AWARENESS AND WILLINGNESS TO BUY PRIVATE HEALTH INSURANCE AND A LOOK INTO ITS FUTURE PROSPECTS IN PAKISTAN

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ABSTRACT

The research focused on examining the level of awareness regarding private health insurance and the subsequent willingness to buy it. Moreover the barriers creating hurdles in the way of buying health insurance were also identified. Role of insurance agents was found to be the most significant barrier. Association was found to exist between marital status, occupation, monthly household income, monthly medical expense and hospitalization in past one year with the willingness to buy health insurance while no association was found between age, education and number of dependents an individual had with willingness to buy health insurance. The study was conducted in Pakistan and 380 questionnaires were randomly collected from the general public.

Keywords: Private Health Insurance, Pakistan,

1. Introduction

It estimated that by the year 2050, Pakistan would be one of the most populous nationsas its population would reach the dizzying number of 285 million. With an annual population growth nearing 2.5%, it becomes difficult for the government to provide satisfactory health services to the entire population **(Manzoor, Hashmi&Mukhtar, 2009)**. Private health insurance is on rise due to increasing discontentment with public health insurance, globalization and better awareness about health related issues. It has opened a window of opportunity for private industry. As demand skyrockets, it would put pressure on the suppliers to come up with better quality and increased innovation.

Dr. Lashari(2005) assessed that Pakistan, as a nation has remained under developed when it comes to financing medical care. There is a dire need to beef up the entire infrastructure to improve the investment in this sector. Unfortunately, the two systems running in the country i.e. private and public/social health insurance are not interlinked and they are working in a parallel fashion without any kind of interaction. If we delve into the share of different financing factors in Pakistan we get the following results; Out of Pocket (23%), Social Security (77%). In addition to these, there are many public and private organizations such as Pakistan International Airlines, Pakistan Railways, Water and Power Development Authority (WAPDA), Pakistan Telecommunication Limited (PTCL), Armed forces, Edhi Foundation etc. Apart from these sources, private health insurance sector is insignificant in the overall scenario. Thus the condition of medical care financing in Pakistan is very unsatisfactory.

A systematic study is needed to look into the level of awareness and subsequent willingness to opt for private health insurance. Moreover there is a need to assess different factors which are creating hurdles in the progress of this very essential tool i.e. PHI in overcoming health problems in any nation.

2. Literature Review

World Health Organization (2007) found out that Pakistan has a relatively small private health insurance sector which is not enough to cater to the growing demands of the ever increasing population. Around fifty four companies were operational in the country. Out of these companies only seven were offering some kind of group and only one was offering individual health insurance services. Although the industry is catering mostly to corporations but the advantage they get out of this is that the pool of people insured is mostly healthy and stream if cash inflows is guaranteed by the financially stable organizations. According to this health profile the State bank of Pakistan (SBP) in its analysis of the financial sector showed that when compared to other developing nations, Pakistan's insurance market has the lowest share in the gross domestic product. There are a number of reasons because of which insurance companies in general are reluctant to offer health insurance particularly. There is a very low demand for such services because usually the premiums demanded are very high. Insurance companies also find it difficult to offer policies to customers who do not have a good credit worthiness which results in lower number of sold policies. Moreover insurance companies are notorious because they tend to disregard that stratum of the society which is most vulnerable to health risks. In this way the people with the highest need for health insurance services are ignored. There is a need for regulations to be placed which would ensure that insurance companies are unable to discriminate and provide uniform rates to the population irrespective of their individual medical and financial backgrounds.

According to **EMRO, WHO (2010)** the concept of PHI (Private Health Insurance) came into limelight in the early 70s in Pakistan but at that time it was unable to create a sizeable impact among the general population. Although as the years passed the concept has cemented its place and gained acceptance as a significant player in offering medical care to the people of Pakistan. On the other hand the concept of public health insurance or social security as it is often called was introduced a few years before than PHI. Social security like PHI was also unable to penetrate the market and did not gain the approval in its introductory phase. To this very day the scope of public health insurance is very limited. In the private market, mostly the companies are targeting groups and their total premium lies between five hundred to seven hundred

million rupees. The above mentioned studied also hinted about the development of a national policy for the development of human resource for health purposes in Pakistan. It was developed in 2000 with an aim to introduce health insurance but it was not approved by the government.

As Pakistan is considered among the developing nations therefore any study which has been conducted in countries having similar economic indicators are relevant to this research. A research was conducted in the neighboring country of Pakistan, India, in an effort to examine "the respondents who are aware or not aware about health insurance as well as various sources of awareness; secondly, those who are aware have subscribed it or not; thirdly, those who have not subscribed what are the reasons behind the same; and last but not least are they willing to join and pay for it?", results proved "significant association exist between the gender; age; education; occupation; income of respondents with their willingness to pay for health insurance." (**Dr. Bawa & Ruchita, 2011**). The results of this studied showed that there was low level of awareness and willingness to join and there were seven key factors acting as a barrier in way of opting for health insurance. It was found that although health insurance is not a new concept in India but the level of awareness has not reached to that point that people start active subscription to health insurance. This study very closely relates to what we are trying to achieve in our research i.e. to ascertain the level of willingness and awareness among general population of Pakistan.

According to **Brainard (2008)**, similar to economies in the developed nations, the success and development of health insurance plans in developing nations depend upon the mix of health service providers (public or private) and the governments overseeing them. On the other hand there is one major difference in developing nations, where households have a strong tendency to pay for the health services from their own pockets. This tendency leads to low investment in the health insurance sector and results in poor health scenario. Thus, such developing economies provide an ideal scenario for growth of health insurance. Countries like Mexico and Colombia have gone under such reforms and have got promising results.

The institution of health insurance is greatly affected by a county's political situation, government regulations, and religious inclinations. It has been observed that countries with majority of the population following Islam have lower insurance consumption level. In addition to these factors the study has emphasized that demographics play a key role. For instance the share of population which is approaching the retirement age and the level of education are directly related to the growth of insurance. Moreover unlike the general perception that urbanization would lead to growth in insurance, it was observed that it did not act as a major driver. Comparison were also drawn between social and private health insurance, they were not found to be acting as substitutes rather their growth was parallel when the general income level of a country rose. Public/social health insurance services usually provide coverage to a very small percentage of the society and are restricted to civil servants, army, police etc.

It is validly pointed out by **Musgrove, Zeramdini, &Carrin (2002)** that in such developing countries private health insurance remains limited to high income level groups but as **Sbarbaro (2000)** observed that the group of people who are most likely to face health related issues are the lower income level group. This creates a paradox as people who need health insurance most are deprived of it. In the end health insurance is only able to infiltrate the employed population in the urban areas. Looking from a growth perspective, it is not a bright sign for health insurance development

This paradox was explained by **Dror & Jacquier (1999)** as all of the countries who are considered developing experience this chasm between supply and demand of private health insurance. Interestingly in countries where health insurance has developed into a national phenomenon, at first these countries faced the same inconsistencies. According to **Sekhri & Savedoff (2005)** even in Europe the initial stages of health insurance development were dominated by coverage provided by the local unions and organizations which provided insurance regardless of the demographics and offered a single slab rate to everyone.

Lofgren et al. (2008), in a study conducted in Vietnam it was found that willingness to pay for health care services was directly proportional to the level of income, education, size of family and the number of lingering diseases in a household. It was concluded that the demand for private health insurance is on the rise in the rural areas of the country because awareness about health is increasing. Due to this, the health care financing from one's own pocket has been on a decline **(Sepehri, Sarma, & Simpson, 2006)(Jowett, Deolalikar, & Martinsson, 2004)**. It was also found that if population is pushed towards obligatory health insurance, it leads to more usage of health care facilities as compared to when population goes for voluntary insurance **(Sepehri, Sarma, & Simpson, 2006)**. The reason being that incase of voluntary insurance, people are careful as high utilization mostly results in higher premium charges **(Chang & Trivedi, 2003) (Wagstaff, 2005)**.

Like mentioned before in Pakistan there has been no such related studies regarding awareness of and willingness to pay for health insurance but there have been studies conducted in other developing nations which can prove relevant. Although the number of such is studies is quite low. In China a similar study was conducted at it was concluded that the willingness of people to pay for health insurance is high enough to establish and offer them such medical services **(Barnighausen, Liu, Zhang, & Sauerborn, 2001)**. Sixty four percent people in Ghana were found to be willing to go for health insurance if they were charged rational premiums**(Asenso-Okyere, Osei-Akoto, Anum, & App, 1997)**. The rural population of Iran was found to be willing to accept urban form of health insurance services**(Asgary, Willis, Taghvaei, & Rafeian, 2001)**

According to **Shehzad (2005)** financing of health care has been a critical issue when talking about improving the quality of health sector in developed and emerging economies. Developed nations have been able to devise robust plans with the help of tax collections, private funding and social insurance. On the other hand developing nations are still striving to come up with a feasible system to enact. In such countries there is a wide chasm between the health care facilities provided to lower and higher income groups. There is a dire need to implement plans which would increase the efficiency of existing health care infrastructure and would utilize the resources already at hand. It is important that while devising such plans; convenience and participation of the target population is kept in mind. Moreover it should be made sure that such a venture into health care financing is financial feasible and sustainable.

3. Objectives

- Examine the awareness of people regarding private health insurance.
- Examine the willingness to buy private health insurance and their subsequent preferences for features.
- Examine the factors acting as barrier to private health insurance.

4. Research Methodology

The purpose behind this study was to measure the level of awareness regarding health insurance and extent of willingness to buy a health policy in Pakistan. This study can be categorized as a survey research as it involved handing out questionnaires to a carefully selected population. Considering the time dimension, it was a cross sectional study as the survey was not supposed to be repeated at any other time.

The entire sample size of 380 respondents was randomly selected from the general public. The public at large was considered to be the unit of investigation.

The questionnaire utilized was a structured questionnaire developed by **Dr. Bawa & Ruchita (2011).** It was modified to a certain extent to encompass some more information. First part of the questionnaire contained questions regarding the general demographics of the respondents. The second part included a five point Lickert scale to determine the barriers to the buying of health insurance. Before the administration of the questionnaire, pilot testing of all the questions was conducted. Total of 25 questionnaires were distributed which amounts to approximately 7% of the total sample size.

5. Data Analysis & Results

1.1 Reliability Analysis

Cronbach alpha reliability analysis was performed to check the internal consistency of the scale items as shown in **Table 1: Reliability StatisticsTable 1**. It turned out to be .71 which is considered to be acceptable in social science researches.

1.2   Descriptive Statistics

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Table 3 show the sample consisted of people belonging to different genders, marital statuses, occupations, ages and education levels. Majority of the respondents i.e. 82% had heard about health insurance and the two main sources of this information were found to be friends (23%) and insurance agents (24%). Television (14%) and Newspapers (14%) had also played an important role in creating awareness regarding health insurance.65% respondents knew the difference between life and health insurance. 47% were willing to buy health insurance for themselves while 57% were willing to buy health insurance for their family.

Out of those willing to buy health insurance 51% were ready to pay upto Rs. 5000 for single person insurance while 24% were ready to pay a sum between Rs. 5 000 and Rs.10 000 while rest of the respondents were ready to pay higher but their percentage is relatively low. Respondents were asked as to how much in their view people whom they know have benefitted from PHI. 40% did not respond to this particular question; 21% believed that PHI benefitted to some extent while 15% and 13% thought it benefitted to moderate extent and little extent respectively. On the question as to what kind of installment plan would preferable for PHI, 5% did not respond. 46% of the respondents were in favor of yearly installment plan while rest were equally divided in preferring semi-annual (17%), Quarterly (17%) and Monthly (15%) plans for installments.

1.3   Factor Analysis

In order to find the specific factors which are the main reason behind most of the variation in the variable; factor analysis was performed.

Table 5 shows the Kaiser-Meyer-Olin and Bartlett's test statistics. KMO measures the adequacy of sampling and it was found to be equal to 0.680 which should be greater than 0.50 to indicate the goodness of sample. Bartlett's test of sphericity needs to have a sigma value less than 0.05 in order to be significant. In this case it is 0.00 which supports the validity of the data.

Table 6 explains the total variance and seven factors have been chosen as significant ones. These 7 key factors are responsible for more than 66% of the total variation and have been given the most importance by the respondents as being barriers to private health insurance in Pakistan. These 7 factors had Eigen value more than one.

Table 7 shows the Rotated Component Matrix. This table helps us to identify as to which statement belongs to which factor. The numbers correspond to the respective factor loadings of the statements. Higher factor loading is the result of strong correlation between the statements and a particular factor. Following factors have been identified as barriers to health insurance.

Factor 1: Role of Insurance Agents (Percentage of Variance: 12.99)

- Difficulty to approach insurance agents   **(Variable No. 11)**
- Inadequacy of knowledge on the part of insurance agents   **(Variable No. 12)**
- Behavior of insurance agents is not satisfactory   **(Variable No. 13)**

Factor 2: Lack of Awareness (Percentage of Variance: 10.98)

- Unaware about it   **(Variable No. 5)**
- No one has suggested about it   **(Variable No. 6)**
- Not taken by friends, relatives etc.   **(Variable No. 7)**

Factor 3: Lack of Willingness (Percentage of Variance: 9.261)

- Contradicts with my religious beliefs   **(Variable No. 2)**
- Don't feel the need for it   **(Variable No. 3)**
- Prefer to invest money in some other areas   **(Variable No. 4)**

Factor 4: Accessibility & Services of Linked Hospital   **(Percentage of Variance: 9.163)**

- Linked hospitals are not easily accessible   **(Variable No. 14)**
- Difficulty in availing services in hospitals   **(Variable No. 15)**

Factor 5: Lack of Reliability (Percentage of Variance: 8.521)

- Saving in some other areas to meet health care needs   **(Variable No. 8)**
- More hidden cost involved which increases the cost of insurance   **(Variable No. 18)**
- Too much paper-work is involved   **(Variable No. 19)**

Factor 6: Lack of Flexibility (Percentage of Variance: 8.264)

- Low salary/non availability of funds   **(Variable No. 1)**
- Health insurance does not cover all of my health problems   **(Variable No. 9)**
- Lack of reliability and flexibility   **(Variable No. 10)**

Factor 7: Narrow Policy Options/Consider it State's responsibility (Percentage of Variance: 6.870)

- Narrow policy options   **(Variable No. 16)**
- I believe it is government's job to provide health insurance   **(Variable No. 17)**

These factors are listed in descending order as factor 1 has the highest percentage of variance i.e. 12.99%.

1.3   *Chi-Square Test*

Pearson's chi square test was performed to find relationship between sets of categorical variables. In order to reject null hypothesis, it is required that p-value is less than 0.05. The p-value for gender is 0.738 which leads to acceptance of null hypothesis that gender is not associated with willingness to buy health insurance. The p-value for marital status is 0.005 which is less than the 0.05 and thus we reject the null hypothesis that marital status is not associated with willingness to buy health insurance. Alternatively we can say that marital status is associated with willingness to buy health insurance. The strength of this association is low as shown by the value of Cramer's V.

It should be noted that when categorical variables which are being tested have only two categories then the result of Cramer's V and Phi are identical but when the number of categories increase from 2, Cramer's V is the more appropriate test to check the strength of relationship. The reason behind choosing Cramer's V is that once the number of categories increase from 2, Phi and Contingency Coefficients are unable to provide correct results. (Field, 2009)

As shown in **Table 8**P-value for willingness to buy health insurance and occupation is 0.00 which is less than 0.05 and thus significant. It leads to rejection of null hypothesis and translates as there is an association between willingness to buy health insurance and occupation of the respondent. Moreover the value for Cramer's V is 0.25 which shows medium association.

P-value for education and age of the respondent against willingness to buy health insurance is 0.699 and 0.545 respectively. Both of these are greater than 0.05 and thus insignificant. It can be stated with 5% level of significance that there is no association between age, education of respondent and their willingness to buy health insurance for themselves.

P-value for willingness to buy health insurance and monthly household income is found to be 0.008 which is significant as it is less than 0.05. It can be stated by rejecting the null hypothesis that monthly household income is associated with willingness to buy health insurance. The Cramer's V value is 0.16 which shows low association. P-value for chi-square between willingness to buy health insurance for oneself and monthly medical expense is 0.004 which is less than 0.05 and thus it is significant. Therefore we reject the null hypothesis and accept the alternative hypothesis that states that there is association between willingness to buy health insurance and monthly medical expense. Cramer's V value i.e. 0.17 for this association shows lower level of relationship.

No significant relation was found between the willingness to buy health insurance and the number of dependents an individual has as the p-value of chi square test between these two variables was found to be 0.202 which is not less than 0.05 so we accepted the null hypothesis. Finally both health condition and hospitalization in past one year were found to be associated with willingness to buy health insurance. P-value for chi square between the health condition and willingness to buy health insurance was found to be 0.012 and the Cramer's V value was 0.15 which shows low association while the p-value for chi-square between hospitalization in the past one year and willingness to buy health insurance was found to be 0.00 and the value for Cramer's V was 0.26 showing medium association. Null hypothesis were rejected in both cases.

6. Conclusion

In our research general public belonging to different age groups, marital statuses and occupations were surveyed. We have tried to measure the level of awareness and level of awareness regarding health insurance in Pakistan. Moreover we have tried to find different barriers; hindering buying of health insurance. Barriers to buying health insurance were divided into further dimensions i.e.

Majority of the respondents i.e. 82% had heard about health insurance and the two main sources of this information were found to be friends (23%) and insurance agents (24%). Television (14%), Newspapers (14%) and Family (13%) had also played an important role in creating awareness regarding health insurance.

65% respondents knew the difference between life and health insurance. 47% were willing to buy health insurance for themselves while 57% were willing to buy health insurance for their family.

Majority of the respondents were ready to pay up to Rs. 5000 for single person's health insurance and the majority was also inclined towards a yearly installment plan instead of monthly, quarterly or semi-annual plans.

Using factor analysis, 7 barriers to health insurance were identified as being responsible for more than 66% of the total variation in the study. Role of insurance agents was found to be the main barrier to health insurance in Pakistan which included (a) Difficulty to approach insurance agents (b) Inadequacy of knowledge on the part of insurance agents (c) Behavior of insurance agents is not satisfactory. Lack of awareness and lack of willingness were found to be 2nd and 3rd most important barriers in buying health insurance. Accessibility & service quality of linked hospital, Lack of reliability, Lack of flexibility and

Narrow policy options were the other barriers identified in the same order of decreasing importance.

Pearson's chi square test was performed to find relationship between sets of categorical variables. Medium association between willingness to buy health insurance and occupation of the respondent was found.

There was no association found between age, education of respondent and their willingness to buy health insurance for themselves.

Lower level of association was found to exist between monthly household income and monthly medical expense against willingness to buy health insurance.

No significant relation was found between the willingness to buy health insurance and the number of dependents an individual had but both health condition and hospitalization in past one year were found to be associated with willingness to buy health insurance.

Reliability Statistics	
Cronbach's Alpha	N of Items
.717	19

Table 1: Reliability Statistics

Category		Frequency (%)
Gender	Male	263 (69.2)
	Female	117 (30.8)
Marital Status	Single	158 (41.5)
	Married	222 (58.4)
Occupation	Unemployed	5 (1.3)
	Housewife	5 (1.3)
	Self Employed	35 (9.2)
	Professional	294 (77.3)
	Family Business	37 (9.7)
	Retired	4 (1)
Education	Matriculation	2 (0.5)
	FA/Fsc	18 (4.7)
	Graduation	139 (36.5)
	Post Graduation	210 (55.2)
	Vocational	3 (0.7)
	Other	8 (2.1)
Age	<=25	62 (16.3)
	26-35	150 (39.4)
	36-45	100 (26.3)
	>45	68 (17.8)

Table 2: Frequency & Percentage

Category		Frequency (%)
Have heard about Health Insurance	Yes	313 (82.3)
	No	67 (17.6)
Source of Information	Newspaper	63 (13.8)
	Insurance Agent	110 (24.1)
	Friends	104 (22.8)
	Movies	2 (0.4)
	Doctor	37 (8.1)
	Family	57 (12.5)
	TV	65 (14.2)
	Employer	13 (2.8)
	Other	5 (1)
Consider Health Insurance as Monthly Saving Scheme	Yes	137 (36)
	No	243 (63.9)
Know the difference between Health and Life Insurance	Yes	246 (64.7)
	No	134 (35.2)
Want to buy Health Insurance for Themselves	Yes	177 (46.5)
	No	203 (53.4)
Want to buy Health Insurance for family	Yes	215 (56.5)
	No	165 (43.4)
Amount Willing to Pay for Insurance per Family Member per Annum	Up to Rs. 5000	194 (51)
	Rs. 5001 - 10000	93 (24.4)
	Rs. 10001 - 15000	31 (8.1)
	Rs. 15001 - 20000	25 (6.5)
	Rs. 20001 - 25000	10 (2.6)
	Above Rs. 25000	7 (1.8)
	No Response	20 (5.2)
Up to what extend people you know have benefitted from Health Insurance	To great extent	26 (6.8)
	To moderate extent	57 (15)
	To some extent	80 (21)
	To little extent	51 (13.4)
	Not at all	11 (2.8)
	No Response	155 (40.7)
Preferred Installment Plan	Yearly	175 (46)
	Semi Annually	63 (16.5)
	Quarterly	64 (16.8)
	Monthly	58 (15.2)
	No Response	20 (5.2)
How many people you know who hold a Health Insurance Policy	0 – 10	351 (92.3)
	11 – 20	24 (6.3)
	21 – 30	5 (1.3)

Table 3: Frequency & Percentage

	S.D	D	U	A	S.A
1. Low salary/non availability of funds	37 (9.7)	58 (15.2)	60 (15.7)	110 (28.9)	115 (30.2)
2. Contradicts with my religious beliefs	89 (23.4)	116 (30.5)	57 (15)	54 (14.2)	64 (16.8)
3. Don't feel the need for it	39 (10.2)	74 (19.4)	85 (22.3)	105 (27.6)	77 (20.2)
4. Prefer to invest money in some other areas	24 (6.3)	61 (16)	80 (21)	128 (33.6)	87 (22.8)
5. Unaware about it	47 (12.3)	172 (45.2)	46 (12.1)	68 (17.8)	47 (12.3)
6. No one has suggested about it	44 (11.5)	132 (34.7)	46 (12.1)	106 (27.8)	52 (13.6)
7. Not taken by friends, relatives etc	48 (12.6)	98 (25.7)	44 (11.5)	131 (34.4)	59 (15.5)
8. Saving in some other areas to meet health care needs	15 (3.9)	53 (13.9)	109 (28.6)	132 (34.7)	71 (18.6)
9. Health insurance does not cover all of my health problems	17 (4.4)	34 (8.9)	126 (33.1)	122 (32.1)	81 (21.3)
10. Lack of reliability and flexibility	14 (3.6)	44 (11.5)	117 (30.7)	131 (34.4)	74 (19.4)
11. Difficulty to approach insurance agents	31 (8.1)	74 (19.4)	123 (32.3)	101 (26.5)	51 (13.4)
12. Inadequacy of knowledge on the part of insurance agents	29 (7.6)	71 (18.6)	128 (33.6)	111 (29.2)	41 (10.7)
13. Behavior of insurance agents is not satisfactory	44 (11.5)	69 (18.1)	132 (34.7)	102 (26.8)	33 (8.6)
14. Linked hospitals are not easily accessible	22 (5.7)	38 (10)	115 (30.2)	140 (36.8)	65 (17.1)
15. Difficulty in availing services in hospitals	14 (3.6)	37 (9.7)	111 (29.2)	145 (38.1)	73 (19.2)
16. Narrow policy options	14 (3.6)	42 (11)	157 (41.3)	102 (26.8)	65 (17.1)
17. I believe it is government's job to provide health insurance	11 (2.8)	17 (4.4)	43 (11.3)	117 (30.7)	192 (50.5)
18. More hidden cost involved which increases the cost of insurance	10 (2.6)	31 (8.1)	121 (31.8)	140 (36.8)	78 (20.5)
19. Too much paper-work is involved	18 (4.7)	41 (10.7)	148 (38.9)	109 (28.6)	64 (16.8)

S.D = Strongly Disagree, D = Disagree, U = Uncertain, A = Agree, S.A = Strongly Agree

Table 4: Barriers to Health Insurance

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.680
Bartlett's Test of Sphericity	Sig.	.000

Table 5: KMO and Bartlett's Test

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.424	18.020	18.020	3.424	18.020	18.020	2.468	12.99	12.99
2	2.324	12.234	30.254	2.324	12.234	30.254	2.087	10.983	23.973
3	1.976	10.401	40.655	1.976	10.401	40.655	1.760	9.261	33.234
4	1.385	7.290	47.945	1.385	7.290	47.945	1.741	9.163	42.397
5	1.304	6.865	54.810	1.304	6.865	54.810	1.619	8.521	50.918
6	1.112	5.855	60.664	1.112	5.855	60.664	1.570	8.264	59.183
7	1.024	5.388	66.053	1.023	5.388	66.053	1.305	6.870	66.053
8	.788	4.145	70.198						
9	.778	4.095	74.293						
10	.725	3.815	78.108						
11	.676	3.557	81.665						
12	.631	3.320	84.986						
13	.553	2.913	87.899						
14	.519	2.732	90.630						
15	.445	2.342	92.972						
16	.412	2.168	95.140						
17	.359	1.889	97.029						
18	.287	1.510	98.539						
19	.278	1.461	100.000						

Table 6: Total Variance

	Component						
	1	2	3	4	5	6	7
1	-.234	.321	-.393	.289	.235	**.373**	-.050
2	-.260	-.011	**.619**	.206	-.050	.151	-.268
3	-.027	.206	**.809**	.034	.110	.029	-.079
4	.073	.252	**.657**	.047	.078	.025	.298
5	.005	**.798**	.087	.078	.118	-.083	-.006
6	.109	**.779**	.201	.028	-.004	-.055	.111
7	.181	**.725**	.064	.000	-.067	.168	-.024
8	-.325	.161	.001	.272	**.456**	.068	.230
9	-.233	-.022	.197	.083	.108	**.785**	.048
10	.255	.017	-.036	-.006	.062	**.809**	.169
11	**.794**	.028	-.061	.045	.136	.122	.167
12	**.797**	.190	-.018	.043	.130	-.048	-.136
13	**.752**	.122	-.018	.298	.064	-.080	-.090
14	.201	.120	.017	**.851**	-.036	-.029	-.010
15	.088	-.046	.179	**.792**	.126	.124	.201
16	.261	.097	-.005	.282	.212	.161	**.558**
17	-.193	-.010	-.026	.022	-.010	.088	**.793**
18	.111	-.037	.073	.003	**.757**	.145	.063
19	.271	.033	.030	.015	**.792**	-.003	-.021

Table 7: Rotated Component Matrix

Test Variable	Grouping Variable	P-Value	Cramer's V
Willingness to buy health insurance	Gender	0.738	0.17
	Marital Status	0.005*	0.15
	Occupation	0.00*	0.25
	Education	0.699	0.89
	Age	0.545	0.08
	Monthly income	0.008*	0.16
	Monthly medical expense	0.004*	0.17
	Number of dependents	0.202	0.09
	Health condition	0.012*	0.15
	Hospitalization in past one year	0.00*	0.26

Table 8: Chi Square Tests

References

1. Asenso-Okyere, W., Osei-Akoto, I., Anum, A., & App, E. (1997).*Willingness to pay for health insurance in a developing economy.A pilot study of the informal sector of Ghana using contingent valuation.*Health Policy.

2. Asgary, A., Willis, K., Taghvaei, A., &Rafeian, M. (2001).Estimating rural households' willingness to pay for health insurance.*European Journal of health Ecnonomics , 5*, 209-215.

3. Barnighausen, T., Liu, Y., Zhang, X., &Sauerborn, R. (2001).*Willingness to pay for social health insurance among informal sector workers in Wuhan, China: a contingent valuation study.* BMC Health Services Research.

4. Brainard, D. L. (2008).*What is the role of insurance in economic development?* Zurich: Zurich Government and Industry Affairs.

5. Chang, F., &Trivedi, P. (2003). Economics of self-medication: theory and evidence. *Health Economics , 12*, 721-739

6. Dr. Bawa, K. S., &Ruchita. (2011). Awareness and Willingness to Pay for Health Insurance: An Empirical Study with Reference to Punjab India. *International Journal of Humanities and Social Science , 1* (7), 101-108.

7. Dr. Lashari, T. (2005).*Healthcare Financing in Pakistan.*Islamabad: TheNetwork for Consumer Protection.

8. Dror, D. M., &Jacquier, C. (1999). Micro-Insurance – Extending Health Insurance to. *International Social Security Review , 52* (1), 71-97.

9. EMRO, WHO.(2010, August).*Country Profile: Pakistan*. Retrieved October 19, 2011, from Regional Office for the Eastern Mediterranean, World Health Organization: http://www.emro.who.int/emrinfo/index.aspx?Ctry=pak

10. Field, A. (2009). *Discovering Statistics using SPSS* (3rd ed.). London: SAGE Publications Ltd.

11. Jowett, M., Deolalikar, A., &Martinsson, P. (2004). Health insurance and treatment seeking behaviour: evidence from a low-income country. *Health Economics* , 845-857.

12. Lofgren, C., Thanh, N. X., Chuc, N. T., Emmelin, A., &Lindholm, L. (2008).*People's willingness to pay for health insurance in rural Vietnam.*

13. Manzoor, I., Hashmi, N. R., &Mukhtar, F. (2009).Determinants and Pattern of Health Care Services.*Journal of Ayub Medical College , 21* (3), 100-105.

14. Musgrove, P., Zeramdini, R., &Carrin, G. (2002).Basic Patterns in National Health Expenditure, Special Theme – Commission on Macroeconomics and Health.*Bulletin of the WHO , 80* (2).

15. Sbarbaro, J. A. (2000). Trade Liberalization in Health Insurance – Opportunities and Challenges – The Potential Impact of Introducing or Expanding the Availability of Private Health. *CHH Working Paper No. WG 4:6.* Geneva: WHO: Commission on Macroeconomics and Health.

16. Sekhri, N., &Savedoff, W. (2005).Private Health Insurance - Implications for Developing Countries.*Bulletin of the World Health Organization , 83* (2), 127-138.

17. Sepehri, A., Sarma, S., & Simpson, W. (2006). Does non-profit health insurance reduce financial burden? Evidence from the Vietnam living standards survey panel.*Health Economics* , 333-343.

18. Sepehri, A., Sarma, S., & Simpson, W. (2006).The influence of health insurance on hospital admission and length of stay – The case of Vietnam.*Social Science and Medicine* , 1757-1770.

19. Shehzad, D. S. (2005).*Alternative Resource Mobilization Strategies for Pakistan's Health Care.*Sustainable Development Policy Institute.

20. The McGraw-Hill Companies, Inc. (2003). *The Free Dictionary*. Retrieved March 18, 2012, from http://encyclopedia2.thefreedictionary.com/multistage+sampling

21. World Health Organization.(2007). *Health System Profile - Pakistan.*Regional Health Systems Observatory, Cairo.

22. Wagstaff, A. (2005). *Health Insurance Impacts on Health and Nonmedical Consumption in a Developing Country.*World Bank Policy Research Working Paper 3563.