purchased” for music system.

H_{037}: There is no relationship between the type of family and level of involvement of family members in the sub-decision “which model” for music system.

H_{038}: There is no relationship between the type of family and level of involvement of family members in the sub-decision “from which dealer” for music system.

For Four-Wheeler

H_{041}: There is no relationship between the type of family and level of involvement of family members in idea initiation stage for four-wheeler.

H_{042}: There is no relationship between the type of family and level of involvement of family members in information collection stage for four-wheeler.

H_{043}: There is no relationship between the type of family and level of involvement of family members in final decision stage for four-wheeler.
H044: There is no relationship between the type of family and level of involvement of family members in the sub-decision “amount to be spent” for four-wheeler.

H045: There is no relationship between the type of family and level of involvement of family members in the sub-decision “when to purchase” for four-wheeler.

H046: There is no relationship between the type of family and level of involvement of family members in the sub-decision “brand to be purchased” for four-wheeler.

H047: There is no relationship between the type of family and level of involvement of family members in the sub-decision “what type” for four-wheeler.

H048: There is no relationship between the type of family and level of involvement of family members in the sub-decision “which colour” for four-wheeler.

H049: There is no relationship between the type of family and level of involvement of family members in the sub-decision “from which dealer” for four-wheeler.

For Electric Mixer

H051: There is no relationship between the type of family and level of involvement of family members in idea initiation stage for electric mixer.

H052: There is no relationship between the type of family and level of involvement of family members in information collection stage for electric mixer.

H053: There is no relationship between the type of family and level of involvement of family members in final decision stage for electric mixer.

H054: There is no relationship between the type of family and level of involvement of family members in the sub-decision “amount to be spent” for electric mixer.

H055: There is no relationship between the type of family and level of involvement of family members in the sub-decision “when to purchase” for electric mixer.

H056: There is no relationship between the type of family and level of involvement of family members in the sub-decision “brand to be purchased” for electric mixer.
There is no relationship between the type of family and level of involvement of family members in the sub-decision “from which dealer” for electric mixer.

3.5 The Research Design
One problem constantly faced by the researchers in this area relates to the reliability, validity and inherent bias in the data collected from family members. The present study tried to reduce this discrepancy in reporting of influence by the couples, through the following steps:

Firstly, a more neutral term ‘involvement’ has been used, instead of influence.

Secondly, the information has been obtained about the relative involvement from husband, wife and two children.

Thirdly, husband and wife were asked to fill up the questionnaire independently without consulting/helping each other.

Fourthly, in order to get a representative heterogeneous sample of respondents it was decided to collect the data from three cities.

Finally, the respondents were asked to provide the information regarding their involvement only when the product has been purchased during the last two years. This has been done to minimise the forgetting effect and social impact.

These steps, hopefully may reduce the respondents’ bias, if any, to a great extent.

As to the number of stages that we consider in the decision making process, we follow the line established by Davis and Rigaux (1974) i.e. problem recognition, search for information and final decision. We can also find this classification, or one very similar to it, in a number of recent studies (Webster, 1994; and Ford et al. 1995).

The use of a three-phase decision process (that is, idea initiation, information search, and final decision) differs somewhat from the classic conceptualization which includes a phase of alternative evaluation. We have
chosen to eliminate this phase (i.e. alternative evaluation) because it is so intimately related to the search process. Moreover, several researchers have suggested that consumers actually evaluate information simultaneously with search (Davis, 1976; and Katona and Mueller, 1954). Farley (1964) tested Stigler's hypothesis (1961) that the amount of search is a function of the expected gain relative to the cost of obtaining information, and findings of Maynes (1973) further support this notion. A similar model was proposed by Granbois (1963) who maintained that search terminates with a final decision when uncertainty is reduced to satisfactory level. Eliminating the phase of alternative evaluation was also motivated by the practical difficulty of asking respondents to break down their decision making into many different stages. Further, we should also not overlook the fact that children, possessing varied cognitive levels, too were included in the present study for their involvement in the purchase process. Even with the three phases we have chosen, subjects may view the distinction among these phases as somewhat artificial for the following reasons:

- The consumer need not be, and indeed, probably is not aware that he passes through these phases;
- This like any other process conceptualization, has some time dimensions; and
- All phases do not always occur (Engel et al. 1973).

Nevertheless, as emphasized by Brim et al. (1962), "it is this type of formal analysis of the basic phases of the process which permits one to see the similar nature of all decision problems".

In this study it has also been assumed that consumption decisions are made on the basis of a single budget constraint containing the pooled income for the entire household i.e. the household income is put in a common "pot" and the household members bargain over its allocation (Doss, 1994).

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1 For details please see the Chapter 2: Problem Areas in Family Decision Research
3.6 The Research Instrument

The research instrument (Appendices I & II) consisted of structured questionnaire and the respondents were required to indicate their level of involvement with the help of three-point rating scale viz. HI (highly involved), MI (moderately involved) and NI (not involved). This scale was preferred in comparison to other scales as the chances of bias here are negligible and also a more neutral term ‘involvement’ has been used instead of ‘influence’ which appears to be loaded. The simple three-point scale was employed keeping in mind the specific requirements of this study from the point of view of children, as they could provide clear unambiguous responses.

The research instrument consisted of three questions in all:

The first question was identical to that incorporated by Davis and Rigaux (1974). Specifically, three questions presenting stages of the decision process (i.e. problem recognition, search for information on alternatives, and final purchase decision) were included for each product under study.

Further, as in the study by Davis (1970) this study also explored the following sub-decisions (with minor modifications owing to differences in type of products) pertaining to the durables under study.

1. When to buy?
2. Where to buy?
3. How much to spent?
4. What make/type/brand to buy?
5. What model to buy?
6. What colour to buy?

The second question of the research instrument dealt with these sub-decisions pertaining to the individual products. For example, for the refrigerator purchased, husband, wife and at least two children in the family were asked to report their level of involvement vis-à-vis (1) amount to be spent; (2) When to purchase; (3) What brand to purchase; (4) What size to purchase; (4) Which
colour; and finally (5) Which outlet; with the help of three point scale viz. HI (highly involved), MI (moderately involved) and NI (not involved).

The third question related to demographics and was necessary to generate the profile of the sample.

The research instrument, because of practical difficulties, was administered on the respondents in two languages i.e. English\(^2\) (Appendix I) and Hindi (Appendix II). The Hindi version of the questionnaire was in a format which is commonly spoken in Western Uttar Pradesh. It should be kept in mind that the Hindi dialect spoken in the educated households of the region is generally interspersed with English words. Thus, the Hindi translated version of the research instrument too had some transliterated and/or actual English words. The problem of administering the English version of the questionnaire was particularly encountered in case of some of the housewives. Thus, this methodology was adopted so as to make it convenient for the sample to respond to the questionnaire. As an additional precaution, the Hindi version was first pre-tested on a representative sample; and further tested for originality by “back-translation” method (Green and White, 1976), whereby the English original is translated into the foreign language and then back translated into English to check for questionnaire dissimilarities. No difficulties were detected with the understanding of the semantic meaning of each item or with the use of the three-point scale.

The data presented in this study differ in several ways from previous studies. Unlike several previous studies these data can be analysed both across and within product purchase decisions because of the use of similar questions for each of the product purchase and the same measure of influence for the

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\(^2\) In India, English is widely spoken and understood and also because the sample consisted of educated and affluent middle and upper middle class families with the children studying in public schools where the medium of instruction is English. Thus, majority of the respondents had no problem in responding to the English version of the questionnaire.
various stages and the sub-decisions pertaining to the products. Since separate questionnaires were administered on husband and wife and the children there were independent responses to the same questions from the family members permitting comparison of responses between the various family members.

3.7 The Sample
Data was collected by means of a questionnaire self administered to husband, wife and at least two unmarried dependent children in middle and upper middle class nuclear families residing in the three major, and relatively affluent, cities — Aligarh, Bareilly and Meerut — of (western) Uttar Pradesh, India. The households had purchased the items under study within the last two years preceding the administration of the questionnaire. Since the purpose of the study was not to merely describe the relative influence of husbands and wives in various purchase decisions, administering the questionnaire on only one spouse was not expected to give the desired results. Thus, husband, wife and at least two children were taken into consideration. Care was taken that during the administration of the questionnaire, the family members did not interact/consult each other so as to avoid bias. The middle and upper middle class families were chosen as they are largely created by the development process and they usually represent a force of modernism in the developing societies (Green et al. 1983). Further, the sample was restricted to middle and upper middle class households as the ownership of consumer durable items under study e.g. refrigerator, two-wheeler, music system, four wheeler and electric mixer is largely restricted to such households.

Assuming that joint families would have very complex purchase decision-processes, they were left out of the scope of the present study.

The data reported are drawn from a questionnaire administered through personal interviews with the respondent families over a three-year period (1997-2000). Although cooperation was generally good, there were a number
of refusals to participate in the study due primarily to time pressure on part of the respondents and conservative nature of the Indian families — there was particularly resistance from the wives. For each product category, the respondent was asked to think of events, conversations, and thought leading to the relevant purchases made by the family and to indicate their involvement in the purchase decision. While administering the questionnaire the parents were instructed not to confer or consult one another and the researcher was present so as to respond to doubts and queries regarding the questions in the research instrument. The researcher made it a point to personally fill up the questionnaire in case of the children after explaining to them the contents of the questionnaire and eliciting their views. The data collection instrument was the same for all the respondents with few additional questions relating to demographics for the parents. This was necessary for avoiding bias of any type and it also facilitated comparative study of the sample.

Adolescents aged between 13 and 19 years were drawn from a purposive sample of 6 higher secondary and 3 senior secondary schools located in Aligarh, Bareilly and Meerut — all major cities — situated in the more prosperous western region of the North Indian state of Uttar Pradesh. The schools were so chosen to get a representative heterogenous sample possessing the desired socio-economic characteristics.

Children were included as respondents in the present study to permit broader, more realistic examination of the family influence relationships. Adolescent children were chosen as respondents because they are more likely than younger children to be active in a range of family purchase tasks. Though infants and younger children clearly affect parental behaviour and purchase decisions, adolescents as a group have achieved full cognitive development (Elkind, 1968; Mussen et al. 1969 and Mussen, 1973) understanding

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3 It should be kept in mind that filling up of the questionnaire, independently, by the parents and at least two children, even after close supervision of the researcher could take up to 1 1/2 hours for
economic concepts (Strauss, 1952) and possess consumer skills related to information processing (Roedder, 1981). They are also expected to model their behaviour to some extent on that of adults (Lerner and Shea, 1982). They, thus, appear to be an appropriate age group for documenting children’s influence in family purchase decisions. Because adolescence is not easily defined by physical development (Chumlea, 1982), keeping in mind the Indian conditions, the researcher has chosen to define adolescents in this study as children in the age band of 13 to 19.

Respondent families were solicited (with the consent and cooperation of the school administration and the respective class-teachers) by first randomly contacting students and the researcher interacting with them so as to ascertain whether their family had purchased the durables under study during the last two years or not. After ascertaining that the students’ families fulfilled the conditions necessary for the study, the students were themselves requested to solicit their parents’ participation. The researcher amply made it clear to the students and told them to convey the same to their parents that their participation would be a strictly voluntary response to an academic study where their identities would be kept confidential and no “correct answer” or “ideal answers” were expected or implied. If their parents were willing, the students were asked to indicate the time which was convenient to them and when both the spouses and the children were at home. Later, after receiving their reply in affirmative, they were further contacted through telephone or otherwise to confirm the time of their availability. In this context it is to be noted that an option suggested to the researcher by the school administration

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4 The method of sending of formal letters to parents requesting their participation through the wards was initially adopted but later had to be discontinued as the response rate was very poor. The response rate dramatically shot up when the wards were taken into confidence and requested to solicit their parents' participation.

5 The questionnaire did not contain any question asking the respondent to reveal their identities.
was to contact the parents when they visit the school during the Parents’ Day but the researcher preferred to visit the families in their homes since filling up of the responses in the school would have removed many “place cues” that impinge on families in normal decision making situations (Zelditch, 1971; and Gordon, 1997).

Of the 480 families that were approached through their wards studying in the aforementioned schools, only 295 (61%) families indicated their willingness to participate in the study. There was no apparent difference between those families who chose to participate and those who did not. Of those willing and contacted 184 (38%) families qualified for the study. This resulted in a total of 552 separate completed questionnaires. Of these 72 were residents of Aligarh, 58 from Bareilly and 54 belonged to Meerut. It should be very clear at the outset that neither those who were willing to participate (i.e. 295 or 61% of 480) and nor the 184 families (i.e. 38% of 480) who finally qualified for the study are a representative sample of their respective population segments. Thus, while efforts were made to obtain inputs that fairly reflected the views of the various family members, it was not possible to obtain a representative sample or to evaluate the nature and importance of non-response error. When generalizing the results, this caveat should be kept in mind.

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6 It is a normal practice in the Indian public schools that on the Parents’ Day the parents are required to come to the school and discuss the academic performance of their wards and also any other issue with the respective class teachers.

7 Zelditch (1971) has argued persuasively that one cannot equate a family’s “laboratory” behavior with the behavior of natural families as it is bound to remove several “place cues” that impinge on families normal decision making situations while Gordon (1997) cautions that to further enhance the validity of the observations, interviews/filling up of questionnaires should be conducted in the respondents’ own homes where decisions can take place in natural settings.

8 (a) The number of respondents in this study are definitely more than those of other marital role studies, see for example, Starch (1958), Davis (1970), and Scott (1970);

(b) Care was taken that the questionnaires of only those families were finally selected where the couple would have been married long enough to have had the opportunity to purchase the products on their own even if they had received some of them in dowry or as gift at the time of marriage.

9 368 questionnaires were filled up by the parents and 184 were for the children.
One other aspect of the methodology used in this study deserves comment. Similar to many other studies of family roles in decision making, we have made use of direct questions about the relative involvement of each spouse and the role, if at all, played by the children. Direct questions of this sort assume, according to Kenkel (1961), that individuals (1) know the relative amount of influence they have; (2) are willing to admit it to themselves and others; and (3) are able to recall with accuracy how influence was distributed in some past decision making session. While these assumptions are undoubtedly questionable, we feel, as do others, that direct questions about specific decisions represent the best “interim approach” for identifying roles (Engel et al. 1973; and Davis and Rigaus, 1974). This solution seems even more appropriate in this study since independent data from husbands, wives and children within the same families allows one to assess the validity of these scales measuring relative influence (Davis, 1971).

Since we have used a purposive convenience sampling plan, it is necessary to describe it in terms of several demographics. The demographic profile of the sample is given in Tables 3.1(a), 3.1 (b) and 3.1(c).

Table 3.1 (a):- Age profile of the sample

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>Range</th>
<th>Min.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Age Statistics</td>
<td>30.58</td>
<td>14.21</td>
<td>45</td>
<td>13</td>
<td>58</td>
</tr>
<tr>
<td>Husband’s Age</td>
<td>47.07</td>
<td>3.20</td>
<td>20</td>
<td>38</td>
<td>58</td>
</tr>
<tr>
<td>Wives’s Age</td>
<td>41.72</td>
<td>3.05</td>
<td>22</td>
<td>32</td>
<td>54</td>
</tr>
<tr>
<td>Children’s Age</td>
<td>16.76</td>
<td>2.18</td>
<td>06</td>
<td>13</td>
<td>19</td>
</tr>
<tr>
<td>Male Child (n=207)</td>
<td>16.72</td>
<td>1.92</td>
<td>06</td>
<td>13</td>
<td>19</td>
</tr>
<tr>
<td>Female Child (n=161)</td>
<td>16.80</td>
<td>2.46</td>
<td>04</td>
<td>14</td>
<td>18</td>
</tr>
<tr>
<td>SEF Parent’s Age</td>
<td>43.90</td>
<td>4.42</td>
<td>26</td>
<td>32</td>
<td>58</td>
</tr>
<tr>
<td>DEF Parent’s Age</td>
<td>45.15</td>
<td>3.48</td>
<td>16</td>
<td>37</td>
<td>53</td>
</tr>
</tbody>
</table>
Table 3.1 (b): Income profile of the parents (on monthly basis in Rs.)

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>Range</th>
<th>Min.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family Income</td>
<td>10437.50</td>
<td>8011.15</td>
<td>21000</td>
<td>9000</td>
<td>30000</td>
</tr>
<tr>
<td>Husband’s Income</td>
<td>16961.96</td>
<td>4007.32</td>
<td>21000</td>
<td>9000</td>
<td>30000</td>
</tr>
<tr>
<td>Wives’s Income</td>
<td>9863.01</td>
<td>3040.53</td>
<td>14000</td>
<td>6000</td>
<td>20000</td>
</tr>
</tbody>
</table>

Table 3.1 (c): Educational profile of the parents

<table>
<thead>
<tr>
<th></th>
<th>Under Graduate</th>
<th>Graduate</th>
<th>Post Graduate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wives (n=184)</td>
<td>20%</td>
<td>52%</td>
<td>28%</td>
</tr>
<tr>
<td>Husbands (n=184)</td>
<td>0%</td>
<td>60%</td>
<td>40%</td>
</tr>
<tr>
<td>Parents (Combined; n=368)</td>
<td>10%</td>
<td>56%</td>
<td>34%</td>
</tr>
</tbody>
</table>

3.8 Method of Analysis

The respondents were asked to indicate their involvement as follows:

- HI = Highly Involved
- MI = Moderately Involved
- NI = Not Involved

So as to simplify the data keying operations HI was recoded to H; MI to M and NI to N.

Since there were three questionnaires for each family, the total number of possible combinations, of H, M and N, for each response in the questionnaire were 27 (twenty-seven). The possible combinations are: HHH, HHM, HHN, HMH, HMM, HMN, HNH, HNN, MHH, MMH, MHN, MHH, MMM, MMN, MNH, MNM, MNN, NHH, NHM, NHN, NMH, NMM, NMN, NNH, NNM & NNN.

For the purpose of analysis of responses these combinations were further collapsed into six categories, which are given below [Table 3.1 (d)]. It should be kept in mind that these categories have been used for the first time by any researcher in this area. These categories were necessary as the present
study takes into account the relative influence of husband, wife and two children in the family.

**Table 3.1 (d): Types of family decision patterns considered for the present study**

<table>
<thead>
<tr>
<th>SN</th>
<th>Type of Decision</th>
<th>Code</th>
<th>Collapsed Combinations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td>Joint Decision</td>
<td>JD</td>
<td>HHH OR MMM</td>
</tr>
<tr>
<td>2)</td>
<td>Husband Dominance</td>
<td>HD</td>
<td>HNN OR MNN OR HN OR HM OR HM OR HN</td>
</tr>
<tr>
<td>3)</td>
<td>Wife Dominance</td>
<td>WD</td>
<td>NHN OR NMN OR MHN OR MHM OR NHM</td>
</tr>
<tr>
<td>4)</td>
<td>Husband =W&gt;Children</td>
<td>H=W&gt;C</td>
<td>HHN OR MNN OR HHM</td>
</tr>
<tr>
<td>5)</td>
<td>H/W &amp; Children&gt; Other Spouse</td>
<td>H/W&amp;C&gt;S</td>
<td>MNM OR HMH OR HNH OR MHM OR NHH OR NMM</td>
</tr>
<tr>
<td>6)</td>
<td>Children &gt; Parent</td>
<td>C&gt;P</td>
<td>NNH OR MNH OR MMH OR NNH OR MMH OR NMH</td>
</tr>
</tbody>
</table>

Tabulation of the data collected through the research instrument was done by directly entering the data in the form of H, M and Ns.

So as to maintain data integrity, at the outset, the database was maintained using **SPSS Software Package**. This was essential because for each family member about 55 data entries (10 for the demographic section of the questionnaire and 45 for the decision stages and the sub-decisions for the five products under study) had to be performed. The maintenance of such a huge database (consisting of about 30,360 data cells) was not possible using any other available software. The database was later split into two: one for Single Earning Families (SEF) and the other for Dual Earning Families (DEF).

Further, it should be kept in mind that due to the peculiar requirements of the present study, built-in and readymade conditional statements needed (for filtering the appropriate combinations of HHH, MMM, HNH etc. out of a total possible 27 pairs) for further analysis of the data were not available in the SPSS package. So the researcher had to write the conditional statements

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10 Already explained in the methodology section
Tables 3.1(e) & 3.1(f)] and then apply the same using the count feature available in the SPSS package on the split database (i.e. separately on the SEF and DEF databases). The data so filtered was stored within the respective SPSS databases in appropriately coded variable columns for further analysis. It should be remembered that this procedure had to be repeated for each of the decision stages viz. idea initiation, information collection and the final decision for each of the products in the split databases (i.e. SEF and DEF).

Table: 3.1 (e): Conditional statements for filtering responses for stages of decision process (used in SPSS)

<table>
<thead>
<tr>
<th>SN</th>
<th>Code</th>
<th>Type of Decision</th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>JD</td>
<td>Joint Decision</td>
<td>((ih = 'H' &amp; iw = 'H' &amp; ic = 'H') \lor (ih = 'M' &amp; iw = 'M' &amp; ic = 'M')))</td>
</tr>
<tr>
<td>2</td>
<td>HD</td>
<td>Husband Dominance</td>
<td>((ih = 'H' &amp; iw = 'N' &amp; ic = 'N') \lor (ih = 'M' &amp; iw = 'N' &amp; ic = 'N') \lor (ih = 'H' &amp; iw = 'M' &amp; ic = 'N') \lor (ih = 'H' &amp; iw = 'M' &amp; ic = 'M')) \lor (ih = 'N' &amp; iw = 'H' &amp; ic = 'M'))</td>
</tr>
<tr>
<td>3</td>
<td>WD</td>
<td>Wife Dominance</td>
<td>((ih = 'N' &amp; iw = 'H' &amp; ic = 'N') \lor (ih = 'N' &amp; iw = 'M' &amp; ic = 'N') \lor (ih = 'M' &amp; iw = 'H' &amp; ic = 'N') \lor (ih = 'M' &amp; iw = 'H' &amp; ic = 'M')) \lor (ih = 'N' &amp; iw = 'H' &amp; ic = 'M'))</td>
</tr>
<tr>
<td>4</td>
<td>HWC</td>
<td>Husband =W&gt;Children</td>
<td>((ih = 'H' &amp; iw = 'H' &amp; ic = 'N') \lor (ih = 'M' &amp; iw = 'M' &amp; ic = 'N') \lor (ih = 'N' &amp; iw = 'H' &amp; ic = 'M')))</td>
</tr>
<tr>
<td>5</td>
<td>HCS</td>
<td>H/W &amp; Children &gt; Other Spouse</td>
<td>((ih = 'M' &amp; iw = 'N' &amp; ic = 'M') \lor (ih = 'H' &amp; iw = 'M' &amp; ic = 'H')) \lor (ih = 'H' &amp; iw = 'N' &amp; ic = 'H')) \lor (ih = 'N' &amp; iw = 'H' &amp; ic = 'H')) \lor (ih = 'N' &amp; iw = 'M' &amp; ic = 'H')) \lor (ih = 'N' &amp; iw = 'M' &amp; ic = 'H')) \lor (ih = 'N' &amp; iw = 'M' &amp; ic = 'H')) \lor (ih = 'N' &amp; iw = 'M' &amp; ic = 'H')) \lor (ih = 'N' &amp; iw = 'M' &amp; ic = 'H')))</td>
</tr>
<tr>
<td>6</td>
<td>CPI</td>
<td>Children &gt; Parent</td>
<td>((ih = 'N' &amp; iw = 'N' &amp; ic = 'H')) \lor (ih = 'M' &amp; iw = 'N' &amp; ic = 'H')) \lor (ih = 'M' &amp; iw = 'M' &amp; ic = 'H')) \lor (ih = 'N' &amp; iw = 'M' &amp; ic = 'H')) \lor (ih = 'N' &amp; iw = 'M' &amp; ic = 'H')) \lor (ih = 'N' &amp; iw = 'M' &amp; ic = 'H')))</td>
</tr>
</tbody>
</table>

\(ih=\)idea initiation stage-husband; \(iw=\)idea initiation stage-wife; \(ic=\)idea initiation stage-children \(C=\)children, \(H=\)husband; \(W=\)wife)  

Further, the process had to be repeated for each of the sub-decision of the relevant product. Later, the frequencies of the desired combinations of H, M andNs corresponding with the six collapsed influence measures and the sample
demographics and related graphs were obtained using the *output generator* feature of the said package.

Table: 3.1 (f) Conditional statements for filtering responses for sub-decisions (used in SPSS)

<table>
<thead>
<tr>
<th>SN</th>
<th>Code</th>
<th>Type of Decision</th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td>JD1</td>
<td>Joint Decision</td>
<td>(d1h = 'H' &amp; d1w = 'H' &amp; d1c = 'H') OR (d1h = 'M' &amp; d1w = 'M' &amp; d1c = 'M')</td>
</tr>
<tr>
<td>2)</td>
<td>HD1</td>
<td>Husband Dominance</td>
<td>(d1h = 'H' &amp; d1w = 'N' &amp; d1c = 'N') OR (d1h = 'M' &amp; d1w = 'N' &amp; d1c = 'N') OR (d1h = 'H' &amp; d1w = 'M' &amp; d1c = 'M') OR (d1h = 'H' &amp; d1w = 'N' &amp; d1c = 'M')</td>
</tr>
<tr>
<td>3)</td>
<td>WD1</td>
<td>Wife Dominance</td>
<td>(d1h = 'N' &amp; d1w = 'H' &amp; d1c = 'N') OR (d1h = 'N' &amp; d1w = 'M' &amp; d1c = 'N') OR (d1h = 'M' &amp; d1w = 'H' &amp; d1c = 'M') OR (d1h = 'N' &amp; d1w = 'H' &amp; d1c = 'M')</td>
</tr>
<tr>
<td>4)</td>
<td>HWC1</td>
<td>Husband</td>
<td>(d1h = 'H' &amp; d1w = 'H' &amp; d1c = 'N') OR (d1h = 'M' &amp; d1w = 'M' &amp; d1c = 'N')</td>
</tr>
<tr>
<td>5)</td>
<td>HCS1</td>
<td>H/W &amp; Children</td>
<td>(d1h = 'M' &amp; d1w = 'N' &amp; d1c = 'N') OR (d1h = 'N' &amp; d1w = 'M' &amp; d1c = 'N') OR (d1h = 'N' &amp; d1w = 'H' &amp; d1c = 'M') OR (d1h = 'N' &amp; d1w = 'M' &amp; d1c = 'M')</td>
</tr>
<tr>
<td>6)</td>
<td>CP1</td>
<td>Children</td>
<td>(d1h = 'N' &amp; d1w = 'N' &amp; d1c = 'N') OR (d1h = 'N' &amp; d1w = 'N' &amp; d1c = 'M') OR (d1h = 'N' &amp; d1w = 'N' &amp; d1c = 'H')</td>
</tr>
</tbody>
</table>

(dlh=first sub-decision-husband; dlw=first sub-decision-wife; dlc=first sub-decision-children; C=children, H=husband; W=wife)
For the purpose of ascertaining whether there were significant differences in
the responses in case of SEF and DEF for the various decision stages and the
related sub-decisions for each product, the $\chi^2$ test $^{11}$ was employed on the
respective frequencies so as to look for variations in case of each of the
decision stages of the responses from SEF and DEF families and also with
respect to the sub-decisions for each of the product pertaining to the two types
of families. Through this analysis the exact level of confidence was also
obtained.

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$^{11}$ To go beyond our intuitive feelings about the observed and expected frequencies, we use the
Chi-Square Statistic, which is calculated in the following manner (Levin & Rubin, 1991):

$$\chi^2 = \sum \left[ \frac{(f_o - f_e)^2}{f_e} \right]$$

Where:

- $\chi^2$ = Chi-Square
- $f_o$ = an observed frequency
- $f_e$ = an expected frequency and
- $\sum$ = symbol meaning the ‘sum of’

This formula says that $\chi^2$ is the sum we will get if we:

1. Subtract $f_e$ from $f_o$ for each of the frequencies.
2. Square each of the differences
3. Divide each squared difference by $f_e$
4. Sum all the answers.

**Interpreting the Chi-Square Statistic:** If the $\chi^2$ value is larger than the critical value for the
size of the table and significance level desired, we can conclude that there is significant
variation. A $\chi^2$ value of zero on the other hand indicates that the observed frequencies exactly
match the expected frequencies.
3.9 Limitations

Though a number of precautions have been taken to increase the reliability of the present study, yet the researcher feels that there are certain limitations which may be given due considerations.

- Limitations of time, funds and willingness of the respondents dictated that the sample could not be larger than the present one. Although this fact limits the generalizability of results, we believe that it represents a necessary and economical first step in identifying useful concepts and relationships that can later be tested in larger, more representative samples in the Indian context.

- The scope of the research is limited to consumer durables and the urban middle and upper middle class nuclear families. This further restricts the generalisability of results. Therefore there is a need to extend this piece of research to include other products and services and to other family structures.

- Since the results pertain to only a special group of respondents and specific decision process, they strongly indicate the need for additional work to examine a number of methodological and practical questions. These include:
  - the extent to which measures of influence attributed to husband-wife are affected by the size of the decision making unit.
  - the nature of the influence structure in households having compositions different from those in this study.
  - the manner in which household decision making involving different types of decision making units is affected by the product/service category being purchased.

- India being a multilingual, multi-religious and multi-regional country, the sample drawn may not be representative of the entire Indian population and therefore, generalisation has to be done with caution.
The findings cannot be generalized to the country as a whole owing to socio-economic and cultural diversity.

Some of the limitation of the research reported here surround the nature of the research design and sample. For instance, purposive convenience sampling places restrictions on the generalizability – though not necessarily on the applicability – of the findings.

The sampling frame used i.e. schools where the children of middle and upper middle class parents study might have given some up-market bias. The study has precluded the inclusion of sample elements having low income and low education.

There is a possibility of respondent’s bias vis-à-vis conservative social norms prevalent in India. Being an issue concerning “inside” information of their family, the respondents may have given answers desirable from social point of view.

There is a possibility of respondent’s bias from another angle. They may have given replies that were desirable from their point of view.

The relative influence of other family members, relatives and friends has largely been ignored. Ideally the study should have included the influence of other family members e.g. parents and/or relatives and friends. But practical difficulties imposed by the retrospective nature of responses (a product may have been purchased a year back and it is practically impossible for any researcher to account for role played by “outside” elements like relatives and friends, in such a scenario.

The number of products taken in this study also does not represent a cross-section of products. More products should have made this study more meaningful.
Though, effect of type of family (i.e. SEF or DEF) has been observed in this study yet some other moderating variables must be responsible for shift in influence of husband and wife such as education, age, family background and duration of marriage. There is a need for detailed study of the same.

Different age groups will likely manifest different types of interaction with their parents and consequent impact on family decision making may also vary. Since the present study is exploratory in nature, this particular aspect has been overlooked.