# CONSIDERATIONS INFLUENCING THE BEHAVIOUR OF POLICY-HOLDERS: A STUDY OF DEMOGRAPHIC VARIABLES

#### Sunita Mehla

Associate Professor, Department of Business Management, CCS Haryana Agricultural University, Hisar. e-mail: sunitamehla02@gmail.com

#### **Suman Ghalawat**

Assistant Professor, Department of Business Management, CCS Haryana Agricultural University, Hisar e-mail: sahrawat\_s@yahoo.com

#### Sanjay Singh

Training & Placement Officer, GJUS&T, Hisar e-mail: sanjaysingh.gju@gmail.com

#### **ABSTRACT**

People in India are more concerned about future rather than the present and aspire to have a better and secured future, which can be accomplished by purchasing right type of insurance policy. The present paper has empirically investigated three objectives: first, to find the factors that influence the decision of policyholders regarding purchase of insurance policy, second to determine the relationship between demographic variables and factors affecting the perception of policyholders towards insurer companies and third to develop a model framework for considerations influencing the decision regarding insurance policy. The study is mainly primary data based with a sample of 200 respondents from Hisar district of Haryana state and applied statistical tools of factor analysis, ANOVA and discriminant analysis to achieve the objectives of the study. The results of factor analysis reveals eight factors named as: contentment with affiliation to company, conform to expectations of customers, consideration to grievances, services, terms and conditions, features of policy, fulfilment of promise and secure investment. Further, the factors are significantly different across gender, marital status and education. The Discriminant analysis reveals that the respondents are more satisfied with the factors, contentment with affiliation to company followed by consideration to grievances and terms and conditions.

**Keywords:** Insurance, Factor analysis, Demographic variables, ANOVA and Discriminant analysis

#### 1. Introduction

The insurance industry is faced with growing internationalization, globalization and consequently with increased competition. This makes insurance providers to face the challenges in terms of creation of new products and services that match the evolving demand from their policyholders. Indian policyholders have immense persuasion of sentiments and prudence on their buying decisions i.e. they identify threats and risks, recognize the requirement of financial and psychological safety and security, evaluate and appraise a range of insurance schemes and then decide to pay for insurance services. Therefore, the information about awareness, attitude and expectations of policy holders with regard to insurance services are of enormous significance to the insurers, because if they know which features of their products and services are judged as most important by the customers, they can develop appropriate strategies for

improvement in current features of the policies, which can reinforce the bond with their customer. The consumer in this immense competition demands something always more than their expectations and so it is necessary to develop such a mechanism that helps the service providers to have access to these changing needs, demands and expectations of the insured. Customer survey by Prudential have identified that customer want more responsive agents with better contact, personalized communications from the insurer, accurate transactions, and quickly solved problems (Pointek, 1992). It is therefore not surprising that measurement of service quality has generated, and continues to generate, a lot of interest in the industry (Wells and Stafford, 1995).

The investment preference of the insurance consumers is influenced by various demographic factors such as age, gender, occupation, qualification, income size etc. Demographic factors are those factors which has got the maximum of its effect in the purchase decision of the insurance product. Considering this, it is very important to analyze and understand the association between demographics of individuals and their satisfaction from services offered by insurance companies.

#### 2. Review of Literature

There are a number of studies conducted nationally as well as internationally to gauge the satisfaction amongst policy holders from insurance services. Forbes (2000) emphasized on delivery of excellent customer service in the insurance industry and stressed upon building products and also the system to deliver it. Tripathy (2004) conducted a study based on survey of 225 respondents in Orissa by using multidimensional scaling technique. The paper suggested that to achieve greater insurance penetration, private companies have to create more vibrant and competitive industry with greater efficiency, choice of products and value for the customers. Bhat, (2005) found that the penetration of insurance critically depends on the availability of insurance products and services. He further explained that huge untapped market, proliferation of schemes, new product innovations, perception of insurable risks of Indian consumers, competitive pressures arising from integration of bank and insurance, impact of information technology and the role of insurance industry in financial services industry are some of the forces which shape the competitive structure of the insurance industry. Sandhu and Bala (2006) revealed that the life insurance sector has gained greater importance over the period especially in the postliberalization era. It was emphasized that in the changed scenario, the aspects like role of information technology, bank assurance and customer relationship management has become highly imperative for the life insurance sector. Banga (2007) revealed that the same product may not be able to give full satisfaction to different categories of customers. Therefore, while planning the product due consideration should be given to policy holders' choice. The study also revealed that employees and agents working with insurance companies are not properly trained, resulting in slow business. Moreover,

the present policies of insurance organizations are unable to create public awareness. Bodla and Verma (2007) studied the buyers' behaviour regarding life insurance policies in the rural areas of Haryana. The study found that the respondents belonging to the age group 31-40 years dominate the rural insurance. Market agents are the most important source of information and motivation as the people take a policy that is suggested by an agent. Money-back policy is most preferred in the rural areas followed by Jeevan Anand and Endowment Policy. The results also revealed that, the rural people have less faith in private insurers, the women segment is still untapped in rural areas and the role of advertisements is still not up to the mark in motivating rural people to buy insurance policies. Khurana (2008) conducted a survey and revealed that the customers prefer public sector insurance companies to the private sector and the main purpose of buying an insurance policy is the protection. The survey also showed that only 6 per cent of the respondents having policies of LIC faced some problems. On the other hand, as high as 56 per cent of the respondents were ready to buy new insurance plans from the same company. Ramanathan (2011) empirically documented customer perceived service quality, awareness level, and satisfaction level of customers for life insurance industry by using a six dimensional hierarchical structure. The study found that success of insurance depends on understanding the social and cultural needs of the target population, and matching the market segment with the suitable intermediary segment.

Thus, the review of literature revealed that there is still much scope to examine the relationship between insurers and insured at different point of time and in different geographical areas, which will help the researchers to derive some conclusion regarding the satisfaction among insured from the services rendered by insurers. The topic therefore needs to be reinvestigated.

#### 3. Objectives of the Study

- i. To investigate the factors that influences the decision of policyholders regarding insurer companies.
- To determine the relationship between demographic variables and factors affecting the perception of policyholders towards insurer companies.
- To develop a model framework for considerations influencing the decision regarding insurance policy.

#### 4. Hypothesis Formulation

The demographic variables affect various factors differently. Hence, following null hypothesis have been formulated:

H0 (1): There is no significant relationship between gender and factors affecting the perception of policyholders towards insurers.

H0 (2): There is no significant relationship between marital status and factors affecting the perception of policyholders towards insurers.

H0 (3): There is no significant relationship between education and factors affecting the perception of policyholders towards insurers.

## 5. Research Methodology

Present study is an empirical research to examine the satisfaction among policy holders regarding the services offered by insurance companies. The study is based on the sample of 200 respondents from Hisar district of Haryana state. Convenient sampling method is adopted for collecting the sample. The questionnaire is designed with two sections: section 1 captures demographic information for the purpose of describing the sample and it consist of questions pertaining to age, gender, marital status, educational qualification, monthly savings and monthly income. Section 2 has questions relating to variables that measure the response of insured with regard to the services offered by insurers. All the 24 questions from section 2 of the questionnaire used a Likert scale ranging from 1 =Strongly Disagree to 5 =Strongly Agree. The study employs factor analysis by using SPSS version 13.0, to find out the underlying factors from the collection of apparent important variables. Factor analysis trims down the

total number of variables into fewer factors and also shows the correlation between the factors (Nargundkar, 2005). Further, the paper makes use of one way analysis of variance (ANOVA) to study the association between demographic variables and the factors. Mean score was calculated for factors where significant relationship between independent variable (demographic) and dependent variables (factors) was observed. Secondary data is collected through research papers, journals, websites and books.

The demographic description of the respondents (Table 1), unveils that the respondents have a relatively higher proportion (70.5%) of males as compared to 29.5% of females. The sample respondents are mostly in the age group of 35-45 years (31.5%) followed by 25-35 years (23%). Further, a majority of the respondents (73%) were married. The respondents were predominantly post-graduates (50%) followed by graduates (32.5%) implying that sample comprises of high literate respondents. The sample had a majority of respondents (38%) earning between Rs 35,000-55000. The table also depicts that 40% of respondents save up to Rs 5000-15000. Lastly, majority insurers (66.5%) have taken insurance policies from public sector insurance companies.

Table 1.1: Demographic Profile of the Respondents

S. No.	Demographic Profile	Frequency	Percent
Sex	Male	141	70.5
	Female	59	29.5
Age	Below 25	36	18.0
	25 - 35	46	23.0
	35-45	63	31.5
	45-55	33	16.5
	More than 55	22	11.0
Marital Status	Married	146	73.0
•	Unmarried	54	27.0
Education Level	Diploma	15	7.5
	U.G	20	10.0
	Graduate	65	32.5
	P.G	100	50.0
Monthly Saving	Below 5000	52	26.0
	5001-15000	81	40.5
	15001-25000	39	19.5
	25001-35000	22	11.0
	More than 35000	6	3.0
Monthly Income	Below 15000	17	8.5
	15001-35000	33	16.5
	35001-55000	76	38.0
	55001-75000	37	18.5
	More than 75000	37	18.5
Type of Insurance Company	public sector	133	66.5
1 ,	Private sector	67	33.5

## Table 1.2: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.721
Bartlett's Test of Sphericity	Approx. Chi-Square	1689.019
·	Df	276
	Sig.	0.000

## **Table 1.3: Reliability Statistics**

Cronbach's Alpha	0.750
Cronbach's Alpha based on Standardized Items	0.734
No. of Items	31

#### 6. Result and Discussions

In the present study, the researcher applied Kaiser-Meyer-Olkin (KMO) test and Bartlett's Test of Sphericity as pre-analysis verification for judging the suitability of the entire sample which is a pre-requisite of factor analysis. Table 1.2 shows the value of Kaiser-Meyer-Olkin (KMO) and the Bartlett's Test of Sphericity as 0.721 and 1689.019 respectively, which are statistically significant at 1% level of significance. Thus, it indicates that the sample is suitable for factor analytic procedures (Hair et al., 2006). Table 1.3 presents the overall reliability of this construct with Cronbach's coefficient alpha having the value of 0.750, which is highly significant.

#### **6.1** Factor Analysis:

The survey data from the questionnaire is analyzed using factor analysis in order to summarize the 24 statements into smaller sets. First of all, the data is subjected to principal component analysis, where these 24 statements are reduced to eight principal components through varimax rotation (Table 1.4). The statements with factor loading of 0.40 or higher are clustered together to form separate constructs, as recommended by Hair et al., 2006. Here, the researcher has considered only those factors as significant, whose eigenvalues is more than one. Two statements are dropped due to factor loading of less than 0.40 which also reduces factors from eight to seven. Eight factors have been extracted which accounts for 63.113 percent of variance. The percentages of variance explained by factor 1 to 8 are 21.712, 8.030, 7.142, 6.387, 5.701, 5.259, 4.618 and 4.264 percent respectively. The communalities shown in the Table explains the amount of variance in the variable that is accounted by the factors taken together. Large communalities indicate that a large amount of variance has been extracted in a variable by the factor solution. The reliability coefficients for seven factors ranged from 0.272 to 0.777 (Table 1.4) indicating a fair to good internal consistency among the items of each dimensions.

The study shows that eight factors have been given appropriate names according to the variables that have been loaded on each factor. However, the factor 5 'terms and conditions' is dropped because it has single statement with factor loading of less than 0.40. Each of these factors is discussed below:

Factor 1: Contentment with affiliation to Company: The rotated matrix has revealed that respondents have perceived this factor to be most essential, with highest explainedable variance of 21.712 %. Seven out of twenty four statements regarding satisfaction among policyholders with their relationship to Insurer Company load on significantly to this factor.

This factor has been named as contentment with affiliation to company as it include statements which depicts that policy holders are contented with the services and competitive products offered by insurers and Moreover, they agree for the supportive role of agents in informing and helping in decision making about the policies best suited to their need.

Factor 2: Conform to Expectations of Customers: The next noteworthy factor accounts for 8.030 % of the variance. Five statements load high on to this factor. The factor has been named as conform to expectations of customers as the majority respondents have established through loaded statements that their expectations are taken care of by their insurance companies.

Factor 3: Consideration to Grievances: This is the next significant factor which accounts for 7.142 % of the variance. Three features load high on to this factor. The factor has been named as consideration to grievances as this includes the statements that are interrelated to managing the problems or complexities faced by the policy holders.

**Factor 4: Services:** Three type of features load on to this factor and they together account for 6.387 % of variance. The respondents agree with uncomplicated and hassle-free filling-up of documents and further, they feel at ease with on-line payment of premium, as they can send their premium any time and any where at the click of the mouse.

Factor 5: Terms and Conditions: This factor includes single statement and accounts for 5.701 % of variance. This factor has been dropped as it includes only one variable with factor loading of less than 0.40.

Factor 6: Features of Policy: This is a crucial factor, which accounts for 5.259 % of variance. The factor emphasizes upon hiding essential information at the time of issue of the policy to catch the attention of the customers and also about sending of reminders at the time of installment payment.

**Factor 7: Fulfillment of Promise:** The factor accounts for 4.618 % of variance with a load of single statement, highlighting the execution of declarations towards policy.

Factor 8: Secure Investment: This factor includes single statement and accounts for 4.264 % of variance. The variable considered in this factor is worth mentioning from investment perception. There is undeniably no risk in insurance as the basic objective of insurance is to cover up the risk of loss.

**Table 1.4: Naming of factors** 

Factor Name	Factor Statement	Factor	Cronbach	Eigen	%age of
F1: Contentment	A3: Provides services on time	Loading	Alpha Value		Variance
with Affiliation	A5: The agents are cooperative & friendly	0.686	0.777	5.211	21.712
to Company	A10: Operating hours and days of the branches	0.639	*		
	are convenient	0.615			
	A24: Agent's awareness about various policies	0.593			
	according to your needs & requirements	0.393			
	A2: Your insurance company provides better	0.554	-		
	services & competitive products	0.554			
	A17: You are satisfied with relationship to company	0.547			
	A4: Satisfied with the services provided by your	0.522			
	insurance company	0.522			
F2: Conform to	A20: I would like to purchase more policies from	0.697	0.670	1.927	8.030
Expectations of	same insurance company	0.057	0.070	1.721	0.050
Customers	A18: Company is able to fulfill expectation of customers	0.676			
	A11: Your insurance company provides information	0.659	-		
	about innovation in their product	0.023			
	A19: This is only company I want to associate myself	0.594			
-	A21: I suggest my friends & family to purchase policy	0.558			
	from same company				
	A6: The agent respond promptly to your request	0.099*			
F3: Consideration	A14: Pay personal attention on grievances	0.772	0.649	1.714	7.142
to Grievances	of customers				
	A15: Understand customer's financial needs	0.736			
	A13: Provide hassle free settlements of claims	0.624			
F4: Services	A8: Speedy documentation & process at the time of	0.809	0.507	1.533	6.387
	issue of policy			1.000	
	A12: Your insurance company provides on-line	0.608			
	payment services				
ł	A9: Location of branch office are convenient	0.601			
F5: Terms and	A1: Are you aware about terms & conditions of policy	0.172*		1.368	5.701
Conditions					
	A7: Your insurance company provide proper reminder	0.714	0.272	1.262	5.259
	of installments				
	A23: Does your insurance company hide important	0.514			
-	information at the time of issue of policy				
	A16: Fulfills its promise towards policy	0.633	-	1.108	4.618
of Promise	A10. I diffin to promise to di de pener				
	A22: Investment in Life Insurance is more secure	0.825	-	1.023	4.264
	than stock market	210-0			

Note: \* indicates factor loading of less than 0.40 and therefore can be deleted from the variables

## **HSB Research Review**

Objective 2: To Determine the Relationship Between Demographic Variables and Factors Affecting the Financial Decisions.

# Effect of Gender on Factors:

Table 2.1 displays that the null hypothesis  $H_0(1)$  is partially rejected as it discloses that there is a significant difference between the views of male and female relating to one factor i.e. consideration to grievances. From the descriptive analysis, it is evident that the females have assigned more significance to this factor. This may be because the females assign more priority to hassle-free and peaceful settlements of claims and feel good when their complaints are resolved with personal attention. Moreover, they also like the behavior of insurance agents, who give due consideration to the financial needs and requirements of the policyholders.

#### Effect of Marital Status on Factors B.

Table 2.2 states that the null hypothesis  $H_0$  (2) is rejected as marital status is found to be significantly related to the four factors i.e. conform to expectations of customers, consideration to grievances, terms and conditions and fulfillment of promise. Married respondents believe that the factors such as, conform to expectations of customers, consideration to grievances, terms and conditions are significant factors. This may be for the reason that married respondents have more responsibility towards their family and are more worried about their future protection, which can be fulfilled through investment in insurance policy. Additionally, they would like to take decision on policy that meets their future expectations of financial loss. Thus, the married as compared to unmarried assign higher significance to the variables such as, awareness about terms and conditions of policy, right type of policy suitable for their future requirements. At the same time, the unmarried respondents are more liable for only one factor i.e. fulfillment of promise, as, they are too young to think about savings and investment in the insurance policies. Besides, they are either student or in the early stage of career, where they don't have much money to save and whatever they earn they tend to spend that amount.

#### Effect of Education on Factors: C.

The results of one way ANOVA (Table 2.3) reveals that the null hypothesis H<sub>0</sub> (3) is partially rejected as education has a considerable impact on perception of policyholders regarding their decisions on insurance policies. It can be observed from the result that three factors i.e. contentment

Table 2.1: ANOVA between Gender and Various Factors

TH CEPOPIC	Male	Female	F-value	Significance
FACTORS  Contentment with Affiliation to Company	-0.0485	0.1159	1.125	0.290
	-0.0185	0.0443	.164	0.686
Conform to Expectations of Customers	-0.1814	0.4335	16.999	0.000*
Consideration to Grievances	0.0552	-0.1321	1.464	0.228
Services Terms and Conditions	0.0131	-0.0314	.083	0.774
Features of Policy	-0.0538	0.1285	1.386	0.240
Fulfillment of Promise	-0.0730	0.1745	2.571	0.110
	-0.0425	0.1015	.863	0.354
Secure Investment	-0.0423	0.1013	.000	

Note: \* shows significant values at 1% level of significance.

**Table 2.2: ANOVA between Marital Status and Factors** 

Factors	Marital Status				
	Married	Unmarried	F-value	Significant	
Contentment with Affiliation to Company	0.0474	-0.1282	1.218	0.271	
Conform to Expectations of Customers	0 .2128	-0.0787	3.390	0.067***	
Consideration to Grievances	0.1058	-0.2861	6.218	0.013**	
Services	0.0191	-0.0518	0.198	0.657	
Terms and Conditions	0.1026	-0.2774	5.835	0.017**	
Features of Policy	-0.0394	0.1066	.841	0.360	
Fulfillment of Promise	-0.1651	0.4465	15.853	0.000*	
Secure Investment	0.0189	-0.0511	.193	0.661	

Note: \*, \*\* and \*\*\* shows significant values at 1%, 5% and 10% level of significance

with affiliation to company, consideration to grievances and fulfillment of promise have significant relationship with respondents of higher education.

The descriptive analysis confirms that the respondents having post graduate degree in education have higher agreement for contentment with affiliation to company and consideration to grievances. This may be due to the fact that higher education makes an individual knowledgeable towards taking decision on investing his hard earned money. Therefore, they confirm

the details of insurance policy and observe the post sale behavior of agents in resolving their problems and grievances. The respondents falling in the category of graduates also believe in fulfillment of promise as more important factor. This highlight about the traits of the respondents that, they take the insurance policies from the companies which fulfills the promises made by them instead of hiding relevant information at the time of issue of policy. The combined results of ANOVA are depicted in summary results of ANOVA (Table 2.4) highlighting the relation between selected demographic variables and derived factors.

# Objective 3: To Develop a Model Framework for Effective Decision Regarding Insurance Policy.

In order to study the contentment among respondents

regarding decision of policyholders towards insurer companies, the present study makes an attempt to develop a model framework through Canonical Discriminant Function where, policy holders' satisfaction relating to insurance policies has been taken as dependent variable and the eight factors are taken as independent variables.

Canonical Discriminant Function coefficients from Table 3.1 yields coefficients of various factors. The result of higher the mean score indicates the higher agreement towards that statement. The Discriminant equation is as follows:

Discriminant Score = 0.858 (Contentment with Affiliation to Company) -0.132 (Conform to Expectations of Customers) + 0.333 (Consideration to Grievances) -0.076 (Services) +0.218 (Terms and conditions) +0.017 (Features of policy) -0.249 (Fulfillment of promise) -0.265 (Secure investment) +0.000 (Constant).

The results of Discriminant Equation presented in Table 3.1 explains that, the respondents are more satisfied with the factors contentment with affiliation to company followed by consideration to grievances, terms and conditions and features of policy.

Further, to validate the results of Discriminant Equation, the Group centroid values (Table 3.2) are used to compare the score of Discriminant equation. The Table explains that, if the

Table 2.3: ANOVA between Education and Factors

FACTORS	Level of Education					
	Diploma	U.G	Graduate	P.G	F-value	Significant
Contentment with Affiliation to Company	-0.2052	0.0093	-0.1174	0.4891	2.144	0.096***
Conform to Expectations of Customers	0.0524	0.2846	0.1047	-0.1328	1.388	0.248
Consideration to Grievances	-0.3516	-0.4753	-0.3472	0.3735	10.772	0.000*
Services	-0.2855	+0.2807	-0.0490	0.1308	1.569	0.198
Terms and Conditions	0.1613	-0.4650	0.0653	0.0263	1.705	0.167
Features of Policy	-0.3991	0.3092	-0.1199	0.0759	1.966	0.120
Fulfillment of Promise	-0.3967	-0.0101	0.3621	-0.1738	4.911	0.003*
Secure Investment	-0.0518	0.2017	0.0772	-0.0827	0.639	0.591

Note: \*, \*\* and \*\*\* shows significant values at 1%, 5% and 10% level of significance

**Table 2.4: Summary Results of ANOVA** 

Factors	Gender	Marital Status	Education
Contentment with Affiliation to Company	×	"	
Conform to Expectations of Customers	×	"	×
Consideration to Grievances	44	×	"
Services	×	"	×
Terms and Conditions	×	"	×
Features of Policy	×	×	×
Fulfillment of Promise	×	×	66
Secure Investment	×	×	×

Note: (") represents significant relation at 1%, 5% and 10% level of significance

Table 3.1: Canonical Discriminant Function Coefficients

. Coofficients	Function
Regression Coefficients	1
Contentment with Affiliation to Company	0.858
Conform to Expectations of Customers	-0.132
Conform to Expectations of Calabara	0.333
Consideration to Grievances	-0.076
Services	0.218
Terms and Conditions	0.017
Features of Policy	-0.249
Fulfillment of Promise	-0,265
Secure Investment	0.000
Constant	0.000

Note: Unstandardized coefficients

score of the equation is greater than - 0.095 then the respondents are expected to be satisfied and if score is less than 0.582 then they are not expected to be satisfied. Nothing can be said with certainty in case of Discriminant score between -0.095 and 0.582.

The Classification results presented in Table 3.3 provide the strength to Discriminant equation. Here, the respondents are divided into two groups using Bernoulli function and 70% of the cases are selected for predicting Discriminant equation. The rest 30% cases are used for checking the strength of the Discriminant equation. The result confirms that 61.6% of the selected cases are correctly classified and 38.4 % of the unselected cases are correctly classified. Discriminant equation with correctly classifying more than 60 % of cases is judged

**Table 3.2: Functions at Group Centroids** 

Are you satisfied with	Function
Your Insurance company?	1
Yes	-0.095
No	0.582

Unstandardized canonical discriminant functions evaluated at group means

**Table 3.3: Classification Results** 

Classifica	ation R	esults(a)		
Are you satisfied with Your Insurance company?	Predicted Group Membership			Total
		Yes	No	
Original Count	Yes	106	66	172
	No	9	19	28
%	Yes	61.6	38.4	100.0
(ata: 60.50)	NO	32.1	67.9	100.0

Note: 62.5% of original grouped cases correctly classified.

as of good quality. As a result, it can be concluded that respondents are more satisfied with the contentment with affiliation to company followed by consideration to grievances, terms and conditions. However, the insurers should more consideration to the factors i.e. features of policy, services, conform to expectations of customers, fulfillment of promise and secure investment as the respondents are not much

#### 7.0 Conclusion

The insurance is the commitment of exchanging the individual's risk with the financial and emotional security provided as an insurance service by the insurer. The present study is an attempt to observe the selected attributes of decisions taken by the policy holders about their association with their insurance companies. The study further tries to explore the impact of gender, marital status and education on the derived factors. The study also works on the model framework for considerations regarding insurance policy. The study is based on the sample of 200 respondents from Hisar district of Haryana state. The study employs factor analysis, where the 24 statements are reduced to eight principal components through varimax rotation. Two statements are dropped due to factor loading of less than 0.40 which reduces factors from eight to seven. The named factors according to the variables that have been loaded are: contentment with affiliation to company, conform to expectations of customers, consideration to grievances, services, terms and conditions, features of policy, fulfillment of promise and secure investment. However, the factor 'terms and conditions' is dropped because it has single statement with factor loading of less than 0.40.

The study also describes the effect of demographic variables on these factors. From gender perspective, the females have assigned more significance to consideration to grievances because the females may not feel comfortable with stress-full settlements of claims, and may feel good when their complaints are resolved with personal attention. On the other hand, married respondents assigned higher significance to the factors such as; conform to expectations of customers, consideration to grievances and terms and conditions. This may be because married respondents are more worried about the future protection, which can be fulfilled through investment in insurance policy. However, the unmarried respondents are more likely for only one factor i.e. fulfillment of promise, as, they are too young to think about investment in insurance policies. Lastly, there are three factors i.e. contentment with affiliation to company, consideration to grievances and fulfillment of promise which show significant relationship with respondents having education in the category of graduate and post-graduate. Thus, it can be concluded that the factors are significantly different across gender, marital status and education of the respondents.

The study also focuses on the model framework for decision making regarding insurance policy. It can be concluded that respondents are more satisfied with the contentment with affiliation to company followed by consideration to grievances, terms and conditions are almost up to the mark However, respondents are not much satisfied with factors i.e. features of policy, services, conform to expectations of customers, fulfillment of promise and secure investment. The insurance companies, to meet the competition, should consider these variables before planning the policies for their clients. The research is highly valuable for insurance companies as they can devise new policies which can encompass the variables which are lacking in their policies at present.

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# LISTEN TO THE VOICE OF TEENAGERS: INFLUENCE OF TEENAGERS IN FAMILY PURCHASE DECISIONS OF PERSONAL CARE PRODUCTS

## Vakil Singh

Research Scholar, Haryana School of Business, Guru Jambheshwar University Science & Technology, Hisar e-mail: vakildahiya@gmail.com

#### Dr. Sanjeev Kumar

Professor, Haryana School of Business, Guru Jambheshwar University Science & Technology, Hisar e-mail: sanjeev.aseem@gmail.com

#### **ABSTRACT**

In present study researchers tried to study the influence of teenagers in family purchase decision making process of family across personal care products. A teenager here means the person who falls under the age group of 13-19 years. It was not possible to reach out each teenager and collect their response on whether they participated in family purchase decision making process of selected products or not. The researcher took two city Hisar & Karnal and four villages for the study. Total 234 houses were visited and data was collected from teenagers in person. Frequency, independent sample test and ANOVA were used to achieve the objectives of the study. Teenagers were found extremely influential in all three buying decision stages of Toothpaste, Bath soap and Deodorant in majority of the families. Male teenagers in the age group of 16-19 years were significantly more influential in family buying decision making process than their counterpart. The rural teenagers were found significantly more influential than urban at information search& evaluation and final decision stage of toothpaste and at all three decision stages of bath soaps. Teenagers of higher income family had more influence in buying decision making of bath soaps at final decision stage and at all three decision stages of deodorant. influence of teenagers in family buying decision making process increases with age and It is found that children coming from middle and higher income family had significantly more influence than children coming from lower income family.

**Key Words:** Teenagers, Influence, Personal Care Products, Family Purchase Decision Making,

#### 1. Introduction

Marketing is exchange of products and services between provider (marketers) and products seeker and it can only be completed by reading the mind of the potential consumers like; what they want, at what price, quality and durability etc. This information gap can only be filled with marketing and consumer behaviour research. In Marketing the Family is a major consumption and decision making unit (Commuri & Gentry, 2000). Consumer purchase decisions are not made in isolation. Host of factors impact purchase decisions. So to trace out the needs of the family and various influencing factors affecting family buying decisions, the marketers and consumer behaviour researcher started examining the family buying decision making process and family members influence therein (Berey & Pollay, 1968). In closely knit social fabric of India, family is the major influence in buying decisions, be it adopting new product or deciding among existing brands. In family

buying, purchase decisions are taken jointly (Hoyer et al., 2008). Every family member has their own distinctive needs and play different roles in family buying decision making process e.g. initiator, information gatherer, decider of the brand & model of the products and user (Schiffman and Kanuk, 2005). Role of different family members is not constant, it keeps on changing. The role of children in recent times has become most important factor in family purchase decision making. Children as member starts learning consumer skills while outing with their parents in shopping and as result starts influencing buying of food, games and other products. As teenagers they start actively participation in family buying decision making process. They help the family members in gathering information regarding products as they are more informed than their parents (Beatty & Talpade, 1994; Belch et al., 2005)

There are 37,14,592 teenagers live in Haryana and actively participate in family buying decisions (census India, 2011). The personal care products market in India was of value of around \$6.3 billion in 2011 and is increasing at the rate of more than 13 percent for each year. India is a growing market for personal care products. The size of the personal wash (bath) products is estimated at \$1 billion and oral care products at \$500 million (Amritt).

#### 2. Review of Literature

# 2.1 Influence of children in family buying decisions across decision stages

Children play more dominant role in family purchase decisions wherein parents work more hours and having smaller families (Geuens et al., 2002). They were found having influence in all decision stages of family buying decisions but relatively more influential at the initial stage (Belch et al., 1985; Shoham & Dalakas, 2003) than at the search/decision stage for family purchases and teenager purchases (Beatty & Talpade, 1994). But Wut & Chou (2009) differ with previous findings and found them more influential in the choice-making stage of decision making, while parents still controlled the final decision.

# 2.2 Influence of children in family buying decisions on the basis of gender

Female children were found having greater influence than male children for large purchases and food categories (Chavda et al., 2005) and at search and decision stage for parent sample but at initiation stage for youth sample, male children had greater influence than female children in family purchase decisions (Beneke et al., 2011). Various differences were found while comparing children's impact on purchase decisions between different age groups and genders of children (Ali & Batra, 2011). Flurry & Veeck, (2009) study contradicted with above discussed studies and found that Children's gender was not a predictor of children's influence.

## 2.3 Influence of children in family purchase decisions by age

Influence of children in family purchase decisions increases

with increase in age all decision aspects-including how much to spend, item selection, where to shop, when to shop, and transportation mode, (Beneke et al., 2011; Flurry & Veeck, 2009; Martensen & Grønholdt, 2008). Which differ with the findings of (Ronner et al., 2007) that Later-born children have more influence on certain purchases than firstborns; Preteens had more influence on purchases that are intended for their use.

# 2.4 Influence of Children in Family Purchase Decisions by Product type and knowledge

Children participated in family purchase decisions of all products but were found more influential in family buying decisions of those products which are for their own use and having knowledge about them (Atkin, 1978; Beatty & Talpade, 1994; Foxman et al., 1989a; Foxman et al., 1989b; Guneri et al., 2009; Nelson, 1979; Shoham & Dalakas, 2003; Martensen & Gronholdt, 2008).. They were found having less influence on purchase decisions of expensive in the family (Martensen & Grønholdt, 2008). But Berey & Pollay, (1968) contradict with the findings of above discussed studies and argued that Child had significant influence on TV and automobile purchase decisions.

# 2.5 Influence of Children in Family Purchase Decisions by Family Features

Teens from dual-income families found having greater perceived influence than single-income families for family purchases (Beatty & Talpade, 1994). Adolescents with modern mothers and modern families were more influential in purchase decisions than adolescents with traditional mothers who don't work outside (Beneke et al., 2011; Lee & Beatty (2002). Children from single-parent family had more influence over family purchase than children in others (Beneke et al., 2011). But Household income was not found a predictor of children's influence in family purchase decision (Flurry & Veeck, 2009).

Research Gap and Research Problem: There are studies to check the influence of children in family purchase decision making process. But the influence of teenagers in family purchase decision making of personal care products is yet to be explored revealed from above reviewed literature. Hence researcher has tried to look into the influence the teenagers in family purchase decisions of personal care products.

#### 3. Objectives of the Study

The study was conducted with specific objectives:

- To study influence of teenagers in family buying decisions of personal care products across buying decision stages;
- To study influence of teenagers in family buying decisions of personal care products across demographic variables e.g. consists of gender, age, area of residence and Annual family income of respondents.

#### 4. Research Methodology

A teenager here means the person who falls under the age

group of 13-19 years. There are 37,14,592 teenagers living therein Haryana thus it was not possible to reach out each teenager and collect their response on whether they participated in family purchase decision making process of selected products or not. The researcher took two city Hisar & Karnal and four villages for the study. Total 234 houses were visited and data was collected from teenagers in person. Out of which all families were found buying and using toothpaste and bath soaps but in case of Deodorant only 124 families bought it. Frequency, independent sample t test and ANOVA were used to achieve the objectives of the study. The reliability of data was checked with cronbach's alpha value (toothpaste & bath soaps 0.887 and deodorant 0.942). In the present study three personal care products were chosen i.e. toothpaste, bath soaps and deodorant. The buying decision making process here is confined to three decision stages i.e. initial, information search and final decision stage.

**Hypothesis:** following hypothesises were framed on the basis review of literature:

- 1. H1: Influence of teenagers in family buying decisions of personal care products doesn't vary by Gender of the respondents;
- 2. H2: Influence of teenagers in family buying decisions of personal care products doesn't vary by Age of the respondents;

- 3. H3: Influence of teenagers in family buying decisions of personal care products doesn't vary by Area of residence of the respondents;
- 4. H4: Influence of teenagers in family buying decisions of personal care products doesn't vary by Annual household income of the respondents.

# 5. Results and Discussion

- demographics features of respondents; it shows that data was collected from 56% male and 44% female teenagers. It represents 47.4 percent 13-15 years age group and 52.6 percents 16-19 years age group. Study represents 50.9% urban and 49.1% rural teenagers. Respondents of the study represent lower income family (annual household income less than 100,000 Rs.) 56.4%, middle income family (annual household income 100,000-300,000 Rs.) 32.1% and 11.5% teenagers from elite families who actively participated in family purchase decision regarding personal care products.
- 8.2 Role of Teenagers in Family Buying Decisions across Decision Stages and by Products type: Table 2 depicts the influence of teenagers in family purchase decisions regarding personal care products across decision stages. It shows that every family surveyed were found buying and using toothpaste and bath soaps but only 124 family were found using deodorant so in case of deodorant the data was

Dhis marishle		Frequency
Demographic variable	Male	131 (56)
Gender	Female	103 (44)
Aga	13-15 years	111 (47.4)
Age	16-19 years	123 (52.6)
Area of residence	Urban	119 (50.9)
Area of residence	Rural	115 (49.1)
Family income	Less than 100,000	132 (56.4)
1 anni y niconic	100,000-3000	75 (32.1)
	More than 300,000	27 (11.5)

Table 1: Demographic Profile of Respondents

Table 2: Role of teenagers in buying decision making process

Statement		No influence	Less	Extremely	Mean
	•	at all	influential	influential	1 2249
Initiate	Toothpaste	18 (7.7)	6 (2.6)	210 (89.7)	4.3248
the product idea	Bath soap	20(8.5)	19(8.1)	195 (83.4)	4.2094
	Deodorant	48(38.7)	13(10.5)	63(50.8)	3.0323
Information	Toothpaste	31(13.2)	22(9.4)	181(77.4)	3,9316
search stage	Bath soap	30(12.8)	23(9.8)	181(77.4)	3.9444
	Deodorant	51(41.1)	11(8.9)	62(50)	2.9597
Final	Toothpaste	21(9)	15(6.4)	198(84.6)	3.9658
purchase decision	Bath soap	30(12.8)	21(8.9)	183(78.2)	3.9188
purchase decision	Deodorant	53(42.7)	8(6.4)	63(50.9)	2.9597

analysed for 124 respondents. Table shows that teenagers participated and were influential at all decision stages and in all products, in family buying decision making. They were more influential in buying decisions of toothpaste and bath soaps as it can be seen mean influence score at all decision stages of these two products were high and in case of deodorant also more than 50% were extremely influential at all three decision stages.

Table 3A depict & the mean influence score of teenagers at initial stage of all three products, standard deviation and standard error of mean. It shows that male teenagers were more influential than female in initiating the product idea of all products in the family but significantly more influential at initial stage of deodorant supported by table 3B.

Table 3 A1 presents the mean influence score of teenagers at search stage of all three products, standard deviation and standard error of mean. It shows that male teenagers were significantly more influential than female in searching about all products in the family supported by table 3 B1.

Table 3 A2 represents the mean influence score of teenagers

at final decision stage of all three products, standard deviation and standard error of mean. It shows that male teenagers were significantly more influential than female in deciding the brand and model of all products in the family supported by table 3 B2.

Table 3B shows Levene's test for equality of means and independent sample t test. It represents that influence of teenagers doesn't vary significantly by gender of respondents at initial stage of toothpaste and bath soaps except deodorant **P value 0.000** which is significant at 0.01 level. Thus the mean difference of influence of male and female is significant at initial stage of deodorant.

Table 3 B1 depict & the Levene's test for equality of means and independent sample t test. It represents that influence of teenagers vary significantly by gender of respondents at information search stage of toothpaste (P value 0.011), bath soaps (P value 0.039) Equal variances not assumed and deodorant (P value 0.000) which is significant at 0.01 level. Thus the mean difference of influence of male and female is significant at information search and evaluation stage of

<b>Table</b>	3A:	Group	<b>Statistics</b>
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Initiate the Product idea	Gender	N	Mean	Std. Deviation	Std. Error Mean
Toothpaste	Male	131	4.2901	1.19929	.10478
	Female	103	4.3689	.85165	.08392
Bath Soaps	Male	131	4.2443	1.11004	.09698
	Female	103	4.1650	1.13843	.11217
Deodorant	Male	71	3.5352	1.66331	.19740
	Female	53	2.3585	1.67670	.23031

**Table 3 A1: Group Statistics** 

Search the product	Gender	N	Mean	Std. Deviation	Std. Error Mean
Toothpaste	Male	131	4.1298	1.32082	.11540
	Female	103	3.6796	1.35916	.13392
Bath Soaps	Male	131	4.1069	1.30238	.11379
	Female	103	3.7379	1.41394	.13932
Deodorant	Male	71	3.5070	1.64641	.19539
	Female	53	2.2264	1.61295	.22156

**Table 3 A2: Group Statistics** 

Deciding on Brand/ Model Product	Gender	N	Mean	Std. Deviation	Std. Error Mean
Toothpaste	Male	131	4.2061	1.16168	.10150
	Female	103	3.9126	1.14709	.11303
Bath Soaps	Male	131	4.1527	1.22458	.10699
	Female	103	3.7087	1.41858	.13978
Deodorant	Male	71	3.5775	1.67043	.19824
	Female	53	2.1321	1.60573	.22056

Table 3B: Independent Sample t test

	nitiate the Levene's Test for t-test for Equality of Mea							
Initiate the			Levene's Test for Equality of Variances		or Equam	ty of Means		
Product idea						T G:	14	G. I
		E	Sig.	t	df	Sig.	Mean	Std. Error
			0.6			(2-tailed)	Difference	Difference
Toothpaste	P	7.941	.005	-,565	232	.573	07886	.13967
roompaste	Equal variances assumed	7.941	,005		229.769	.558	07886	.13424
	Equal variances not assumed	1112		.536	232	.593	.07923	.14784
Bath Soaps	Equal variances assumed	.193	.661	.534	216.549	.594	.07923	.14829
	Equal variances not assumed		614	3.884	122	.000*	1.17672	.30298
Deodorant	Equal variances assumed	.255	.614			.000	1.17672	
	Equal variances not assumed			3.879	111.687	.000	1.17072	.30333

Note: \*Significant at 0.01 level (note -Levene's test statistics is used for what significant t value to consider, if Levene's test statistics p value is less than 0.05 level than the value when equal variance not assumed is considered)

Table 3 B1: Independent Sample t test

Search the	Search the product		Levene's Test for Equality of Variances		or Equalit	y of Means		
product		F	Sig.	t	df	Sig.	Mean	Std. Error
		•		•	1	(2-tailed)	Difference	Difference
Toothpaste	Equal variances assumed	.052	.820	2.555	232	.011*	.45016	.17618
roompasic	Equal variances not assumed	.052		2.546	216.190	.012	.45016	.17678
Bath Soaps	Equal variances assumed	1.055	.305	2.072	232	.039**	.36901	.17812
Dun Soups	Equal variances not assumed	1,000		2.051	210.112	.041	.36901	.17988
Deodorant	Equal variances assumed	.095	.759	4.322	122	.000*	1.28063	.29630
Deodorum	Equal variances not assumed			4.335	113.390	.000	1.28063	.29541

Note: \* Significant at 0.01 level and \*\* significant at 0.01 level.

Table 3 B2: Independent Sample t test

Deciding on l	D Column of the		Levene's Test for Equality of Variances		t-test for Equality of Means			
		F Sig.		t	df	Sig.	Mean	Std. Error
						(2-tailed)	Difference	Difference
Toothpaste	Equal variances assumed	.677	.412	1.929	232	.055**	.29349	.15214
	Equal variances not assumed			1.932	220.387	.055	.29349	.15191
Bath Soaps	Equal variances assumed	3.892	.050	2.567	232	.011	.44393	.17296
	Equal variances not assumed			2.522	202.104	.012*	.44393	.17603
Deodorant	Equal variances assumed	.001	.976	4.846	122	*000	1.44539	.29828
	Equal variances not assumed			4.874	114.461	.000	1.44539	.29656

Note: \* Significant at 0.01 level and \*\* significant at 0.05 level. (note -Levene's test statistics is used for what significant t value to consider, if Levene's test statistics p value is less than 0.05 level than the value when equal variance not assumed is considered)

toothpaste, bath soaps and deodorant. So the male teenagers were significantly more influential than female at information search and evaluation stage of all three products.

The figures in Table 3 B2 show that influence of teenagers vary significantly by gender of respondents at final decision stage of toothpaste (**P value 0.055**) which is significant at 0.05 level, bath soaps (**P value 0.012**) when Equal variances not assumed which is significantly at 0.01 level and deodorant (**P value 0.000**) which is significant at 0.01 level. Thus the mean difference of influence of male and female is significant at final decision stage of toothpaste, bath soaps and deodorant. So the male teenagers were significantly more influential than female final decision stage of all three products.

The Table 4 A presents the mean influence score of teenagers at initial stage of all three products, standard deviation and standard error of mean. It shows that teenagers in the age group of 16-19 years were more influential than younger teenagers (13-15 years age group) at initial stage of all products. But there is significant variation between younger and older teenagers influence at initial stage of deodorant which is supported by Table 4 B.

Table 4 A1 presents the mean influence score of teenagers at information search and evaluation stage of all three products, standard deviation and standard error of mean. It shows that teenagers in the age group of 16-19 years were significantly more influential than younger teenagers (13-15 years age

group) at information search and evaluation stage of all three products supported by Table 4 B1.

Table 4 A1 presents the mean influence score of teenagers, standard deviation and standard error of mean at final decision stage of all three products. It shows that teenagers in the age group of 16-19 years were significantly more influential than younger teenagers (13-15 years age group) at final decision stage of all three products supported by Table 4 B2.

Table 4 B depicts that influence of teenagers doesn't vary significantly by age of respondents at initial stage of toothpaste and bath soaps except deodorant (**P value 0.000**) which is significantly at 0.01 level. Thus the mean difference of influence of younger (13-15 years) and older (16-19 years) teenagers is significant at initial stage of deodorant. So the older teenagers were significantly more influential than younger at initial stage of deodorant.

Table 4 B1 represents that influence of teenagers vary significantly by age of respondents at information search and evaluation stage of toothpaste (**P value 0.006**) which is significant at 0.01 level and bath soaps (**P value 0.047** Equal variances not assumed) which is significant at 0.05 level and deodorant (**P value 0.000**) which is significant at 0.01 level.

Thus the mean difference of influence of younger (13-15 years) and older (16-19 years) teenagers is significant at information search and evaluation stage of all three products. So the older teenagers were significantly more influential than younger at information search and evaluation stage of all three products.

Table 4 B2 represents that influence of teenagers vary significantly by age of respondents at final decision stage of toothpaste (**P value 0. 000**) which is significant at 0.01 level and bath soaps (**P value 0. 029** Equal variances not assumed) which is significant at 0.05 level and deodorant (**P value 0.000**) which is significant at 0.01 level. Thus the mean difference of influence of younger (13-15 years) and older (16-19 years) teenagers is significant at final decision stage of all three products. So the older teenagers were significantly more influential than younger at final decision stage of all three products.

Table 5 A represents the mean influence score of teenagers, standard deviation and standard error of mean at final decision stage of all three products. It shows that rural teenagers had more influence at initial stage of toothpaste and bath soaps whereas the urban teenagers were more influential than rural teenagers at initial stage of deodorant. This may be because

Table 4A: Group Statistics

Initiate idea	Age	N	Mean	Std. Deviation	Std. Error Mean
Toothpaste	13-15 years	111	4.3423	1.00449	.09534
	16-19 years	123	4.3089	1.10979	.10007
Bath Soaps	13-15 years	111	4.1351	1.16374	.11046
	16-19 years	123	4.2764	1.08114	.09748
Deodorant	13-15 years	56	2.4643	1.69453	.22644
	16-19 years	- 68	3.5000	1.68842	.20475

**Table 4 A1: Group Statistics** 

Search idea	Age	N	Mean	Std. Deviation	Std. Error Mean
Toothpaste	13-15 years	111	3.6757	1.42166	.13494
	16-19 years	123	4.1626	1.25040	.11275
Bath Soaps	13-15 years	111	3.7568	1.45986	.13856
	16-19 years	123	4.1138	1.24928	.11264
Deodorant	13-15 years	56	2.2857	1.63723	.21878
	16-19 years	68	3.5147	1.64356	.19931

**Table 4 A2: Group Statistics** 

Deciding on Brand/ Model Product	Age	N	Mean	Std. Deviation	Std. Error Mean
Toothpaste	13-15 years	111	3.7928	1.28712	.12217
Date	16-19 years	123	4.3333	.97229	.08767
Bath Soaps	13-15 years	111	3.7568	1.41560	.13436
Dest	16-19 years	123	4.1382	1.22357	.11033
Deodorant	13-15 years	56	2.3214	1.67448	.22376
	16-19 years	68	3.4853	1.71467	.20793

Table 4B: Independent Sample t test

		Levene's Test for Equality of Variances		t-test for Equality of Means				
Initiate the P	Initiate the Product idea		Sig.	t	df	Sig. (2-tailed)	Mean Difference	July Pro-
	Equal variances assumed	1.321	.252	.240 .242	232 231.997	.810 .809	.03340 .03340	Difference .13892
7.1.0	Equal variances not assumed		.855	963 959	232 225.009	.337 .339	14129 14129	.13822
	Equal variances not assumed	,	.597	-3.394 -3.393	122 117.322	<b>.001*</b> .001	-1.03571 -1.03571	.14732 .30518 .30528
	Equal variances not assumed							.50328

Note: \* Significant at 0.01 level.

Table 4 B1: Independent Sample t test

Search the Product		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error
Toothpaste	Equal variances assumed	2.580	.110	-2.787 -2.769	232 220.362	.006*	48693 48693	Difference .17469
	Equal variances not assumed Equal variances assumed	5.402	.021	-2.016	232	.045	35706	.17584 .17716
1	Equal variances not assumed	.392	.533	-2.000 -4.151	217.704 122	.047**	35706 -1.22899	.17857 .29607
Deodorant	Equal variances assumed Equal variances not assumed			<b>-4.153</b>	117.652	.000	-1.22899	.29596

Note: \* Significant at 0.01 level and \*\* significant at 0.05 level.

Table 4 B2: Independent Sample t test

Deciding on Brand/Model Product		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig.	Mean	Std. Erro
						(2-tailed)	Difference	Differenc
Toothpaste	Equal variances assumed	4.866	.028	-3.646	232	.000	54054	.1482
<b>-</b>	Equal variances not assumed			-3.595	203.746	.000*	54054	.1503
Bath Soaps	Equal variances assumed	4.780	.030	-2.211	232	.028	38145	.1725
•	Equal variances not assumed			-2.194	218.696	.029**	38145	.1738
Deodorant	Equal variances assumed	.037	.849	-3.801	122	.000*	-1.16387	.3061
	Equal variances not assumed			-3.810	118.477	.000	-1.16387	.3054

Note: \* Significant at 0.01 level and \*\* significant at 0.05 level. (note -Levene's test statistics is used for what significant t value to consider, if Levene's test statistics p value is less than 0.05 level than the value when equal variance not assumed is considered)

deodorant is not a daily used product among rural teenagers, which came out while enquiring with rural respondent. So deodorant is yet to be set as inspirational and daily used products in rural market. As per table rural teenagers were significantly more influential than urban in initiating the product idea of bath soap in family.

Table 5 A1 depicts the mean influence score of teenagers, standard deviation and standard error of mean at information search and evaluation stage of all three products. It shows that rural teenagers had significantly more influence at information search and evaluation stage of toothpaste and bath soaps supported by Table 5 B1whereas the urban teenagers were more influential than rural teenagers. This came

out while enquiring with rural respondent. So deodorant is yet to set as inspirational and daily used products in rural market. As per table rural teenagers were significantly more influential than urban at information search and evaluation stage of toothpaste and bath soap in family.

Table 5 A2 depicts the mean influence score of teenagers, standard deviation and standard error of mean at information search and evaluation stage of all three products. It shows that rural teenagers had significantly more influence at final decision stage of toothpaste and bath soaps supported by table 5 B2 whereas the urban teenagers were more influential than rural teenagers. So deodorant is yet to be set as inspirational and daily used products in rural market. This

came out while enquiring with rural respondent. As per table rural teenagers were significantly more influential than urban at final decision stage of toothpaste and bath soap in family.

Table 5 B present the Levene's test for equality of means and independent sample t test. It shows that influence of teenagers doesn't vary significantly by area of residence of respondents at initial stage of toothpaste and deodorant except bath soaps (**P value 0.014**) which is significant at 0.01 level. Thus the mean difference of influence of rural and urban teenagers is significant at initial stage of bath soaps. So the rural were significantly more influential than urban at initial stage of bath soaps.

Table 5 B1 represents that influence of teenagers vary significantly by are of residence of respondents at information search and evaluation stage of toothpaste (**P value 0. 044**) which is significant at 0.05 level, bath soaps (**P value 0.002** Equal variances not assumed) which is significant at 0.01 level and deodorant (**P value 0. 881**) which is insignificant at 0.05 level. Thus the mean difference of influence of rural and urban teenagers is significant at information search and evaluation stage of toothpaste and bath soaps. So the rural teenagers were significantly more influential than rural teenagers at

information search and evaluation stage of toothpaste and bath soaps.

Table 5 B2 represents that influence of teenagers vary significantly with area of residence of respondents at final decision stage of toothpaste (**P value 0. 017**) which is significant at 0.01 level, bath soaps (**P value 0. 004** Equal variances not assumed) which is significant at 0.01 level and deodorant (**P value 0. 730**) which is insignificant at 0.05 level. Thus the mean difference of influence of rural and urban teenagers is significant at final decision stage of toothpaste and bath soaps. So the rural teenagers were significantly more influential than rural teenagers at final decision stage of toothpaste and bath soaps.

The Table 6 A shows that influence of teenagers in family buying decisions increases with increase in income of family in all products. But influence at initial stage of deodorant is significant by family income.

The Table 6 A1 shows that influence of teenagers in family buying decisions increases with increase in income of family in all products. But influence at information search and evaluation stage of deodorant is significant by income of respondents.

Table 5 A:	Group	<b>Statistics</b>
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Initiate the Product idea	Area of Resident	N	Mean	Std. Deviation	Std. Error Mean
Toothpaste	Urban	119	4.2017	1.13182	.10375
	Rural	115	4.4522	.96649	.09013
Bath Soaps	Urban	119	4.0336	1.22774	.11255
	Rural	115	4.3913	.97058	.09051
Deodorant	Urban	61	3.0984	1.79541	.22988
	Rural	63	2.9683	1.74104	.21935

**Table 5 A1: Group Statistics** 

Search the Product	Area of Resident	N	Mean	Std. Deviation	Std. Error Mean
Toothpaste	Urban	119	3.7563	1.40801	.12907
	Rural	115	4.1130	1.27572	.11896
Bath Soaps	Urban	119	3.6723	1.49070	.13665
	Rural	115	4.2261	1.15516	.10772
Deodorant	Urban	61	2.9836	1.75586	.22482
2	Rural	63	2.9365	1.74941	.22040

**Table 5 A2: Group Statistics** 

Deciding on Brand/ Model of Product	Area of Resident	N	Mean	Std. Deviation	Std. Error Mean
Toothpaste	Urban	119	3.8992	1.18175	.10833
	Rural	115	4.2609	1.11675	.10414
Bath Soaps	Urban	119	3.7143	1.46220	.13404
	Rural	115	4.2087	1.12776	.10516
Deodorant	Urban	61	3.0164	1.77475	.22723
	Rural	63	2.9048	1.81138	.22821

Table 5 B: Independent Sample t test

Initiate the		Levene's T Equality of	est for Variances		or Equalit	y of Means		
Product idea		F	Sig.	t	df	Sig. (2-tailed)	Mean	Std. Error
Toothpaste	Equal variances assumed	1.303	.255	-1.818 -1.823	232 228.561	.070	25049 25049	Differen
Dark Coope	Equal variances not assumed Equal variances assumed	,007	.407	-2.467 -2.477	232 223.304	<b>.014*</b> .014	25049 35769 35769	14500
Dandaront	Equal variances not assumed Equal variances assumed Equal variances not assumed	.092	.347	.410 .409	122 121.514	.683 .683	.13011	.31758
			os is used	for what	significa	nt t value to	comaid to	.31774

Note: \*significant at 0.01 level (note -Levene's test statistics is used for what significant t value to consider, if Levene's test statistics p value is less than 0.05 level than the value when equal variance not assumed is considered)

Table 5 B1: Independent Sample t test

Search the	Search the Product idea		Levene's Test for Equality of Variances					
Product idea			Sig.	t	df	Sig.	Mean	Std. Error
						(2-tailed)		Difference
Toothpaste	Equal variances assumed	3.182	.076	-2.029	232	.044**	35674	.17583
Toompaste	Equal variances not assumed			-2.032	231.049	.043	35674	.17553
Bath Soaps	Equal variances assumed	11.698	.001	-3.169	232	.002	55382	.17475
Datii Soaps	Equal variances not assumed			-3.183	221.630	.002*	55382	.17400
Deodorant	Equal variances assumed	.000	.984	.150	122		.04710	.31481
Deodorum	Equal variances not assumed			.150	121.840	.881	.04710	.31483

Note: \*significant at 0.01 level and \*\*significant at 0.05 level.

Table 5 B2: Independent Sample t test

D COLUMN OUT D I SHIP IN THE S		Levene's T Equality of				y of Means		
		F	Sig.	t	df	Sig.	Mean	Std. Error
				Α,		(2-tailed)	Difference	Difference
Toothpaste	Equal variances assumed	.002	.968	-2.405	232	.017*	36171	.15041
•	Equal variances not assumed			-2.407	231.886	.017	36171	.15027
Bath Soaps	Equal variances assumed	9.980	.002	-2.889	232	.004	49441	.17112
	Equal variances not assumed			-2.902	221.220	.004*	49441	.17037
Deodorant	Equal variances assumed	.439	.509	.347	122	.730	.11163	.32216
	Equal variances not assumed			.347	121.982	.729	.11163	.32205

Note: \*significant at 0.01 level.

Table 6 A2 shows that influence of teenagers in family buying decisions increases with increase in income of family in all products. But influence at final decision stage of bath soaps and deodorant is significant by family income of respondents.

Table 6B shows that Levene's test statistics is significant at 0.05 level. It is used to check what post hoc test to be used to check the variation between two income groups as ANOVA doesn't indicate the variation between two variables. It is significant at initial stage of deodorant and final stage of bath soaps.

The Table 6 C indicates that influence of teenagers in family buying decisions doesn't vary significantly with Family

income at initial stage of toothpaste and bath soaps but significant at initial stage of deodorant (P value 0.005).

The Table 6 C1 indicates that influence of teenagers in family buying decisions doesn't vary significantly with Family income at information search and evaluation stage of toothpaste and bath soaps but significant at information search and evaluation stage of deodorant (P value 0.002).

Table 6 C2 indicates that influence of teenagers in family buying decisions doesn't vary significantly with family income at final decision stage of toothpaste but significant at final decision stage of bath soaps (P value 0.021) and deodorant (P value 0.002).

Table 6D shows that influence of teenager in family buying decisions vary by family income. Teenagers from higher income group family (family income more than 300,000 rs.) were significantly more influential than lower income family (less than 100,000 rs.). Similarly at information search and evaluation stage of deodorant; the teenagers from middle and higher income family were more influential than teenagers from lower income family. Whereas at final decision stage of bath soaps and deodorant, teenagers from higher income family were significantly more influential than teenagers from lower income family but not between lower and middle income and not also

between higher and middle income family.

- 1. H1: Influence of teenagers in family buying decisions of personal care products doesn't vary by Gender of the respondents is rejected at all decision stages of all products except at initial stage of toothpaste and bath soaps;
- 2. H2: Influence of teenagers in family buying decisions of personal care products doesn't vary by Age of the respondents is rejected at all decision stages of all products except at initial stage of toothpaste and bath soaps;

**Table 6 A: Group statistics** 

Initiate the Product idea		N	Mean	Std. Deviation	Std. Error
Toothpaste	Less than 1,00,000	132	4.2955	1.10335	.09603
	1,00,000-3,00,000	75	4.3467	.93712	.10821
	More than 3,00,000	27	4.4074	1.18514	.22808
	Total	234	4.3248	1.05902	.06923
Bath Soaps	Less than 1,00,000	132	4.1364	1.14434	.09960
	1,00,000-3,00,000	75	4.2267	1.13392	.13093
	More than 3,00,000	27	4.5185	.93522	.17998
	Total	234	4.2094	1.12089	.07327
Deodorant	Less than 1,00,000	60	2.6333	1.75602	.22670
	1,00,000-3,00,000	42	3.0714	1.75850	.27134
	More than 3,00,000	22	4.0455	1.39650	.29774
	Total	124	3.0323	1.76200	.15823

Table 6 A1: Group statistics

Search the Product		N	Mean	Std. Deviation	Std. Error
Toothpaste	Less than 1,00,000	132	3.8258	1.42762	.12426
	1,00,000-3,00,000	75	3.9600	1.24597	.14387
9	More than 3,00,000	. 27	4.3704	. 1.21365	23357
	Total	234	3.9316	1.35359	.08849
Bath Soaps	Less than 1,00,000	132	3.8258	1.41689	.12332
	1,00,000-3,00,000	75	3.9867	1.33045	.15363
	More than 3,00,000	27	4.4074	1.08342	.20850
	Total	234	3.9444	1.36208	.08904
Deodorant	Less than 1,00,000	60	2.4167	1.67019	.21562
	1,00,000-3,00,000	42	3.3095	1.73188	.26724
	More than 3,00,000	22	3.7727	1.54093	.32853
	Total	124	2.9597	1.74561	.15676

Table 6 A2: Group statistics

Deciding on Brand/	Model of Product	N	Mean	Std. Deviation	Std. Error
Toothpaste	Less than 1,00,000	132	3.9924	1.25093	.10888
	1,00,000-3,00,000	75	4.1067	1.02104	.11790
	More than 3,00,000	27	4.4074	1.04731	.20156
	Total	234	4.0769	1.16202	.07596
Bath Soaps	Less than 1,00,000	132	3.7803	1.43199	.12464
	1,00,000-3,00,000	75	4.0667	1.23391	.14248
	More than 3,00,000	27	4.5185	.80242	.15443
	Total	234	3.9573	1.32906	.08688
Deodorant	Less than 1,00,000	60	2.4500	1.75079	.22603
	1,00,000-3,00,000	42	3.1905	1.72836	.26669
	More than 3,00,000	22	3.9091	1.57084	.33490
	Total	124	2.9597	1.78703	.16048

Table 6 B: Test of Homogeneity of Variances

·	Levene Statistic	df1	df2	C:
Deodorant Initiate the Product idea	8.289	2	121	.000*
Bath Soaps Deciding on Brand/Model Product	5.478	2	231	.005*
Badi Soaps Deciding on Brand/Woder Froduct				.005*

## Table 6 C: ANOVA

Initiate the Product idea		Sum of	df	Mean	F	Qi.
		Squares	(	Square		Sig.
Toothpaste	Between Groups	.334	2	.167	.148	.863
	Within Groups	260.982	231	1.130		.003
	Total	261.316	233			
Bath Soaps	Between Groups	3.306	2	1.653	1.319	.269
	Within Groups	289.433	231	1.253		.209
	Total	292.739	233			
Deodorant	Between Groups	32.197	2	16.099	5.571	.005**
	Within Groups	349.674	121	2.890		.005
v	Total	381.871	123			

Note: \*significant at 0.01 level

Table 6 C1: ANOVA

Search the Product idea		Sum of	df	Mean	F	Sig.
		Squares		Square		oig.
Toothpaste	Between Groups	6.737	2	3.369	1.852	.159
	Within Groups	420.169	231	1.819		.137
	Total	426.906	233			
Bath Soaps	Between Groups	7.780	2	3.890	2.117	.123
	Within Groups	424.498	231	1.838		
	Total	432.278	233			
Deodorant	Between Groups	37.375	2	18.688	6.701	.002*
	Within Groups	337.423	121	2.789	31.02	
	Total	374.798	123			

Note: \*significant at 0.01 level

Table 6 C2: ANOVA

Initiate the Product id	lea	Sum of	df	Mean	F	Sig.
Toothpaste	Between Groups	Squares		Square		
2 o mpusic		3.958	2	1.979	1.471	.232
	Within Groups	310.658	231	1.345		
D. d. C.	Total	314.615	233	710 10		
Bath Soaps	Between Groups	13.536	2	6.768	3.928	.021**
	Within Groups	398.036	231	1.723	3.720	
Desil	Total	411.573	233	1.725		
Deodorant	Between Groups	37.654	203	18.827	6.414	.002*
Total	Within Groups	355.144	121	2.935	0.414	
Total	392.798	123	121	2.933		

- 3. H3: Influence of teenagers in family buying decisions of personal care products doesn't vary by Area of residence of the respondents is rejected at initial stage of bath soaps and information search and final decision stages of toothpaste and bath soaps but not in case of deodorant at all three decision stages;
- 4. H4: Influence of teenagers in family buying decisions of personal care products doesn't vary by Annual household income of the respondents is rejected at

all three decision stages of deodorant and final decision stage of bath soaps.

## 6. Conclusion and Implications

Teenagers have significant influence in family purchase decision making process regarding personal care products which increases with age and income of the family (Atkin, 1978; Darley and Lim, 1986; Mehrotra and Torges, 1977; Moschis and Mitchell, 1986). As the number middle income families are increasing in India which infer that in future with

increase in middle income families having influenced by teenager in buying decisions of personal care products provides insights and growth potential for marketers. Male teenagers were significantly more influential than female in buying decision making at information search and final decision stage of Toothpaste and Bath soaps and all three decision stages of Deodorant. The study contradict with the findings of (Atkin, 1978; Lee and Collins, 1999; Moschis and Mitchell, 1986; Ganjinia, et al 2013) that female adolescent have stronger influence than male in family purchase decisions but corroborate with (Beneke et al, 2011). Area of the residence i.e. rural and urban also have significant impact on influence of teenagers in family purchase decision making and found that rural teenagers were more influential in family buying decisions regarding toothpaste and bath soaps but in case of deodorant urban more influential than rural. Though it was not significant

but provides insights that products (toothpaste and bath soaps) having penetration in rural market got more influenced by rural teenager than urban. But in case of deodorant urban were more influential than rural teenagers in family buying decisions since the deodorant is not a daily used and aspirational product in rural market which came out while enquiring with respondents. As the rural market is untapped market provides growth potential so marketers should promote the product in rural area. Thus the marketers should listen to the voice of teenagers and teen trends should be kept in mind specially when communicating with consumers. So while formulating marketing and promotional strategies regarding personal care products especially toothpaste, bath soaps and deodorant the teenagers segment should be consider because they play the role of initiator, information gatherer and evaluator of products and decider of brands.

Table 6 D: Multiple comparison tests

			pie comparison tests			
Dependent		(I) What is your	(J) What is your	Mean	Std. Error	Sig.
Variable		annual household	annual household	Difference		
		disposable income	disposable income	(I-J)		
Deodorant	Tamhane	Less than 1,00,000	1,00,000-3,00,000	43810	.35358	.523
Initiate the			More than 3,00,000	-1.41212*	.37422	.001*
Product idea		1,00,000-3,00,000	Less than 1,00,000	.43810	.35358	.523
			More than 3,00,000	97403	.40283	.056
		More than 3,00,000	Less than 1,00,000	1.41212*	.37422	.001*
			1,00,000-3,00,000	.97403	.40283	.056
Deodorant	Tukey HSD	Less than 1,00,000	1,00,000-3,00,000	89286*	.33597	.024**
Search the			More than 3,00,000	-1.35606*	.41621	.004*
product		1,00,000-3,00,000	Less than 1,00,000	.89286*	.33597	.024**
	,		More than 3,00,000	46320	.43949	.544
		More than 3,00,000	Less than 1,00,000	1.35606*	.41621	.004*
			1,00,000-3,00,000	.46320	.43949	.544
Bath Soaps	Tamhane	Less than 1,00,000	1,00,000-3,00,000	28636	.18930	.346
Deciding on			More than 3,00,000	73822*	.19845	.001*
Brand/Model		1,00,000-3,00,000	Less than 1,00,000	.28636	.18930	.346
Product			More than 3,00,000	45185	.21011	.101
		More than 3,00,000	Less than 1,00,000	.73822*	.19845	.001*
			1,00,000-3,00,000	.45185	.21011	.101
Deodorant	Tukey HSD	Less than 1,00,000	1,00,000-3,00,000	74048	.34467	.085
Deciding on			More than 3,00,000	-1.45909°	.42700	.002*
Brand/Model		1,00,000-3,00,000	Less than 1,00,000	.74048	.34467	.085
Product			More than 3,00,000	71861	.45088	.252
		More than 3,00,000	Less than 1,00,000	1.45909*	.42700	.002*
			1,00,000-3,00,000	.71861	.45088	.252

Note: \* Mean difference is significant at the 0.01 level and \*\* at 0.05 level

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