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Factors affecting the demand of Health Insurance during COVID-19 pandemic in Punjab State

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Abstract

This study aims to examine socio-economic factors, the perception of personal health insurance products and individual's personality traits to unbundle the paradox that prevents people from subscribing to health insurance schemes. In spite of its significance, a subscription paralysis has been observed in India for health insurance product. People who can afford Medicare are also found to be either unaware or averse to it. This survey was conducted in the region of Punjab, India. For a primary data an offline/online questionnaire was sent and collected from the sample respondents from Amritsar, Jalandhar, Mohali, Patiala and Ludhiana. Response evinced by 502 respondents was formed as a part of study for the further data analysis. For assessing the relationships between variables Correlation and Anova were applied as a part of quantitative measuring tool. Finally, regression technique was used to estimate the factors that influence respondents' decision to purchase health insurance. Age, income of family members, marital status and level of education product perception were found to be significantly associated with health insurance subscription in the region. COVID-19, Marketing forces, Hospital Cost & Tax Benefit showed a positive relationship with respondent's insurance status whereas financial Literacy and wealth maximization has no significant effect on health insurance. No such research study has been conducted so far on impact of COVID-19 on health insurance sector in this region. This paper reveals the importance of health insurance during the pandemic and the awareness level of people increased. The socio-economic factors, individuals' product knowledge, awareness perception of cost induce health insurance demand and its subscription in the region.

Keywords: Health insurance; policy; socio demographic; financial security; policyholder

Introduction

Health insurance plays an important role in an individual's personal financial plan, as suggested by most personal finance and financial planning books (Mirashi, 2010). Over the last two years, India's health insurance business has witnessed a major change. There has been a rise in knowledge of health insurance products over the last several years, and each year, more individuals invest in health insurance. (Mistry, 2021). One significant shift has been the category's reputation among customers, as well as the requirement to obtain health insurance. The pandemic has made people aware of health's uncertainties and their vulnerability in the event of a health-related calamity. Private sector businesses raised their market share in general and health insurance from 47.97 percent in FY19 to 48.03 percent in FY20. Private companies maintained a 33.78 percent market share in premium underwriting services in the health

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insurance industry in FY20. Six freestanding private sector health insurance businesses increased their gross premium by 66.6 percent to Rs 1,406.64 crore (US\$ 191.84 million) in May 2021, up from Rs 844.13 crore (US\$ 115.12 million) in the previous year. Health insurance businesses in the non-health insurance market expanded by 41% in March 2021, owing to increasing demand for health insurance products in the aftermath of the COVID-19 outbreak.

The Indian government also used technology and built several apps at the central and state levels to efficiently handle the epidemic. Syndromic mapping, contact tracking, and self-assessment were all made easier with the Aarogya Setu smartphone app (Mistry, 2021). Ayushman Bharat's entitlement-based AB PM-JAY programme is entirely government-funded. Aiming to cover the secondary and tertiary care hospitalisation costs for over 107 million low-income households, it is the world's biggest health insurance programme (approximately 500 million beneficiaries) (Raghav Dhanuka, 2020). At least 23.78 lakh (17.73 lakh testing and 6.05 million treatments) admissions have been approved for free treatment under the Ayushman Bharat Pradhan Mantri Jan Arogya Yojana, which will run through the first week of June, 2021, according to the National Health Authority (NHA). More than 1.5 million patients were treated in Andhra Pradesh, Karnataka, and Maharashtra under the Ayushman Bharat scheme (Upadhyay, 2021).

Health insurance is becoming the most popular kind of health financing mechanism in settings when private out-of-pocket expenditures on health are considerably high and cost-recovery tactics limit access to treatment (Gilson, 1998). Access to health care at the right time can help to mitigate the effects of illness. Health insurance can help lower the cost of health care and diminish the impact of illness on a family's capacity to generate money (Acharya et al., 2013). The insurance industry is expected to increase at a CAGR of 5.3% between 2019 and 2023. Health Insurance plays an important role to insure against health uncertainty resulting for the mortality risk of individuals. Private out-of-pocket healthcare costs in India are considerable and have been expanding at an alarming pace over the years (Bhat & Jain, 2006). Efforts to boost the health insurance industry may be undertaken from either the demand or supply side of the market. After the health and motor insurance industries, India's health insurance industry is one of the most rapidly growing segments of the market. Health insurance market growth in India is being fueled by a rise in the middle class, a rise in hospitalisation costs, a rise in expensive health care, and an increase in awareness. Health style illnesses are becoming more common. Sedentary health styles have infiltrated our culture and have become the norm. Physical labour is now less common than it was in the past, and this is likely to continue in the future. Health style chronic illnesses, such as heart disease and diabetes, may be on the rise as a result (Dutta, 2020). (Fadlallah et al., 2018) found that implementation, adoption, and durability of community-based health Insurance programmes are influenced by a wide range of linked elements at the individual, interpersonal, community, and system levels.

Objectives of the study

- To find the significance between demographic categories and the demand for health insurance.
- To identify the factors affecting the demand of health insurance.
- To analyze the impact of COVID-19 on the demand of health insurance.



Research methodology

The study is based on the primary and secondary data. The survey was conducted in the five cities of Punjab. Amritsar, Jalandhar, Mohali, Patiala and Ludhiana. These cities were selected on the basis of three parameters: Highest number of Covid-19 cases from 2020 (Mahatma et al., 2020) till now, more populated districts as per census 2011 and having highest number of health insurance companies.

We run Bartlett's Test of Sphericity (BTS) and Kaiser-Meyer-Olkin (KMO) test to measure the adequacy of the samples. It was found that the BTS value was 7898.264 ($p < 0.001$), while the value of KMO was 0.530, signifying that sample is adequate for factor analysis.

Table 1

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.564
	Approx. Chi-Square	5393.486
Bartlett's Test of Sphericity	df	171
	Sig.	.000

Sampling Method

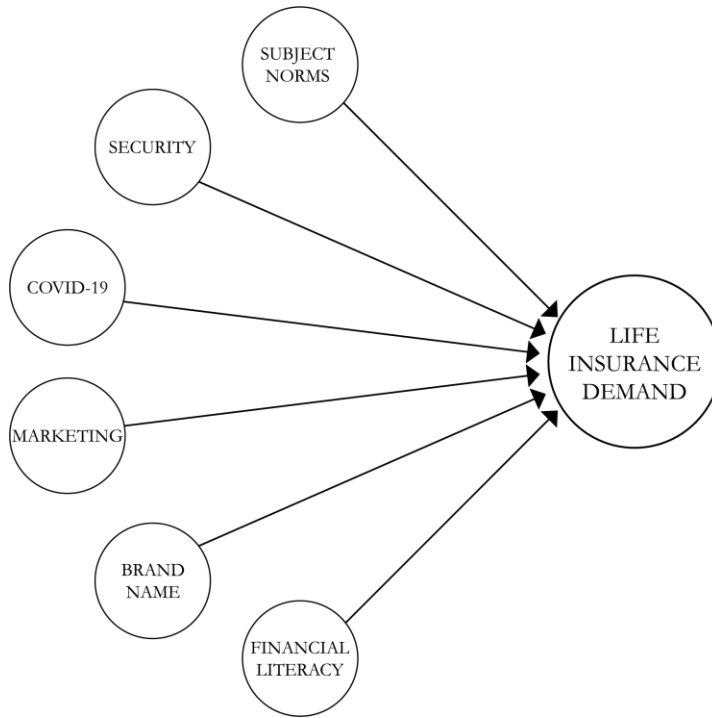
This study employed a non-probability sampling method whereby data was collected on a sample of 503 health insurance policy holders of five major health insurance companies in Punjab. This purposeful sampling method was chosen as it aims to delve into the key factors motivating to purchase health insurance policies. Approximately 1,000 paper and online version of the questionnaire was distributed. Out of these, only 613 were returned with only 502 of them deemed usable.

Instrument

The instrument used was a self-administered questionnaire consisting of two sections. Section I requested for some demographic information of respondents. Section II asked about Quantitative Questionnaire related to motives for health insurance holdings

Research Framework

Based on the literature review, this study posits that demographic variables, motives and financial literacy influence the demand for health insurance. The research framework is shown in Figure 1 below:



The model specification for hypothesis 2 and 3 is as follows:

$$HE_DEMAND = a + \beta_1 FIN_LIT + \beta_2 MKTG + \beta_3 COVID-19 + \beta_4 TAX_BFT + \beta_5 WEALTH_ACC + \beta_6 HOSPITAL_CT$$

where a is a constant, HE_DEMAND denotes the demand for health insurance, FIN_LIT refers to financial literacy,

MKTG refers to Marketing for, COVID-19 is the Covid-19, WEALTH_ACC relates to wealth accumulation motives, TAX_BFT is the Tax benefit, HOSPITAL_CT is the Hospital Cost and β_n are the coefficients to be tested.

Hypotheses: The hypotheses to be tested in this study are as follows:

Hypothesis 1: There is no significant differences between demographic categories and the demand for health insurance.

H0_(a): There is no significant differences between marital status groups and their demand for health insurance.

H0_(b): There is no significant differences between number of dependents categories and the demand for health insurance.

H0_(c): There is no significant differences between income groups and the demand for health insurance.



H0_(a): There is no significant differences between education attainment groups and the demand for health insurance.

Marital Status: It is predicted that married individuals have a higher probability to purchase health insurance compared to individuals who are single simply because they are responsible for their spouses and children's financial freedom in the event of loss of future income.

Number of Children: It can be expected that the number of children may be positively related to the demand for health insurance, as this will be related to a greater sense of responsibility towards children's finances in the future.

Level of Income: This study posits that income will be positively related to health insurance demand because individuals with higher income groups have more money to save (assuming other factors constant).

Education Level: It is hypothesized that education level will have a positive impact on individual saving with higher demand for health insurance. Higher education levels imply that those people have a better understanding of their personal financial matters, so they will be better able to make financial decisions and have more ability to plan for their future. There is evidence to show that more educated people can manage their money in terms of insuring, investing, saving and budgeting (Hogarth & Hilgert, 2002).

Hypothesis 2: There is significant impact of financial Literacy, COVID-19, Marketing forces, Wealth Accumulation Motive, Hospital Cost, Tax Benefit on demand for health insurance.

H0_(a): There is no impact of financial Literacy on demand for health insurance.

H0_(b): There is no impact of COVID-19 on demand for health insurance.

H0_(c): There is no impact of Marketing forces on demand for health insurance.

H0_(d): There is no impact of Wealth Accumulation Motive on demand for health insurance

H0_(e): There is no impact of Hospital Cost on demand for health insurance.

H0_(f): There is no impact of Tax Benefit on demand for health insurance.

Financial Literacy: It is posited that financial literacy has a significant impact on health insurance demand, as more knowledge on financial matters will enable individuals to make more substantive financial plans and more informed decisions regarding allocations of their money and saving. It is predicted that the relationship between financial literacy and demand for health insurance is positive.

COVID-19: The spread of the virus of corona pandemic results here has been global closure of businesses as well as the loss of jobs and lives. Increased pressure due to this pandemic requires establishment of efficient insurance policy to pursue economic development (Babuna et al., 2020) and tends individuals to take those health insurance policy to safeguard from uncertainties. In March 2021, health insurance companies in the non-health insurance sector increased by 41%, driven by rising demand for health insurance products amid COVID-19 surge. Alfaro et al. investigated aggregate and firm level stock returns during pandemics in real time. Their study showed that unexpected changes in the trajectory of COVID-19 infections predict US stock returns in real time

Marketing forces: insurance marketing is all about marketing the insurance service to attract more customers, which leads to profit generation. The marketing concept of insurance involves Various creative and innovative strategies on Advertising and publicizing have a positive effect on the prospective customers as well as personal selling. Discounts and incentives promised along with the policy have to be presented in detail to the customers. Company and the frontline executives must be maintained honesty to attract the customers in the long term. Finding an ideal mix of customers with high disposable income and targeting them with specific policies is another good promotional strategy.

Wealth accumulation motive: Individuals with wealth accumulation motives are expected to have a higher demand for health insurance as they perceive health insurance as a form of savings and want to accumulate funds for future use.

Hospital Cost: With the study not specifying the duration of hospitalization and type of treatment and stopping short of going into state-wise specifics, TOI did a random check of comparative costs of treatment in private and government hospitals in Bangalore. It was found that hospitalization in private establishments was 2-20 times costlier than in government institutions. For example, a one-day stay in ICU in a government hospital costs Rs 1,500, while private hospitals raise a Rs 30,000 bill for the same. However, Dr Alexander Thomas, president, Association of Healthcare providers India (AHPI), said compared to the global scenario, treatment cost in India's private hospitals is not steep but realistic. Ideally, treatment in public hospitals must be free. "In private hospitals, income over expense is just about 15-20% and it does not come from the lab and pharmacy," he said, adding that technology and resources are major differentiators in the private healthcare sector.

Tax Benefit: Purchase a health insurance policy which you feel is suitable for you as it not only offers you protection but also offers tax benefits under Section 80C of the Income Tax Act, 1961 and Section 10(10D) of the Income Tax Act, 1961. Insurance products are covered under the exempt, exempt, exempt (EEE) method of taxation. This translates to an effective tax benefit of approximately 30 per cent on select investments (including health insurance premiums) every financial year.

Data analysis and results

Descriptive analysis Table 2 provides summary of the descriptive statistics of the dependent and independent variables used in the study. The table shows the mean, minimum, maximum, standard deviation and number of observations for the dependent variable is health insurance demand measured by financial Literacy, COVID-19, Marketing forces, Wealth Accumulation Motive, Hospital Cost and Tax Benefit.

As shown on table 2, From a total of 502 respondents, 23.7% were Below 20 years old, 27.9% respondents belong to 21-30 years, 31-40 years shares 17.7%, 41-50 years were 14.9% while the other 15.7% respondents were above 50 years. As for marital status, 76.1% were married, 23.9% were single. For educational level, respondents are made up of 65.3% (Master's Degree), 10.4% (Secondary educated), 12.4% (Bachelor Degree), And 12% (others). In terms of monthly income, 60.2% of the respondents earned between 3,00,001-6,00,000, 22.9% earned between 6,00,001- 9,00,000, 10% earned between 1,00,000 -3,00,000, 7% earned above 9,00,000 per annum.



Table 2.

Characteristics	Categories	Frequency	Percent	Cumulative Percent
	Below 20 years	119	23.7	23.7
	21 - 30 years	140	27.9	51.6
	31 - 40 years	89	17.7	69.3
	41 - 50 years	75	14.9	84.3
	50 years and above	79	15.7	100.0
	Total	502	100.0	
	Higher secondary	52	10.4	10.4
	Bachelor Degree	62	12.4	22.7
	Master's Degree	328	65.3	88.0
	Others	60	12.0	100.0
	Total	502	100.0	
	Single	120	23.9	23.9
	Married	382	76.1	100.0
	Total	502	100.0	
	1,00,000- 3,00,000	50	10.0	10.0
	3,01,000- 6,00,000	302	60.2	70.1
	6,01,000- 9,00,000	115	22.9	93.0
	9,01,000 and above	35	7.0	100.0
	Total	502	100.0	

Anova: one-way ANOVA tests were conducted to test Hypotheses0(a-d) because the socio-demographic variables (independent variables) are categorical in nature and the life insurance demand (dependent variable) is continuous (Nurul & Sarah,2013).

Age group: Table 3 shows the relationship between age of the respondent and the purchase of health insurance. Results of ANOVA show that there are significant differences between the respondents age and their demand for Health insurance ($F = .579$, $Sig = .000$). The results show a clear pattern that age is positively related to the demand for health insurance, supporting hypotheses moreover respondents whose age between has high mean value of 4.28 and the individuals who age above 50 years has the lowest mean value of 4.06 on purchase of health insurance.

Table 3.

	N	Mean	Std. Deviation		
Below 20 years	119	4.24	1.079		
21 - 30 years	140	4.28	.996		
31 - 40 years	89	4.19	1.171		
41 - 50 years	75	4.15	1.036		
50 years and above	79	4.06	1.012		
Total	502	4.19	1.055		
ANOVA					
s3					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.587	4	.647	.579	.000
Within Groups	555.184	497	1.117		
Total	557.771	501			

Education: Results of ANOVA as shown in Table 4 suggest that there are significant differences between the groups of the level of education and their demand for Health insurance ($F = .441$, $Sig = .000$). It can be inferred from the table above that education level is positively related to health insurance demand.

Table 4.

	N	Mean	Std. Deviation		
Higher secondary	52	4.12	1.132		
Bachelor Degree	62	4.06	1.186		
Master's Degree	328	4.21	1.042		
Master Degree above	60	4.22	.922		
Total	502	4.19	1.055		
ANOVA					
s3					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.477	3	.492	.441	.000
Within Groups	556.294	498	1.117		
Total	557.771	501			

Marital Status: Results of the ANOVA test as shown in Table 5 suggest that reject null hypothesis and accept alternate hypotheses since significance value (.000) is less than (0.05) therefore there is significant differences between marital status groups and their demand for health insurance ($F = .939$, $Sig = .000$). Health insurance is mostly purchased by married individuals, followed by single individuals and is least bought by individuals who are divorced. A possible reason is because married people become more responsible and want to take care of their families during worst situation in the event a major health crisis such as a disability or critical illness and hence, need to rely on health insurance policies. Furthermore, single individuals may have fewer financial commitments as opposed to married individuals.

Table 5.

	N	Mean	Std. Deviation		
Single	382	4.16	1.066		
Married	120	23.9	23.9		
Total	502	4.19	1.055		
ANOVA					
s3					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.045	1	1.045	.939	.000
Within Groups	556.726	500	1.113		
Total	557.771	501			

Income level. Table 6 shows the relationship between income level and the purchase of health insurance. Results of ANOVA show that there are significant differences between the respondent's income and their demand for Health insurance ($F = .205$, $Sig = .000$). The results show a clear pattern that income is positively related to the demand for health insurance, supporting hypotheses moreover respondents who earn more than 9,00,000 per annum has high mean value of 4.23 and the individuals who earns between 1,00,000 -3,00,000 has the lowest mean value of 4.08 on purchase of health insurance.



Table 6.

	N	Mean	Std. Deviation		
1,00,000- 3,00,000	50	4.08	1.122		
3,01,000- 6,00,000	302	4.19	.992		
6,01,000- 9,00,000	115	4.21	1.143		
9,01,000 and above	35	4.23	1.215		
Total	502	4.19	1.055		
ANOVA					
s3					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.686	3	.229	.205	.000
Within Groups	557.084	498	1.119		
Total	557.771	501			

Correlation Analysis

Correlation Analysis Correlation measures the degree of linear association between variables. Values of the correlation coefficient are always ranged between +1 and -1. A correlation coefficient of +1 indicates that the existence of a perfect positive association between the two variables, while a correlation coefficient of -1 indicates perfect negative association. A correlation coefficient of zero, on the other hand, indicates the absence of relationship (association) between two variables. From the table, the significant value of financial Literacy, COVID-19, Marketing forces, and Tax Benefit 0.006,0.000,0.001 and 0.003 are less than the p value of 0.05 therefore we have the significant relationship with insurance demand. Whereas, Wealth Accumulation Motive and Hospital Cost have no correlations with health insurance demand because the significant value of 0.108 and 0.411 are higher than the p value. The correlation output shows that the degree of correlation among dependent and independent variables financial Literacy, COVID-19, Marketing forces, and Tax Benefit with the coefficient of 0.791, 0.773, 0.735 and 0.821 respectively. On the other hand, Wealth Accumulation Motive and Hospital Cost have no and negative correlations with health insurance demand with the coefficient of 0.055 and -0.010 respectively.

Table 7.

		Correlations						
		Health insurance demand	Financial literacy	Covid-19	Marketing forces	Wealth accumulation motive	Hospital cost	Tax benefit
Pearson correlation	Health insurance demand	1.000	.791	.773	.735	.055	-.010	.821
	Financial literacy	.791	1.000	.889	.899	.045	-.057	.781
	Covid-19	.773	.889	1.000	.882	.052	-.029	.768
	Marketing forces	.735	.899	.882	1.000	.036	-.068	.750
	Wealth accumulation motive	.055	.045	.052	.036	1.000	.188	.101
	Hospital cost	-.010	-.057	-.029	-.068	.188	1.000	-.089
	Tax benefit	.821	.781	.768	.750	.101	-.089	1.000

Sig. (1-tailed)	Health insurance demand	.	.006	.000	.001	.108	.411	.003
	Financial literacy	.006	.	.000	.000	.160	.102	.000
	Covid-19	.000	.000	.	.000	.121	.258	.000
	Marketing forces	.001	.000	.000	.	.208	.065	.000
	Wealth accumulation motive	.108	.160	.121	.208	.	.000	.012
	Hospital cost	.411	.102	.258	.065	.000	.	.023
	Tax benefit	.003	.000	.000	.000	.012	.023	.
N	Health insurance demand	502	502	502	502	502	502	502
	Financial literacy	502	502	502	502	502	502	502
	Covid-19	502	502	502	502	502	502	502
	Marketing forces	502	502	502	502	502	502	502
	Wealth accumulation motive	502	502	502	502	502	502	502
	Hospital cost	502	502	502	502	502	502	502
	Tax benefit	502	502	502	502	502	502	502

The output, as on Table 8 shows the regression result of health insurance demand which is measured by Health insurance density (HID) as dependent variable and the explanatory variables of firm specific, financial literacy, Covid-19, Marketing forces, Wealth accumulation motive, Hospital cost and Tax benefits determinants. The overall adjusted R square in the model is 0.741 $p=0.000$ hence null hypothesis rejected and alternate hypothesis is accepted this indicates there is an impact of financial Literacy, COVID-19, Marketing forces, Wealth Accumulation Motive, Hospital Cost, Tax Benefit on demand for health insurance This model is the best to explain the health insurance demand. This means on average 74.1 % of the change in Health Insurance Demand can be explained by the variables in the model.

The regression output shows statistically no significant relationship between financial literacy and health insurance demand with a regression coefficient of .058 and p-value of 0.078. Since p value is greater than 0.05 null hypotheses is accepted and alternate hypotheses rejected. There is no relationship between financial literacy and health insurance demand at 5% level of significance. This means that irrespective financial literate individual used to take health insurance policies

In line with regression result, the COVID-19 has a positive relationship with health insurance demand in Punjab by a coefficient estimate of 0.508 and p-value of 0.000. This means that holding other independent variables constant at their average value and one percent increases in COVID-19, as a result it increases health insurance density (HID) of demand of health insurance in Punjab by 50.8% and the p value of COVID-19 is 0.000 reveals that it is statistically significant at 5% level of significance. It implies that, COVID-19 arises, insurance become more affordable. The result of multiple regression shows that price of health insurance has positive significant influence on health insurance demand in Punjab with a regression coefficient of 0.508 and p-value of 0.000.



Table 8.

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change in R Square	F Change	df1	df2	Sig. F Change
1	.861 ^a	.741	.738	.540	.741	236.345	6	495	.000
a. Predictors: (Constant), financial Literacy,COVID-19,Marketing forces, Wealth Accumulation Motive, Hospital Cost & Tax Benefit									
ANOVA ^a									
Model		Sum of Squares	df	Mean Square	F	Sig.			
1	Regression	413.450	6	68.908	236.345	.000 ^b			
	Residual	144.321	495	.292					
	Total	557.771	501						
a. Dependent Variable: health insurance demand									
b. Predictors: (Constant), financial Literacy, COVID-19, Marketing forces,Wealth Accumulation Motive, Hospital Cost & Tax Benefit									
				Standardized Coefficients Beta	t	Sig.			
1	(Constant)				.432	.666			
	financial Literacy			.058	5.116	.078			
	COVID-19			.508	13.230	.000			
	Marketing forces			.313	1.386	.006			
	Wealth Accumulation Motive			-.027	-1.154	.249			
	Hospital Cost			.080	2.458	.014			
	Tax Benefit			.178	3.168	.002			

The regression output shows statistically significant and positive relationship between Marketing forces and health insurance demand with a regression coefficient of 0.313 and p-value of 0.006. This means that holding other independent variables constant and when one percent increases in marketing factors, consequently it increases health insurance demand in Punjab by 31.3% and the p value of inflation is 0.006 reveals that it is statistically significant at 5% level of significance. This implies that marketing methods followed by the insurance companies boost their insurance products demands.

The regression output shows statistically not significant and negative relationship between wealth Accumulation motive and health insurance demand with a regression coefficient of -0.027 and p-value of 0.249. The result of multiple regression shows that price of health insurance has negative and not statistically significant influence on health insurance demand in Punjab. This shows that individual wealth Accumulation motive have no effect on insurance products demand. The regression output shows statistically significant and positive relationship between Hospital cost and health insurance demand with a regression coefficient of .080 and p-value of 0.014. This means that holding other independent variables constant and when one percent increases in Hospital cost, consequently it increases health insurance density (HID) of demand of health insurance in Punjab by 8% and the p value of inflation is 0.014 reveals that it is statistically significant at 5% level of significance. This implies that insurance products demands are affected due to higher hospital cost.

The regression output shows statistically significant and positive relationship between Tax benefit and health insurance demand with a regression coefficient of .178 and p-value of 0.002. This means that holding other independent variables constant and when one percent increases in Hospital cost, consequently it increases health insurance density (HID) of demand of health insurance in Punjab by 17.8% and the p value of inflation is 0.002 reveals that it is statistically significant at 5% level of significance. This implies that individuals taking the insurance to evade the higher tax payment and get the exemption.

Discussion and conclusion

This study examined the determinants of health insurance demand, namely, socio-demographic variables, financial Literacy, COVID-19, Marketing forces, Wealth Accumulation Motive, Hospital Cost & Tax Benefit. Results revealed that all socio-demographic variables and saving motives had a significant impact on health insurance demand. These results have important implications for health insurance companies in their marketing of health insurance products. For example, married individuals were found to have the highest demand for health insurance, as opposed to individual people. A possible explanation behind this is that single individuals have less responsibility and in family dependent to them also fewer when compared to married individuals. But in the case of married individuals who are more responsible and wants to provide security to their dependents even after their health ends. Married individuals are targeted emotionally for health insurance policies even our sample in this study reveals married people holds higher health insurance.

Results of the study found that all covid 19 significantly influenced health insurance demand. covid 19 was found to have the strongest impact on health insurance demand, followed by marketing factors, Tax benefit, Hospital cost. These results are interesting as one might expect bequest or precautionary motives to have a stronger impact on health insurance demand. Plausibly, these findings suggest that individuals perceive health insurance as a secured during pandemic situation. Health insurance companies should take note of these results and design health insurance policies with attractive elements of returns and savings, since this study has found that individuals' health insurance demand is strongly influenced by covid 19. In contrast to (Xia et al., 2020) they found that COVID-19 negatively influenced the investment amount and income of commercial insurance companies due to currency inflation during the epidemic (Babuna et al., 2020).

This study shows that education level is significantly related to health insurance demand, where individuals with higher levels of education have higher health insurance demand. It implies that people who are more educated are more aware of the benefits of health insurance, and may possibly have easier access to health insurance through banks and financial intermediaries as opposed to those with low levels of education. Hence, health insurance companies should increase marketing efforts targeted to those less educated and increased penetration of insurance among these individuals. Income was found to be positively related to the demand for health insurance. On contrary, price of insurance had negative and significant effect on health insurance demand (Khan et al., 2016). Naturally, marketers of health insurance would focus marketing efforts on individuals who have higher income, since these are the individuals who can afford to purchase more health insurance. However, although this is the case, low-income earners should not be neglected as these individuals are



the ones who most probably are the least protected. Insurance companies should emphasize the importance of health insurance to this group of individuals and promote term health insurance which is relatively cheaper as opposed to whole health insurance or investment-linked policies (Lim et al., 2020). With lower insurance premium, low-income earners would be able to afford protection and penetration of health insurance in Malaysia would ultimately increase.

This study can be regarded as a preliminary study investigating the effects of saving motives on health insurance demand around Punjab. However, since a convenience sampling method was employed moreover results cannot be generalized to the entire region. There is ample room for other researches to be carried out on other parts of the region, especially more under developed rural areas, where health insurance penetration can be expected to be low. Other aspects of health insurance demand should also be studied, for example, on other behavioral aspects of financial decision-making, such as heuristics and risk aversion.

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Annex.

Questionnaire/ Schedule

Part A: Respondent's characteristics

Name(optional):

City:

1. Gender

- a. Male
- b. Female
- c. Transgender

2. Which age group do you belong to?

- a. 18 - 30 years
- b. 31 - 40 years
- c. 41 - 60 years
- d. 61 and above

3. Your highest level of education?

- a. Secondary
- b. Higher secondary
- c. Bachelor Degree
- d. Master's Degree
- e. Master Degree and above

4. Marital status:

- a. Single
- b. Married
- c. Divorced

5. Employment:

- a. Agriculture
- b. Self-employment/business
- c. Professional
- d. Private organization employed
- e. Government Service
- f. Others

6. What is your income per year?

- a. Less than 1,00,000
- b. 1,00,000- 3,00,000



- c. 3,01,000- 6,00,000
- d. 6,01,000- 9,00,000
- e. 9,01,000 and above

7. Type of family:

- a. Joint
- b. Nuclear

8. No of dependent family members:

- a. Nil
- b. 1
- c. 2
- d. Greater than 2

9. Average monthly medical expense of the family:

- a. 1000-5000
- b. 5000 - 15000
- c. 15000- 20000
- d. Above Rs.20000

10. Do you have health insurance policy?

- a. Yes
- b. No

11. Which companies' health insurance do you have?

- a. United India Insurance Company
- b. National Insurance Company Ltd.
- c. New India Assurance Company Ltd.
- d. Oriental Insurance Company Ltd.
- e. Max Bupa Health Insurance Company Ltd.
- f. Bajaj Allianz general Insurance Company Ltd.
- g. HDFC ERGO General Insurance Company Ltd.
- h. Iffco Tokio General Insurance Company Ltd.

Others, please specify _____

12. When did you have health insurance?

- a. 2 years or less
- b. 3-5 years
- c. 5 years and above

13. What is the reason for selecting health insurance of the above-mentioned company?

- a. Low premium
- b. Easy instalment
- c. Less paperwork
- d. Customer service
- e. Others, please specify _____

14. If the answer to question 13, is 2 years or less, please specify the reason why did you buy health insurance last year?

- a. Increase in hospital charges
- b. Frequently falling ill
- c. COVID-19
- d. Unsure about your future
- e. Afraid about losing all the savings in the hospitals
- f. Others, please specify _____

15. Have you ever changed your insurance policy or plan or company?

- a. Yes
- b. No
- c. If yes, please specify why _____

16. For how long you stick to the same health insurance company?

- a. 2 years or less
- b. 3-5 years
- c. 5 years and above

17. Which health Insurance plan do you have?

- a. Hospitalization
- b. Family floater health insurance
- c. Pre-existing disease cover plans
- d. Senior citizen health insurance
- e. Maternity Health insurance
- f. Hospital daily cash benefit plans
- g. Critical illness plans
- h. Disease-specific special plans
- i. Group Insurance plan

18. Have you ever claimed health insurance for any medical treatment?

- a. Yes
- b. No
- c. If yes, when _____

19. Was there any case of accident/hospitalization to any family member during the last 2 years or less?

- a. Yes
- b. No

20. Which is the most used source of fund for meeting your medical expenses?

- a. Free medical service from government
- b. Own Savings
- c. Paid by employer / company
- d. Health Insurance
- e. Others (Please Specify) _____



21. Give the most important reason, why do you think you should take an HI policy?

- a. To protect from rising cost of healthcare
- b. Expecting health problems
- c. Tax benefits
- d. Better healthcare for family
- e. Attractive schemes are available
- f. Covers big expenses
- g. COVID-19

22. Give the most important reason, why people don't take a health insurance policy?

- a. Did not feel the need
- b. No returns for investment
- c. High premiums charged
- d. Alternate sources
- e. Poor service provided and coverage
- f. Shortage of disposable funds

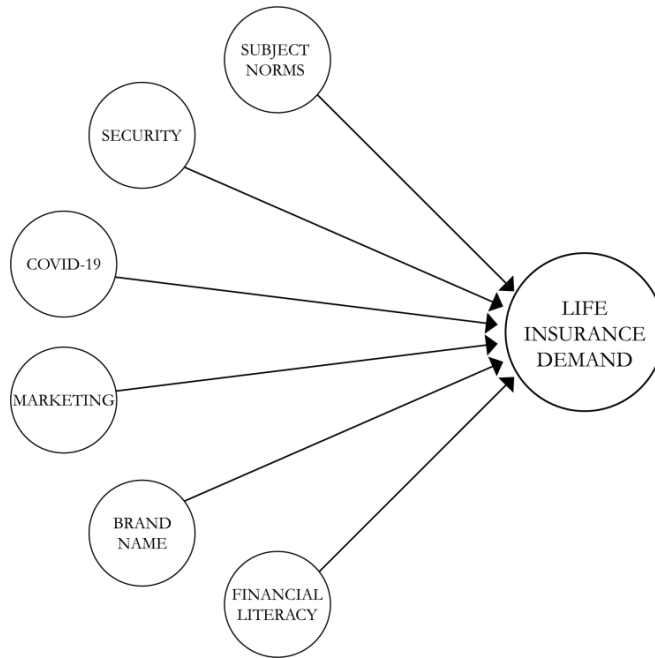
23. Rank (starting with 1) the three important factors which can form the basis for selecting a health insurance company, in your order of preference:

- a. Trustworthiness of the company
- b. Better schemes offered
- c. Existing insurances with the company
- d. Personal relationships
- e. Easy claim settlement
- f. More coverage of diseases
- g. Low premium cost
- h. Better marketing efforts by agents
- i. Tax savings
- j. Influence of advertisements
- k. Cover Coronavirus treatment expense

24. Did you get any extra benefit from health insurance company?

- a. Yes
- b. No
- c. If yes, specify_____

To analyze the factors affecting the purchase decisions of customers towards health insurance policies.



The variable are measured using a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Manik & Mannan (2017); Nurul & Sarah (2013) ; Maumita Ghosh (2013); Muhammad & Abdul (2020); Sandeep & Jasneet (2016); Kaur and Negi (2010)

Dependent Variable

Willingness to pay

I can afford to pay extra money for Insurance policies

unexpected medical expenditures motivate me to pay Insurance policies

Raising cost of health care motivate me to pay for Insurance policies

Reliability of policies motivate me to pay

INDEPENDENT VARIABLES

1. Subjective norms

I will take policy if my family members advise me

I will take policy if my colleagues advise me to use

I will take policy if my friends also use it

I will take policy if my relatives advise me to use



2. Securityfactor

loan taken due to illness/hospital cost

The sedate lifestyle & Work related stress is causing more health problems

The number of costly specialist medical tests advised is increasing

It provides risk coverage to customers

It provides tax benefit to its customers

3. Marketing factor

Agent's persuasion influences my decision making while I consider purchase of health insurance

Promotional offers influence my decision to purchase health insurance policy

Brochures and websites of HI providers give good information about policies and schemes

Advertisements have influence on my decision to take health insurance

4. Brand Name

The goodwill of company is important

Brand name is an important factor for me to select health insurance provider

Brand gives me an assurance about quality of service

Trust in the service provider is essential while selecting a health insurance policy

The company must use updated technology

5. COVID-19

COVID-19 increased the health consciousness of people of Punjab

COVID-19has increased health insurance importance

The cost of healthcare is increasing rapidly due to COVID-19

COVID-19has motives me to take health insurance

6. Financial Literacy

fully understood the life insurance plan purchased;

the riskiness of their life insurance plans;

the financial product best fits their financial needs;

the other financial products that best fits their needs.

On a scale of 1-5, please indicate the degree to which you agree to the statements given below based on your experience. (1=Strongly Agree, 2=Agree, 3= Neither Agree nor Disagree, 4=Disagree, 5=Strongly Disagree)

Sl.no	Statements	1	2	3	4	5
1	Health insurance is providing a financial security to the family members.					
2	Health insurance companies are providing sense of security.					
3	It covers your hospitalization and medical bills easily					
4	Premium terms are easy					
5	The health insurer is provided cashless facilities					
6	Health insurance policy is affordable to you					
7	Materials associated with service are visually appealing					
8	Do you think Health insurance companies save your taxation					
9	What do you think about Appealing physical facilities					
10	Ease of claim settlement process					
11	Benefits payouts are handled quickly					
12	Do Employees answered promptly for your Inquiries related to insurance					
13	Do health insurance companies give sufficient advance information					



	regarding policy renewal?
14	Do you think Health insurance companies Employees gives you personal attention
15	Health insurance companies Employees knows what your needs are.
16	Employees of Health insurance companies always willing to help customers
17	Health insurance companies provide its services at the time it to do so.
18	Health insurance companies keeps its records accurately.
19	Do you think loyalty on Health insurance companies affects purchase decision
20	Do you think Health insurance companies image affects purchase decision
21	Do you remember when was the last time you have taken the policy
22	How would you describe our brand to another person?
23	How likely would you switch brands if a competitor was cheaper?

24	What do you think about Health insurance companies's advertising on purchase decision?
25	Agents/company must show honesty in its services
26	The goodwill of company is important

