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A STUDY ON FACTORS AFFECTING LIFE INSURANCE PREMIUM: CASE OF INDIA

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Abstract

Life Insurance Corporation of India is one of the most major public sector which plays excellent job in selling its products (Nena, 2013). Life insurance Corporation of India should concentrate introducing new plans for facing health problem of day to day activities of human beings (Senthilkumar&Selvamani, 2016). This study makes an attempt at identifying some key factors that influence life insurance premium in India to a large extent. Study considers a set of variables including: Gross National Income (GNI), depending population (above the age of 65), real interest rate and the premiums per capita expenditure of life insurance in India.

The data collected on various factors was of past 11 years and study conducted was quantitative in nature. The study concludes that depending population (above the age of 65) is the most significant factor influencing the life insurance premium, followed by gross national income and real interest rate.

Key words: Influence, Life insurance,Premium per capita expenditure, Public sector.

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CHAPTER-1: INTRODUCTION

Life Insurance Policy provides both safety and protection to the individuals and also encourages savings among people (Yadav & Tiwari, 2012).Life insuranceincorporates a totally different type of risk aversion. Upon death, the insured has warranted that the non-depository financial institution can pay his or her beneficiaries a preset payment.

There are some of the major factors which are associated with the amount of money which consumer units spend on life insurance premiums (E. Kreinin, B. Lansing & N. Morgan, 1957). Individuals with a family tend to possess a better and higher desire for life insurance, since they see themselves as suppliers for their family. These life insurance policy measuresare obtained in premiums, which are the amount of cash, a person is charged for the coverage. These premiums vary according to the danger concerned or the health scenario of the insured individual.

A strong economy promotes stability and magnified financial gains, that makes insurance less risky to buy and supply. Knowing this, we are able to assume that there will be a positive correlation statistics between the flexibility to pay premiums for life insurance and a rise in premiums paid (Bryan, Proctor &Stoklosa, 2015). Or rather that, with a better financial gain, there will be a rise in life insurance demanded. It is stated that as financial gain will increase, the premium per capita will also increase in developing countries.

The quantitative factors influence the invasion of life insurance industry in India and with the Gross National Income being the most important factor influencing the extent of life insurance penetration in India (Shah, 2014). GDP, unemployment rate, wages and interest rate affect the total life premium in developing countries (NovovićBurić, 2017).

Therefore, Life Insurance Premium in India is extremely important because it has positive impact on growth. Therefore study makes an attempt at identifying some key factors that influence life insurance premium in India to a large extend. Study considers a set of variables including: Gross National Income (GNI), depending population (above the age of 65), real interest rate and the premiums per capita expenditure of life insurance in India. The data collected on various factors was of past 11 years and study conducted was quantitative in nature. Three hypotheses were

formed and tested using correlation and multiple regression analysis. The research was conducted with the following objectives in mind: 1. To find out significance for Depending Population (above the age of 65) and Real Interest Rate on Life Insurance Premium per capita Expenditure. 2. To find out the impact of Gross National Income on Life Insurance Premium per capita Expenditure.

To evaluate the above objectives, the study first identifies key factors that influence life insurance premium in India in the subsequent CHAPTER 2. CHAPTER 3 then quantifies the affect of these factors on life insurance premium in India. The study concludes with policy implications and suggests that depending population (above the age of 65) is the most significant factor influencing the life insurance premium, followed by gross national income and real interest rate.

CHAPTER 2: KEY FACTORS AFFECTING LIFE INSURANCE PREMIUM IN INDIA

The main purpose of buying an Insurance policy is protection and there are 68.8% respondents have policy of LIC Company (Khurana, 2008).Majority of the customers agree with the need of insurance as a mean to the protection of family while purchasing a Life insurance policy and agents found that the insured one is now bound to deposit premium (Jain, Talach, 2012).
Therefore, increasing life insurance premiums in India gives positive impact on development and to do so, identification of key factors that influence life insurance premium at large is necessary so that needful policy measures should are taken.

As per previous literature, major factors influence life insurance premium, out of which, the key factors that the study has considered are: 1. Gross National Income 2. Depending Population (above the age of 65) 3. Real Interest Rate

Gross National Income is the measurement of country's income and it includes all the income earned by the domestic residents, businesses as well as income earned abroad. GDP per capita may be an accurate representation of the economic performance of the country per individual,

but using the national income will better captures the ability of the individual to pay for specific goods, such as life insurance premiums (Bryan, Proctor &Stoklosa, 2015).

Depending population (above the age of 65) is the population which is above the age of 65 years out of total population. Households with member who are at least 50 years old, face the uncertainty of paying premium through the process of underwriting when they purchase life insurance (Tsendsure, Shiu Li, Chang Peng & Wong, 2018).

Real interest rate is the interest which the investor receives after the maturity of policy.Insurers are at the mercy of interest rates because much of their profitability depends on an ability to earn a spread over collected premiums (Kaye, 2017).

Life insurance premium per capita expenditure means the premiums given by the people according to their expenditure out of their whole income on life insurance policy. Life insurance policies are paid for in premiums, which are the amount of money an individual is charged for the coverage and these premiums vary in price according to the risk involved for the insurer, and the health situation of the insured (Bryan Proctor &Stoklosa, 2015).

Having identified the key factors, the subsequent chapter quantifies the effect of these factors on life insurance premium in India.

CHAPTER 3: ANALYSIS OF KEY FACTORS INFLUENCING LIFE INSURANCE PREMIUM IN INDIA

The study is based on the secondary data which is collected from the World Bank and Insurance websites. Data collected on all the selected variables is of the past 11years (2007-2017).

$$Y0 = \beta0+\beta1X1+\beta2X2+\beta3X3+Ui \quad (1)$$

where,

Y0= Life insurance premium per capita expenditure- It meansthe premiums given by the people according to their expenditure out of their whole income on life insurance policy.

X1= Gross National Income (GNI)- It is the measurement of country's income and it includes all the income earned by the domestic residents, businesses as well as income earned abroad.
X2= Depending population (65+) – It is the population which is above the age of 65 years out of total population.
X3= Real interest rates- It is the interest which the investor receives after the maturity of policy.

The statistical tool which is used is multiple linear regression to analyze the data and for the statistical analysis, stata was used.

RESULTS AND DISCUSSION

One of the important assumptions of multiple linear regression analysis is that there should be no multicollinearity in the model. Simple correlation analysis is conducted among the independent variables to check the multicollinearity. It's a situation of high inter-correlation among the independent variables. Any value which is more than 0.7 signifies multicollinearity.

Table 1: Multicollinearity

	Life insurance premium per capita expenditure	Gross national income	Depending population (65+)	Real interest rate
Life insurance premium per capita expenditure	1			
Gross national income	0.652527	1		
Depending population (65+)	-0.66155	-0.13876	1	

Real interest rate	0.106038	0.140129	0.447092	1

Multiple regression for the study is Y0= β0+β1X1+β2X2+β3X3+ei and the study is detailed as under –

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.930732
R Square	0.866262
Adjusted R Square	0.808945
Standard Error	0.583067
Observations	11

ANOVA

	Df	*SS*	*MS*	*F*	*Significance F*
Regression	3	15.41444	5.138148	15.11365	0.001928
Residual	7	2.379772	0.339967		
Total	10	17.79422			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	1.884242	0.752449	2.504145	0.040744	0.104982	3.663501	0.104982	3.663501
GNI	0.566639	0.164454	3.44557	0.010756	0.177766	0.955512	0.177766	0.955512
Depending population (65+)	-0.99285	0.206828	-4.80034	0.001966	-1.48192	-0.50378	-1.48192	-0.50378
Real Interest Rate	0.365031	0.153518	2.377776	0.049042	0.002019	0.728043	0.002019	0.728043

Dependent variable: Life Insurance Premium Per Capita Expenditure

So, the multiple regression equation formed is:-

Life insurance premium per capita expenditure = 1.8842 + 0.5666 (Gross National Income) - 0.9928 (Depending population which is above the age of 65 years) + 0.3650 (Real interest rates)

The analysis suggests that 1 percent increase in gross national income and real interest rate will lead to 0.5666 and 0.3650 increase in life insurance per capita expenditure respectively. With 1 percent increase in depending population (above the age of 65) and will lead to 0.9928 decrease in life insurance per capita expenditure.The study hence, finds that depending population (above the age of 65) has the most significant influence on life insurance premium per capita expenditure and therefore policies should be made.

CHAPTER 4: POLICY IMPLICATIONS ANDCONCLUSION

The demand for Life Insurance is majorly a customer driven market that is based on what the customer wishes. In order to do so, understanding the factors that influence life insurance premium is important.

The purpose of this study was to identify factors that influence life insurance premium in India. In this regard, regression analysis was conducted on the data of past 11 years, using Life Insurance Premium percapita Expenditure as a dependent variable. Empirical findings set forth that all the factors which were included do influence life insurance premium in accordance with the theoretical assumptions. In this scope, as depending population facilitate life insurance premium per capita expenditure and hence make a negative effect, gross national income and real interest rate on the contrary is a factor that has increase effect on life insurance premium per capita expenditure.

The reason behind the negative relation between depending population and life insurance premium per capita expenditure is that the elderly are less likely to increase income risks when they face a much higher health risk at this point of age (Tsendsure, Shiu Li, Chang Peng & Wong, 2018). The reason behind positive relation between real interest rate and life insurance premium per capita expenditure is that if interest rates run higher than anticipated, that will generally benefit your policy's cash value (Kaye, 2017). Similarly, the reason behind positive relation between gross national income and life insurance premium per capita expenditure is that if an individual is confident in paying premium will result in their beneficiary receiving the full sum promised, the individual will be much more likely to purchase the policy (Bryan, Proctor &Stoklosa, 2015).

The government needs to formulate a policy like giving subsidies to low income groups who are not able to pay such high life insurance premiums and at certain point of time, everyone needs life insurance policy.

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