

AWARENESS AND WILLINGNESS TO PAY FOR HEALTH INSURANCE: AN EMPIRICAL STUDY

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ABSTRACT

The economic condition of a nation is simply linked to the health state of its people. Good health condition is most crucial prerequisites for human productivity, which in constitutes society's overall development. People consider their health to be the most important factor in determining their level of well-being. It is a valuable tool for a country's pursuit of its development objectives. It improves economic growth and increases worker productivity. It is essential in supporting government initiatives to guarantee the public's access to and availability of health care services. This article aims to determine Punjab's health insurance knowledge and the factors influencing the awareness for health insurance. Descriptive statistics and factor analysis have been used for data analysis. 396 samples were selected for the sample based on convenience. According to the study, the majority of people are aware of health insurance.

Keywords: Awareness, willingness, Association, health insurance

INTRODUCTION

There is an inseparable relationship between socio-economic growth and community health; that is, one cannot be accomplished in isolation from the other. Without a doubt, government initiatives in public health care facilities have helped India's economy grow over the past few decades, but the country's health system is currently at a crossroads. Given that India is placed 118th out of 191 WHO member nations in terms of overall health performance, the results of these programs are relatively mild by worldwide standards. The methods by which a nation's health care is financed are a major factor in determining its health. The balance of public and private expenditures is a significant area of concern, despite the fact that overall health care spending in India is rising substantially (Bhat and Jain, 2006). On the other hand, health-related expenses such as diet, sanitation, and clean drinking water have a significant impact on health, and when taken into account, public health spending amounts to about 2.5% of GDP. Nevertheless, there is widespread agreement that more money should be spent on public health. However, the nation is plagued by both communicable and non-communicable diseases as a result of changing lifestyles, and access to high-quality healthcare is becoming more challenging due to rising health care expenses (Bharati, 2011). In addition to causing financial insolvency, illness causes great suffering for the affected person and his or her family. All that is needed to handle such circumstances is appropriate health insurance coverage. It would be a plan that lets people and households postpone, postpone, cut down on, or completely avoid paying for medical treatment. India, a country with a sizable population and a high proportion of people living below the poverty line in rural and urban slums, has long struggled with health care. More than 80 percent of health care costs in India are paid for by individuals, meaning that out-of-pocket expenses account for the majority of health care funding, which progressively traps people in a cycle of

poverty, according to numerous studies. Prior to independence, India's health system was in terrible shape. Since then, primary healthcare has been prioritized, and the nation's health has significantly improved. Considering the current state of affairs, there aren't many problems or obstacles to the implementation of health insurance programs in India (Sahoo and Das, 2010).

REVIEW OF LITERATURE

Numerous studies that were either directly or indirectly connected to the goals of the current investigation were examined. By comparing Indian states based on low, medium, and high household health care spending, Purohit and Siddiqui (1994) looked at how people use health services in India and came to the conclusion that there isn't a significant government effort to promote health service use through the creation of health insurance. Health planners would need to give this more thought because Sanyal (1996) found that the burden of health care spending in rural regions was doubled in 1986–1987 compared to 1963–1964 and that households in India are the primary source of funding for health care. In a case study conducted in Gujarat, Gumber and Kulkarni (2000) found that people who cannot pay or do not have access to the services of alternative health insurance programs strongly choose SEWA. Although a sizable portion of the population (more than 38%) resides in rural areas, Asgary, Willis, Taghvari, and Refeian (2004) analyzed the demand for and readiness to pay for health insurance by rural households in Iran and came to the conclusion that health care insurance is now available in metropolitan areas.

The discrepancy would need to be subsidized in order to give rural communities the same degree of protection as metropolitan areas. Ahuja and De (2004) analyzed the interstate difference in poor people's desire for health insurance in relation to variations in healthcare infrastructure and confirmed that the demand for health insurance is limited in areas with deficient health service suppliers. In addition, the study found that while the percentage of the population living below the poverty line (BPL) is adversely correlated with healthcare infrastructure, the demand for health insurance by the poor is positively correlated with it. Addressing the demand side and designing insurance plans with the impoverisher's ability to pay in mind are both essential to increasing demand for health insurance. An overview of current and emerging trends in health insurance for India's low-income population was given by Ahuja and Narang (2005), who came to the conclusion that by offering suitable incentives and bringing these under the purview of regulations, health insurance programs have a great deal of room to improve in a nation like India. According to the report, health care provisions must be improved and streamlined, and collaboration between many organizations is required if health insurance for the poor is to be developed significantly.

Dror (2006) outlined seven health insurance misconceptions and investigated the truths behind them. Evidence suggests that the majority of individuals are prepared to spend at least 1.35 percent of their income for health insurance, and that there is a healthy market for health insurance in India. However, access to this market depends on knowing what the needs and desires of the client are. Dror (2007) looked at why "one-size-fits-all" health insurance plans aren't appropriate for low-income individuals in India and found that there is a lot of variation in health insurance costs due to a number of factors, including income variability, household illness rates, and the caliber and accessibility of private and public providers in various places. In order to define and analyse the impact of health insurance on catastrophic out-of-pocket (OOP) health expenditures in India, Joglekar (2008) used a threshold level of 0%. It revealed that in India, households' out-of-pocket medical expenses make up over 70% of all medical spending, which drives people into poverty. The impact of out-of-pocket (OOP) expenses and their constituent parts in India's developed and less developed regions was

evaluated by Garg and Karan (2009). According to the findings, OOP spending accounts for roughly 5% of all household spending, with a higher percentage in rural areas. This percentage ranges from roughly 2% in Assam to 7% in Kerala.

SCOPE OF STUDY

The study will be exclusive to Punjab and on a sample of 396 residents.

OBJECTIVE OF THE STUDY

1. To determine the level of health insurance awareness of health insurance
2. To study the factors influencing the demand for health coverage.

RESEARCH HYPOTHESIS

H_{01} : There is no association between the age of respondents and awareness of health insurance.

H_{02} : There is no association between the gender of the respondents and awareness of health insurance.

DATA BASE AND RESEARCH METHODOLOGY

For the current study, a specific area was chosen based on the expectation that studies situated in that area would provide more important and valuable data. As a result, Punjab is where the current study was conducted. It was intended to provide accurate representation of Punjab's Majha, Doaba, and Malwa belts. Therefore, one district was chosen from each of the three belts. Amritsar from Majha, Jalandhar from Doaba, and Ludhiana from Malwa were the districts that formed part of the sample. A total sample size of 396 respondents was planned from the general population, and the sample of respondents was then chosen using random sampling.

By distributing the self-structured questionnaire to the broad public, the data was gathered. Eighty respondents were used to pretest the questionnaire's initial draft. The final questionnaire was created and utilized to gather data from respondents. This helped to improve the questionnaire and also provided an indication of the type of responses that would be forthcoming with a few additions and deletions. Weighted average scores have been produced, and simple frequencies, multiple frequencies, and percentages for numerous responses have all been used in the data analysis process. In addition, chi-square and factor analysis have been used to derive the study's significant conclusions. The SPSS software suite was used for all of this.

i) Chi-square:

The statistical significance of the observed correlation in a cross-tabulation is tested using the chi-square statistics. It helps us ascertain whether two variables are systematically associated.

ii) Factor analysis:

Factor analysis is a broad term for a group of techniques mainly used for summarizing and reducing data. With the use of factor analysis, relationships between a collection of numerous interconnected variables are investigated and depicted. "Principle Component Analysis" is the methodology employed in the factor analysis. The entire variation in the data is taken into account in this component analysis. The correlation matrix's diagonal is made up of unities, while the factor matrix incorporates all variation. For use in a subsequent multivariate analysis, it establishes the bare minimum of factors that will account for the greatest amount of variance in the data. Another name for the factors is primary components. Because the

factors are linked with numerous variables, the initial or unrotated factor matrix rarely yields factors that can be deciphered, even while it shows the relationship between the factors and individual variables. Rotation is thus used to redistribute the variance explained by each element. "Varimax" is the rotation method employed in this investigation. This factor rotation technique improves the factors' interpretability by reducing the number of variables with high loading on a factor (Source: Malhotra, 2007).

EMPIRICAL RESULTS ITS ANALYSIS AND INTERPRETATION

The demographic profile of the responders is displayed in the following table. Along with frequency and their proportion out of 396 respondents 254 opted for health insurance. It contains the respondent's gender, age, marital status, education level, occupation, and income.

Table 1: Personal Profile of the Respondents

		Frequency	Percentage
3. Gender	Female	99	39.0
	Male	155	61.0
	Total	254	100
4. Age Group:	21-30 years	51	20.1
	31-40 years	100	39.4
	41-50 years	75	29.5
	51-60 years	10	3.9
	Above 60 years	18	7.1
	Total	254	100
5. Marital Status:	Married	208	81.9
	Single	46	18.1
	Total	254	100.0
6. Education:	Graduate	22	8.7
	Post Graduate	145	57.1
	Professional	28	11.0
	Under Graduate	59	23.2
	Total	254	100.0
7. No. of members in family.	Eight	3	1.2
	Five	20	7.9
	Four	102	40.2
	Seven	33	13.0
	Six	52	20.5
	Three	37	14.6
	Two	7	2.8
	Total	254	100
9. Occupation.	Govt. employee	16	6.3
	Private employee	125	49.2
	Self-employed	113	44.5
	Total	254	100
10. Income per month:	0-10000	3	1.2
	1 lakh and above.	10	3.9
	10001-25000	28	11.0

	25001-50000	131	51.6
	50001-100001	82	32.3
	Total	254	100.0

Source: Primary Survey

A total of 254 respondents opted for health insurance. Male participants constitute the majority, representing 61.0%. Female participants account for 39.0%. This distribution indicates a male-dominated sample. The 31-40 years age group forms the largest segment, comprising 39.4%. Followed by the 41-50 years group at 29.5% and the 21-30 years group at 20.1%. Respondents above 60 years make up 7.1%, and those aged 51-60 years form the smallest group at 3.9%. This distribution shows that the majority of respondents are middle-aged, typically considered an economically active and professionally established demographic.

Under Marital Status a significant majority, 81.9% of the respondents are married. Only 18.1% are single. The predominance of married respondents may reflect a population with potentially stable household dynamics and social responsibilities, which could be relevant in interpreting preferences or decision-making behaviours. Respondents show a high level of educational attainment. Postgraduates form the largest group at 57.1%.

Undergraduates represent and professional degree holders are 11.0%. Only 8.7% are graduates without further qualifications. The high percentage of postgraduates suggests that the sample is well-educated, potentially influencing awareness levels, decision-making, and behavioural responses. The most common family size is four members, accounting for 40.2%. Six-member families follow at 20.5%, and seven-member families at 13.0%. Smaller families with three members (14.6%), two members (2.8%), and larger families of eight members (1.2%) were also noted. The data suggests a prevalence of nuclear to moderately joint family structures among respondents.

Majority of respondents with health insurance belongs to Private employees constitute the largest group at 49.2%. Self-employed individuals make up 44.5%. Government employees are a minority at 6.3%. This indicates a strong representation of the private sector and entrepreneurial workforce, with relatively low public sector representation. Income distribution is skewed towards middle-income groups. A majority, 51.6% earn between ₹25,001–₹50,000 per month. 32.3% earn between ₹50,001–₹1,00,000. A small segment earns above ₹1 lakh (3.9%), while 11.0% (n = 28) earn ₹10,001–₹25,000. Only 1.2% fall in the lowest income bracket (below ₹10,000).

This reflects a predominantly middle-income sample, possibly indicating financial stability, which can impact consumption, savings, or lifestyle decisions depending on the research context.

1. Awareness, exposure and knowledge of respondents for health insurance:

Although the idea of health insurance is not new and people are becoming more familiar with it, this awareness has not yet expanded to the point where individuals are subscribing to health insurance products.

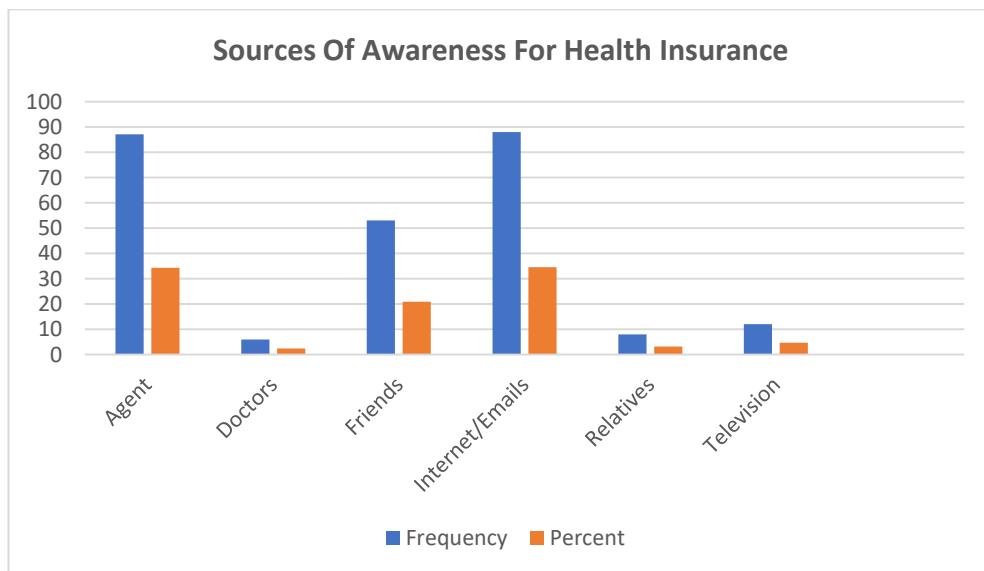
Table 2: Level And Sources Of Awareness of Health Insurance

Sources	Frequency	Percent
Agent	87	34.3
Doctors	6	2.4
Friends	53	20.9

Internet/Emails	88	34.6
Relatives	8	3.1
Television	12	4.7
Total	254	100.0

Source: Primary Survey

Fig:1 Graphical presentation of Awareness of Health Insurance



Source: Primary Survey

The Internet/Emails (34.6%) and insurance agents (34.3%) are the most prominent sources, nearly equally influential. Combined, these two account for over two-thirds (68.9%) of all responses, indicating a strong reliance on both digital and personal agent-based channels. Friends are the third most cited source, accounting for 20.9% of respondents. This highlights the significance of peer influence and informal networks in the decision-making process related to health insurance. Other sources like television (4.7%), relatives (3.1%), and doctors (2.4%) were least influential. This may indicate either limited outreach through these mediums or lower trust and engagement with them regarding insurance matters. The dominance of the internet and agents suggests that any awareness campaigns or policy promotions should focus on digital marketing strategies and strengthening the role of trained agents. The limited role of doctors and television suggests potential underutilization of professional and mass media platforms, which could be strategically improved.

2. Factor Analysis

Table 3:List of Factors Affecting the Level of Awareness Of Health Insurance

Sr no	Factors
1	Tax Benefits Awareness
2	Health Insurance Claim Awareness
3	Awareness of IRDAI Regulations
4	Health Insurance Subscription Status
5	Perceived Caps on Health Insurance Policies

Source: Primary Survey

Table 4 : KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.830
Bartlett's Test of Sphericity	Approx. Chi-Square	937.360
	df	10
	Sig.	.000

Based on the above table (Table 4.11), the KMO measure is 0.895, which is larger than the threshold limit of 0.7, and the result of Bartlett's Test of Sphericity is significant with a P value < 0.000. As a consequence, both conditions for performing factor analysis were met.

Table 5: Communalities

	Initial	Extraction
Tax Benefits Awareness	1.000	.588
Health Insurance Claim Awareness	1.000	.769
Awareness of IRDAI Regulations	1.000	.780
Health Insurance Subscription Status	1.000	.618
Perceived Caps on Health Insurance Policies	1.000	.456

Extraction Method: Principal Component Analysis.

The communalities show how much of the variance in each variable can be accounted for by the factor that was extracted. The variables that show the largest communalities are Awareness of IRDAI Regulations (0.780) and Health Insurance Claim Awareness (0.769), indicating that the underlying factor accounts for a significant amount of their variance. This demonstrates their significant contribution to the latent construct, which most likely reflects general awareness of health insurance. Both Tax Benefits Awareness (0.588) and Health Insurance Subscription Status (0.618) exhibit moderate amounts of shared variation with the extracted component, suggesting their significant significance to the construct. Perceived Caps on Health Insurance Policies, on the other hand, exhibits a somewhat smaller communality (0.456), suggesting that although it plays a role in the factor, a significant amount of its variance is explained by variables that are not included in the extracted component.

Table 6 : Total Variance Explained

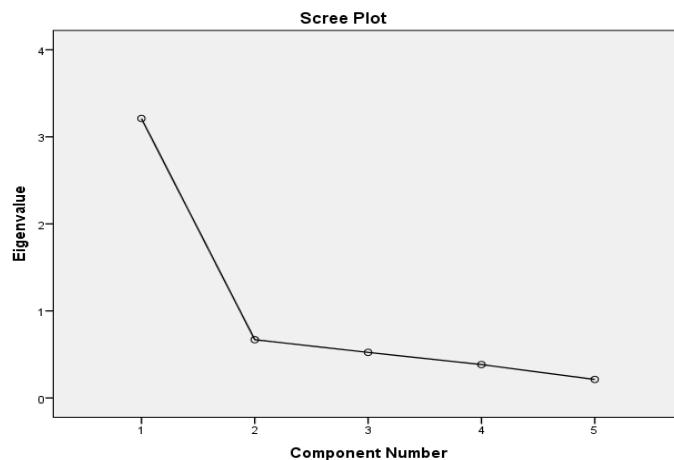
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.211	64.217	64.217	3.211	64.217	64.217
2	.669	13.386	77.603			
3	.524	10.472	88.075			
4	.384	7.671	95.746			
5	.213	4.254	100.000			

Extraction Method: Principal Component Analysis

Only one component was extracted, as the table demonstrates: With an eigenvalue of 3.211, Component 1 accounts for 64.217% of the variance. This suggests that the bulk of the data in the dataset is adequately summarized by the component. The remaining elements (eigenvalues < 1) are eliminated since they provide very little variance. With a high percentage of cumulative variation explained, the extracted factor offers a coherent

representation of the variables. This implies that the variables can be combined into a single latent construct and are strongly connected to one another.

Fig:1 Graphical presentation of Awareness of Health Insurance



Source: Primary Source

Table7 : Component Matrix^a

	Component	
	1	
Tax Benefits Awareness	.767	
Health Insurance Claim Awareness	.877	
Awareness of IRDAI Regulations	.883	
Health Insurance Subscription Status	.786	
Perceived Caps on Health Insurance Policies	.675	

Extraction Method: Principal Component Analysis.^a

The loadings of every variable onto the extracted factor are shown in the component matrix. Strong correlations between the variables and the component are indicated by high loadings. The two variables with the largest loadings, Health Insurance Claim Awareness (0.877) and Awareness of IRDAI Regulations (0.883), highlight their crucial roles in defining the latent construct. The component is also heavily loaded by other factors such as Tax Benefits Awareness (0.767) and Health Insurance Subscription Status (0.786). Despite having a much lower loading, Perceived Caps on Health Insurance Policies (0.675) nevertheless makes a significant contribution to the factor.

3. Association between Gender and Awareness about online subscription status

Table 8: Gender and Health Insurance Subscription Status Crosstabulation

		Health Insurance Subscription Status				Total
		Fully Aware	Moderate Aware	NA	Not Aware	
Gender	Female	21	45	48	33	147
	Male	50	79	94	26	249
Total	71	124	142	59	396	

Source: Primary Survey

Males demonstrate higher full awareness and a larger representation across all awareness levels, possibly due to greater exposure or engagement with insurance-related decisions. The data suggests a gender disparity in health insurance awareness, with males generally showing higher levels of awareness than females.

Table 9:Chi-Square Test to find association between Gender and Health Insurance Subscription Status

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.382 ^a	3	.010
N of Valid Cases	396		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 21.90.

Since the p-value (0.010) is less than the standard significance level of 0.05, the result is statistically significant. This indicates that there is a significant association between gender and health insurance subscription status among the respondents.

4.Association between Age and Awareness of Health insurance

Table: 10 Age Group and Tax Benefits Awareness Crosstabulation

		Tax Benefits Awareness				Total
		Fully Aware	Moderate Aware	NA	Not Aware	
Age Group:	21-30 years	39	9	27	3	78
	31-40 years	13	80	43	7	143
	41-50 years	22	28	44	25	119
	51-60 years	1	3	11	6	21
	Above 60 years	1	0	17	17	35
	Total	76	120	142	58	396

Source: Primary Survey

To investigate the association between age groups and their degree of knowledge of the tax advantages of health insurance, a cross-tabulation was carried out. Five age groups and four awareness levels—fully aware, moderately aware, not aware, and not applicable (NA)—are used to classify the respondents in the data.

Table: 11. Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	161.282 ^a	12	.000
Likelihood Ratio	156.809	12	.000
Linear-by-Linear Association	73.290	1	.000
N of Valid Cases	396		

a. 2 cells (10.0%) have expected count less than 5. The minimum expected count is 3.08.

The correlation between age group and tax advantages awareness is statistically significant at the 0.01 level, according to the p-value (< 0.001). This demonstrates that people's perceptions and comprehension of the tax-related benefits of health insurance are significantly influenced by their age.

5. Association between Health Insurance Claim Awareness and Customer Satisfaction								
		Opinion on Customer Satisfaction						
		Agree	Disagree	NA	Neither	Strongly Agree	Strongly Disagree	
21. Health Insurance Claim Awareness	Fully Aware	40	4	0	7	31	1	83
	Moderate Aware	58	10	0	14	43	1	126
	NA	0	0	142	0	0	0	142
	Not Aware	18	8	0	10	9	0	45
Total		116	22	142	31	83	2	396

Source: Primary Survey

Perceived customer satisfaction and claim process awareness appear to be positively correlated, according to the distribution. Respondents are far more likely to express pleasure with services and positive experiences as awareness grows. Lack of awareness, on the other hand, seems to be associated with neutral or unfavourable views or total non-reaction (as observed in the NA group).

This lends credence to the idea that consumer satisfaction with health insurance services is significantly influenced by knowledge of claims procedures. People who comprehend the procedure are probably better able to use the system, submit claims, and reap the rewards, which strengthens satisfaction and trust.

Table 13: Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	418.485 ^a	15	.000
Likelihood Ratio	530.606	15	.000
Linear-by-Linear Association	.001	1	.977
N of Valid Cases	396		

a. 7 cells (29.2%) have expected count less than 5. The minimum expected count is .23.

Customer satisfaction and health insurance claim awareness are highly significantly correlated, as evidenced by the Pearson Chi-Square p-value (.000), which is significantly lower than the traditional significance criterion ($p < 0.05$).

FINDINGS

The increasing popularity of the internet and agents, any policy promotion or awareness campaign should emphasize the importance of educated agents and digital marketing techniques. The limited involvement of television and doctors points to possible underuse of mass and professional media platforms, which should be strategically enhanced.

The factor analysis identifies a single dominating latent construct that is mainly defined by strong loadings from Health Insurance Claim Awareness (0.877) and Awareness of IRDAI Regulations(0.883), suggesting that these variables are essential to the underlying factor. The factor's emphasis on knowledge and involvement with health insurance is further supported by the significant correlations shown by Health Insurance Subscription Status(0.786) and Tax Benefits Awareness (0.767). Despite having a slightly lower loading, Perceived Caps on

Health Insurance Policies (0.675) still makes a considerable contribution, indicating that policy constraints are a pertinent but less prominent component of the construct.

The finding suggests that gender plays a statistically significant role in determining individuals' awareness or subscription status to health insurance. This reinforces the earlier observed disparities and highlights the importance of considering gender-specific strategies in health insurance awareness and outreach programs. There is significant relationship between age and health insurance awareness. And distribution of customer satisfaction levels varies significantly depending on the respondent's awareness of the health insurance claim process.

CONCLUSION

Despite the fact that health insurance is not a new idea and that people are becoming more aware of it—primarily through internet and email and agents as people nowadays, use more technology and companies are more consumer centric and they use different marketing skills through agents to attract customers influencing their buying patterns. In addition, a correlation between the respondents' awareness of health insurance and a number of other variables was established; the findings indicated that age and awareness has significant relationship, health insurance claim and customer satisfaction has positive association.

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