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Factor Barriers to Subscribe Health Insurance Policies among the People of Punjab: A Study

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Abstract: *Purpose: Health insurance sector is burgeoning in India for the last few years. However, the health insurance is not seen as one of the prominent investment for majority of the population, further they are depending on other sources. This led to increasing out-of-pocket expenses for the individuals to cover their health expenses. Socio-economic conditions and other factors such as awareness, policy conditions, issues related to hospitals are the major concerns for the health insurance industry.*

Methods: The study used descriptive statistics such as percentages for analysis. For the purpose of testing the hypothesis, Factor analysis, Friedmans mean ranks and Pearson Chi Square, Cramers V tests are applied.

Results: The study observed that the complications in claim settlement process, lack of reliability on the insurer and policy conditions are the most influential factors that restrict the non-policyholders. Among the socio-economic variables, annual income, education and number of dependents have association with willingness to pay and contribute to make decision for buying health insurance policy.

Conclusion: For higher penetration of health insurance plans in the country, the stakeholders of the industry need to reframe the policies on the front of products and after-sales services. Beyond all, the major challenge that needs to be addressed by the regulatory body is to bring awareness about the health insurance policies and make the insurance products as a demanded product rather as a sold product.

Key Words: *Barriers, Health Insurance, Socio-economic, Willingness*

1. INTRODUCTION

Health is of prime concern and it is the basic need of every citizen of the country. Governments across the world devised various mechanisms to fulfill the health requirements of their citizens. India with a huge population size of 1.1 billion and

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surging ahead to 1.5 billion by 2025 with 600 million in middle class segments provides a huge demand for the health care sector. As per the reports of World Bank, 70% of the health care spending is private and 90% of that spending is not insured. The health insurance in India is a $3 billion industry which is growing at the rate of 20 per cent. The risk coverage by the public spending through Government sponsored schemes and community based health insurance schemes are unable to cover majority of the population. To reduce Out–of-Pocket expenditure, health insurance is one of the best alternatives to finance expensive medical costs in India. There is no doubt that Indian market has lot of potential in this sector to grow, due to the large chunk of population which is uncovered due to various reasons.

In fact, the health insurance sector is not an exception from the anomalies such as low penetration, increased hospitalization expenses, lack of awareness among the investors towards the health insurance, lack of any standardization in healthcare costs, attitudes, cultural values and socio-economic dimensions of the insured etc. The present study was conducted to know the factors that obstruct to subscribe the health insurance and willing ness to pay among the non policy holders.

2. REVIEW OF LITERATURE

Various studies are conducted to know the reasons for low penetration of health insurance in India. The literature review suggests that knowledge and awareness are very important determinant for health insurance subscription and low level of awareness is major barrier in subscription among individuals (Bawa and Ruchita, 2011; Ramamoorthy and Kumar, 2013 and Sheth, 2013). Adibe *et al.* (2011) also assess the low level of awareness among Nigerian employees and it is associated with demographic variables. The level of awareness in south Indian population was reasonable but not so high and it is significantly associated with occupation, family income, educational status, religion and socio-economic status. People having white collar jobs with good income level had high level of awareness (Reshmi *et al.*, 2012).

The results of previous studies show that lack of willingness among non policyholders is a major barrier to expand the coverage of policyholders to that extent which is required. Bawa and Ruchita (2011) found low level of willingness to pay among individuals in Punjab. Socio-demographic variables like gender, age, education, occupation and income are found to be highly associated with willingness to pay. Dror *et al.* (2006) also found low level of willingness in seven micro cities of India. Half of the sample population was agreed to pay only 2 per cent, 30 per cent was agreed to pay 2 per cent and two –third of population was willing to pay only 1 per cent of the annual income. Asgary *et al.* (2004) examined the significant impact of willingness to pay on demand for health insurance in rural areas of Iran. Households with morbid conditions and prior experience of inpatient admissions were more likely to join and pay for health insurance. More than 50 per cent of people were expressed inability to pay more than 1 per cent of their annual income (Ghosh and Mondal, 2011).

Income is also another important determinant which influences the purchase decision of health insurance in India. Income found the most important determinant to buy micro health insurance schemes in India (Bhat and Jain, 2006). Makoka *et al.* (2007) examined income as a significant determinant to affect the demand for private health insurance in Malawi district. People with high income and good health have shown more interest to pay for supplementary health insurance plans (Bolhaar et al, 2008). Christiansen *et al.* (2002) found that chances of more coverage for health insurance increased with rise in income. The main reason for less coverage was low income or uncertainty of income among the rural people of Bangalore (Madhukumar *et al.*, 2012). Households having high income had high willingness to pay for health insurance in India (Dror *et al.*, 2006).

Unaffordability is the real challenge for low health insurance penetration in India (Sheth, 2013). Carrin *et al.* (2005) examined the Unaffordability of premiums in developing countries for community based health insurance. Some other studies also favored in the lack of enough money to purchase expensive voluntary health insurance in India (Vanithamani 2013 and Bawa and Ruchita 2011). Donfouet *et al.* (2011) and Grignon and Kambia (2009) also talk about high premium rates and unaffordability of premiums. Lack of economic resources and high premium charges were the main reasons that people were unable to cover under health insurance plans (Panchal, 2013).

Lack of reliability is one of the major reasons for low subscription in health insurance segment in India (Madhukumar *et al.*, 2012). Bawa and Ruchita (2011) found lack of reliability as a main obstruct among the seven for less coverage in Punjab. Health insurance failed to provide catastrophic health spending when needed which decrease the trust among individuals for buying plans (Kithaule, 2013). People were not so much satisfied from health insurance services and it's not benefitted to that extent which satisfied policyholders (Vanithamani, 2013). Price subsidies also effects health insurance market (Marquis *et al.* 2006). Relaxation in policy prices positively affected the consumer decision to buy a policy. Expectations of tax reduction influenced significantly on purchase decision (Omonira and Oyekale, 2012).

Lack of accessibility and availability of services were found major drawbacks in health insurance industry. Moreover, lack of intermediaries, lack of comprehensive coverage and prefer to invest money in some other areas were also obstruct to subscribed (Bawa and Ruchita, 2011). Sarwar and Qureshi (2012) assess narrow policy options is a major reason for not purchasing a policy. People who were aware but not interested to subscribed because of involvement of hidden cost and narrow policy options (Bawa and Ruchita, 2011).

Another set of factors which are found important in the literature of health insurance are socio-economic variables. Different Occupations of people had different views regarding purchase decisions (Yelliah and Ramakrishna 2012). Age has been found positive and significant impact on the probability of buying insurance (Reshmi *et al.* 2007, Yelliah and Ramakrishna 2012).Gender also plays an important role in the insurance decision through its impact on medical consumption (Selvan 2012, Reshmi

et al. 2007). Bhat *et al.* (2005) concluded the purchase of private health insurance is a family decision rather as an individual decision. The characteristics of the family and their health condition as a unit are also important variables to study.

3. OBJECTIVES OF THE STUDY

The objectives of a study are defined on the basis of gap identified after conducting the previous studies.

1. To know the level of awareness and sources of awareness for health insurance plans among the people of Punjab.
2. To examine the factors that act as barriers for buying health insurance plans among the people of Punjab.
3. To determine the willingness to pay for health insurance plans by non policyholders in Punjab.

4. HYPOTHESIS

The study formulated following hypothesis to test the socio-economic variables with willingness to pay.

H_1: All the factors that obstruct the non-policy holders to subscribe for health insurance policies are not correlated.

H_{2a}: There is no association between gender and willingness to pay for health insurance in Punjab.

H_{2b}: There is no association between age and willingness to pay for health insurance in Punjab

H_{2c}: There is no association between employment and willingness to pay for health insurance in Punjab.

H_{2d}: There is no association between income and willingness to pay for health insurance in Punjab.

H_{2e} : There is no association between education and willingness to pay for health insurance in Punjab.

H_{2f}: There is no association between type of family and willingness to pay for health insurance in Punjab.

H_{2g} : There is no association between no. of dependents and willingness to pay for health insurance in Punjab.

H_{2f}: There is no association between health expenses and willingness to pay for health insurance in Punjab.

5. DATA BASE AND RESEARCH METHODOLOGY

5.1. Data Source: The study is based on both the primary and secondary data. The Secondary data is collected from various annual reports of Insurance Regulatory and

Development Authority (IRDA) and Published data from World Health Organization. The Primary data is collected by canvassing a well-structured questionnaire which was modified from Bawa and Rachita (2011).

5.2. Period of Study: The primary data was collected by canvassing a questionnaire during February – April, 2014.

5.3. Sampling Area: The sample area was Majha, Doaba and Malwa regions and considered one district from each area. Amritsar from Majha, Jalandhar from Doaba and Ludhiana from Malwa are selected as the sample area for the study.

5.4. Questionnaire: The data was collected using a modified questionnaire of Bawa and Ruchita (2011).The questionnaire was pretested on a sample size of 80 respondents and made rigorous modifications to get maximum unbiased information. Finally actual survey was done on the sample size of 384 respondents in Punjab. Some questionnaires were eliminated due to the partial completion of the instrument and biased information and 356 are selected for a final study.

5.5. Sampling Technique: Convenience sampling is used for the research. During survey, it was tried to cover rural, semi-urban and urban area of the districts of Amritsar, Jalandhar and Ludhiana so that actual picture will comes out for the trend of health insurance in Punjab.

5.6. Tools for Analysis: Descriptive statistics such as percentages is applied. Friedmans test, factor analysis , Chi-square and Cramers V test are applied for hypothesis testing.

6. RESULTS AND DISCUSSION

The results from the survey are presented in three sections. Part 1 deals with the socio-economic profile and awareness among respondents about health insurance. Part 2 discloses the factors that act as barriers to buy health insurance and Part 3 shows the willingness to pay for health insurance by Non-Policyholders.

6.1. Socio-Economic Profile and Awareness about Health Insurance

Table 1
Showing the Socio- Economic Profile of Respondents

	No. of Respondents	*Percentage*
Gender		
Male	233	65.4
Female	123	34.6
Total	356	100
Age		
25-35 years	156	43.8
35-45 years	108	30.3
45-55 years	55	15.4
Above 55 years	37	10.4

contd. table

	No. of Respondents	*Percentage*
Total	356	100
Employment		
Government Employee	64	18
Private Employee	114	32
Own Business	70	19.7
Retired	17	4.8
Labor	20	5.6
Agricultural	32	9
Any Other	39	11
Total	356	100
Income		
Less than Rs. 1 lac	111	31.2
Rs. 1lac- 2 lac	90	25.3
Rs. 2 lac-3 lac	65	18.3
Rs. 3 lac-4 lac	42	11.8
Above Rs. 4 lac	48	13.5
Total	356	100
Education		
Illiterate	13	3.7
Middle	23	6.5
Matric	20	5.6
Higher Secondary	63	17.7
Graduation	90	25.3
Post Graduation	70	19.7
Vocational	68	19.1
Any Other	9	2.5
Total	356	100
Family Type		
Joint	197	55.3
Nuclear	159	44.7
Total	356	100
Number of Dependents		
Less than 2	135	37.9
Between 2-4	162	45.5
Between 4-6	55	15.4
Above 6	4	1.1
Total	356	100
Health Expenses (per month)		
Rs. 200-500	142	39.9
Rs. 500-800	59	16.6
Rs. 800-1100	59	16.6
Rs. 1100-1400	36	10.1
Above Rs. 1400	60	16.9
Total	**356**	**100**

Source: Primary Data

Interpretation: Table 1 presents socio-demographic profile of respondents. The gender profile from the table shows that 65.4 per cent of total respondents are male and rest are female (34.6 per cent). The age group categorized into four groups (as per the financial literacy declared by) shows that age group from 25-35 have highest

proportion in population (43.8 per cent) followed by 35-45 age group (30.3 per cent) and 45-55 age group (15.4 per cent). The employment profile of respondents shows that majority of population have private jobs (32 per cent) followed by own Business and government employees (19.7 per cent and 18 per cent). Respondents having agriculture occupation are only 9 per cent whereas labor and retired are 5.6 and 4.8 per cent respectively in the population. It is also observed that the highest per cent in a population is below 1 lakh of annual income (31.2 per cent) followed by income level of Rs. 1 lakh-2 lakh (25.3 per cent), Rs. 2 lakh- Rs. 3 lakh (18.3 per cent), Above Rs. 4 lakh (13.5 per cent) and Rs. 3lakh – Rs.4lakh (11. 8 per cent).this shows that major proportion that is 56.5 per cent of population is below 1 lakh and in between the income level of Rs. 1-2 lakh. The education level of respondents showing major proportion of graduation and post graduation respondents in a population (45 per cent) followed by higher secondary (17.7 per cent) and vocational (19. 1 per cent). Table 1 presents type of families of respondents. Majority of respondents related to joint families (55.3 per cent) and rest are belongs to nuclear families (44.7 per cent). It is revealed from the table that highest proportion of respondents have between 2-4 dependents in a family. 37. 9 per cent respondents have less than 2 dependents followed by number of dependents (15.4 per cent) between 4-6. Table shows the Health expenses per month of respondents that is categorized into four categories as per the annual health expenses of Indians mentioned by WHO in annual report of 2012-13. The major proportion of respondents lie between the health expenses from Rs. 200-Rs. 500 per month (39.9 per cent) followed by health expenses above Rs.1400 (16.9). The per cent of respondents that have health expenses between Rs.500-800 and Rs. 800-1100 (per month) is same (16.6 per cent). Only 10.10 per cent of respondents have health expenses between Rs. 1100-1400.

6.2. Table Showing the Awareness and Various Sources of Awareness to Bring Awareness among Respondents

Awareness about health insurance	*Particulars*	*No. of Respondents*	*Percentage*
	Yes/Subscribed	52/182	28.57
	Yes / Unsubscribed	130/182	71.43
	Not aware	174	48.9
	Total	**356**	**100**
Sources of Awareness	Particulars		
	Agents	59	32.4
	Companies	8	4.4
	Hospitals	15	8.2
	Advertisement through Print Media and Electronic Media	34	18.7
	Banks	21	11.5
	Friends	20	11
	Colleagues	8	4.4
	Relatives	15	8.2
	Any other	2	1.1
	Total	**182**	**100**

Source: Primary Data

Interpretation: Table 2 shows the awareness of respondents which shows that the major proportion in select respondents is aware about health insurance (51.1 per cent) and rest are unaware about it (48.9 per cent). These respondents not even heard about health insurance.

In the era of wireless and broad band communication there is no dearth for the individuals to update themselves with the information. Wider sources of communication are available to the individuals to know the costs and benefits of health insurance. An attempt was made to know the sources of awareness among the people of Punjab to know about the health insurance. For the purpose of study various sources are identified and accordingly the individuals' responses are tabulated. As can be seen from the table-2, majority of respondents get aware about health insurance through agents and it is a preferred mode for 32.4 per cent of respondents to know about health insurance. It is also observed that 18.7 per cent of respondents depend on advertisements through print media and electronic media followed by banks (11.5 per cent). An equal number 8.2 per cent of respondents rely on relatives and hospital for reliable information about the health insurance whereas colleagues and companies are the reliable source of information about the health insurance for only 4.4 per cent of respondents. Therefore it can be inferred that agents followed by print and electronic media is the most preferred source of information to get aware about the health insurance schemes and their costs and benefits.

6.3. Factors that Act as Barriers for Buying Health Insurance Plans

Various factors such as socio –economic profile, references, policy conditions, behavior of various groups influence on the willingness to buy a health insurance policy. An attempt was made to know what factors obstructed the respondents to buy a health insurance policy. Factors that obstruct the respondents to subscribe to health insurance policy were collected from the review of literature, subjective study through pilot survey and few factors from Bawa and Rachita (2011) and the responses were tabulated in table 3.

Interpretation: Friedman mean ranks are used to identify the factors which have significant influence on the subscription to buy health plans. It is clear from the table among eighteen statements complication in the claim process (12.47) is the major distorting factor followed by lack of reliability on the insurer (11.98). Narrow policy options (11.84), inadequacy of knowledge on part of agents (11.55) and difficulty in availing services (11.49) are the factors influencing the non-policy holders to restrict themselves to buy a policy which stand in third, fourth and fifth positions respectively. Reference by friends (4.63), salary constraints (6.58) and lack of intention (7.26) are the other factors that influenced the buying attitude of the non-policy holders.

Friedman's test also tests the hypothesis that the ranks of the variable do not differ from their expected value. For a constant sample size, the higher the value of the chi-

Table 3
Table Showing the Factors that Obstruct the Individuals to Subscribe to Health Insurance Plans

S. No	*Factors obstruct to subscribe to Health Plans*	*Level of Agreement*					*Total*	*Friedman's mean ranks*
		SDA	*DA*	*NANDA*	*A*	*SA*		
1	Behavior of agents was not satisfactory	9 6.9%	22 16.8%	46 35.1%	41 31.3%	13 9.9%	13 1100.0%	8.37
2	Claim process is complicated	5 3.8%	8 6.1%	18 13.7%	35 26.7%	65 49.6%	13 1100.0%	12.47
3	Difficult to approach agents	8 6.1%	21 16.0%	28 21.4%	21 16.0%	53 40.5%	13 1100.0%	10.62
4	Difficulty in availing services	2 1.5%	15 11.5%	24 18.3%	42 32.1%	48 36.6%	13 1100.0%	11.49
5	Don't feel the need for it	26 19.8%	26 19.8%	12 9.2%	39 29.8%	28 21.4%	131 100.0%	8.45
6	Don't like to buy	29 22.1%	23 17.6%	29 22.1%	40 30.5%	10 7.6%	131 100.0%	7.26
7	High premium cost	14 10.7%	26 19.8%	27 20.6%	25 19.1%	39 29.8%	13 1100.0%	9.53
8	Hospitals under coverage are not accessible	14 10.7%	32 24.4%	26 19.8%	39 29.8%	20 15.3%	13 1100.0%	8.50
9	Inadequacy of knowledge on part of agents	2 1.5%	11 8.4%	27 20.6%	39 29.8%	52 39.7%	13 1100.0%	11.55
10	Lack of reliability	7 5.3%	8 6.1%	27 20.6%	24 18.3%	65 49.6%	131 100.0%	11.98
11	Low salary	48 36.6%	28 21.4%	9 6.9%	25 19.1%	21 16.0%	13 1100.0%	6.58
12	More copayment involved	4 3.1%	3 2.3%	41 31.3%	42 32.1%	41 31.3%	131 100.0%	11.05
13	Narrow policy options	4 3.1%	5 3.8%	23 17.6%	47 35.9%	52 39.7%	131 100.0%	11.84
14	No one suggested	31 23.7%	63 48.1%	9 6.9%	14 10.7%	14 10.7%	131 100.0%	5.63
15	Non refundable	8 6.1%	19 14.5%	25 19.1%	35 26.7%	44 33.6%	131 100.0%	10.62
16	Not taken by friends	53 40.5%	43 32.8%	15 11.5%	13 9.9%	7 5.3%	131 100.0%	4.63
17	Prefer to invest money in other areas	10 7.6%	23 17.6%	20 15.3%	26 19.8%	52 39.7%	131 100.0%	10.68
18	Savings in some other areas to meet health ca	18 13.7%	13 9.9%	24 18.3%	39 29.8%	37 28.2%	131 100.0%	9.75
	Total	292 12.4%	389 16.5%	430 18.2%	586 24.9%	661 28.0%	2358 100.0%	

Source: Primary Data

square statistic, the larger the difference between each variable's rank sum and its expected value. For these rankings, the chi-square value is 479.533 and degrees of freedom are equal to the number of variables minus 1 i.e., 18-1 = 17. As the chi-square value 479.533 with degrees of freedom 17 is high, it can be concluded that the respondents do not have equal attitude for all the statements pertaining to buy a health insurance plan.

As can be seen from the table an equal number of respondents evinced that the complication in claim settlement process (49.6 per cent) and lack of reliability on insurer (49.6 per cent) are the most influential factors that restrict the non-policyholders. Lack of knowledge on the part of agents to clearly mention the details of health insurance policies, policy options not favorable and preference given to other investment options for health care are the persuading factors for 39.7 per cent of respondents. As evident from the table that 33.6 per cent of respondents felt that the amount of premium paid is non-refundable like any other investment while 36.6 per cent of the respondents felt it is difficult to get the services from the agents, hospitals and insurance companies whenever there is a need.

Hypothesis – 1: The study explored various important factors that affect the subscribing tendency of non-policy holders towards health insurance plans. For the purpose of deducing an important attributes and to test the hypothesis -1, whether all the factors that obstruct the non-policy holders to subscribe for health insurance policies are not correlated, exploratory factor analysis was used.

To determine the inter-correlation among the factors the principal component Varimax rotation factor analysis method was employed to the group for different factors. Reliability analysis using Cronbach's alpha was conducted on the instrument / construct. Reliability coefficient relating to the opinion of responses turns out to be 0.762.

The appropriateness of the data collected was examined by using various measures such as KMO (Kaiser – Meyer – Olkin) Measure of Sample Adequacy and Bartlett's Test of Sphericity. The KMO Measure of Sample Adequacy at 0.722 is adequate to conduct factor analysis. Bartlett's test of sphericity was the next statistical test applied in the study for verifying the appropriateness of the data. The test value 658.950 is highly significant (p= 0.000) thereby indicating the data is appropriate for the factor analysis.

Table 4
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.722
Bartlett's Test of Sphericity	Approx. Chi-Square	658.950
	Df	153
	Sig.	.000

Table 5
Table showing the Total Variance Explained for the factors that obstruct the non-policy holders to subscribe for health insurance plan

	Initial Eigen Values			*Extraction Sums of Squared Loadings*			*Rotation Sums of Squared Loadings*		
	Total	*% of variance*	*Cumula-tive %*	*Total*	*% of variance*	*Cumula-tive %*	*Total*	*% of variance*	*Cumula-tive %*
1	4.041	22.449	22.449	4.041	22.449	22.449	2.644	14.690	14.690
2	2.240	12.444	34.893	2.240	12.444	34.893	2.316	12.864	27.554
3	1.665	9.251	44.144	1.665	9.251	44.144	1.727	9.594	37.148
4	1.425	7.917	52.062	1.425	7.917	52.062	1.620	8.998	46.146
5	1.064	5.909	57.971	1.064	5.909	57.971	1.617	8.985	55.130
6	1.025	5.693	63.664	1.025	5.693	63.664	1.536	8.534	63.664
7	.887	4.926	68.590						
8	.787	4.374	72.964						
9	.699	3.884	76.848						
10	.661	3.672	80.520						
11	.631	3.504	84.025						
12	.561	3.115	87.140						
13	.494	2.746	89.885						
14	.439	2.437	92.322						
15	.409	2.272	94.594						
16	.380	2.109	96.703						
17	.327	1.815	98.518						
18	.267	1.482	100.000						

Source: Compiled from Primary Data

Interpretation: It is observed from the table 5, that percentages of variance explained by factor 1 to be 6 are 14.690 per cent, 12.864 per cent, 9.594, 8.998, 8.985 and 8.534 per cent respectively. By retaining only the variables with Eigen values greater than one, we can infer that 14.690 per cent of variance is explained by factor 1 , 12.864 per cent of variance is explained by factor 2 , 9.594 per cent of variance is explained by factor 3, 8.998 per cent of variance is explained by factor 4, 8.985 per cent variance is explained by factor 5 and 8.534 per cent variance is explained by factor 6.

Interpretation: Factor loadings are applied to group variables where factor loadings greater than 0.5 is found to be considered as an index.

Factor-1: Role of Agents

Table 5 and Table 6 shows that the dimension of factor 1 is the most important factor which has 14.690 per cent of the total variance and has Eigen value of 2.644 and four statement lead to this factor. The variable inadequacy of knowledge provided by agents has the highest factor loading 0.834 followed by it is difficult to approach insurance agents (0.786). On the basis of factor loadings, lack of reliability and flexibility (0.612) and satisfactory level towards behavior of agents (0.583) are the most important factors. It is clearly evinced from the table that insured are more concern towards their

Table 6
Table showing the Rotated Component Matrix and Kolmogorov – Smirnov Z- test values for factors that obstruct the non-policy holders to subscribe for health insurance plan

		Component						
	Statements	*1*	*2*	*3*	*4*	*5*	*6*	*Kolmorogov-Smirnov Z- Value*
V1	Low salary	.021	-.236	.184	.665	-.247	.040	2.582
V2	Don't like to buy	.031	.680	.116	-.295	-.024	.042	2.265
V3	Don't feel the need for it	.067	.599	-.139	-.169	.242	.329	3.480
V4	High premium cost	-.027	.119	.167	.809	.042	.167	2.915
V5	Prefer to invests money in some other areas	.230	.640	.102	.344	.212	-.010	2.671
V6	Lack of reliability and flexibility	.612	.389	.026	.047	-.168	-.039	3.332
V7	Claim process is lengthy and complicated	.526	.276	.520	-.024	-.321	-.072	3.226
V8	Non refundable	-.100	.333	.608	.198	.002	.290	2.406
V9	Hospitals are difficult to accessible	-.026	-.119	.818	.170	.090	-.001	2.382
V10	Not taken by friends and relatives	-.042	.105	.183	-.220	.689	.110	2.929
V11	Narrow policy options	.126	.116	.008	.063	-.062	.792	3.018
V12	Difficult to approach insurance agents	.786	.142	-.123	.060	.107	.154	2.772
V13	Difficulty in availing services	.185	.190	.371	.219	.321	.340	2.809
V14	More copayment involved	.387	.039	.237	.180	-.047	.599	2.215
V15	Behavior of insurance agents was not satisfactory	.583	.150	.208	-.258	.364	.179	2.286
V16	Inadequacy of knowledge provided by agents	.834	-.088	-.029	.004	.150	.215	2.643
V17	No one suggested	.220	-.013	-.153	.091	.749	-.294	3.600
V18	Savings in some other areas to meet health needs	.137	.742	.056	.075	-.036	.062	2.657

Source: Compiled from Primary Data

relationship with the agent to get insured. This highlights the need and significance of proactive and humanistic role of agents in the insurance transaction and innovative marketing practices become supplementary to the individuals.

Factor-2: Alternative Investments

This factor accounts for the second largest amount of total variance at 12.864 per cent and has an Eigen value of 2.316, four statements lead to this factor and this factor divulges the attitude of investors towards alternative investments. It is shown from the table that preference to save in other areas of investment to meet the health needs

has the highest factor loading (0.742) followed by dislike to buy (0.680), preference to invest money in other areas (0.640) and they don't feel to buy at the moment (0.599).

Factor -3: Accessibility to Health Service Providers

This factor accounts for 9.594 per cent of variance of the total variance and has an Eigen value of 1.727. This factor cover only two statements such as accessibility of hospitals (0.818) and non-refundable (0.608). This factor presents that the individuals do not buy the policy due to lack of accessibility of hospitals to get quality medical treatment.

Factor -4: Financial Constraints

Factor 4 accounts to 8.998 per cent of variance of the total variance and has Eigen value of 1.620. This factor covers only two statements such as high premium cost (0.809) and low salary (0.665). This factor highlights the individuals show disinterest towards health plans due to their financial constraints.

Factor -5: Dependence on Neighbors and Relatives

Factor 5 accounts to 8.985 per cent of variance of the total variance and has Eigen value of 1.617. This factor account to only two factors such as lack of suggestion from any one (0.749) and the suggestions not received from relatives and friends (0.689). This factor divulges the importance of neighbors', friends and relatives to guide and suggest the individuals while buying any health plans due to proliferation of products and companies in to the market.

Factor -6: Product Quality

Factor 6 divulges the product quality features are the reasons for not subscribing to the health insurance plan. This factor accounts to 8.534 per cent of the total variance and has Eigen value of 1.536 which covers only two factors. Narrow policy options (0.792) and more copayment involved (0.599) are the two reasons for not taking the policy.

From the table 6, it is observed that the mean values range from 2.6465 to 3.6514 which reveals the increasing tendency in the stimulation aspect of selected factors, lower the mean values, and lower the importance of the factor to influence on the purchasing behavior.

*The **Kolmogorov- Smirnov Z-test statistics** is the product of the square root of the sample size and the largest absolute difference between the empirical and theoretical cumulative attributes functions.* The Z statistics for the selected variable range between 2.215 & 3.480 which are statistically significant at 0.00 per cent level of significance. Hence, it infers that the distribution is normal and null hypothesis is rejected while alternate hypothesis is accepted i.e. all the factors that obstruct the non-policy holders to subscribe for health insurance plan are correlated.

6.4. Willingness to Pay for Health Insurance by Non- Policyholders

An attempt was made to know whether the non-policyholders are willing to subscribe for health insurance policy provided an orientation is given to them about the policies.

Table 7
Table Showing the Willingness to pay for Health Insurance by Non- Policyholders

S. No	*Particulars*	*No. of Respondents*	*Percentage*
1	Ready to buy	10	7.7
2	Still need some time to buy	20	15.4
3	Not ready to buy	63	48.1
4	But if certain conditions fulfilled	24	18.5
5	No response	14	10.8
	Total	131	100

Source: Compiled from Primary Data

Interpretation: As evident from the table 7, 48.1 per cent of respondents are not willing to subscribe. This may due to the fact that income levels, cultural constraints, government support and occupation profile may not provide the scope of investment towards the policies. Among the remaining respondents, 18.5 per cent respondents agreed to subscribe to health insurance provided if certain conditions are fulfilled by the companies while 15.4 per cent respondents are in dilemma and need some more time to decide. Only 7.7 per cent respondents agreed that they are ready to buy the health insurance policies whereas 10.8 per cent respondents are not sure whether they can subscribe to the policy or not.

Hypothesis -2: An attempt was made to know whether there is any association between the socio – economic profile of respondents and the willingness to pay for health insurance policy. To test the hypothesis -2, Pearson Chi- Square and Cramer V are applied and the results are tabulated in Table 8.

Interpretation: For the rejection of Null Hypothesis, p value should be less than 0.05. The table 7 shows the p value of Gender is .613 which is more than 0.05 at 5% of significance level. Null hypothesis (H_0) is accepted which shows that there is no association between gender and willingness to pay. The value of p for annual income is .003 which state that Null hypothesis (H_{03}) is rejected and alternative hypothesis is accepted. The value of Cramer V and Contingency coefficient has provided the results that association is not strong as the values are .179 and .336 which is less than 0.5. The value of Cramer V and Contingency coefficient should be more than .5 for strong association. The p value for education is .002 which is less than .005 that indicates the rejection of Null hypothesis (H_{04}) and acceptance of alternative hypothesis. But the results of symmetric measures show the weak association as the value of Cramer V and Contingency coefficient is .193 and .360. The p value for number of dependents is .41which is less than 0.05 state that Null hypothesis (H_{06}) is rejected. This indicates that there is an association between number of dependents

Table 8
Table Showing the Results of Chi-Square and Symmetric Measure to test the Hypothesis

		Value	*df*	*Sign.*	*Significant/ Insignificant*	*Accepted/ Rejected*
H_0	Pearson Chi-Square	2.681	4	.613	**Insignificant**	**Accepted**
	Likelihood Ratio	2.619	4	.623		
	Linear-by-Linear Association	.643	1	.423		
	Cramer V	.144		.613		
	Contigency Coefficient	.142		.613		
H_{01}	Pearson Chi-Square	9.237	12	.683	**Insignificant**	**Accepted**
	Likelihood Ratio	10.0456	12	.611		
	Linear-by-Linear Association	2.253	1	.133		
	Cramer V	.154		.683		
	Contigency Coefficient	.258		.683		
H_{02}	Pearson Chi-Square	12.183	20	.910		
	Likelihood Ratio	14.985	20	.777	**Insignificant**	**Accepted**
	Linear-by-Linear Association	2.332	1	.127		
	Cramer V	.153		.910		
	Contigency Coefficient	.293		.910		
H_{03}	Pearson Chi-Square	16.589	16	**.003**	**Significant**	**Rejected**
	Likelihood Ratio	17.551	16	.351		
	Linear-by-Linear Association	2.717	1	.099		
	Cramer V	.179		.003		
	Contigency Coefficient	.336		.003		
H_{04}	Pearson Chi-Square	19.393	24	**.002**	**Significant**	**Rejected**
	Likelihood Ratio	21.716	24	.059		
	Linear-by-Linear Association	2.241	1	.134		
	Cramer V	.193		.002		
	Contigency Coefficient	.360		.002		
H_{05}	Pearson Chi-Square	1.724	4	.786	**Insignificant**	
	Accepted					
	Likelihood Ratio	1.715	4	.788		
	Linear-by-Linear Association	.286	1	.593		
	Cramer V	.115		.786		
	Contigency Coefficient	.114		.786		
H_{06}	Pearson Chi-Square	16.081	8	**.041**	**Significant**	**Rejected**
	Likelihood Ratio	19.782	8	.011		
	Linear-by-Linear Association	.010	1	.921		
	Cramer V	.549		.041		
	Contigency Coefficient	.532		.041		
H_{07}	Pearson Chi-Square	16.819	16	.397	**Insignificant**	**Accepted**
	Likelihood Ratio	19.082	16	.264		
	Linear-by-Linear Association	.000	1	.999		
	Cramer V	.180		.397		
	Contigency Coefficient	.338		.397		

Source: Compiled from Primary Data

and willingness to pay. The value of Cramer V and Contingency coefficient is .549 and .532 which is more than .5. The results of these symmetric measures proved that there is a strong association between number of dependents and willingness to pay. Furthermore, the p value for age, employment, type of family and health expenses is more than 0.05 which state that there is no association exists between age (H_{01}), employment (H_{02}), type of family (H_{05}) and health expenses (H_{07}) with willingness to pay.

The results show that annual income, education and number of dependents have association with willingness to pay and contribute to make decision for buying health insurance policy but other socio-demographic variables have no association with willingness to pay for health insurance in Punjab.

7. SUGGESTIONS

The present study presented above focused on the challenging factors to throw light upon for the companies, IRDA and Government authorities. In light of the above, various suggestions were made.

Suggestions to Insurers

1. It is suggested for the companies to make clear cut policies providing information related to all aspects because most of the disputes born due to the hidden information provided by the companies.
2. The private insurance companies are advised to reduce their premium prices so that it is easily affordable by all the segments.
3. The companies are also suggested to make policies that target to middle and poor class segments.
4. Companies are advised to reduce the formalities regarding the claim settlements and make easy the process of settlements.

Suggestions to IRDA

1. Insurance frauds are likely to register more in health insurance schemes. This phenomenon affect on the credibility of the sector, which could make the existing shareholders may either with draw or discontinue in future renewals. Therefore, it is suggested for a database management system to retrieve the data base of each transaction in such a manner to minimize any frauds.
2. In spite of consistent efforts taken by Central, State Governments and IRDA, still there is a dearth in the awareness level among the individuals. It is proposed to have a broad linkage through appropriate database management system to streamline the process of transactions done by the individuals among the stake holders.

Suggestions to Government

1. Government of India could initiate a proactive role of SHGs and NGOs to wide spread the concept of health insurance as these two bodies have significant contribution towards the financial inclusion.
2. The habit of savings among the individuals cannot be built in a day. This practice need to cultivate from their childhood. It is better suggested to make "Concept of Insurance" and "Health Insurance" as a part of curriculum at least from 10th Standard.

8. SCOPE FOR FURTHER RESEARCH

The findings of the present study are presenting the scope for further research which is presented below.

1. The present study provides future insights for the researchers to commence longitudinal study among the respondents.
2. Further, the researchers can explicitly conduct a study on the willingness to pay for specific health insurance schemes such as Private health insurance schemes, Government sponsored schemes, community based schemes, Micro health insurance schemes.
3. Further, research could also be extended considering the role of third party administrators and hospital service providers which would be worth fulfill to find the gap between the stake holders.
4. Another aspect worthy of the investigation for the researchers is to examine the factors that influence the people to restrict them to buy the health insurance policies.
5. Moreover, the future studies focus on the role of self-help groups and NGOs in instigating the people to buy the health insurance plans.

9. CONCLUSION

There is no doubt that level of awareness about health insurance among the people of Punjab is still very low. The major part of population who are awared through various modes are not subscribed themselves. The main reasons found from the study what restraining the non-policy holders to subscribe to the health insurance policy are complications in claim settlement process, narrow policy options, lack of reliability on the insurers and non-refundable of the premiums after the maturity period. Furthermore the results of Willingness to pay show that only 7.7 per cent of population are ready to buy without any conditions and 18.5 per cent will buy if certain conditions fulfilled. Willingness to pay also associate with annual income, education and number of dependents but having no association with gender, age, occupation, type of family and health expenses. The results of a study proved that lot of improvements are required in this area to increase awareness and subscription in Punjab.

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