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Product Selection and Product Preference Criteria of Women For Household Consumer Durables

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ABSTRACT

The likelihood of product selection for self as well as for family and family members among women in the household is analyzed here. This chapter also attempts to evaluate product selection criteria of the respondents (women) along with identifying the factors that influence the product preference empirically. The following part of the chapter provides tabulation and interpretation of the results. The distribution of the respondents across five opinion levels ranging from very unlikely to very likely in respect of selecting products such as clothing, footwear and cosmetic items for self is reported.

1. PREAMBLE

The decisions made by families involve large amounts of money and it is necessary to understand as much as possible about this consumption unit. There is a well-defined role structure in families as you would find if you apply this concept to your own family. There is the Instrumental role, usually taken by the head of the family for the achievement of specific goals. In addition, there is the expressive role undertaken by the wife and other family members to provide emotional support to the functioning of the family group. In addition to this goal-oriented behaviour, there is also a set of purchase roles undertaken by family members. Household decisions range from economic decisions such as expenditure on various consumer items (e.g. durables and non-durables) to social decisions, such as those related to children's education, marriage, etc. Due to their "lifelong" nature and the magnitude of expense involved, decisions regarding the acquisition of consumer durables are considered to be of greater importance than most other routine decisions e.g. daily purchase of food, clothing, etc. Many important economic decisions – e.g., labour supply, residential location, buying insurance or a new car, investing in stocks and bonds or in children's education – are often made by households rather than by individuals. This implies that the decisions will be a function of the preferences of the household members and the decision making process.

2. MATERIALS AND METHODS

The scope of the present study is examining the perceived role of women in buying decisions for household consumer durables empirically. The perceptions of both working and non-working women are considered for study. The selection of sample respondents for survey is confined to Erode district.

3. OBJECTIVES OF THE STUDY

- To study the general decision making styles (pattern) of women in Erode district.
- To identify the relationship between general decision making styles and socio-economic characteristics of women in Erode district.

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- To compare the general decision making styles between non-working and working women
- To ascertain the purchase decision conflicting styles of women in Erode district.
- To explore brand awareness and brand selection skills and compare the same between non-working and working women.
- To analyze the inter-relationship among general decision making styles, conflicting styles, brand awareness and brand selection skills.
- To find out the role of women in decision making process for buying household consumer durables.
- To summarize the findings, suggestions and conclusion.

4. PERIOD OF THE STUDY

The period of the study here is the period of survey starting from February 2011 to April 2012.

5. HYPOTHESES

The following null hypotheses are framed based on the objectives for the present study.

- There is no significant relationship between decision making styles and socio-economic characteristics of women in Erode district.
- There is no notable difference in the decision making styles between non-working and working women
- The purchase decision conflicting style of women is independent of their socio-economic characteristics.
- The purchase decision conflicting styles do not differ between non-working and working women.
- There is no remarkable difference in brand awareness and brand selection skills between non-working and working women.
- The role of women in decision making process for buying household consumer durables is not related to their working status.
- There is no significant relationship between personal attitudes and decision making styles of women.
- The selection of products for family and family members is unrelated to decision making styles of women.
- There is no significant relationship between decision making styles and product selection criteria among women.

6. METHODOLOGY

The methodological aspects of the study such as selection of area, selection of sample, statistical techniques used for the analysis of data are given hereunder.

STUDY AREA

The present study covers the Erode district as the study area. The Erode district is selected as the study area based on the time and cost factors as the domicile of the researcher is located in this district.

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SAMPLE SIZE AND SAMPLING DESIGN

The Sample size of the present study is 600 women in Erode District. They are selected by using non-probability convenience sampling technique as identifying the total population is not possible. The convenience sampling is used when the sample population is large and it is impossible to include every individual. Further, this technique is used as target population is available at accessible location close to the proximity of the researcher. Moreover, data collection by selection of sample using this technique is fast, inexpensive, easy and the subjects are readily available.

DATA COLLECTION

This study is based mainly on primary data. The primary data are collected from the household women as well as from working women in the Erode district. The interview schedule instrument is used to obtain the perception of women about their role in buying decisions on household durable purchase. The collected data are qualitative in nature and for analysis purpose, the collected information are assigned with quantitative values. A Likert type (5-point & 3-point) scale is adopted to measure the product selection for family, personal attitudes and traits, decision making styles, conflict resolution style, product selection and factors influencing the product preference. The number of items in the scale are 8 for measuring product selection for family, 20 items for personal attitude and traits, 19 items for decision making styles, 8 items for conflicting resolution style between woman and her husband on joint purchase decision in family, 10 items for measuring product selection criteria and 15 items for identifying the perceived factors influencing the product preference. In addition to the above mentioned measurement scale items, the interview schedules are also included with questions for obtaining general information of the sample respondents. Though the main analysis in this research work is purely based on the primary data, the secondary information from articles and papers pertaining to role of women in decision making process towards purchasing household products published in different journals and magazines are also used.

STATISTICAL TECHNIQUE USED

To analyze the primary data collected from the survey, the statistical techniques viz., descriptive statistics, cross tabulation with chi-square test, t-test for independent sample and one way ANOVA, Reliability / Item analysis, Principal component Factor Analysis with Varimax rotation, Canonical correlation analysis and Linear Discriminant analysis are used. The details of the analysis are given hereunder.

DESCRIPTIVE ANALYSIS

The descriptive statistics such as mean and standard deviation are calculated to ascertain mean level of perception and degree of consistency in perceived status of the sample respondents.
The formula for Mean

$$\overline{X} = \frac{\sum X_i}{n}$$

Where, X_i is value for 'i^{th} year 'n' is size of the entire sample or a sub group of the sample.
The formula for Standard deviation

$$\sigma = \sqrt{\frac{\sum {X_i}^2}{n} - (\overline{X})^2}$$

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Where, X_i is the value for 'ith year and 'n' size of the entire sample or a sub group of the sample and $\overline{X}$ is mean score for all the respondents.

CROSS TABULATION ANALYSIS AND CHI-SQUARE TEST

The cross tabulation analysis is used to calculate the joint frequency distribution of cases based on two or more categorical variables. Displaying a distribution of cases by their values on two or more variables is known as contingency table, or simply cross tabulation analysis and is one of the most commonly used analytic methods in the social sciences. The statistical significance of the joint frequency distribution can be evaluated by chi square statistic. The significant chi-square value indicates that the two variables in the cross tabulation analysis are statistically associated with each other. The percentage values are calculated to compare the relative frequency of each level of opinion across the categorical variables. The formula for calculating chi-square value is given hereunder:

$$\chi^2 = \sum \frac{(O-E)^2}{E}$$

Where,

χ^2	=	Chi-square value
O	=	Observed frequency
E	=	Expected frequency

INDEPENDENT SAMPLE T-TEST AND ONE WAY ANOVA (F TEST)

The significance of difference in mean perception levels between any two groups is evaluated using independent sample t-test. One way ANOVA or simply called as F test is used to find out the difference in mean opinion levels when the number of comparable groups is three or more than three.

The formula for Independent sample t-test

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

Where,

$\overline{X_1}$	=	Mean of the group 1
$\overline{X_2}$	=	Mean of the group 2
σ_1^2	=	Variance of the group 1
σ_2^2	=	Variance of the group 2
n_1	=	Size of the Group 1
n_2	=	Size of the Group 2

The formula for F test

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

Where,

F	=	Ratio of variance (F Value)
S_B^2	=	Between group variance
S_w^2	=	Within group variance

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RELIABILITY / ITEM ANALYSIS

The internal consistency of the items in the scale measuring personal attitudes / traits and decision making styles is evaluated by reliability / item analysis. The reliability analysis calculates 'item to total correlation', 'alpha if deleted' and 'overall Cronbach's alpha coefficient'. The Cronbach's alpha coefficient is widely used as measure to find out the reliability and consistency of the items in a scale. The Cronbach's alpha coefficient of 0.70 and above are considered as reliable and consistent in the acceptable level. George and Mallery (2003) provide the following rules of thumb: " > 0.90 – Excellent, > 0.80 – Good, > 0.70 – Acceptable" (p. 231). As a rule of thumb, the cut-off value for item to total correlation is 0.30 and above, and alpha if deleted value should be less than overall Cronbach's alpha coefficient for any item to be retained in the scale. However, alpha if deleted value is less than overall Cronbach's alpha, and item to total correlation is a bit less than 0.30 (>= 0.25), then the item can be considered for retaining in the measurement scale.

FACTOR ANALYSIS (PRINCIPAL COMPONENT ANALYSIS)

The principal component method of factor analysis with varimax rotation is used to identify the underlying dimensions of personal attitudes and traits and decision making styles. The factor analysis first produces eigen value, proportion of explained variance of underlying factors (underlying dimensions). Any factor extracted by the analysis is considered to be a valid factor if its eigen value is above one based on the most commonly used criterion, which is known as Kaiser's criterion. The factor loadings (each item's correlation with valid factors) obtained from factor analysis are used for identifying actual characteristics of the underlying factors. Generally, an item belongs to one factor if its loading with that factor is 0.40 and above.

CANONICAL CORRELATION

The canonical correlation analysis is also a multivariate technique, which is adopted in the present study to find out the relationship between two sets of variables. Here, the first set is considered as criterion set and second set is predictor set. In the present study, the variables in the predictor set are socio-economic variables and personal attitudes / traits while decision making styles, product selection and product preference are the variables in dependent set.

DISCRIMINANT ANALYSIS

To identify whether there is any difference in personal attitude / traits and decision making styles, conflict resolution styles between working and non-working women, discriminant analysis is used. The discriminant analysis is a multivariate technique used to identify the difference in groups relative to linear composite of variables in the independent set. That is, this technique is used to find out power of one or more variables in the independent in discriminating the groups in the dependent, here working status of women. The discriminant analysis first provide the results of the Chi-square test of successive roots (functions) to show which discriminant canonical function gives better discrimination (better power of differentiating the groups). The number of successive roots tested by the analysis is the number of groups less than one in the dependent variable. The standardized canonical coefficients and structure correlation matrix produced by the analysis are used to bring out the significant variables in the independent set with predicting power. The standardized canonical coefficients are like standardized beta coefficients in the multiple regression analysis, which are comparable across variables and help to identify the degree of predicting power. On the other hand, the structure matrix, which is the correlation between discriminant function and each one

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of the variables in the independent set, help to identify the extent of relationship between the variable and discriminant function. That is, it helps identify the relative importance of each predictor variable in discriminating the groups.

7. RESULTS AND DISCUSSION

Table 1.1. From the observation of the table, it is apparent that the proportion of cases with likely and very likely opinion regarding the selection of clothing, footwear and cosmetic items for self is more than that of those with other three opinion levels.

DISTRIBUTION OF RESPONDENTS WITH LIKELIHOOD OF PRODUCTS SELECTION FOR SELF

PRODUCTS FOR SELF	VERY UNLIKELY	UNLIKELY	UNCERTAIN	LIKELY	VERY LIKELY	TOTAL
Clothing	29 (4.8)	32 (5.3)	72 (12.0)	249 (41.5)	218 (36.3)	600 (100.0)
Footwear	26 (4.3)	62 (10.3)	116 (19.3)	243 (40.5)	153 (25.5)	600 (100.0)
Cosmetic Items	85 (14.2)	121 (20.2)	86 (14.3)	184 (30.7)	124 (20.7)	600 (100.0)

Source: Primary Data.

TABLE NO 1

Next to clothing, the proportion of such cases is more in respect of footwear (66.0% = 40.5% + 25.5%) followed by cosmetic items (51.4% = 30.7% + 20.7%). It is found that it is highly likely for selecting cloth. The selection of footwear and cosmetic items for self is only next to that of clothing. The central tendency of women in the sample regarding the selection of clothing, footwear and cosmetic items is evaluated by descriptive statistics like mean along with 95 per cent CI. One sample t-test is applied comparing mean perception scores with hypothetical mean of 3.50, the lower bound value for 'likely' range, to ascertain the statistical significance of the respondents' opinion about selection of products for self. The results of the analysis are shown in Table 1.2. As respondents opinion is in five levels, the opinion of a group or entire sample is considered to be in 'very unlikely', 'unlikely', 'uncertain', 'likely' and 'very likely' if the mean scores are "< 1.50", ">=1.50 and < 2.50", ">= 2.50 and < 3.50", ">=3.50 and < 4.50" and ">=4.50" respectively.

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EXTENT OF PRODUCT SELECTION FOR SELF

PRODUCTS FOR SELF	MEAN	SD	95% CONFIDENCE INTERVAL		T-VALUE
			LOWER	UPPER	
Clothing	3.99	1.06	3.91	4.08	11.31**
Footwear	3.73	1.09	3.64	3.81	5.08**
Cosmetic Items	3.24	1.36	3.13	3.34	-4.77**

Source: Primary data; **Significant at 1% level

TABLE NO 2

An observation of the table 1.2 shows that the mean scores for first two products, 3.99 and 3.73, are in 'likely' range while the mean score for cosmetic items, 3.24 is in 'uncertain' range'. Further, the mean scores for first two products are significantly above 3.50 whereas mean score for cosmetic items is significantly less than 3.50. From this picture, it is concluded that it is highly likely for women to select clothing and footwear for self-whereas it is uncertain regarding selection of cosmetic items. The uncertainty about selection of cosmetic items may be attributed to the fact that the cosmetic items are not used by the most of women in the sample. The relationship between selection of products for self and socio-demographic factors of the respondents (including the status of spouse like age, education and occupation) is explored by canonical correlation analysis and the results of the analysis are given in Tables 1.3 and 1.4.

CANONICAL CORRELATION FUNCTIONS BETWEEN SELECTION OF PRODUCTS FOR SELF AND SOCIO-DEMOGRAPHIC FACTORS

CANONICAL FUNCTION	CANONICAL R	CANONICAL R^2 (EIGEN VALUE)	CHI-SQUARE	DF	P-VALUE	WILKS' LAMBDA
0	0.4271	0.1824	163.63	30	0.0000	0.7585
1	0.2195	0.0482	44.42	18	0.0005	0.9277
2	0.1591	0.0253	15.18	8	0.0558	0.9747

Source: Primary Data

TABLE NO 3

From the examination of the Table 5.3, it is understood that the first two canonical functions out of three produced by the analysis are significant at 1 per cent level. This stated that first and second canonical variates of selection of products for self and socio-demographic factors of the respondents are significantly associated, in turn revealing the existence of relationship between two sets of variable. Also, the canonical correlation, 0.4271 for the first and 0.2195 for the second function, has indicated that these functions are eligible for further interpretation. To know which of the variables in the criterion and predictor set are correlated, the canonical loadings of the variables in each set with significant canonical function, which are presented in Table 5.4, are interpreted. It can be seen from the table that the likelihood of selecting cosmetic items is highly correlated with first

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function followed by footwear and clothing. With second function, the correlation of clothing is more followed by footwear. The cosmetic items correlate negatively with second function.

CANONICAL LOADINGS OF SELECTED PRODUCTS FOR SELF AND SOCIO-DEMOGRAPHIC FACTORS

VARIABLES	CANONICAL FUNCTION	
	FIRST	SECOND
CRITERION VARIABLES SELECTED PRODUCTS FOR SELF		
Clothing	0.5235	0.7701
Footwear	0.6705	0.4496
Cosmetic Items	0.9444	-0.3239
PREDICTOR VARIABLES SOCIO-DEMOGRAPHIC FACTORS		
Age	-0.6004	0.1949
Educational Status	0.8509	0.1380
Employment Status of Self	0.1862	0.4204
Age of Husband	-0.5491	0.0775
Educational Status of Husband	0.7404	-0.3150
Occupation of Husband	0.2316	0.2409
Family Income	0.4866	0.3390
Spousal Employment Status (Both Employed)	0.1566	-0.0684
Family Type	-0.0587	0.4471
Area of Residence (Location)	0.2457	0.2786

Source: Primary Data

TABLE NO 4

Among the variables in the predictor set (socio-demographic factors), educational status of the respondents has high loading followed by educational status of husband, age of the respondents, age of husband and family income with first function. With second function, the family type of women is highly associated followed by employment status of women. Overall, from the canonical correlation results, it is found that the young women with higher level of education are more likely to select cosmetic items for self than that of footwear and clothing if the educational status of their spouses is also higher and family income is more. Similarly, it is highly likely for the employed women from nuclear families to select the clothing prior to footwear for self. The relationship between likelihood of selecting the products for self and extent of close knit with spouse is ascertained by comparing the respondents' opinion using one-way ANOVA. The results of the analysis are provided in Table 1.5.

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SELECTION OF PRODUCTS FOR SELF – COMPARISON BY EXTENT OF CLOSE-KNIT WITH HUSBAND (SPOUSE)

PRODUCTS FOR SELF	NOT VERY CLOSE KNIT	SOMEWHAT CLOSE KNIT	VERY CLOSE KNIT	EXTREMELY CLOSE KNIT	F VALUE
Clothing	3.64	3.70	3.99	4.13	4.16**
	(1.29)	(1.18)	(1.03)	(1.02)	
Footwear	3.82	3.48	3.59	3.97	7.20**
	(1.25)	(1.20)	(1.12)	(0.94)	
Cosmetic Items	3.55	2.85	3.04	3.60	10.85**
	(1.69)	(1.35)	(1.38)	(1.23)	

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

TABLE NO 5

As provided in the table, the likelihood of selecting clothing for self tend to increase significantly with increase in the extent of close knit with husband (Mean value of 3.64 for women group without very close knit increased to 3.70 for somewhat close knit group, 3.99 for very close knit group and 4.13 for extremely close knit group and F value of 4.16 is significant at 1% level). On the other hand, selection of footwear for self is uncertain for those with somewhat close knit with husband where it is significantly more likely for those with extremely close knit as well as for those without very close knit (F value = 7.20, $p < 0.01$). The likelihood of selecting cosmetic items for self is uncertain for the women with somewhat close knit and very close knit and these two groups differ significantly from those without very close knit and with extremely close knit with whom the likelihood for selecting cosmetics items for self is more (F value = 10.85, $p < 0.01$). In sum, it is found that likelihood of selecting products (clothing, footwear and cosmetic items) for self among the women is significantly related to the extent of close knit with their spouses.

Table 1.6 presents the results of the analysis identifying the relationship between selection of products for self and financial management responsibility in the family. From the table, it is understood that the mean likely levels regarding the selection of clothing for self is more for women in the families where the in-laws are the responsible for financial management followed by the women group belong to families where financial management by husband, both husband & wife and self.

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SELECTION OF PRODUCTS FOR SELF – COMPARISON BY FINANCIAL MANAGEMENT RESPONSIBILITY

PRODUCTS FOR SELF	SELF	HUSBAND	IN-LAWS	BOTH SELF & HUSBAND	F VALUE
Clothing	3.83	4.04	4.20	4.02	1.56
	(1.18)	(1.03)	(0.77)	(1.07)	
Footwear	3.16	3.90	3.80	3.96	18.83**
	(1.16)	(0.99)	(0.62)	(1.10)	
Cosmetic Items	2.70	3.52	2.80	3.06	14.57**
	(1.39)	(1.27)	(1.28)	(1.39)	

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

TABLE NO 6

However, the difference in mean values is insignificant (F value is insignificant), in turn indicating that the selection of clothing for self is independent of the financial management authority in the families. At the same time, the selection of footwear for self is significantly less likely for women from families with financial management by self (Mean = 3.16) compared to those from families with financial management by husband, in-laws and both husband & wife (F value = 18.83, $p < 0.01$). Regarding the selection of cosmetic items, it is more likely for women group belong to families where financial management is looked after by husband. This women group differ significantly from other groups (F value = 14.57, $p < 0.01$) in which the women are less likely to select the cosmetic items (Mean values, 2.70, 2.80 and 3.06 are in uncertain range). Overall, it is found that there is a significant relationship between likelihood of selecting products for self and financial management authority in the families.

PRODUCT SELECTION FOR FAMILY AND FAMILY MEMBERS

Here, an effort is made to evaluate the role of women in selecting the product for family and family members.

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DISTRIBUTION OF RESPONDENTS BASED ON LIKELIHOOD OF SELECTION OF PRODUCTS FOR FAMILY & FAMILY MEMBERS

PRODUCTS FOR FAMILY & FAMILY MEMBERS	VERY UNLIKELY	UNLIKELY	UNCERTAIN	LIKELY	VERY LIKELY	TOTAL
Clothing	23 (3.8)	19 (3.2)	79 (13.2)	208 (34.7)	271 (45.2)	600 (100.0)
Footwear	19 (3.2)	47 (7.8)	100 (16.7)	291 (48.5)	143 (23.8)	600 (100.0)
Day to day food pattern	16 (2.7)	28 (4.7)	68 (11.3)	293 (48.8)	195 (32.5)	600 (100.0)
Family energy drinks	26 (4.3)	71 (11.8)	94 (15.7)	244 (40.7)	165 (27.5)	600 (100.0)
Toiletries	19 (3.2)	24 (4.0)	81 (13.5)	307 (51.2)	169 (28.2)	600 (100.0)
TV Serial	37 (6.2)	92 (15.3)	140 (23.3)	167 (27.8)	164 (27.3)	600 (100.0)
Movies	37 (6.2)	91 (15.2)	99 (16.5)	215 (35.8)	158 (26.3)	600 (100.0)
Spending weekend holidays	43 (7.2)	72 (12.0)	121 (20.2)	193 (32.2)	171 (28.5)	600 (100.0)

Source: Primary Data.

TABLE NO 7

From Table 5.7, which reports the distribution of respondents across five different extent of likeliness in selecting the eight different products for family and family members (clothing, footwear, day to day food pattern, family energy drinks like Horlicks, Bournvita, etc., toiletries like toothpaste, bathing soap, shampoo, etc., TV serial, movies, and spending weekend holidays), it can be observed that the number of cases with likely and very likely opinion are more (i.e, more than 50 per cent) for all products of families and family members. Hence, it is concluded that the probability of selecting the products for families and family members are more for women. The statistical significance of the above findings is explored by one sample t-test along with descriptive analysis of the respondents' opinion. Table 5.8 is depicted with the results of the analysis.

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EXTENT OF PRODUCT SELECTION FOR FAMILY AND FAMILY MEMBERS

PRODUCTS FOR FAMILY & FAMILY MEMBERS	MEAN	SD	95% CONFIDENCE INTERVAL		T-VALUE
			LOWER	UPPER	
Clothing	4.14	1.02	4.06	4.22	15.44**
Footwear	3.82	0.99	3.74	3.90	7.95**
Day to day food pattern	4.04	0.93	3.96	4.11	14.18**
Family energy drinks	3.75	1.11	3.66	3.84	5.55**
Toiletries	3.97	0.93	3.90	4.05	12.44**
TV Serial	3.55	1.21	3.45	3.65	0.98
Movies	3.61	1.20	3.51	3.71	2.25*
Spending weekend holidays	3.63	1.21	3.53	3.73	2.59**

Source: Primary data; *Significant at 5% level; **Significant at 1% level

TABLE NO 8

As depicted in the table, the mean opinion scores, ranging from 3.55 to 4.14, are in 'likely' range for all products. The lower bound 95 per cent CI values for products except for TV serial are also in likely range. The upper bound 95 per cent CI values for all products are very well beyond 3.50, the starting value for 'likely' range. From lower and upper bound 95 per cent CI values, it can be said with 95 per cent confidence that the majority of the women in whole population in the study area are likely to select the products for family and family members. The one sample t-test values are significant for all products except for TV serial. This further indicated that the selection of all products except TV serial for family and family members is significantly highly likely for women in the study area.

CANONICAL CORRELATION FUNCTIONS BETWEEN SELECTION OF PRODUCTS FOR FAMILY & FAMILY MEMBERS AND SOCIO-DEMOGRAPHIC FACTORS

CANONICAL FUNCTION	CANONICAL R	CANONICAL R^2 (EIGEN VALUE)	CHI-SQUARE	DF	P-VALUE	WILKS' LAMBDA
0	0.3439	0.1183	239.63	80	0.0000	0.6660
1	0.3126	0.0977	165.42	63	0.0000	0.7553
2	0.2695	0.0726	104.82	48	0.0000	0.8371
3	0.1887	0.0356	60.37	35	0.0049	0.9027
4	0.1784	0.0318	39.00	24	0.0274	0.9360
5	0.1493	0.0223	19.94	15	0.1743	0.9667
6	0.1010	0.0102	6.66	8	0.5740	0.9888
7	0.0322	0.0010	0.61	3	0.8939	0.9990

Source: Primary Data

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TABLE NO 9

The composite effect of socio-demographic factors on the selection of products for family and family members is explored by canonical correlation analysis. The results of the analysis are given in Tables 1.9 and 1.10. From the Table 1.9, in which the canonical correlation functions produced by the analysis are reported, it is evident that first five canonical functions out of eight obtained from the analysis are significant at required levels. However, the canonical correlation is more than 20 per cent for first (R = 0.3439), second (R = 0.3126) and third (R = 0.2695) functions, in turn indicating that only first three functions are valid in identifying significant relationship between two sets of variables. The canonical loadings of each variable in two sets with three valid canonical functions are shown in Table 1.10 exposing the relationship between variables in both sets. As shown in the table, the first function is loaded negatively by TV serial followed by clothing in the criterion set whereas it is highly and positively loaded by educational status followed by family income, educational status of the husband and employment status of self. The spousal employment status and age is also loaded negatively at substantial level with first function. With second function, TV serial (negatively), clothing (positively), footwear (positively) and movies (negatives) in the criterion set, and occupation of husband and area of residence (positively) in predictor set are loaded. Similarly, the loadings of toiletries followed by day to day food pattern in the criterion set and the loadings of educational status of husband followed by educational status of women (all positive) and age of women (negative) in the predictor set are correlated with third function.

CANONICAL LOADINGS OF SELECTED PRODUCTS FOR FAMILY & FAMILY MEMBERS AND SOCIO-DEMOGRAPHIC FACTORS

VARIABLES	CANONICAL FUNCTION		
	FIRST	SECOND	THIRD
CRITERION VARIABLES SELECTED PRODUCTS FOR FAMILY & FAMILY MEMBERS			
Clothing	-0.5073	0.5711	-0.0691
Footwear	-0.1408	0.4684	0.3483
Day to day food pattern	-0.1039	0.2186	0.4239
Family energy drinks	0.1788	-0.2021	0.3003
Toiletries	-0.2236	-0.0143	0.6107
TV Serial	-0.6685	-0.5855	0.1801
Movies	0.1322	-0.4475	-0.2288
Spending weekend holidays	0.1362	-0.3547	0.1959
PREDICTOR VARIABLES SOCIO-DEMOGRAPHIC FACTORS			
Age	-0.4475	0.1177	-0.4050
Educational Status	0.8310	0.1430	0.4011
Employment Status of Self	0.4746	0.3038	-0.2906
Age of Husband	-0.5480	0.2568	-0.2687
Educational Status of Husband	0.6134	-0.1920	0.5927
Occupation of Husband	0.1083	0.5471	0.2667
Family Income	0.6429	0.1760	-0.1714
Spousal Employment Status (Both Employed)	-0.4656	-0.2781	0.2200
Family Type	-0.3776	0.2990	0.3429
Area of Residence (Location)	0.0231	0.5004	0.2793

Source: Primary Data

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TABLE NO 10

With this picture, it is found that the selection of TV serial and also the selection of clothing for family and family members in the family is likely to be less among women in the younger age in the families where both are employed if their educational status is high, family income is more, educational status of their spouses is high. It is also found that selection of clothing and footwear for family and family members is more likely and selection of TV serial and movies is less likely among the women living in non-rural areas if the husband is government employee or self-employed. It is further found that the selection of toiletries as well as day to day food pattern is more likely among the women in the younger age in the families where educational status of husband as well as the educational status of self is high.

An extent of close knit with husband on women's involvement in selection of products for family and family members is analyzed by one-way ANOVA and the results of the analysis are exhibited in Table 1.11. According to the table, the mean opinion scores for women groups with all four extent of close knit for clothing, footwear, day to day food pattern and family energy drinks are all in 'likely' range (mean value is 3.55 minimum and 4.36 maximum) and do not differ significantly (F values are insignificant). However, a significant difference in the mean likely levels in respect of selection of toiletries (F value = 7.92, $p < 0.01$), TV serial (F value = 9.73, $p < 0.01$), Movies (F value = 19.12, $p < 0.01$) and spending weekend holidays (F value = 5.37, $p < 0.01$) vary significantly by extent of close knit with husband.

SELECTION OF PRODUCTS FOR FAMILY & FAMILY MEMBERS – COMPARISON BY EXTENT OF CLOSE-KNIT WITH HUSBAND (SPOUSE)

PRODUCTS FOR FAMILY & FAMILY MEMBERS	NOT VERY CLOSE KNIT	SOMEWHAT CLOSE KNIT	VERY CLOSE KNIT	EXTREMELY CLOSE KNIT	F VALUE
Clothing	4.18	4.07	4.18	4.13	0.25
	(0.75)	(1.04)	(1.07)	(0.96)	
Footwear	3.64	3.90	3.77	3.85	0.62
	(1.29)	(0.93)	(0.97)	(1.01)	
Day to day food pattern	4.36	4.03	3.94	4.14	2.34
	(0.50)	(0.73)	(1.01)	(0.91)	
Family energy drinks	4.00	3.55	3.75	3.83	1.68
	(0.63)	(1.15)	(1.12)	(1.10)	
Toiletries	3.82	4.20	3.77	4.11	7.92**
	(0.40)	(0.66)	(0.95)	(0.98)	
TV Serial	3.45	3.56	3.27	3.85	9.73**
	(1.13)	(1.21)	(1.12)	(1.26)	
Movies	3.45	3.27	3.34	4.05	19.12**
	(1.13)	(1.30)	(1.20)	(1.03)	
Spending weekend holidays	3.36	3.27	3.59	3.83	5.37**
	(1.57)	(1.32)	(1.26)	(1.06)	

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

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TABLE NO 11

In sum, it is found that extent of likelihood of selecting cosmetic (toiletries) and entertainment items among women in the household is significantly determined by the extent of their close knit with spouses whereas selecting wares and wears as well as selecting the food and health drinks among women are more likely and independent of the extent of close knit with spouses.

Table 1.12 presents the results of F-test comparing the women's involvement in selecting products for family and family members is compared by financial management authority in the families.

SELECTION OF PRODUCTS FOR FAMILY & FAMILY MEMBERS – COMPARISON BY FINANCIAL MANAGEMENT RESPONSIBILITY

PRODUCTS FOR FAMILY & FAMILY MEMBERS	SELF	HUSBAND	IN-LAWS	BOTH SELF & HUSBAND	F VALUE
Clothing	4.20	4.06	4.00	4.42	3.19*
	(1.18)	(0.97)	(0.79)	(0.90)	
Footwear	3.77	3.80	4.10	3.94	1.13
	(1.09)	(0.93)	(0.55)	(1.07)	
Day to day food pattern	4.05	4.11	3.70	3.81	3.29*
	(1.01)	(0.87)	(1.22)	(0.94)	
Family energy drinks	3.61	3.89	3.40	3.51	4.60**
	(1.26)	(0.99)	(1.05)	(1.27)	
Toiletries	3.98	4.03	4.00	3.72	2.41
	(0.88)	(0.85)	(1.12)	(1.20)	
TV Serial	3.64	3.52	3.50	3.51	0.36
	(1.23)	(1.23)	(1.32)	(1.11)	
Movies	3.20	3.74	3.40	3.82	8.27**
	(1.32)	(1.16)	(1.05)	(1.03)	
Spending weekend holidays	3.44	3.72	3.30	3.65	2.36
	(1.33)	(1.17)	(1.45)	(1.08)	

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

TABLE NO 12

As per the table, the selection of clothing for family and family members among women is likely in families regardless of person responsible for financial management. However, extent of likelihood in selecting the clothing is significantly more among women in families where the financial management is looked after by both husband and wife (F value = 3.19, $p < 0.05$). Similarly, extent of likeliness in selecting the day to day food pattern and family energy drinks is significantly

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higher among women in the families where financial management is under the control of husband (F value of 3.29 for day to day food pattern and 4.60 for family energy drinks is significant at 5 per cent and 1 per cent level respectively).

Regarding the selection of movies, women in families with financial management by self and in-laws are uncertain and differ significantly from women from families where finances are managed by husband as well as by both husband and wife who are likely to select the movies (F value = 8.27, $p < 0.01$). With regard to other products, there is no significant difference in the extent of likelihood across groups. On the whole, it is found that the selection of clothing, day to day food patterns, family health drinks and also the selection of movies is significantly related to financial management authority of the families.

DURABLE PRODUCT SELECTION CRITERIA OF WOMEN

The criteria, such as rarity, fashionability, uniqueness, brand, country of origin, colour, appearance, easy of use, easy of care and durability, considered mostly by the women during purchase of durable products, is evaluated here. Table 1.13 reports the distribution of respondents based on their level of agreement with 10 selection criteria.

DISTRIBUTION OF RESPONDENTS BY DURABLE PRODUCT SELECTION CRITERIA

DURABLE PRODUCT CRITERIA	STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE	TOTAL
Rarity	83 (13.8)	112 (18.7)	179 (29.8)	153 (25.5)	73 (12.2)	600 (100.0)
Fashionability	51 (8.5)	93 (15.5)	106 (17.7)	239 (39.8)	111 (18.5)	600 (100.0)
Uniqueness	31 (5.2)	54 (9.0)	128 (21.3)	199 (33.2)	188 (31.3)	600 (100.0)
Brand	9 (1.5)	31 (5.2)	73 (12.2)	288 (48.0)	199 (33.2)	600 (100.0)
Country of Origin	54 (9.0)	82 (13.7)	101 (16.8)	233 (38.8)	130 (21.7)	600 (100.0)
Colour	22 (3.7)	31 (5.2)	80 (13.3)	225 (37.5)	242 (40.3)	600 (100.0)
Appearance	27 (4.5)	47 (7.8)	94 (15.7)	222 (37.0)	210 (35.0)	600 (100.0)
Easy of use	11 (1.8)	38 (6.3)	78 (13.0)	187 (31.2)	286 (47.7)	600 (100.0)
Easy of care	21 (3.5)	29 (4.8)	85 (14.2)	168 (28.0)	297 (49.5)	600 (100.0)
Durability	10 (1.7)	45 (7.5)	75 (12.5)	226 (37.7)	244 (40.7)	600 (100.0)

Source: Primary Data.

TABLE NO 13

From the examination of the table, it is evident that the number of cases with agree and strongly agree opinion is 37.77 per cent for rarity, 58.33 per cent for fashionability, 64.50 per cent for uniqueness, 81.20 per cent for brand, 60.50 per cent for country of origin, 77.80 per cent for colour, 72.00 per cent for appearance, 78.90 per cent for easy of use, 77.50 per cent for easy of care and 78.40 per cent for durability. Only in respect of rarity, the percentage of agree and strongly agree cases are less than 50 per cent. This shows that the women have not given importance to rarity of the product they intend to purchase. From the percentage values, it is found that brand is the mostly considered selection criteria

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followed by easy of use, durability, colour, easy of care, appearance, uniqueness, country of origin and fashionability. It is further found that the women have given almost equal importance to easy of use, durability, colour, easy of care and appearance while selecting the durable products.

Table 1.14 is reported with the mean level of agreement along with 95 per cent CI and one-sample t-test results. From the table, it can be seen that the mean value of 2.98 for rarity, 3.48 for fashionability and country of origin is in uncertain range. The lower bound 95 per cent CI values are also in the uncertain range for these three selection criteria. However, the level of agreement is significantly less than 3.50 for rarity (t value = -10.60, $p < 0.01$) whereas it is almost equal to 3.50 in respect of other two selection criteria (t values are insignificant). This has indicated that the women somewhat consider the fashionability and country of origin while selecting the durable products.

EXTENT OF DURABLE PRODUCT SELECTION CRITERIA OF WOMEN

Durable Products Criteria	Mean	SD	95% Confidence Interval		t-Value
			Lower	Upper	
Rarity	2.98	1.21	2.88	3.07	10.60**
Fashionability	3.48	1.20	3.39	3.58	0.34
Uniqueness	3.78	1.14	3.68	3.87	5.92**
Brand	4.10	0.87	4.03	4.17	16.95**
Country of Origin	3.48	1.22	3.38	3.58	0.40
Colour	4.08	1.03	4.00	4.16	13.82**
Appearance	3.90	1.11	3.81	3.99	8.79**
Easy of use	4.16	1.01	4.08	4.24	16.13**
Easy of care	4.18	1.04	4.09	4.26	15.93**
Durability	4.12	0.97	4.04	4.19	15.57**

Source: Primary data; **Significant at 1% level

TABLE NO 14

Regarding the criteria other than rarity, fashionability and country of origin, the women give more importance while selecting the durable products (Mean values are in agree range and t values are significant at 1 per cent level). From the ordering the selection criteria by mean values, it is found that the women tend to give much importance to easy of care, easy of use, durability, brand and colour and then to appearance and uniqueness. The influence of women's socio-demographic characteristics on their selection criteria for durable products is investigated by comparing the opinion levels across categories by age, education, family income, spousal employment, family type, location and employment status. Table 1.15 shows the results of the analysis comparing the respondents' opinion about selection criteria across categories by age.

DURABLE PRODUCT SELECTION CRITERIA AND AGE OF WOMEN

DURABLE PRODUCTS CRITERIA	AGE (IN YEARS)				F VALUE
	<= 25	26 – 35	36 – 45	> 45	
Rarity	3.21 (1.26)	2.98 (1.14)	2.87 (1.21)	3.31 (1.32)	3.38*
Fashionability	3.27	3.41	3.63	3.38	2.64*

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	(1.21)	(1.15)	(1.21)	(1.27)	
Uniqueness	3.69 (1.11)	3.78 (1.16)	3.78 (1.17)	3.85 (1.05)	0.33
Brand	4.05 (0.87)	4.03 (0.87)	4.09 (0.96)	4.10 (0.81)	0.18
Country of Origin	3.74 (1.18)	3.31 (1.19)	3.59 (1.26)	3.31 (1.23)	4.33**
Colour	3.82 (1.06)	4.06 (1.03)	4.23 (0.97)	4.05 (1.10)	4.36**
Appearance	3.99 (1.08)	3.87 (1.11)	3.84 (1.12)	3.98 (1.10)	0.72
Easy of use	4.12 (0.99)	4.13 (0.97)	4.22 (1.04)	4.23 (1.01)	0.48
Easy of care	4.11 (1.04)	4.19 (0.97)	4.15 (1.17)	4.11 (1.05)	0.21
Durability	3.88 (1.13)	4.05 (0.98)	4.25 (0.85)	4.15 (0.98)	3.93**

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

TABLE NO 15

As per the table, considering the rarity of the product as selection criteria is uncertain and extent of such uncertainty is significantly more among the women aged between 26 – 45 years (F value = 3.38, $p < 0.05$). Regarding consideration of fashionability, those in the age group of 36 – 45 years have expressed their agreement and differ significantly from other three age groups who are uncertain with this criteria (F value = 2.64, $p < 0.05$). In respect of country of origin, the younger women (<= 25 years of age) and women aged between 36-45 years have expressed their agreement considered while other two age groups have expressed uncertainty. The level of agreement differ significantly across age group in respect of considering country of origin (F value = 4.33, $p < 0.01$). Regarding consideration of colour, all four age group of women have expressed their agreement, but the degree of agreement is significantly more among women in the age group of 36 – 45 years (Mean = 4.23, F value = 4.36, $p < 0.01$). The same scenario as above is visible regarding consideration of durability also. In sum, it is found that age of the women tend to play a significant role in considering rarity, fashionability, country of origin, colour and durability as selection criteria whereas the role of age is unimportant regarding easy of care, easy of use, appearance, brand and uniqueness as selection criteria for durable products.

Table 1.16 shows the results of F-test comparing the respondents' opinion about selection criteria across categories by educational levels. From the table, it can be observed that F values are significant only for colour (F value = 3.14, $p < 0.05$) and durability (F value = 2.99, $p < 0.05$). This shows that educational status of the women is an important factor only in selecting colour and durability of durable products.

8. CONCLUSION

Product selection and product preference criteria along with brand awareness and brand selection skill towards household consumer durable products among women in the study area is analyzed in

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this chapter. It is elicited from the results of the analysis that selection of wear and wares for self is highly likely whereas the selection of cosmetic items for self is uncertain among women in the study area. At the same time, the younger women with higher level of education are more likely to select cosmetic items for self than that of footwear and clothing if the educational status of their spouses is also higher and family income is more.Similarly, the selection of products for family and family members is also highly likely among women. With regard to selection of durable products, most of the women tend to give more importance to easy of care, easy of use, durability, brand and colour and then to appearance and uniqueness. The importance given to the above criteria among women is independent of their socio-economic status. However, the women who give more importance to 'easy of use' while selecting the durable products are employed whereas the women who considered brand prior to fashionability while selecting the durable products are unemployed women / housewife. Regarding brand awareness and brand selection skill of women, it is concluded that their awareness and brand selection skill is mainly based on four major aspects of durable products, viz., "Easy maintenance and convenient use", "packaging design and advertisements", "durability and serviceability" and "quality and warranty". The women are having high awareness and able to select their brand of durables products in terms of "quality & warranty" first and then in respect of "easy of maintenance and convenient use" prior to "durability and serviceability" and "packaging design and advertisements". From relating brand awareness and brand selection skill with socio-demographic variables, it is concluded that the aged women married to less educated are highly aware of quality & warranty but less aware of packaging design & advertisements of their brand durable products. Between unemployed and employment women, the brand awareness and brand selection skill is significantly higher among employed. The women who are well aware and able to select their brand of durable products based on easy of maintenance and convenient use are likely to be employed. When brand awareness and brand selection skill is related with personality traits, it is identified that the women, who are courageous to face the difficulties and having the tendency of helping others and having things their own way, have high awareness and selection skill towards their brand of durable products in terms of "Easy of maintenance and convenient use". Similarly, decision making styles of the women are also important in determining the brand awareness and brand selection skill. From the inferences of the results obtained from relating brand awareness and brand selection skills with decision making styles, it is concluded that the women who control of things even while taking decisions in hurry and working out all pros and cons with deliberate logical process is likely to have more awareness and selection skill towards their brand durable products through packaging design & advertisements. It is further concluded that the women who enjoy making decisions after consulting family members tend to possess high brand awareness and brand selection skill for their durable products first based on "easy of maintenance and convenient use" and then based on "quality & warranty" as well as "durability and serviceability". In sum, it is concluded that the women are able to select the products for self as well as for family and family members. They have used easy of use, easy of care, durability and quality as criteria for selecting the durable products. The brand awareness and brand selection skill for durable products is mainly based on quality & warranty and easy of maintenance and convenient use. The personality traits and decision making styles of women are also important factors in influencing the brand awareness and brand selection skills.

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