Demographic Analysis of Factors Influencing Purchase of Life Insurance Products in India

Dr. Divya Negi[*]   Praveen Singh

Dept. of Management Studies, Graphic Era University, Dehradun-248002, Uttarakhand, India

* E-mail of the corresponding author: divyanegi7@rediffmail.com

Abstract

Understanding the consumer's perception and attitude towards insurance and creating an insurance culture is essential in facilitating the success of insurance services. A better understanding of consumer's behavior through demographic analysis can play an important role in predicting demand for insurance. However, emerging new complex financial products and changes in the preferences of people for preventing their risks make it difficult. The study aims to find out the relationship of demographic characteristics of the respondents with five important factors influencing the purchase of a life insurance product namely product quality and brand image, service quality, customer friendliness, brand loyalty and commitment. Product Quality and Brand Image came out as the highest ranking factors while Brand Loyalty has been rated as the least important factor. It has been further observed that these factors vary significantly across various demographic characteristics of the respondents.

Key Words: Factors, Influencing, Customer Preferences, Demographics, Insurance

1. Introduction

Marketers typically combine several variables to define a demographic profile. Once these profiles are constructed, they can be used to develop a marketing strategy and marketing plan. Understanding households' behavior in this manner can play an important role in predicting demand for insurance also. However, emerging new complex financial products and changes in the preferences of people for preventing their risks make this difficult.

Creating demographic profile is important as the progress of life insurance penetration and density is far from satisfying and this indicates at some problem in the way it is being sold in our country. Overselling life insurance to few wealthy people in the society is not going to be the panacea for all the life insurers. They need to realize that every insurable individual has to be insured and then only the motive of life insurance can be fulfilled in the right sense. Analysis and understanding of prospective buyers of life insurance according to their demographic characteristics in specific geographical regions thus becomes important. This will enable the insurers to better prepare their marketing strategies as per the requirements of the people in the region.

2. Review of Literature

Since **Mantise and Farmer (1968)** showed that marriages, births, personal income, population size, relative price index, and employment could affect the insurance purchase, many studies have been conducted to estimate the demand for insurance or to test risk-aversion.

Anderson and Nevin (1975) in the study looked at the life insurance purchasing behaviour of young newly married couples. The study suggested that the wife and the insurance agent are playing an influential role in the type of insurance purchased by young married households.

Campbell (1980) found that not only does a portion of currently accumulated household wealth act as a substitute for insurance; there is also a portion of future human capital that households should self-insure.

Goldsmith (1983) in the paper developed and investigated the relation between a wife's human capital accumulation and household purchases of life insurance on the husband. Households with a more educated wife, *ceteris paribus*, were found to have a lower likelihood of purchasing term insurance on the

husband. He suggested that household characteristics and the decision-making environment are important determinants of a household's insurance purchasing behavior.

Burnett and Palmer (1984) in the study examined various demographic and psychographic characteristics in terms of how well they relate to differing levels of life insurance ownership. Owners of large amounts of life insurance are better educated, have larger families, have higher incomes, are not opinion leader, are geographically stable, are greater risk takers, are not price conscious, are not information seekers, are low in self-esteem, are not brand loyal and believe in community involvement but they do not rely heavily on the government. They conducted extensive research using Multiple Classification Analysis. Their study proved that demographic variables, as well as psychographic variables, are important predictor variables.

Truett and Truett (1990) showed that age, education, and level of income are factors that affect the demand for life insurance, and that income elasticity of demand for life insurance is much higher in Mexico than in the United States.

Shotick and Showers (1994) augment the empirical literature on insurance demand by examining the impact of selected economic and social factors on the purchase of insurance. Although income and number of earners are both positively related to the demand for insurance, the marginal effect from an increase in income is greater for single earner households than for multi-earner households. Also, as either family size or age increases, the marginal increase in insurance expenditure diminishes. They examined that the size of the family and the number of earners in the household are positively related with expenditures on insurance premium. They also tested the curvilinear relationship between demand for life insurance and age.

Gandolfi and Miners (1996) showed that there are meaningful differences between husbands and wives in their demand for life insurance.

Chen, et al. (2001) revealed that insurance demand of baby boomer generation is quite different from that of previous generations using cohort analysis.

3. Research Methodology

The primary research undertaken was exploratory in nature. The data was collected through the use of questionnaires distributed to 800 respondents but only total 613 questionnaires were found fit and taken for analysis. The sample for the study consisted of policy holders of both private and public life insurance companies operating in Uttarakhand. For the purpose of study, Uttarakhand was divided into three regions viz. Dehradun (210 respondents), Haridwar (208 respondents), and Pauri Garhwal (195 respondents). This makes the sample representative of the population as these regions cover both hilly and plain areas of the state. The target respondents were the people owning a life insurance policy (with either the public or a private life insurance company) as they are key decision makers in their respective households and have vested interest in investments for tax planning, wealth creation or avoiding risk.

In the present research work, twenty one factors were studied that influence customer to purchase insurance policy. To study these factors further, a questionnaire was designed to solicit employees' view on a five point scale, where 1 stands for 'not important at all' and 5 stands for 'highly important'. With the help of SPSS 15 software, factor analysis was carried out and important factors were identified. Principal components and associated variables indicated that the first factor indicating the 'Product Quality and Brand Image' accounted for 40.334% variance of the total variances. The second Factor of 'Service Quality' accounted for 9.873% variance of the total variances. Third factor was the 'Customer Friendliness' and accounted for 9.429% of total variance. Fourth factor is the 'Brand Loyalty' which accounted for 6.945% of total variance. Fifth factor is the 'Commitment' which accounted for 5.763 % of total variance.

After identifying the factors using factor analysis, mean score of all the variables was calculated using SPSS software, and cross table analysis was carried out to find the significance of variance across key demographic characteristics i.e. age, gender, income and education of the respondents. ANOVA test was used to check the variance of mean among different factors.

3.1 *Objectives of the Study*

a) To analyse the demographic profile of customers of life insurance in Uttarakhand.

b) To examine the effect of demographic characteristics on five important factors (Product Quality and Brand Image, Service Quality, Customer Friendliness, Brand Loyalty and Commitment) influencing the purchase of a life insurance product.

3.2 *Hypothesis of the Study*

H01: There is no significant difference between the different factors influencing customers in favour of a life insurance product **across different age categories** of respondents.

H02: There is no significant difference between the different factors influencing customers in favour of a life insurance product **across different gender categories** of respondents.

H03: There is no significant difference between the different factors influencing customers in favour of a life insurance product **across different income categories** of respondents.

H04: There is no significant difference between the different factors influencing customers in favour of a life insurance product **across different education categories** of respondents.

4. Analysis and Findings

4.1 Demographic Characteristics of the Respondents

The demographic characteristic of the respondents under study are given in the Table 1. Table 1   shows that the sample was dominated by those respondents who are in the age group of 41-50 years, male respondents. Majority of the respondents are married and educated. Majority of the respondents have a small family of up to four members. Majority of the respondents were in the income group of more than Rs.25000 p.m. and belonged to service category.

4.2 Demographic Analysis of Factors Influencing the Purchase of a Life Insurance Product

4.2.1 Mean of Motivating Factors Influencing Customers in favour of Insurance Products among Different Age group of Respondents

Mean score of all the dependent variables were calculated using SPSS software and cross table analysis was carried out to find the significance of variance across demographic characteristics of respondents.

As is evident from Table 2, among the mean ratings of various factors across different age groups of respondents, the mean rating of 'Customer Friendliness' is the highest among age group of respondents 'Upto 20 years'. 'Commitment' has got highest mean rating among the age group of respondents ranging 'From 31 to 40 years'.   Also a comparative analysis of all the five factors, 'Brand Loyalty' has been rated lowest among customers while selecting and purchasing life insurance products. This signifies the presence of healthy competition among life insurance industry.

In Table 3, one-way ANOVA was carried out to check H1 that is, *there is no significant difference between the different factors motivating customers in favour of an insurance product across different age categories of respondents.* The test was carried out at 5 degrees of freedom with tabulated value of 2.37.

It can be observed from the Table 3 that the value of F of all the factors namely Product Quality and Brand Image, Service Quality, Customer Friendliness, Brand Loyalty, and Commitment, is greater than the tabulated value of F i.e. 2.37 at 5 degrees of freedom and 5% level of significance. Thus there is a significant difference between the different factors motivating customers in favour of a life insurance product across different age categories of respondents and hence null hypothesis is rejected.

4.2.2 Mean of Motivating Factors Influencing Customers in favour of Insurance Products among Different Gender categories of Respondents

In Table 4, analysis of mean of different factors among different gender categories of respondents reveals that mean ratings of 'Commitment', 'Product Quality and Brand Image' and 'Service Quality' are higher among males as compared to females whereas 'Brand Loyalty' is found more among female respondents as compared to male respondents. However 'Product Quality and Brand Image' has got the highest mean among all categories of respondents.

One-way ANOVA was carried out to check H2 that is, *there is no significant difference in the mean of different factors motivating respondents in favour of Insurance products among different gender categories of respondents*. From the Table 5, it is clear that calculated value of F is greater than the tabulated value of F (2.37) at 5% level of significance.

Hence null hypothesis is rejected indicating that there is significant difference in the means of different factors influencing customers in favour of Insurance products across the gender categories.

4.2.3 Mean of Motivating Factors Influencing Customers in favour of Insurance Products among Different Income group of Respondents

In Table 6, analysis of mean of different factors among different income categories of respondents reveals that   mean ratings of factor 'Commitment' is highest across the income group of respondents 'Above   Rs. 50000 p.m.'. Mean rating of 'Product Quality and Brand Image' factor scored the highest among all the income groups jointly.

In Table 7, one- way ANOVA was carried out to check the hypothesis H3 that *there is no significant difference in the mean of different factors motivating respondents in favour of Insurance product among different income categories of respondents*.

From the Table 7, it is clear that calculated value of F is greater than the tabulated value of F = 2.37, at ($p<$ 0.05) level of significance. Hence null hypothesis is rejected indicating that there is a significant difference in the mean of different factors across the different income categories of respondents.

4.2.4 Mean of Motivating Factors Influencing Customers in favour of Insurance Products among Different Income group of Respondents

Table 8 showing the analysis of mean of different factors among different levels of education of respondents reveals that mean ratings of 'Commitment' is the highest across the respondents having education of 'Post Graduation and others'.

One-way ANOVA was carried out to check the hypothesis that *there is no significance difference in the mean of different factor motivating respondent in favour of Insurance Product among different level of education of respondents*.

From the Table 9 above it is clear that calculated value of F is greater than the tabulated value of F (2.37) at 5% level of significance. Hence null hypothesis is rejected indicating that there is a significant difference in the mean of different factors across the different levels of education except in the case of 'Service Quality' factor.   This indicates that expectation of service quality differs at various level of education level of respondents.

CONCLUSION

As is evident from the study, 'Product Quality and Brand Image' has got the highest mean. The insurance companies thus should try to maintain the timely and satisfactory service along with maintaining their reputation and goodwill. The companies should pay more attention in timely and hassle free settlement of the claims. Further customer relationship management should be of utmost importance for such companies. 'Brand Loyalty' has been rated lowest among customers while selecting and purchasing insurance product which signifies the healthy competition among the insurance industry.

The study of mean among different gender categories of respondents reveals male customers are giving more preference to 'Product Quality & Brand Image' and to 'Commitment'. On the other hand, female respondents are giving more preference to 'Customer Friendliness'. Thus, while dealing with customers, the insurance companies should take care of gender category of the customer. Thus insurance companies should have different strategies for male and female customers.

It is revealed that mean ratings of factor 'Commitment' is highest across the income group of respondents above Rs. 50000 p.m. Mean rating of 'Product Quality and Brand Image' scored highest among all income groups jointly. One way ANOVA Analysis indicates that there is a significant difference in the mean of different factors across the different income category respondents.   Thus, the insurance companies should follow different strategies among different income category of the customers.

The similar trend can be seen while studying the mean of different factors among different level of education of respondents with 'Brand Loyalty' being given the least preference and 'Product Quality and Brand Image' the highest. But on the contrary, it can also be seen that 'Brand Loyalty' is being given the highest preference among the Under Graduate customers, while it is least for the Graduate and Post Graduate customers. One way ANOVA Analysis indicates that there is a significant difference in the mean of different factors across the different levels of education except in the case of 'Service Quality' factor.

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1. Table 1:Demographic Characteristics of Respondents

	Categories	Count	Percentage
Age	Upto 20 years	70	11.4
	From 21 to 30 years	89	14.5
	From 31 to 40 years	60	9.8
	From 41 to 50 Years	252	41.1
	From 51 to 60 years	130	21.2
	Above 60 Years	12	2.0
Gender	Male	477	77.8
	Female	136	22.2
Marital Status	Married	494	80.6
	Unmarried	119	19.4
Education Level	Under Graduate	120	19.6
	Graduate	178	29.0
	Post Graduate and Others	315	51.4
Family Size	Upto 3 members	50	8.2
	Upto 4 Members	245	40.0
	Upto 5 Members	138	22.5
	6 members	125	20.4
	More than 6 Members	55	9.0
Monthly Income	Nil Income	51	8.3
	Upto Rs 7000 P.M.	23	3.8
	From Rs. 7000 to Rs 15000 P.M.	80	13.1
	From Rs15000 to Rs 25 000 P.M.	164	26.8
	From Rs 25000 to Rs Rs50000 P.M.	141	23.0
	Above Rs50000 P.M.	154	25.1
Occupation	Students	56	9.1
	Business	177	28.9
	Service	261	42.6
	Professional	32	5.2
	Housewives	45	7.3
	Farmer	8	1.3
	Others	34	5.5

2. Table 2: Mean of Factors Influencing Customers in favour of Insurance Products among different Age groups of Respondents

Age wise Classification	Product Quality and Brand Image	Service Quality	Customer Friendliness	Brand Loyalty	Commitment
Upto 20 years	3.4655	3.2667	**3.6679**	3.3429	3.1000
From 21 to 30 years	4.0122	3.6105	4.0197	3.3933	3.6966
From 31 to 40 years	4.2347	3.8611	3.7667	3.9000	**4.5167**
From 41 to 50 Years	3.5820	3.5489	3.5188	2.9365	3.8651
From 51 to 60 years	4.3263	4.0154	3.7288	3.2923	4.0385
Above 60 Years	3.9931	3.9167	3.8958	2.7500	3.1667
Total	3.8609	3.6623	3.6847	**3.2153**	3.8401

3. Table 3: One-way ANOVA Analysis between Mean values of different factors of an insurance product with Age categories of Respondents

		Sum of Squares	Df	Mean Square	F	Sig.
Product Quality and Brand Image	Between Groups	69.332	5	13.866	21.719	.000
	Within Groups	387.528	607	.638		
	Total	456.860	612			
Service Quality	Between Groups	33.789	5	6.758	11.181	.000
	Within Groups	366.866	607	.604		
	Total	400.655	612			
Customer Friendliness	Between Groups	18.129	5	3.626	4.788	.000
	Within Groups	459.636	607	.757		
	Total	477.765	612			
Brand Loyalty	Between Groups	55.042	5	11.008	10.272	.000
	Within Groups	650.534	607	1.072		
	Total	705.576	612			
Commitment	Between Groups	78.353	5	15.671	12.102	.000
	Within Groups	785.979	607	1.295		

	Total	864.333	612			

Degrees of freedom=5, tab.value=2.37, level of significance=5%

4. Table 4: Mean of Factors Influencing Customers in favour of Insurance Products among different Gender categories of Respondents

Gender wise Classification	Product Quality and Brand Image	Service Quality	Customer Friendliness	Brand Loyalty	Commitment
Male	**3.8768**	**3.6946**	3.6541	3.1950	**3.9979**
Female	3.8051	3.5490	3.7923	**3.2868**	3.2868
Total	**3.8609**	3.6623	3.6847	3.2153	3.8401

5. Table 5: One way ANOVA Analysis between mean values of different factors of an Insurance product with Gender Categories of Respondents

		Sum of Squares	Df	Mean Square	F	Sig.
Product Quality and Brand Image	Between Groups	.544	1	.544	.728	.394
	Within Groups	456.316	611	.747		
	Total	456.860	612			
Service Quality	Between Groups	2.243	1	2.243	3.441	.064
	Within Groups	398.412	611	.652		
	Total	400.655	612			
Customer Friendliness	Between Groups	2.021	1	2.021	2.596	.108
	Within Groups	475.744	611	.779		
	Total	477.765	612			
Brand Loyalty	Between Groups	.892	1	.892	.773	.380
	Within Groups	704.684	611	1.153		
	Total	705.576	612			
Commitment	Between Groups	53.519	1	53.519	40.330	.000
	Within Groups	810.814	611	1.327		
	Total	864.333	612			

Degrees of freedom=5, tab.value=2.37, level of significance=5%

6. Table 6: Mean of Factors Influencing Customers in favour of Insurance Products among different Income categories of Respondents

Income wise Classification	Product Quality and Brand Image	Service Quality	Customer Friendliness	Brand Loyalty	Commitment
Nil Income	3.8546	3.6863	3.8922	3.8824	4.1176
Upto Rs 7000 p.m.	2.7717	2.9130	3.0109	3.3043	3.6522
From Rs. 7000 to Rs 15000 p.m.	3.7844	3.8000	3.7250	3.6875	3.5250
From Rs15000 to Rs 25 000 p.m.	3.9888	3.4146	3.6372	2.9146	3.6829
Rs 25000 to Rs Rs50000 p.m.	4.0851	4.0189	4.0071	3.0851	3.5532
Above Rs50000 p.m.	3.7240	3.6320	3.4513	3.1753	**4.3701**
Total	**3.8609**	3.6623	3.6847	3.2153	3.8401

7. Table 7: One-way ANOVA Analysis between mean values of different factors of Insurance product with Income Categories of Respondents

		Sum of Squares	Df	Mean Square	F	Sig.
Product Quality And Brand Image	Between Groups	40.411	5	8.082	11.780	.000
	Within Groups	416.448	607	.686		
	Total	456.860	612			
Service Quality	Between Groups	42.590	5	8.518	14.440	.000
	Within Groups	358.065	607	.590		
	Total	400.655	612			
Customer Friendliness	Between Groups	36.182	5	7.236	9.947	.000
	Within Groups	441.582	607	.727		

	Total	477.765	612			
Brand Loyalty	Between Groups	58.175	5	11.635	10.909	.000
	Within Groups	647.401	607	1.067		
	Total	705.576	612			
Commitment	Between Groups	71.605	5	14.321	10.966	.000
	Within Groups	792.727	607	1.306		
	Total	864.333	612			

Degrees of freedom=5, tab.value=2.37, level of significance=5%

8. Table 8: Mean of Motivating Factors Influencing in favour of Insurance Products among Different Level of Education of Respondents

Education	Product quality and Brand Image	Service Quality	Customer friendliness	brand loyalty	Commitment
Under Graduate	3.6993	3.6194	3.6813	3.8333	3.8000
Graduate	3.9616	3.6592	3.8413	2.7809	3.5787
Post Graduate and Others	3.8656	3.6804	3.5976	3.2254	**4.0032**
Total	3.8609	3.6623	3.6847	3.2153	3.8401

9. Table 9: One way ANOVA Analysis between mean values of different factors of an Insurance product with education qualification of Respondents

		Sum of Squares	df	Mean Square	F	Sig.
Product Quality	Between Groups	4.946	2	2.473	3.338	.036
	Within Groups	451.914	610	.741		
	Total	456.860	612			

Service Quality	Between Groups	.326	2	.163	.248	.780
	Within Groups	400.329	610	.656		
	Total	400.655	612			
Customer Friendliness	Between Groups	6.755	2	3.377	4.374	.013
	Within Groups	471.010	610	.772		
	Total	477.765	612			
Brand Loyalty	Between Groups	79.457	2	39.729	38.706	.000
	Within Groups	626.119	610	1.026		
	Total	705.576	612			
Commitment	Between Groups	20.737	2	10.369	7.497	.001
	Within Groups	843.596	610	1.383		
	Total	864.333	612			

Degrees of freedom=5, tab.value=2.37, level of significance=5%

Dr. Divya Negi was born in Dehradun, Uttarakhand, India on 7th March 1981. She is presently serving as an Assistant Professor with the Faculty of Management Studies, Graphic Era University, Dehradun, Uttarakhand, India and is a life member of the Indian Commerce Association.

She did her Masters in Commerce from H.N.B.Garhwal University, Srinagar, Uttarakhand in the year 2004 followed by her Ph.D. in Insurance from H.N.B.Garhwal University, Srinagar, Uttarakhand in the year 2009. She did her Masters in Business Administration specialising in finance from Punjab Technical University, Jalandhar, Punjab in the year 2010.

Her areas of interest include insurance, entrepreneurship, women empowerment and microfinance.

Praveen Singh was born in Dehradun, Uttarakhand (formerly Uttar Pradesh), India on 6th July 1975. He is presently serving as an Assistant Professor with the Faculty of Management Studies, Graphic Era University, Dehradun, Uttarakhand, India.

He received his Post Graduate Diploma in Management specializing in finance from Maharishi Arvind Institute of Science and Management, Jaipur, Rajasthan, India in the year 1997. He has done his M.Phil from Vinayaka Mission University, Tamil Nadu, India in the year 2008. He has received his Bachelor in Commerce from HNB Garhwal University, Uttarakhand, India in the year 1995 and Masters in Commerce degree from HNB Garhwal University, Uttarakhand, India in the year 2005. He is an MBA from Punjab Technical University, Jalandhar, Punjab, India, 2007. He has 14 years of experience in varied industries and academia. His areas of interest are accounting, finance, insurance and banking.