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1. Originality and importance of core ideas
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4. Design and execution of research methodology (if appropriate)
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Authors are encouraged to solicit feedback from colleagues and practitioners on early drafts. A manuscript can be improved dramatically when knowledgeable reviewers are asked for reactions in advance of submission. Manuscripts are considered with the understanding that their contents have not been published and are not under consideration elsewhere. Presentation of a paper at a professional meeting does not disqualify it from consideration.

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INSURANCE SECTOR DEVELOPMENT AND ECONOMIC GROWTH IN INDIA

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ABSTRACT

The paper examines both the long-run and short-run relationship between insurance sector development and economic growth in India for the period 2001-2015. Gross domestic product (GDP) was adopted as a proxy for the economic growth, while Life insurance penetration (LIP), Non-life insurance penetration (NIP), Life insurance density (LID), Non-life insurance density (NID) were used in measuring insurance sector development. Inflation rate (INF) was used as a proxy for economic stability and acts as a control variable. The findings revealed that insurance sector growth and development positively and significantly affects economic growth. Using Vector Auto-Regression (VAR) model for testing the Granger causalities, the study finds the presence of both unidirectional and bidirectional causality between development of insurance sector and economic growth. Non-life insurance indicators show a long-run causal relationship with economic growth whereas there is bidirectional causality (NIP → GDP, LID → GDP and NID → GDP) between major insurance sector development indicators and GDP in the short run. This suggests that economic growth and insurance sector development can complement and reinforce each other. The study accordingly suggests that both insurance companies and policy makers should work together in order to promote both insurance market development and economic growth. Government should pay attention to policies that promote the development of insurance sector and create a good environment for insurance activities in India. The insurance companies should also engage in insurance business that is environment and customer friendly by formulating insurance policies that can accommodate every sector and segment of the economy.

Key Words -Life Insurance, Non-life Insurance, Insurance Penetration, Insurance Density, Economic Stability, Gross Domestic Product, Inflation, Vector Auto Regression, Unit Root, Granger Causality

1. Introduction

Financial development refers to aggregate size of the financial sector, its sectorial composition, and a range of attributes of individual sectors that determine their effectiveness in meeting users' requirements. The evaluation of financial structure should cover the roles of the key institutional players, including the central bank, commercial and merchant banks, saving institutions, development financial institutions, insurance companies, mortgage entities, pension funds, the stock market, and other financial market institutions (IMF, 2005; and Zaman *et al.*, 2012).

Most of the financial literature provides wide-coverage on financial sector development, particularly with reference to both banks and stock market development, and its link to economic growth. However, the inclusion of insurance sector in growth enhancing process is having low coverage and has received much less attention than the banking and equity markets (Guo and Huang, 2013; and Lee *et al.*, 2013).

According to the finance-growth nexus theory, financial development promotes economic growth through channels of marginal productivity of capital, efficiency of channeling savings to

investment, saving rate and technological innovation (Levine, 1997). Affecting economic growth through these channels is realized by functions of financial intermediaries. Among financial intermediaries, the insurance companies play important role, they are the main risk management tool for companies and individuals. Through issuing insurance policies, they collect funds and transfer them to deficit economic units for financing real investment. The importance of insurance is growing due to the increasing share of the insurance sector in the aggregate financial sector in almost every developing country.

Insurance companies are similar to banks and capital markets as they serve the needs of business units and private households in intermediation. The availability of insurance services is essential for the stability of the economy and can make the business participants accept aggravated risks. By accepting claims, insurance companies also have to pool premiums and form reserve funds. So, insurance companies are playing an important role by enhancing internal cash flow at the assured and by creating large amount of assets placed on the capital market.

Theoretical studies and empirical evidence have shown that countries with better developed financial system enjoy faster and more stable long-run growth of which insurance companies contribute to. Well-developed financial markets have a significant positive impact on total factor productivity, which translates into higher longrun development.

By providing protection, insurance companies could affect economic growth through the channels of marginal productivity of capital, technological innovations and savings rate. Insurance companies indemnify the ones who suffer a loss and stabilize the financial position of individuals and firms with possibility of transfer of different kinds of risks to insurance companies. Risk adverse economic units are more induced to buy goods and services, especially those of higher value. In this way, insurance sustains demands or consumptions for goods and services which encourage production

and employment which result in multiplier effect on economic growth. Again, firms exposed to various risks of their liability, property, illness and disability of their employees and life of key employees, have the possibility of managing those risks by transfer to insurance companies. This allow firms to concentrate their attention and resources on their core business which can lead to willingness and ability to take real investment which result in higher rate of economic growth.

Without mechanisms for mutualization, pooling, and transferring risk which insurance companies provide, part of the economic activities would not take place and positive effects on social welfare would fail. In other words, by creating an environment of greater security, insurance fosters investment and innovation or economic growth. Insurance increases marginal productivity of capital also in a way that it makes no need for high liquid contingency funds of firms which results in more funds available for financing high-return projects. Without insurance coverage, large contingency funds would be needed to protect firms against risk. Increasing availability of funds could result from kind of insurance products by which insurance companies provide protection from credit risk to other financial intermediation. In that way, financial intermediaries are more willing to lend funds for financing real investments which encourage economic growth.

Furthermore, new demographic situation of prolongation of life expectancy, an increase in elderly people and a falling birth rate and expectation of high level of healthcare and pensions makes big pressure on social security system and could have negative effect on economic growth. But, private insurers could give their contribution in solving the problem of social security system. They provide protection from the financial consequence of illness, injury and retirement. Thus, products such as life and health insurance, can substitute for government security programs. The function of providing insurance coverage could affect economic growth through saving rate channel in a mixed way. On one side, insurance protection contributes to

greater security which makes individuals and firms less careful. As a consequence, they could lower their precautionary savings. On the other side, by offering various life insurance products that combine risk protection and saving benefits, insurance companies encourage longterm savings.

The asseveration is that, like banking sector development and stock market development, the development of insurance sector is a key to high economic growth (Louberge, 1998; Enz, 2000; Darcy and Gorvett, 2004; and Nektarios, 2010). Development of insurance sector contributes to economic growth in many channels. However, the two most prominent channels are (Ward and Zurbruegg, 2000; Nektarios, 2010; Omoke, 2011; Houet *et al.*, 2012; Pan *et al.*, 2012; Chen *et al.*, 2012): first, through financial transfers and indemnification activities, insurance services foster and enhance economic growth (Ward and Zurbruegg, 2000); and second, life insurance products encourage long-term saving and the reinvestment of substantial funds in public and private sectors projects (Beck and Webb, 2003), which is again growth-enhancing.

The main objective of this article is to investigate the link between the insurance sector development and economic growth of India and hence to fill a gap in the current finance-growth nexus. It is surprising that rigorous and in-depth research of this kind is not more prominent among research topics. Therefore, in this study, we like to investigate the causal relationship between development of insurance sector and economic growth. In specific, the investigation is whether development of insurance sector causes economic growth or it is merely an outcome of economic growth.

2. Review of Literature

Brown and Kim (1993) analyzed life insuranceconsumption per capita for 45 countries forthe years1980 to 1987 with the multiple regression model oncross-sectional data on variouscountry figures, such asincome or inflation rate: income dependency and socialsecurityexpenses are positively correlated,

while inflationis negatively correlated and significant inboth years.

Zhuo (1998) focused on China and conducted a crossregional study for 1995 and a time-series analysis forthe period 1986 to 1995. In accordance with otherfindings, both the cross-egional and the time seriesanalysis show that GDP per capita and consumer priceindex(CPI) are significantly correlated with insuranceconsumption.

Holsboer (1999) concentrated on the changes in theexternal environment for insurance companies in Europein the period under review. He argued that the change ofimportance of insurance services in the economy isdependent on the growing amount of assets and theincreasing competition in the financial sector. He built thefollowing model which is based onAaron (1966): interestrate (R), growth of the working population (N), theeconomic growthrate (G), superior benefits of the payas-you-go pension system if $R < N+G$, superior benefitsofthe funded pension system if $R > N+G$, and both pensionsystem providing equal benefits if $R=N+G$. As populationaging and the move from pay-as-you-go (PAYG) systemto privatelyfunded schemes favours the growth of theinsurance industry and facilitated capital marketdevelopment with increasing supply of long-term savings,Holsboer (1999) saw theinteraction between theinsurance and economic growth as bi-directional.

Zurbruegg (2000) examines the short and long-rundynamic relationships between economic growth andgrowth in the insurance industry for nine OECD countries.

This was achieved by conducting a co-integrationanalysis on a unique set of annual data for real GDP andtotal real premiums issued in each country from 1961 to

1996. Causality tests were also conducted, whichaccount for long-run trends within the data.The resultsfrom the tests suggest that in some countries, theinsurance industry Grangercause economic growth andin other countries, the reverse is the case. Moreover, theresultindicates that the

relationships are country specific and any discussion of whether the insurance industry does not promote economic growth will be dependent on a number of national circumstances.

Beck and Webb (2002) applied a cross-country and time series analysis for the relation between life insurance penetration, density, and percentage in private savings and GDP as the dependent variables, real interest rate, inflation volatility and others as the explanatory variables. Strong evidence was found for GDP, oil dependency ratio, inflation and banking sector development. Inflation, real interest rate, secondary enrolment and private savings were found to be insignificant. The cross country analysis shows a negative coefficient for a country being of Islamic origin and adds institutional development to the indicators connected positively to insurance demand.

Webb et al. (2005) analyzed the effect of banking and insurance on the growth of capital and output based on cross-country data of 55 countries for the period from 1980 to 1996. The insurance variable is measured by average insurance penetration (insurance premium relative to GDP) of life and non-life insurance respectively. At the first stage of ordinary least square (OLS) estimation, assuming exogenous financial variables indicate positive effect of banking development on economic growth, while insurance variables do not enter significantly. The results of simultaneous equations, assuming endogenous relationship between financial activity and economic growth, show that higher levels of banking and life insurance penetration predict higher rates of economic growth.

Kugler and Ofoghi (2005) examined the long-run relationship between insurance market size and economic growth in United Kingdom for the period from 1966 to 2003 for long-term insurance, and for the period from 1971 to 2003 for general insurance (from 1991 to 1997 for marine-aviation, transport insurance and reinsurance). The study used disaggregated data for the measure of market size. That is, net

written premium for each market in insurance industry in the UK is used as a measure of market size for that market. Causality tests show that there is a long-run causality from growth in insurance market size to economic growth for eight (8) out of nine (9) insurance markets. Using Johansen's cointegration test, the results show a long-run relationship between development in insurance market size and economic growth for all components of insurance market.

Adams et al. (2005) examined the dynamics and historical relation between banking, insurance and economic growth in Sweden in the period from 1830 to 1998. Insurance development is measured by annual aggregate (non-life and life) insurance premiums. They used time series data and econometric tests of cointegration and granger causality. The results show that the development of banking, but not insurance, preceded economic growth during the nineteenth century, while it was reversed in the twentieth century. Insurance development appears to be driven more by the pace of growth in the economy rather than leading economic development over the entire period of analysis.

Arena (2008) worked on the empirical study and causal relationship between insurance market activity and economic growth which include 56 countries (both developed and developing ones) in the period from 1976 to 2004. Insurance premiums are used as proxies of total life and non-life insurance activities separately. As an estimation method, the author used the generalized method of moment for dynamic models of panel data. The result shows a positive and significant effect of total, life and non-life insurance market activity on economic growth. The author also examined the possibility of nonlinear effect of life and non-life insurance variables on economic growth, but the results did not show the nonlinearity in the relationship.

Wadlamannati (2008) examined the effects of insurance growth and reforms along with

other relevant control variables on economic development in India in the period from 1980 to 2006. Growth of insurance penetration (life, non-life and total) is used as proxies of insurance sector growth. The author applied ordinary least square (OLS), co-integration analysis and error correction models (ECM). The study confirms positive contribution on insurance sector to economic development and a long-run equilibrium relationship between the variables. While the reforms in the insurance sector do not affect economic activity, their growth has positive impact on economic development.

Marijuana et al. (2009) empirically examined the relationship between insurance sector development and economic growth in 10 transition European Union member countries in the period from 1992 to 2007. Three different insurance variables were used; life, non-life and total insurance and other control variables like education, openness, inflation, investment, bank credit, stock capitalization. According to their findings, insurance sector development positively and significantly affects economic growth. The results are confirmed in terms of life and non-life insurance, as well as total insurance.

In analogy to financial sectors like banking sector development and stock market development (Blum et al., 2002), the link between development of insurance sector and economic growth can be classified in terms of causality with respect to four possible hypotheses (Lee and Chiu, 2012; Lee et al., 2013; and Chang et al., 2014).

The first strand is the *Supply-Leading Hypothesis (SLH)* which contends that development of insurance sector is a necessary pre-condition to economic growth. Here, the causality runs from development of insurance sector to economic growth. The proponents of this hypothesis maintain that development of insurance sector may induce higher economic growth by facilitating savings in the form of financial assets and thereby spawning capital formation and hence, promoting economic growth. The studies support this hypothesis are Ward and Zurbrugg (2000), Kugler and Ofoghi (2005), Webb et al. (2005), Haiss and

Sumegi (2008), Adams et al. (2009), Lee (2011), Guochen and Wei (2012), and Lee et al. (2013).

A second strand is the *Demand-Following Hypothesis (DFH)* which suggests that causality runs instead from economic growth to development of insurance sector. Supporters of the demand-following hypothesis suggest that development of insurance sector plays only a minor role in economic growth and that is merely an outcome of economic growth in the real side of the economy. The idea is that as an economy grows, additional insurance coverage may emerge in the market in response to higher demand for financial services. The studies support this hypothesis are Beenstock et al. (1986), Catalan et al. (2000), Ward and Zurbrugg (2000), Beck and Webb (2003), Kugler and Ofoghi (2005), and Guochen and Wei (2012).

The third strand is the *Feedback Hypothesis (FBH)* which suggests that economic growth and development of insurance sector can complement and reinforce each other, making development of insurance sector and real economic growth mutually causal. The argument in favor of the bidirectional causality is that development of insurance sector is indispensable to economic growth and economic growth inevitably requires a developed insurance market. The studies support this hypothesis are Beck and Webb (2003), Kugler and Ofoghi (2005), and Guochen and Wei (2012).

The fourth strand is the *Neutrality Hypothesis (NLH)* which suggests that development of insurance sector and economic growth are independent to each other. The proponents of this hypothesis maintain that development of insurance sector has no role towards economic growth. That means they are independent to each other and follows the support of Lucas (1988) neutrality hypothesis of finance (Akinlo, 2013; and Pradhan et al., 2013). The only study support this hypothesis is Guochen and Wei (2012).

3. Data and Methodology

Granger causality analysis is the appropriate technique to investigate the long-run relationship between development of insurance sector and

economic growth. In this context, the Granger causality consists of three steps: First, unit root test for the series are undertaken. Second, if they are integrated at order one I (1), the series is detrended. Third, VAR is applied to examine the Granger causality in the short and long run.

The study used the following variables to investigate the long-run relationship between development of insurance sector and economic

growth: growth rate of real per capita income (GDP), Life Insurance Penetration (LIP), Non-Life Insurance Penetration (NIP), Life Insurance Density (LID), Non-life Insurance Density (NID). GDP deflator is used as a proxy for Inflation (INF) to control for macroeconomic stability. The variables are defined in Table-3.1 and the summary statistics of the variables are presented in Table 3.2.

Table-3.1 Definition of Variables	
Variables	Definition
LIP	Life insurance penetration: This is direct domestic premiums life (in USD) and used as a % of gross domestic product (in USD).
NIP	Non-life insurance penetration: This is direct domestic premiums non-life (in USD) and used as a % of gross domestic product (in USD).
LID	Life insurance density: This is direct domestic premiums life (in USD) to total population.
NID	Non-life insurance density: This is direct domestic premiums non-life (in USD) to total population.
GDP	Economic growth: Percentage change in per capita gross domestic product: used as our indicator of economic growth.
INF	Inflation: Measure of Economic Stability and acts as a control variable.
<p>Note:</p> <ol style="list-style-type: none"> 1. All monetary measures are in US dollars. 2. LIP, NIP, LID, NID indicators are used here as a proxy for the insurance sector development. 3. GDP deflator is used as a proxy for inflation. It's just another way to measure inflation, but it has an important feature that other inflation measures don't. Because GDP shows how spending changes throughout time, the GDP deflator takes into account shifting spending patterns in the economy. 4. Insurance density means direct domestic premiums (for life/ non-life) in USD per population. 5. Insurance penetration means direct domestic premiums life (for life/ non-life) in USD as a % of gross domestic product. 6. Life insurance represents a form of insurance coverage that pays out premiums to the insured or their specified beneficiaries upon a certain accident. 7. Non-life insurance essentially consists of insurance policies that protect the insured against losses and damages other than those covered by life insurance such as property, motor, marine, transport, pecuniary loss, and aviation. <p>Source: Compiled by the Author</p>	

The annual secondary data ranging from 2001 to 2015 were obtained from the Insurance Regulatory and Development Authority of India (IRDA), World Development Indicators of the

World Bank and Sigma Economic Research & Consulting, Switzerland.

Table-3.2 Descriptive statistics						
	GDP	LIP	NIP	LID	NID	INF
Mean	5.678868	3.210000	0.660667	33.72000	6.953333	5.481417
Median	5.840183	3.311993	0.648654	37.80827	6.850897	5.683052
Maximum	6.157661	3.649632	0.752184	48.44230	11.99700	6.518975
Minimum	4.334455	2.339216	0.594862	8.247237	2.131221	3.663399
Std. Dev.	0.533604	0.404758	0.052691	13.60805	3.187494	0.908933
Skewness	-1.402235	-0.805241	0.402044	-0.586748	0.060261	-0.557435
Kurtosis	3.979518	2.608351	1.788335	1.962859	1.756960	2.167590
Jarque-Bera	5.515316	1.716900	1.321681	1.532973	0.974797	1.209901
Probability	0.063440	0.423819	0.516417	0.464643	0.614222	0.546101
Source: Compiled by the Author						

The Granger causality test is a statistical hypothesis test for determining whether one time series is useful in forecasting another, first proposed by Granger, C. W. J. (1969). A time series X is said to Granger-cause Y if it can be shown, usually through a series of t-tests and F-tests on lagged values of X (and with lagged values of Y also included), that those X values provide statistically significant information about future values of Y . We say that a variable X that evolves over time *Granger-causes* another evolving variable Y if predictions of the value of Y based on its own past values *and* on the past values of X are better than predictions of Y based only on its own past values.

Granger defined the causality relationship based on two principles:

1. The cause happens prior to its effect.
2. The cause has *unique* information about the future values of its effect.

Given these two assumptions about causality, Granger proposed to test the following hypothesis for identification of a causal effect of X on Y .

$$Z_t = \alpha + \sum_{i=1}^{\infty} A_i Z_{t-i} + \varepsilon_t \quad (i)$$

Based on the same, the study used the following model to detect the long-run and short-run causal relationship between the economic growth and insurance sector development.

$$GDP_t = \alpha_1 + \sum_{j=1}^P \beta_{1j} GDP_{t-j} + \sum_{j=1}^P \beta_{2j} LIP_{t-j} + \sum_{j=1}^P \beta_{3j} NIP_{t-j} + \sum_{j=1}^P \beta_{4j} LID_{t-j} + \sum_{j=1}^P \beta_{5j} NID_{t-j} + \sum_{j=1}^P \beta_{6j} INF_{t-j} + \varepsilon_{1t} \quad ii)$$

The parameters b_{ij} represent the long-run elasticity estimates of GDP with respect to LIP, NIP, LID, NID and INF. The task was to estimate the parameters in Equation (ii) and conduct panel tests on the causal nexus between the variables. It is postulated that $b_{ij} > 0$, which suggests that an increase in the development of insurance sector (LIP/NIP/LID/NID) and economic stability (INF) will likely cause an increase in per capita economic growth (GDP).

Furthermore, the Granger causality test is applied to know the direction of causality between economic growth and insurance sector development. We use traditional GC model (Granger, 1988) and panel VAR model (Holtz-Eakin *et al.*, 1988; and Arellano and Bond, 1991) is used for the analysis.

The traditional Augmented Dickey Fuller (ADF; Dickey and Fuller, 1981) unit root is used for the analysis and found that all the variables (GDP, LIP,

NIP, NIP, NID, INF) are non-stationary and are detrended by using Hodrick-Prescott algorithm. The detrended variables are considered for the study.

Hodrick-Prescott (HP) algorithm is a two sided linear filter that computes the smoothed series S of y by minimizing the variance of y around S , subject to a penalty that constrains the second difference of S . Specifically, The HP filter chooses S_t to minimize:

$$\sum_{t=1}^T (y_t - S_t)^2 + \lambda \sum_{t=2}^{T-1} [(S_{t+1} - S_t) - (S_t - S_{t-1})]^2$$

The penalty parameter, λ , controls the smoothness of the series S_t . The study uses EViews which by default set $\lambda = 100$ for annual observations. The larger the λ , the smoother is the S_t . The motivation for detrending is to extract a stationary time-series, not to predict the trend.

Table-3.3 Results of Unit Root Tests: Stationarity of the Variables

GDP	LIP	NIP	LID	NID	INF
I(1)*	I(1)*	I(1)*	I(1)*	I(1)*	I(1)*
<p>Note:</p> <ol style="list-style-type: none"> 1. GDP: Per capita economic growth; LIP is life insurance penetration; NIP is non-life insurance penetration; LID is life insurance density; NID is non-life insurance density; INF is inflation. 2. The unit root test conclusions are reported on the basis of Augmented Dickey Fuller (ADF) Test statistics. 3. I (1) stands for Integrated of order one. 4. *: Indicates significance at the 5% level. <p>Source: Compiled by the Author</p>					

4. Empirical Results

The Granger causality tests are used to examine the causal nexus between economic growth (GDP) and insurance sector development. Insurance sector development is represented here by four insurance sector indicators such as LIP, NIP, LID and NID. GDP deflator (INF) is a proxy to control for macroeconomic stability. The explanation of

these variables is available in Table 3.1. A necessary step for Granger causality test is to check for the stationarity of the time series. Using ADF unit root test for each variable, we reject the null hypothesis of unit root at the first difference but not for the levels (see Table-3.3). This indicates that all the variables representing economic growth, insurance sector development and macroeconomic stability

are non-stationary at the level data but are stationary at the first difference. This suggests that both development of insurance sector and economic growth are integrated of order one [i.e. I (1)]. Hence all the series are detrended by using Hodrick-Prescott algorithm.

The next step is to determine the direction of causality between development of insurance sector and economic growth. The variables of interest are LIP/NIP/LID/NID for insurance sector development and GDP for the economic growth. Using Granger causality test, the estimated results for these variables are reported in Tables-4.1 and 4.2.

Table-4.1 Results of Test from the Vector Auto Regression Model for Long-Run Causality				
Dependent Variable (GDP)				
LIP	NIP	LID	NID	INF
N [Y]	Y [Y]	N [Y]	Y [N]	Y [Y]
<p>Note:</p> <ol style="list-style-type: none"> 1. GDP: Per capita economic growth rate; LIP: Life insurance penetration; NIP: Non-life insurance penetration; LID: Life insurance density; NID: Non-life insurance density; INF: Inflation. 2. The conclusions are drawn on the basis of significance of the lagged error correction term. 3. Y: Yes, indicates the presence of long-run equilibrium relationship; N: No, indicates the absence of long-run equilibrium relationship. 4. []: indicates the presence (Y)/ absence (N) of reverse causality between GDP and development of insurance sector (LIP/ NIP/ LID/ NID)&Inflation (INF). 5. Testing is conducted at the 5% level of significance. 				
Source: Compiled by the Author				

Table-4.1 reports the presence of long-run equilibrium relationship, while Table-4.2 reports the short-run causal links between the two sets of variables. The analysis is based on the individual indicators of development of insurance sector and economic growth. Coming to long-run equilibrium relationship, we find the presence in two cases while studying Granger causality from development of insurance sector (NIP/NID) to economic growth (GDP).

However, we find the presence of long-run equilibrium relationship from economic growth (GDP) to development of insurance sector viz., LIP/NIP/LID.

On the contrary, we have divergence experience in the context of short-run Granger causality. The results of this section are presented as follows.

Table-4.2 Granger Causality Test Results for the Short-Run				
GDP vs. LIP	GDP vs. NIP	GDP vs. LID	GDP vs. NID	GDP vs. INF
GDP←LIP	GDP↔NIP	GDP↔LID	GDP↔NID	GDP←INF
<p>Note:</p> <ol style="list-style-type: none"> 1. GDP: Per capita economic growth rate; LIP: Life insurance penetration; NIP: Non-life insurance penetration; LID: Life insurance density; NID: Non-life insurance density; INF- Inflation. 2. GDP←Y: Presence of unidirectional causality from Y to economic growth; GDP→Y: Presence of unidirectional causality from economic growth to Y; GDP↔Y: Presence of bidirectional causality between economic growth & Y; and GDP ≠Y: Absence of Granger causality between economic growth & Y. 3. Y = LIP/NIP/LID/NID/INF, where LIP, NIP, LID, NID are indicators for the insurance sector development and INF is an indicator for economic stability. 4. Testing is conducted at the 5% level of significance. 				
Source: Compiled by the Author				

5. Conclusion

There is a unidirectional causality (LIP'!GDP) indicating that the development of insurance sector causes economic growth. There is bidirectional causality (NIP'!GDP, LID'!GDP and NID'!GDP) between major insurance sector development indicators and GDP. This suggests that economic growth and insurance sector development can complement and reinforce each other, making development of insurance sector and real economic growth mutually causal. That is the situation where both are self-reinforcing and subject to the support of feedback hypothesis of finance-growth nexus.

The study accordingly suggests that in order to promote economic growth, attention must be paid to policies that promote the development of insurance sector. This, in turn, requires efficient allocation of financial resources combined with sound regulation of insurance sector. Furthermore, an establishment of a well-developed financial system, including the well functioning of financial institutions, particularly with reference to insurance sector can facilitate further investment

and easier means of raising capital to support the economic activities in the economy. Given the possibility of reverse causality or bidirectional causality for some occasions, policies that increase economic growth (such as actions to fuel investment) would be desirable to bring the development of insurance sector. Therefore, what is suggestive is that both insurance companies and policy makers should work together in order to promote both insurance market development and economic growth (Adams *et al.*, 2009; and Teresa and Garcia, 2012). Both legal and regulatory environment does matter for the development of insurance market (Ward and Zurbrugg, 2000; Chang and Lee, 2012; Dragos and Dragos, 2013). Micro-insurance that is environment friendly, meaningful, relevant and affordable for different people should be designed so that insurance will take its rightful place and generate funds for economic development. Therefore, government should pay serious attention to bring these stable environments in order to promote the link between development of insurance sector and the economic growth.

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EVALUATION OF LIFE INSURANCE CORPORATION (LIC) OF INDIA USING GROWTH CURVE MODEL

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ABSTRACT:

Insurance can have various effects on society through the way that it changes who bears the cost of losses and damage. Now a day insurance industries in India have taken a giant shape after privatization of insurance industry. The government of India has notified the foreign direct investment in insurance to the extent of 49% on 21st February 2015. Life Insurance Corporation of India is one of the most significant public sector which plays excellent job in selling its products. Last few years it is facing tremendous competition as many private players have emerged. Rakesh H.M & Shilpa R (2015) considered a study of financial performance of LIC of India in their paper. We extended their study up to latest period means 2015-16. We also tried to fit Growth curve model to the data and give the future prediction for last ten years.

Keywords: LIC, Growth Curve Model, Prediction, SPSS.

Introduction:

Insurance is an equitable transfer of the risk of a loss, from one entity to another in exchange for payment. The insured receives a contract called the insurance policy, which details the conditions and circumstances under which the insured will be financially compensated. The amount of money to be charged for a certain amount of insurance coverage is called the premium. Insurance can have various effects on society through the way that it changes who bears the cost of losses and damage.

Insurance is a protection against natural calamities was first conceived by the adventurous travelers of the sea, who carried goods of the value to faraway places, braving all the perils of the sea in anticipation of handsome profits in the trade. The system of sharing of such losses of a few amongst all members engaged in the trade, by way of insurance, saved many families from utter ruin and further encouraged the application of the principle of security through insurance to other hazards. Life

assurance is meant to provide financial assistance to the dependents of the life assured in the events of his death. Earliest form of life Assurance was a lump sum payment at the time of death of person whose life was insured. The amount of payment used to be fixed arbitrarily depending on the resources of the organization. This type of benefit payable at the time of death is "Whole Life Assurance" as the full life time of the assured should be over before the benefit of assurance can be had.

This system of Whole Life Assurance did not meet all the needs of the insuring public. People wanted to enjoy the benefits of insurance during their life time generally after they had retired from gainful occupation, at the same time, securing protection for their dependents in the event of their unfortunate death before the expire of endowment term selected by them. This desire brought Endowment Assurance into vogue wherein, assurance is for a fixed period, the sum assured

being payable either on death before the expiry of the fixed period or on surviving the period selected.

If sometimes happens that lump sum assurance benefit made to a dependent wife and/or son is spent away sooner than it was expected to last, due to ignorance and wrong advice. In such cases the dependents will soon be reduced to very embarrassing financial position. And the purpose for which the life assured had made such a provision will not be served. The same thing may happen to the life assured also, after he has received the benefit in his life time, having survived the period selected under the Endowment Assurance Plan. To provide again such a contingency, benefit in the form of periodicals (monthly, quarterly, half-yearly or yearly) payments can be arranged. These periodical payments

- (1) May continue during the life time of the person concerned or
- (2) May be paid definitely for a certain period and if the person insured is still alive, then the payments may be continued during his/her life time or
- (3) May be paid definitely for a certain period only, say five or ten years.

The above arrangement can be made for both types of assurance, namely, Whole Life and Endowment Assurances.

No benefit can be secured without paying for it. When a person is desirous of having protection for his family in case of his death, he has to pay for it. Similarly if he wants to make provision for his old age by means of an Endowment Assurance Policy, he has to pay for it. Mode of payment of the cost can be always arranged according to the convenience of the person seeking the benefit. He may pay the cost of the benefit straightway in which case it is called a single premium. The cost of benefit can be paid in equal yearly installments for life it is a benefit payable at the time of death. These installments are called annual Premiums. On the other hand it can be paid in equal annual installments over a selected period or till the death of the life assured if earlier.

Life Insurance Corporation of India was established on 1st September 1956 to spread the message of life insurance in the country and mobilize people's saving for nation – building activities. LIC's slogan is sanskrit “yogakshemam vahamyaham” which translates in English as “Your welfare is our responsibility”. This is derived from the Ancient Hindu text, the Bhagavad Gita's 9th Chapter, 22nd verse. The slogan can be seen in the logo, written in Devanagiri script. For almost four decades LIC has been sole player with virtual monopoly in the life insurance sector.

The setting up of the Insurance Regulatory and Development Authority (IRDA) was a clear signal of the end of the monopoly in the insurance sector. It has become imperative for LIC to face the competition posed by the entry of new private players. If under this pressure, Life Insurance Corporation of India improves its performance, the whole economy will be benefited. The insurance industry has undergone a drastic change since liberalization, privatization and globalization of the Indian economy in general and the insurance sector in particular.

Objectives of the Study:

Below mentioned are some of the objectives of the study.

1. To understand the importance of Life Insurance in human life.
2. To know the working of LIC (Life Insurance Corporation).
3. To identify major attributes for the success of plans.
4. To evaluate the operating efficiency of LIC of India.
5. To measure the performance of LIC of India.
6. To evaluate the growth of LIC during the period of the study.
7. Predict future values using growth curve model.

Literature Review:

The literature on life insurance industry in India includes books, compendia, theses, dissertations, study reports and articles published by academicians and researchers in different periodicals. The literature which we refer is presented below:

Rakesh H M and Shilpa R (2015) discussed the financial and operating performance of LIC with a rationale of knowing the source of income and other expenses of LIC. Their period of study was 9 years from 2005-06 to 2013-14. **Sonal Nena (2013) studied the growth and performance of LIC and to analyze the major source of income of the sample units as well as the significant heads of expenses of LIC to measure the performance during the period under the study.** Chandarana and Harish M (2008), in their study, "Performance Evaluation of LIC of India" have made a study from 1996-97 to 2005-06. They have observed that the percentage of total outgo to total income was less than 50%, total assets have increased six times in the study period. The study has suggested that LIC has to cut the management expenses, invest more in infrastructure and need to emphasize in international markets.

Dr. Ravi N Kadam (2012), "LIC of India: A Giant in India's Insurance Sector" has made a study on importance of insurance in risk management, performance and competitors for LIC. The researcher has identified the 23 competitors for LIC. The study was done for a period of 5 years from 2005 to 2010. The life insurance business was measured on the basis of gross premium income and net premium income. Prachi Agnihotri, in her study, "The impact of Privatization on the LIC of India" has thrown a light on performance of LIC of India in a competitive position. The article contained post privatization period, competitive environment, major attributes for success of plans and performance of LIC. The

descriptive study was conducted on the negative and positive aspects of LIC by considering the views of experts. The study period was 5 years from 2008-09 to 2012-13. Ratios were used to analyze the performance of LIC. It was concluded saying that overall performance evaluation of LIC of India is consistent and suggested to have more service standards to maintain market value of products. Dr. K Ramanathan (2014), "A Study on the Cost Control Efficiency of LIC of India" in his article has evaluated the cost control efficiency of LIC during the period 2002 to 2012 for 10 years. The analysis revealed that in first two years of the study LIC didn't reduce the expenses it has been made clear from the covariance that income and expenses were insignificant throughout the study period. The study also calculated the cost efficiency score of LIC of India using Data Envelope Analysis and in all the years LIC had scored the highest rank and maintained consistency compared to private insurance companies.

Research Methodology:

The Insurance industry now a day has so many Life Insurance institutions in India; we have selected LIC of India as a sample. The present study covers secondary data. Data and information have been extracted from Annual Reports LIC of India. We considered 11 years data regarding Profit & Loss Account of the sampled unit. It is also supported by various published journals, literatures of the LIC. Life Insurance Corporation (LIC) is doing business of Insurance in India since 1961. By providing insurance, as such it tries to secure the human life value and thereby adds further security to the person having insurance policy. As mentioned earlier that as per the type and nature of the data available we have analyzed major five components of the expenses of the sampled unit. All Expenses are analyzed through statistical measures. Further Descriptive Analysis has been carried out.

The following table shows the major five variables which are taken for the analysis

Table-1: Components of Expenses.

Years	Total Claims	%	Commission	%	Expenses	%	Shareholders Investment	%	Policy holders investments	%
2005-06	2992137	100	684648	100	489232	100	16640.43	100	45278642	100
2006-07	3691662	123	729694.4	107	528175	108	27945.18	168	51111283	113
2007-08	3852983	129	715093.2	104	518311	106	29319.63	176	60539701	134
2008-09	4216774	141	862108.4	126	701378	143	31950.4	192	63896170	141
2009-10	5412911	181	1054738	154	932961	191	35376.27	213	83304127	184
2010-11	5755791	192	1330871	194	1737741	355	41726.63	251	97016710	214
2011-12	7191233	240	1403562	205	1533874	314	45276.07	272	1.07E+08	236
2012-13	7394802	247	1476801	216	1736295	355	47810.55	287	1.19E+08	262
2013-14	9140211	305	1668133	244	2018531	413	49216.9	296	1.39E+08	307
2014-15	10195862	341	1947117	284	2729621	558	62187.75	374	1.63E+08	360
2015-16	11671494	390	2204908	322	3351607	685	69981.77	421	1.88E+08	415

As per data shown in above table the base year 2005-06 is taken as 100. As compare to this base year Expenses of all other years are showing increasing trend. We can observe that all components of the expenses are increasing, but

the increase in the operating expenses are much higher than any other component/variable. Following table shows the descriptive statistics by taking base year as 2005-06.

Table-2: Descriptive Statistics.

	% Claims	%Commission	% Oper. Expense	% Shareholders Investment	% Policy holders investments
Mean	217.18	186.91	302.55	250	224.18
Standard error	28.99	22.916	59.143	28.287	31.311
Median	192.0	194.0	314.0	251.0	214.0
Standard Deviation	96.148	76.003	196.154	93.819	103.846
Sample Variance	9244.364	5776.491	38476.273	8802.00	10783.964
Kurtosis	-.839	-.907	-.299	-.161	-.663
Skewness	.569	.445	.737	.368	.591
Range	290	222	585	321	315
Minimum	100	100	100	100	100
Maximum	390	322	685	421	415
Sum	2389	056	3328	2750	2466

The above table reveals that as year by year expenses are increasing, its standard error is also getting increased. It would result into increase in variances. As operating expenses are increased at a higher rate its standard error also gets increases faster and its variance (38476.36) is also very high as compared to all other variables.

Curve Estimation:

We can observe from the analysis using SPSS-20 for Total claims, Commission, Expenses, Shareholders' investment and policy holder investments fitting of growth curve model is the best for all the variables among different curves like linear, logarithmic, Inverse ,quadratic, compound, cubic, power ,S, Exponential and Logistic. We tried to fit all possible curves and

notice that the graph of Growth curve model is coincide to the observed fit for all the study variables as well as the value of R is greater than 0.99 for all variables under study – which shows appropriate choice of growth curve model as R Square statistic is a better measure of the strength of relationship. The following table summarize the results of the F test of model fit. Now, to fulfil our objective of testing whether there is a significant difference in expenses during the study period, we consider the following hypothesis.

Ho: There is no significant difference in expenses of sampled unit during the period of the study.

H1: There is significant difference in expenses of sampled unit during the period of the study.

Table-3: ANOVA table for different variables.

Variables		Sum of Squares	df	Mean Square	R	F	Sig.
% Insurance Claims	Regression	2.010	1	2.010	.995	955.957	0.000
	Residual	0.019	9	0.002			
	Total	2.029	10	-			
% Net Commission Paid	Regression	1.700	1	1.700	.987	335.157	0.000
	Residual	0.046	9	0.005			
	Total	1.745	10	-			
% Operating Expenss	Regression	4.637	1	4.637	.976	178.215	.000
	Residual	.234	9	.026			
	Total	4.872	10				
% Investments (Share Holders)	Regression	1.536	1	1.536	.964	119.897	.000
	Residual	.115	9	.013			
	Total	1.651	10				
% Investments (policy Holders)	Regression	2.248	1	2.248	.997	1605.916	.000
	Residual	.013	9	.001			
	Total	2.261	10				

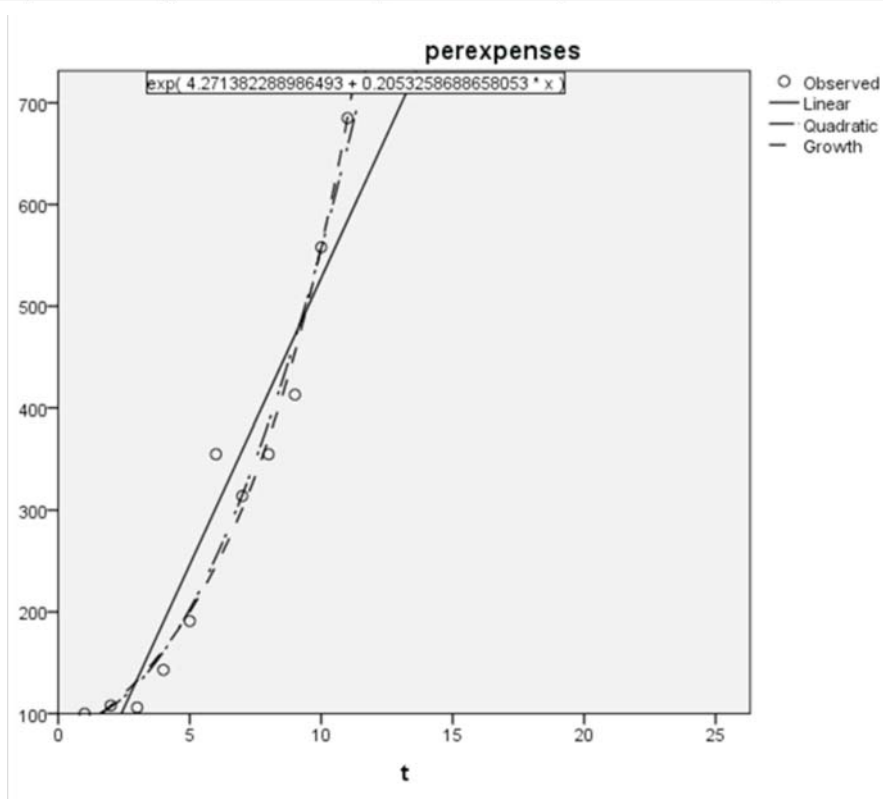
The regression sum of squares is considerably larger than the residual sum of squares, which indicates that most of the variation in the study variables are explained by the corresponding growth model. The significance value of the F statistic is less than 0.05 for all variables models, which means that the variation explained by each model is not due to chance. Further since the sig. P-values' are less than 0.05 for all variables, we can reject the null hypothesis, or in other words

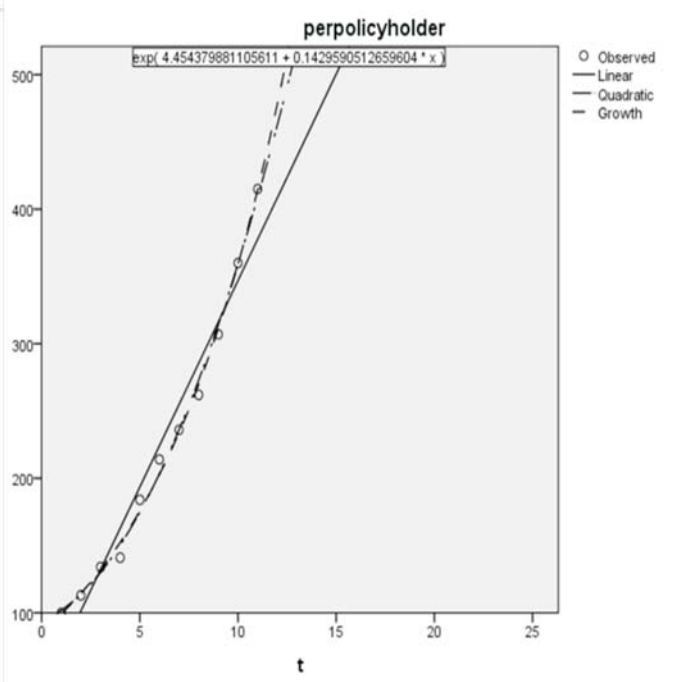
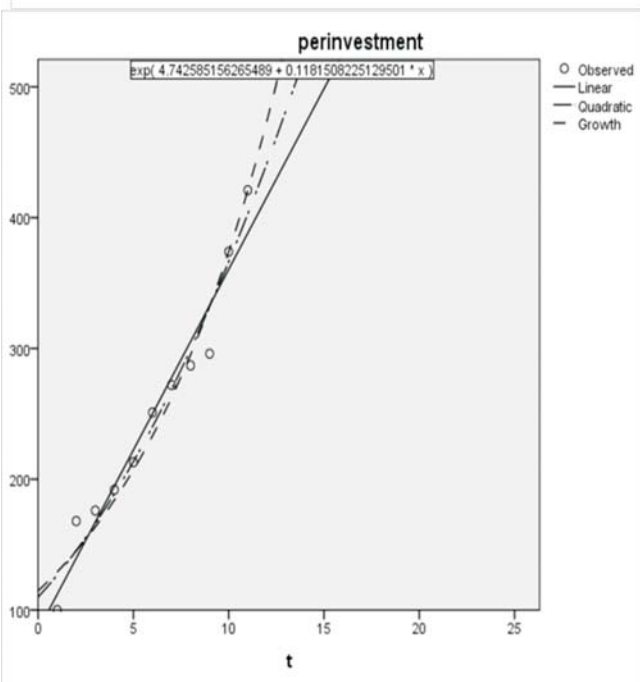
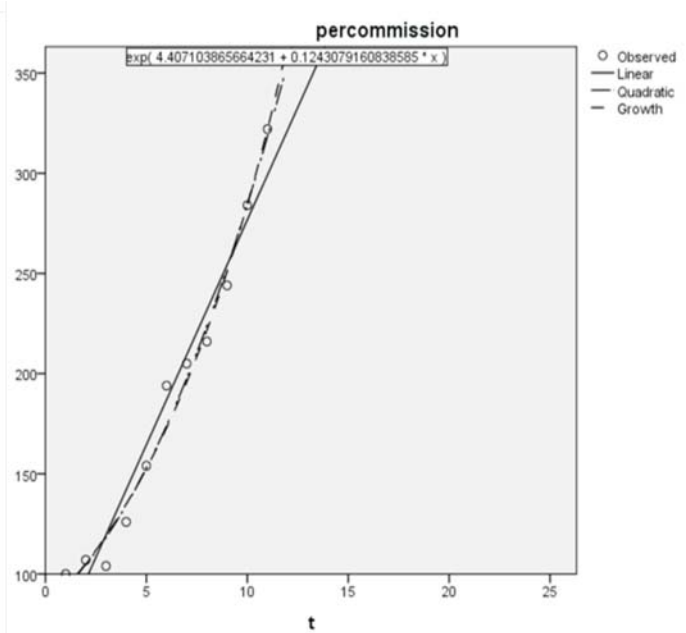
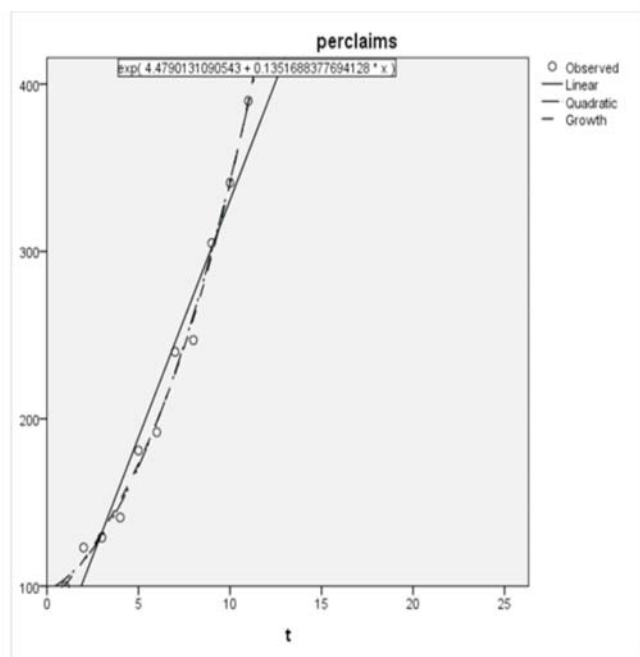
we accept the alternate hypothesis- 'There is significant difference in expenses of sampled unit during the period of the study'. The growth curve equations for the variables, the predicted future values up to 2025-26 and the graph of fitted growth curve model with equations are given below. Further we observed that residuals of the study variables do not show a pattern, thus the growth model is acceptable in the sense the residuals are independent of the fit values.

Table-4: Growth curve equations for different variables.

Variables	Equation
% Insurance Claims	$Y = \exp(4.479 + 0.135 \cdot x)$
% Net Commission Paid	$Y = \exp(4.407 + 0.124 \cdot x)$
% Operating Expenses	$Y = \exp(4.271 + 0.205 \cdot x)$
% Investments (ShareHolders)	$Y = \exp(4.743 + 0.118 \cdot x)$
% Investments(policy Holders)	$Y = \exp(4.454 + 0.143 \cdot x)$

Year	% Claims	%Commission	% Oper. Expense	% shareholders Investments	% Policy holders investments
2016-17	446.32	364.60	841.59	473.62	478.13
2017-18	510.92	412.86	1033.41	533.01	551.61
2018-19	584.86	467.51	1268.95	599.86	636.39
2019-20	669.51	529.39	1558.17	675.09	734.19
2020-21	766.41	599.46	1913.32	759.76	847.02
2021-22	877.33	678.81	2349.42	855.04	977.19
2022-23	1004.31	768.66	2884.91	962.27	1127.37
2023-24	1149.66	870.40	3542.45	1082.96	1300.63
2024-25	1316.05	985.61	4349.86	1218.78	1500.51
2025-26	1506.52	1116.07	5341.31	1371.63	1731.11





CONCLUSION:

LIC has been successfully able to create value for its policyholders. The performance evaluation shows consistent increase in its business. During the period of the study there is no major change in the performance of the LIC. So it clarifies that the performance is unchanged and LIC has maintained the market value of their products. After introduction of IRDA (Insurance Regulatory & Development Authority), LIC has become more conscious for their products. As private players are coming up now a day, competition is increasing

and LIC has made efforts to continue its business. Apart from this, LIC need to control the investment level. As above table also reflects that the investment (Policy holders') has this second highest variance, so investment (policyholders') also need to reduce. We have evaluated the various components of expenses with scientific methodology to justify the performance; so to conclude, LIC is doing good job, managing the products, and related marketing strategies effectively. But as per analysed data we can say that LIC need to control the Operating Expenses,

to not affect its income. LIC is pioneer institute in Indian economy; so after IRDA and privatization of insurance sector, the way of achieving the effective result is not smooth task, but LIC has to work. “The woods are lovely dark and deep, but LIC has to keep promises and miles to go before it sleeps”.

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FINANCIAL PERFORMANCE OF THE NEW INDIA ASSURANCE COMPANY LIMITED – AN ANALYSIS

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ABSTRACT

General insurance is a practical option for every person who would like to live a risk-free life. Risk is associated with everything and so, it is important to secure all the things that we own and that security is provided by insurance. General insurance covers insurance policies like fire, marine, motor, engineering, aviation, burglary, theft, personal insurances like health and accident etc. like professional indemnity insurance is also covered under this category. The fact that the importance of general insurance has increased now-a-days because of the reason that comes is the peace of mind provided by insurance companies against any risk or mishap.

The New India Assurance Company Limited is one of the leading general insurance companies in Public Sector. In this paper an attempt has been made to measure the financial performance of the company by making an analysis of Gross Direct Premium, Net Premium, Operating Expenses, Operating Profit, Net Earnings and EPS which are the major indicators of the performance of the company and the conclusions are drawn based on the study period of six years i.e. from 2010-11 to 2015-16.

Keywords: *Gross Direct Premium, Net Premium, Operating Expenses, Net Earnings and EPS.*

I. INTRODUCTION

New India Assurance Co Ltd, today, is a 100 % Govt. owned multinational general insurance company operating in 28 countries and headquartered at Mumbai, India.

It was incorporated on July 23rd, 1919 Founded by the House of Tata Founder member - Sir Dorabji Tata and nationalised in 1973 with merger of Indian companies. The global business crossed Rs.18371 Cr. It has been a market leader in India in non-life business for more than 40 years. The Indian business touched Rs 15149.50 Cr in 2014-15. It was the only direct insurer in India rated A-(Excellent – Stable outlook) by AM Best. “CRISIL has reaffirmed its ‘ AAA/STABLE ’ rating on the New India Assurance Company Limited indicating that the company has the highest degree of financial strength to honour its Policyholders obligations”.

II. OBJECTIVES

The main objectives of the present study are as follows:

1. To exhibit an overview of the present scenario of the New India Assurance Company Limited.
2. To identify the premium growth rate in various classes of the insurance of the company in India and abroad.
3. To examine the efficiency in claim settlement and also the profitability of the company.
4. To study the earning capacity of the company.
5. To offer conclusions based on the study.

III. RESEARCH METHODOLOGY

A) SOURCES OF DATA

The present study is based on the secondary data and it includes the data collected from earlier studies/reports on New India Assurance Company, data from the Annual Reports of the Company and information collected from text books, journals, periodicals, news papers and websites of insurance companies.

B) METHODOLOGY

Financial data which has been collected from secondary sources are classified, tabulated and interpreted. The analysis of the data has been made for the period of six years i.e. from 2010-11 to 2015-16 with the help of certain statistical and mathematical techniques such as Averages, Rates, Percentages, Ratio Analysis and Trend Analysis.

IV. PRESENT POSITION OF THE COMPANY

- Ø Gross premium (in India) of Rs.15149.50 Cr.in the year 2015-16 as against Rs. 13209 Cr. in the year 2014-15.
- Ø Assets Rs.62880 Cr. as on 31st March 2016.
- Ø Network of Offices-31 Regional Offices, 6 Large Corporate Offices, 448 Divisional Offices, 583 Branches, 27 Direct Agent Branches and 1041 Micro Offices.
- Ø Rank No. 1 in the Indian market.
- Ø Largest Non-Life insurer in Afro-Asia excluding Japan.
- Ø First Indian Non-life Company to reach Rs. 18371 Cr. gross premium.
- Ø Global Re-insurance facilities.
- Ø Over-seas presence in countries like Japan, U.K, Middle East, Fiji and Australia.

V. INDIAN OPERATIONS

It has been leading the market, apart from premium, in reserves & net worth for many years. In 2014-15, it has recorded the highest profit in India among all general insurers. The Indian

operations, today span across all territories through 2097 offices, including more than 1041 micro offices. It has 19,000 employees and around 50,000 tied agents providing insurance services to the customers. It has over 170 products catering to almost all segments of general insurance business. It has provided cover to Petrochemical, oil & energy industries, power & steel plants, aviation fleets, satellites, large projects & infrastructures, SMEs and are present in all forms of commercial sector. The retail business is offered through commercial & personal lines of business and also has a range of products in rural, social sector & micro insurance segments. It operates through many B2B avenues including bancassurance, motor vehicle manufacturers and dealers, MFI & NGOs, Common Service Centers & through affinity programmes with corporates & brokers. It also has significant participation in government run mass insurance schemes.

New India Assurance is on a robust core insurance platform, with a central data base and has an integrated grievance management system synchronized with that of the regulator. The Customer Care department is positioned at all Regional offices. It offers multiple options for the customers to renew the policies and have put in place SMS & E Mail alerts and information at various trigger points. The Indian operations have earned many awards & recognitions in 2014-15.

VI. FOREIGN OPERATIONS

The Company's foreign operations have commenced decades back and today it operates in 28 countries through subsidiaries, agency operations, direct branches and associate companies. In addition, New India has also equity participation in Insurance companies in Singapore, Kenya, Saudi Arabia & Jordan. London Branch has been in operations for past 95 years and has a desk at Lloyds and operations in many countries like Japan, Mauritius etc are more than 50 years old. They have a subsidiary company in Trinidad & Tobago, New India Assurance Co Ltd, Port of Spain and another in Nigeria, Prestige Assurance Plc, based out of Lagos. We have equity participation in Kenindia Assurance Co Ltd,

Nairobi, WAFA Insurance (SICCI) in Saudi Arabia, India International Insurance Pte. Ltd in Singapore and Asian Reinsurance Corporation, Bangkok.

VII. LATEST ACHIEVEMENTS

- Ø NIA is awarded Golden Peacock Awards-2016 for Innovative/Service.
- Ø New India Assurance was selected as the General Insurance Company of the year in the 6th Fintelekt India Insurance Awards at a ceremony held at Lalit Sahar, at Mumbai on 26th June 2015. Mr. G Srinivasan, Chairman cum Managing Director, received the award from Mr Chandrasekharan, Secretary General, General Insurance Council of India, Shri. S B Mathur (former Chairman of LIC of India) and Mr Shirish Pathak, CEO of Fintelekt.
- Ø It was also selected as the best in Commercial Business and also more importantly in Claims settlement among all major Non life insurers. The Jury of the award consisted of eminent person from

Industry and the Companies were compared on very strict data based examination.” Mr Sanath Kumar, Director & General Manager received the awards for Commercial business and Claim management category.

VIII. DATA ANALYSIS

A) GROSS DIRECT PREMIUM:

One of the important measures to know about the performance of business operations of the general insurance company is the Gross Direct Premium. Premium means the price of insurance protection for a specified risk for a specified period of time. This is the major source of income to the insurance company. The analysis of the class-wise gross direct premium viz. Fire Insurance, Marine Insurance and Miscellaneous Insurance will be helpful to understand the growth and extension in business operations of the various classes of the New India Assurance Company Limited. Miscellaneous class include Motor, Personal accident, Aviation, Engineering, Health, Liability, Others. The increasing trend denotes the growth in operations.

TABLE-1: CLASS-WISE GROSS DIRECT PREMIUM TREND ANALYSIS

YEAR	FIRE INSURANCE (%)	MARINE INSURANCE (%)	MISC. INSURANCE (%)	TOTAL (%)
2010-11	100	100	100	100
2011-12	116.56	125.88	123.43	122.47
2012-13	142.35	127.49	146.41	144.35
2013-14	157.79	137.05	171.75	166.89
2014-15	181.88	127.11	195.48	188.20
2015-16	188.23	111.24	232.09	215.95

Source: Compiled from Annual Reports of the Company.

The above data presented in Table-1 is related to the trend of the Gross Direct Premium through various classes of insurance and the trend in the Total Gross Direct Premium of the New India Assurance Company Limited. The analysis exhibits that all the classes of insurance have an increasing trend in the premium as they are increased from 100% to 188.23%, 100% to 111.24% and 100% to 232.09% in Fire Insurance,

Marine Insurance and Miscellaneous Insurance respectively during the study period i.e. from 2010-11 to 2015-16. The trend analysis shows an increasing trend in the Total Gross Direct Premium also as it is increased from 100% in 2010-11 to 215.95% by the year 2015-16. The increasing trend signifies the ability of the company in improving the business operations. The analysis also denotes that the major portion of the premium

is collected from the fire and miscellaneous insurance classes.

A) GROSS DIRECT PREMIUM (INDIA AND OUTSIDE INDIA):

The analysis of the growth in gross direct premium of the company represents the growth in the gross

premium in India and outside India. The percentage is calculated by dividing the difference between the premium of the current year and previous year with the premium of the previous year. It will also be helpful to understand the position of the Company in India and foreign countries to the business.

TABLE-2: GROWTH IN GROSS DIRECT PREMIUM

YEAR	INDIA (%)	OUTSIDE INDIA (%)	TOTAL (%)
2010-11	17.45	6.79	15.87
2011-12	20.37	35.68	22.47
2012-13	17.50	19.89	17.86
2013-14	14.96	19.18	15.62
2014-15	14.47	3.81	12.77
2015-16	14.69	15.10	14.75

Source: Compiled from Annual Reports of the Company.

Table-2 furnishes the information regarding the growth rate of Gross Direct Premium (GDP) in India and outside India. In India the percentage has increased from 17.45 in the year 2010-11 to 20.37 by the year 2011-12 which shows highest growth rate, but thereby decreased to 14.69 percentages by the year 2015-16. The company has a good growth of GDP in India from 7097.14 crores in 2010-11 to 15149.51 crores by the year 2015-16. The company continues to be the market leader in India and is scaling to new heights. Both India and foreign offices also have performed very well during the study period as the percentage increased from 6.79 (1128.37 crores) in 2010-11 to 35.68 (1531.01 crores) in the year 2011-12 as highest during the period. It has a growth rate of 15.10% (2613.80 crores) by the year 2015-16. At

the global level it has presented a growth rate of 15.87% (8225.51 crores) in the year 2010-11 to 14.75% (17763.31 crores) by the year 2015-16. By this, it can be observed that a moderate growth has been achieved by all the regions of the company.

C) NET PREMIUM:

Another measure of performance of the insurance company is the Net Premium received by the company. Net premium is the amount of premium minus the agent's commission and also the premium necessary to cover only anticipated losses before loading to cover other expenses. The class-wise Trend Analysis of the net premium will provide an idea about the status of the growth rate of net premium of each class and of total net premium.

TABLE-3: CLASS-WISE NET PREMIUM BY TREND ANALYSIS

YEAR	FIRE INSURANCE (%)	MARINE INSURANCE (%)	MISC. INSURANCE (%)	TOTAL (%)
2010-11	100	100	100	100
2011-12	107.69	129.03	124.98	121.95
2012-13	132.93	152.38	144.70	142.85
2013-14	133.01	149.57	177.28	167.94
2014-15	151.24	158.93	205.86	193.80
2015-16	161.02	136.81	240.21	221.24

Source: Compiled from Annual Reports of the Company.

The analysis of the table-3 gives the picture of the trend in the net premium of the various classes of insurance during the period of the year 2010-11 to 2015-16. The trend was increased from 100% to 161.02% in Fire, 100% to 136.81% in Marine and from 100% to 221.24% in Miscellaneous Insurance. The Total Net Premium has also shown an increase from 100% in 2010-11 to 221.24% in 2015-16 due to on account of expansion of services, introduction of new policies and schemes and opening of new branches etc. This is also an indicator of the good growth in the net premium received.

TABLE-4: GROWTH IN NET PREMIUM AS A PERCENTAGE TO GROSS PREMIUM

YEAR	INDIA (%)	OUTSIDE INDIA (%)	TOTAL (%)
2010-11	80.57	130.66	87.44
2011-12	81.44	118.48	87.07
2012-13	80.71	118.34	86.53
2013-14	83.15	113.49	87.99
2014-15	85.63	115.71	90.04
2015-16	86.87	115.75	89.58

Source: Compiled from Annual Reports of the Company.

It is to be observed through the analysis of the table-4 that the ratio of the net premium in India was increased from 80.57% in 2010-11 to 86.87% in 2015-16. The ratio was fluctuating in abroad as it was decreased from 130.66% in 2010-11 to 115.71% in 2014-15 and then increased to 115.75% by the year 2015-16. At the global level the ratio was increased from 87.44% in 2010-11 to 89.58% by the year 2015-16. It denotes that the net retention ratio was almost same during the study period.

D) NET PREMIUM (INDIA AND OUTSIDE INDIA):

The analysis of the net premium in India and Outside India will be helpful to know about the growth of the net premium to the Gross Premium in India and abroad. The ratio is calculated by dividing the net premium with the gross premium of that year. The ratio will also be helpful to understand the net retentions of the premium, means higher the ratio higher will be the retention and vice versa.

E) NET INCURRED CLAIMS:

Claim is a demand made by the insured or the insured's beneficiary for payment of the benefits as provided by the policy. The ratio is calculated by dividing the incurred claims with the earned premium. It refers to the portion of earned premium that has been paid as claim. The amount of the premium that has been paid for in advance that has been "earned" by virtue of the fact that time has passed without claim. The increasing trend shows the higher incurred claims and the improvement in services provided to the customers and vice versa.

TABLE-5: NET INCURRED CLAIMS AS A PERCENTAGE TO EARNED PREMIUM

YEAR	PERCENTAGE TO EARNED PREMIUM
2010-11	100.80
2011-12	90.01
2012-13	86.16
2013-14	85.49
2014-15	83.52
2015-16	87.84

Source: Compiled from Annual Reports of the Company.

The data pertaining to the net incurred claims are presented in the table-5. The net incurred claims ratio was fluctuating over the period. Ultimately it was decreased from 100.80% in 2010-11 to 87.84% in 2015-16. High incurred ratio was registered in the year 2010-11 as 100.80% and became a loss to the company. The increase in ratio signifies that the ability of the company in improving the services to the customers.

F) OPERATING EXPENSES:

Operating Expenses of the insurance business include employee remuneration, welfare benefits,

travel conveyance, vehicle running expenses, training expenses, rent, rates and taxes, repairs and maintenance, printing and stationery, auditor's fees, depreciation etc. Operating Ratio is calculated by dividing the operating expenses of each class with the earned premium. The operating ratio measures a company's overall operational profitability from underwriting and investment activities. Higher the ratio, the burden of operating expenses is more and vice versa.

TABLE-6: OPERATING EXPENSES AS A PERCENTAGE TO EARNED PREMIUM

YEAR	FIRE INSURANCE	MARINE INSURANCE	MISC. INSURANCE	TOTAL
2010-11	33.34	42.24	29.66	30.02
2011-12	29.31	34.10	25.16	26.23
2012-13	31.80	29.66	23.47	25.12
2013-14	29.38	26.94	20.18	21.78
2014-15	29.60	24.46	20.51	21.96
2015-16	29.49	24.56	20.84	22.10

Source: Compiled from Annual Reports of the Company.

An examination of operating expenses as a percentage to earned premium given in table-6 indicates the ratio was fluctuating in all segments of insurance during the study period. The total ratio was declined from 30.02% in 2010-11 to 22.10% in 2015-16. It represents the ability of the company in controlling the operating expenses and has been trying to maximize the operating profit.

G) OPERATING PROFIT:

This is also one of the important measures to understand the operational performance of the business. The analysis will be helpful to understand the company's trend in earning operating profit and also helpful to understand the proportion of operating profit to net premium of that year. The increasing trend and increased ratio means the company has more profitability compared to previous years and the company is able to get more proportion of earned premium as operating profit respectively.

TABLE-7: OPERATING PROFIT TREND ANALYSIS

YEAR	OPERATING PROFIT (in Crores)	TREND ANALYSIS (%)	PERCENTAGE TO NET PREMIUM
2011-12	156.16	100	1.78
2012-13	1011.22	647.55	9.84
2013-14	1294.40	828.89	10.72
2014-15	1776.30	1137.49	12.74
2015-16	905.54	579.88	5.69

Source: Compiled from Annual Reports of the Company.

The trend analysis of Table-7 shows the increasing trend of the operating profit as it is raised from 100% in 2011-12 to 579.88% in 2015-16. The highest operating profit trend and percentage to net premium recorded in the year 2014-15 i.e. 1137.49% and 12.74% respectively. The percentage of operating profit as a percentage to earned premium was also increased from 1.78% to 5.69% during the study period. This indicates the higher level of operating profit and efficiency of the company in making higher operating profits.

TABLE-8: NET EARNINGS RATIO

YEAR	PAT (IN CRORES)	NP (IN CRORES)	RATIO
2011-12	179.31	8771.21	2.04
2012-13	843.66	10274.17	8.21
2013-14	1088.96	12078.60	9.02
2014-15	1431.23	13938.80	10.27
2015-16	828.67	15911.91	5.21

Source: Compiled from Annual Reports of the Company.

The analysis of the net earnings ratio presented in table-8 shows the increasing trend in the ratio from 2.04% in 2011-12 to 10.27% by the year 2014-15. Thereafter the ratio has decreased to 5.21% in the year 2015-16. The Profits increased from 179.31 crores in 2011-12 to 828.67 crores in 2015-16 and the Net Premium also increased from 8771.21 crores in 2011-12 to 15911.91 crores by the year 2015-16. The profits declined in the year 2015-16 as compared to previous year 2014-15 as the company has incurred more operating expenses than the profit. The analysis shows that the company has a moderate earning capacity during the study period.

H) NET EARNINGS:

Net earnings ratio measures the earning capacity of the company. This ratio is calculated by dividing the net earnings (Profit after tax) with the net premium. The ratio helps to understand the growth in earning capacity as a percentage to the net premium. Higher the ratio indicates better earnings compared to the previous years.

I) EARNINGS PER SHARE (EPS):

This is the most important measure to know about the earning capacity of the company from the point of view of investor. It reflects the net worth of the company in the market. EPS is calculated by dividing the net profit attributable to the shareholders with the weighted average no. of equity shares. Increasing trend in EPS indicates the company is earning more profits than the previous year and the ability of company to satisfy the shareholders by giving higher rate of dividend.

TABLE-9: EARNINGS PER SHARE TREND ANALYSIS

YEAR	NET PROFIT (IN CRORES)	EPS (RS.)	TREND
2011-12	17931.68	8.97	100
2012-13	84365.92	42.18	470.23
2013-14	108898.14	54.45	607.02
2014-15	143122.45	71.56	797.77
2015-16	82869.21	41.43	461.87

Source: Compiled from Annual Reports of the Company.

The analysis of the EPS is presented in table-9 during the study period. The amount of EPS has increased from Rs. 8.97 in 2011-12 to Rs. 41.43 by the year 2015-16. The highest amount of EPS was registered in the year 2014-15 i.e. Rs. 71.56 due to higher amount of profitability in that year. The EPS trend analysis shows that it has increased from 100% in 2011-12 to 461.87% by the year 2015-16. It indicates that the company is able to pay higher amount of EPS to their customer which is a measure of profitability of the company.

IX. CONCLUSIONS

- Ø The company was the only direct insurer in India rated A-(Excellent – Stable outlook) by AM Best. “CRISIL has reaffirmed its ‘AAA/STABLE’ rating on the New India Assurance Company Limited indicating that the company has the highest degree of financial strength to honour its Policyholders obligations”. The rating reflects company’s excellent risk, adjusted capitalization, prospective improvement in underwriting performance and its leading business profile in the direct insurance market in India despite increased competition from private players.
- Ø The company has achieved a good growth rate in gross direct premium in India and in abroad and the growth rate is higher in abroad as compared to India. Both the Indian and foreign offices performed very well in the expansion of the business of The New India Assurance Company Limited.
- Ø Growth rate has been achieved by all regions. Through the class-wise analysis, it is concluded that the Fire Insurance, Motor and Health segments of Miscellaneous Insurance have recorded substantial growth compared to other segments. The rapid growth of motor, fire and health segments of insurance has enabled the company to be the market leader in India.
- Ø The highest growth rate in gross direct premium was recorded in the year 2011-12 in India and Outside India. The growth rate was slower in the subsequent years, because of the crisis in the Euro-zone and slow growth in many advanced economies has affected growth in India.
- Ø The growth rate of net premium is more in Miscellaneous Insurance compared to other segments. It is more in India when compared to Outside India. The highest growth rate is recorded in the year 2014-15 i.e. 90.04% which is a total of growth in net premium as a percentage to gross premium.
- Ø The company has registered high net incurred claims of 100.80% in 2010-11 which is a loss for the company and a benefit for the investors, but it has been declined to 87.84% in 2015-16 which shows the ability of the company in improving the services to the customers.
- Ø The operating expenses as a percentage to earned premium has shown a declining trend from 2010-11 to 2013-14, thereafter slightly increased in the subsequent years. The lower ratio indicates that the overall operational profitability of the company is good.
- Ø The operating profit trend analysis shows an increasing trend during the study period which is a measure of profitability of the company.
- Ø The highest profits and highest EPS were registered in the year 2014-15 during the study period of 2011-12 to 2015-16. The EPS trend analysis presents an increasing trend in its EPS from 2011-12 to 2014-15 and thereafter declined slightly in 2015-16.
- Ø Ultimately it is concluded that the New India Assurance Company Limited became as a maximum profit maker by expanding

its services over various regions compared to other general insurance companies in 2015-16.

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DETERMINANTS OF CAPITAL STRUCTURE OF INSURANCE COMPANIES IN NEPAL

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ABSTRACT

Capital structure decisions are crucial part of management functions for any business organization because such decisions impact on the firm's value and its ability to deal with its competitors. This study investigates the major determinants of capital structure of insurance companies in Nepal. The dependent variable is leverage whereas independent variables include firm size, profitability, tangibility, liquidity of assets, growth and age. The main source of data includes annual reports of the selected insurance companies and insurance board of Nepal.

This study is based on secondary data for a sample of 17 enterprises for the period of 6 years from 2010 to 2016 leading to a total of 102 observations. The regression analysis has been performed using SPSS to analyze the effect of independent variables on dependent variable of capital structure. Descriptive statistics and inferential statistics were used in data analysis. Based on the results, it has been observed that firm size, tangibility and profitability have significantly influenced the capital structure decisions. It is therefore, recommended that the management of insurance companies in Nepal should always consider their position using these determinants as important inputs before making financing decision.

Keywords: Optimal capital structure, leverage, firm size, profitability, tangibility, liquidity of assets, growth and age.

1. Introduction

The study on capital structure has become important in modern corporate finance since the extensive work done by Modigliani and Miller (1958) commonly known as the MM theory. It states that based on the assumption of no brokerage, tax and bankruptcy costs, investors can borrow at the same rate as corporations and they would tend to have the same information as management about the firm's future investment opportunities. The MM theory proves that under some restrictions a firm's value would be unaffected by its capital structure and thus assumes that earnings before interest and tax (EBIT) would not have been related to the use of debt, that leads to the inference that capital structure may be considered irrelevant.

Capital Structure (CS) is a mix of company's long-term debt, specific short-term debt, common equity

and preferred equity. The capital structure shows how a firm finances its overall operations and growth by using different sources of funds. Debt comes in the form of bond issues or long-term notes payable, while equity is classified as common stock, preferred stock or retained earnings. Short-term debt such as working capital requirements is also considered to be part of the capital structure. Since the publication of the Modigliani and Miller's (1958) "irrelevance theory of capital structure", the theory of corporate capital structure has been a study of interest to finance economists.

The determinants of capital structure have been debated for many years and still represent one of the most unsolved issues in corporate finance world. A few of the developed theories have been tested by empirical studies and the theories themselves lead to different findings. This makes the capital structure debates so exciting (Rajan and

Zingales 1995). Morri and Beretta (2008) explained many theoretical studies and much empirical research have addressed those issues, but still there is not a fully supported and commonly accepted theory; and the debate on the significance of determinant factors is still unfolded. According to the trade-off theory, higher profitability lowers the expected costs of difficult situations; therefore, firms increase their leverage to take advantage from tax benefits. Also, agency theory supports this positive relation because of the free cash flow theory of Jensen (1986). Therefore, leverage and profitability are positively related. On the other hand, according to pecking order theory, Myers (1984) discussed that firms prefer to finance with internal funds rather than debt if internal equity is sufficient due to the asymmetric information. Hence, profitability is expected to have negative relation with leverage; and this result is supported by Naveed et al. (2010) empirical investigation. In a number of literatures, some of the variables that are generally regarded as determinants of capital structure include profitability, firm age, agency cost, firm risks, asset tangibility, sales growth, non-debt tax shields, liquidity, political risks, firm size and others.

Singlawi and Aladwan (2016) found both the static trade-off and pecking order theories are important in explaining the capital structure of insurance companies in Jordan. The results also revealed a significant negative relationship between capital structure and company's size, profitability, growth and risk while tangibility was significantly positively correlated to capital structure. Rahman and Kakakhel (2014) observed that profitability was found to be inversely related with debt across both estimation techniques. The negative relationship of profitability and business risk with debt confirmed Pecking Order Theory. However, tangibility of assets was found to have a positive impact on Leverage, which supports Trade off Theory.

Muiruri and Bosire (2014) found the profitability as a major determinant of capital structure decisions in listed insurance companies. 8.1% of capital structure decision was explained by the size

of the firm while 9.8% of the investment decisions were explained by profitability. Likewise, Hassan (2011) found that all the explanatory variables i.e. tangibility of assets, age of firms, size of firms, growth and profitability all have statistically and significantly influenced the capital structure. The results approve the prediction of pecking order theory in the case of profitability and trade-off theory in case of tangibility variables. The growth variable supports the agency theory hypothesis whereas size variable confirms the asymmetry of information theory.

Although different studies have immense contributions to the theory of capital structure, they were almost inclined towards the developed economy, and less developed countries received little attention. This could be due to the absence of well developed capital market. Consequently, a design feature and the methodology of the research that works well in one country may not work in another. Insurance companies are especially interested in determining the capital structure patterns, because these companies require funds to settle the claims or pay damages at the time of loss. The current business world without insurance companies is unsustainable because risky businesses have not a capacity to retain all types of risks that they are facing during the operations. If the insurance companies discontinue to provide insurance service in the economy then it might happen that firms or businesses stop their operations or might face insolvency due to high risk.

To be vigorous in the stiff competition, which businesses are facing today, cost effective mix of capital is essential, and organizations need to investigate more on the determinants of capital mix. Insurance industry in Nepal is currently a fast growing sector and there is a need to have a relevant data on capital structure determinants about this industry. Although few studies have been conducted on the determinants of capital structure to the best of the researcher's knowledge, there is a lack of adequate empirical studies in Nepal. Therefore, the main objective of this study is to empirically examine the relationship between

leverage and firm specific determinants of capital structure decision and to understand about the theories of capital structure that can explain the capital structure of the Nepalese insurance industry. This will equip financial managers with applied knowledge of determining their capital structure, and play an important role in filling gap in understanding of the capital structure decision. In addition, Investors (shareholders') and policy makers will also benefit from this study. This study focuses on the firm specific internal factors of determinants of capital structure of Insurance companies. External factors like economic growth, inflation, interest rate, etc. were out of the scope of this study.

The remainder of this paper is organized as follows: Section two describes the sample, data and methodology. Section three presents the empirical results and the final section draws conclusions of the study

2. Research Methodology

The study is based on the secondary data, which were gathered for 17 insurance companies of Nepal from 2010/11 to 2015/16 leading to a total of 102 observations. The sampling technique was restricted to availability of data. The required data were collected from annual report of selected companies' website and some data were also collected from the website of Insurance Board Nepal. Table 1 below shows the number of companies selected for the study along with the number of observations.

Table 1: Number of companies selected in the study

Name of Companies	No. of observations
Himalayan General Insurance Company Limited	6
Life Insurance Corporation Nepal	6
Lumbini General Insurance Company	6
National Life Insurance Company Limited	6
NB Insurance Company Limited	6
Preimer Insurance Company Limited	6
Prudential Insurance Company Limited	6
Sagarmatha Insurance Company Limited	6

Shikhar Insurance Company Limited	6
Neco Insurance Limited	6
Nepal Life Insurance Company Limited	6
NLG Insurance Company Limited	6
Siddhartha Insurance Limited	6
United Insurance Company Limited	6
Gurans Life Insurance Company Limited	6
Asian Life Insurance Company	6
Surya Life Insurance Company Limited	6
Total	102

Thus, the study is based on the 102 observations.

The models

This study employs multivariate regression analysis in a panel data framework to measure the dependence of capital structure. The panel data analysis helps to explore cross-sectional and time series data simultaneously. Pooled regression has been used with assumption of constant coefficients. By summarizing previous studies, firm size, profitability, tangibility, liquidity of assets, growth and age of firms are selected and included as explanatory variables of the capital structure in the study. These variables are firm specific characteristics that could sufficiently determine capital structure of insurance companies. Other variables like agency cost, political risks and other macro economic factors (GDP, interest rate, inflation..) are not included this study due to lack of availability of data and time constraint. The model in this study is formulated as follows:

$$LEV = \alpha_0 + \alpha_1 FS_{it} + \alpha_2 TANG_{it} + \alpha_3 PROF_{it} + \alpha_4 LIQ_{it} + \alpha_5 GROWTH_{it} + \alpha_6 AGE_{it} + e_{it}$$

Where, LEV = Leverage

FS = Firm Size (Log of Total Assets)

PROF = Profitability (Return on Assets)

TANG = Assets tangibility

LIQ = Liquidity (Quick Ratio)

GROWTH = Revenue Growth

AGE = Age of firm (Log of number of the year of incorporation)

e = Error term

Log = Logarithm function

Leverage

It is a financial ratio that indicates the percentage of a firm's assets that are financed with debt. It is commonly interpreted as a measure of leverage. In this model, it is used to explain the amount of debt (leverage) used by a company. It is calculated as the ratio of total liabilities to total assets. Total Assets include current assets and fixed assets, i.e., the size of the balance sheet. A high debt ratio indicates that the company is largely dependent on debt to finance its activity. The consequences of higher leverage ratio are that the company might be in a riskier position that is more likely to lead to financial distress, default, bankruptcy, or liquidation.

Firm size

Size can be justified as a potential descriptive variable of cross-sectional differences in debt. Debt is likely to increase with size, because larger firms will have better risk diversification, more stable profits, and overall better creditworthiness. Therefore, larger firms have lower chance of financial distress and lower bankruptcy costs due to lower probability of default. As a result, lenders are more willing to lend to larger firms at more favorable terms, inducing them to opt for larger amount of debt relative to smaller firms. Naser and Petrov (2011) found firm size as a significant determinant of capital structure of insurance companies in Bahrain. Likewise, Solomon (2012) and Kingsley (2013) also found the significant positive impact of firm size on the capital structure choice of insurance companies in Ethiopia and Ghana respectively. In this study, log of total assets is used as a proxy for firm size. Based on it, this study develops the following hypothesis:

H1: Firm size has positive effect on leverage.

Profitability

Performance is represented mainly by profitability which is further denoted by return on assets (ROA). It is the ratio of earnings before interest and tax (EBIT) to total assets (TA). Corporate performance plays a major role in determining firm's capital structure. This relationship is explained by the pecking order theory, which states

that firms prefer internal sources of finance to external sources. Titman and Wessels (1988) agree that firms with high profit rates, all things being equal, would maintain relatively lower debt ratio since they are able to generate such funds from internal sources. Muiruri and Bosire (2014) found that profitability was the main determinant of capital structure decisions in insurance companies in Kenya. Based on it, this study develops the following hypothesis:

H2: Profitability has positive effect on leverage.

Assets tangibility

The asset tangibility of a firm plays an important role in determining its capital structure. Assets tangibility is a ratio of fixed assets to total assets. It measures the share of Fixed Assets from Total Assets. A high ratio indicates a lot of fixed assets and relatively little working capital, which could reduce the enterprise's ability to maintain inventory and carry accounts receivable. This could potentially limit the company's ability to respond to bigger demand for their products or services. However, the company could more easily borrow by mortgaging those fixed assets.

The degree to which the firm's assets are tangible should result in the firm having greater liquidation value (Harris & Raviv, 1991; Titman & Wessels, 1988). Bradley et al., (1984), assert that firms that invest heavily in tangible assets tend to have higher financial leverage since they borrow at lower interest rates if their debt is secured with such assets. Ali (2011) identified positive relationship of tangibility with Capital Structure in Pakistani firms. The above mentioned relationship of tangibility and Leverage stand on line with the findings of Rajan and Zingales (1995). On the other hand, Sheikh and Wang (2011), Ahmed and Shabbir (2014), found a negative linkage of tangibility and debt ratio in Pakistan. So, from the above study the following hypothesis has been developed:

H3: Assets tangibility has positive effect on leverage.

Liquidity of assets

The Liquidity Ratio measures the firm's ability to use its near cash or "quick" assets to retire its liabilities. Bankruptcy analysts use liquidity ratios to find out the likelihood that a company would be able to continue to service its debts and to stay in business. Liquidity is typically measured as a ratio of short-term assets to some liabilities. Some authors prefer a ratio to total liabilities, while other authors prefer a ratio to short-term liabilities. In this study we have used liquidity as the ratio of short-term assets to total liabilities. Harris and Raviv (1990), Najjar and Petrov (2011) and Sharif et al. (2012) found that the firms with high liquidity ratios or more liquid assets prefer to use these assets to finance their investments and discourage to raise external funds. Based on it, the following hypothesis has been developed:

H4: Liquidity of assets has positive effect on leverage.

Growth

Our proxy for Revenue Growth (GR) is the percentage increase in Gross Premiums (GP). It is calculated as the percentage change of any particular year revenue from previous year revenue of the same company. Growth also plays important role in determining whether the company go for more debt or other source of financing. The Pecking order theory argues, firms prefer debt financing for their growth instead of equity due to its riskiness (Myers and Majluf, 1984). Whereas, in static trade off theory, growing firms face financial distress and prefer to use equity financing. In addition, agency costs theory (Jensen and Meckling, 1976) argue firms with greater growth opportunity have more internal sources, which enable them to transfer wealth from debt holders to shareholders and prefer to use internal sources due to the conflicts of interest between shareholders and creditors. However, empirically Noulas and Genimaks (2011), Solomon (2012) and Sharif et al. (2012) found growing firm was financed by more debt. Based on it, the following hypothesis is developed:

H5: Revenue growth has positive effect on leverage.

Age

It is defined as the age of firm. Age of the firm is a standard measure of reputation in capital structure models. As a firm continues longer in business, it establishes itself as an ongoing business concern and therefore increases its capacity to take on more debt; hence age is positively related to debt. It is noted as the number of years in which the firm was incorporated. As a firm stays in business longer, it establishes itself as a continuing business and therefore increases its capacity to take on more debt (Noules and Genimeks, 2011). However, Hassan (2011), Sharif et al. (2012) and Tessema and lavanya (2012) founds the negative impact of age on debt finance. Based on it, the following hypothesis is developed:

H6: Age of the firm has positive effect on leverage.

3. Results and discussion

Descriptive statistics

Table 2 presents the descriptive statistics of selected dependent and independent variables during the period 2010/11 to 2015/16.

Table 2: Descriptive statistics

(This table shows the descriptive statistics for dependent and independent variables. Dependent variable is LEV (leverage defined as the ratio of total liabilities to total assets) and independent variables are FS (firm size defined as natural log of total assets), TANG (tangability defined as the ratio of fixed asset to total assets), PROF (profitability defined as the ratio of earning before interest and tax to total assets), LIQ (liquidity is defined as short term assets to total liabilities ratio), GROWTH (growth defined as change in sales revenue between two consecutive years) and AGE (age defined as total life of the company). The descriptive statistics are based on the data from 17 sample insurance companies with 102 observations for the period of 2010/11 to 2015/16.)

VARIABLE	N	Minimum	Maximum	Mean	Std. Deviation
LEV	102	0.00	9.72	0.68	1.30
FS	102	7.80	10.44	9.14	0.54
TANG	102	0.00	32.96	0.39	3.26
PROF	102	-0.27	0.37	0.07	0.80
LIQ	102	0.06	179.34	7.61	24.05
GROWTH	102	-20.11	92.86	23.66	21.29
AGE	102	9.00	29.00	16.82	5.89

Table 2 shows that leverage ranges from a minimum of 0.00 percent to a maximum of 9.72 percent with an average of 0.68 percent. On the other hand debt to equity ratio has a minimum value of 0.01 percent and a maximum of 24.89 percent leading to an average of 1.35 percent. Similarly, firm size of selected insurance companies ranges from a minimum of Rs. 7.80 million to a maximum of Rs. 10.44 million with an average of Rs. 9.14 million. Tangibility has a minimum of 0.00 percent to a maximum of 32.96 percent with an average of 0.39 percent. Likewise, profitability has a minimum of -0.27 percent to a maximum of 0.37 percent with an average of 0.07 percent. In addition to this, liquidity has a minimum of 0.06 percent to a maximum of 179.34 percent with an average of 7.61 percent. Similarly, growth has a minimum of -20.11 percent to a maximum of 92.86 percent with an average of 23.66 percent. And lastly age of the firm has a minimum of 9 year to a maximum of 29 year with an average of 16.82 years.

Correlation analysis

Having indicated the descriptive statistics, Pearson correlation coefficients are computed and the results are presented in Table 3.

Table 3: Pearson correlation matrix

(This table shows the Pearson correlation coefficients among different dependent and independent variables. Dependent variable is LEV (leverage defined as the ratio of total liabilities to total assets) and independent variables are FS (firm size defined as natural log of total assets), TANG (tangability defined as the ratio of fixed assest to total assets), PROF (profitability defined as the ratio of earning before interest and tax to total assets), LIQ (liquidity is defined as short term assets to total liabilities ratio), GROWTH (growth defined as change in sales revenue between two consecutive years) and AGE (age defined as total life of the company))

VARIABLES	LEV	FS	TANG	PROF	LIQ	GROWTH	AGE
LEV	1						
FS	-0.42**	1					
TANG	0.49**	-0.25*	1				
PROF	0.28**	-0.18	-0.10	1			
LIQ	-0.13	0.01	-0.03	0.06	1		
GROWTH	-0.06	-0.03	-0.06	-0.003	-0.08	1	
AGE	0.09	0.09	0.12	0.02	-0.15	-0.18	1

Note: ‘*’ sign indicates that correlation is significant at 5 percent level of significance and ‘**’ indicates that correlation is significant at 1 percent level of significance.

Table 3 shows negative correlation between leverage and firm size. This means that higher the leverage, lower would be the firm size. Similarly, tangibility and profitability are positively correlated to leverage. This means that higher the tangibility and profitability, higher would be the leverage. Liquidity and growth has negatively correlated to leverage which indicates that higher the growth and age lower would be the leverage but insignificant.

Regression analysis

Having indicated the Pearson correlation coefficients, the estimated regression results of the model is presented in the table below:

Table 4: Regression of LEV on FS, TANG, PROF, LIQ, GROWTH and AGE

(This result is based on pooled data of 17 insurance companies with 102 observations for the

period of 2010/2011 to 2015/2016, by using linear regression model, $LEV = \hat{\alpha}_0 + \hat{\alpha}_1 FS_{it} + \hat{\alpha}_2 TANG_{it} + \hat{\alpha}_3 PROF_{it} + \hat{\alpha}_4 LIQ_{it} + \hat{\alpha}_5 GROWTH_{it} + \hat{\alpha}_6 AGE_{it} + e_{it}$ where, dependent variable is LEV (leverage defined as the ratio of total liabilities to total assets) and independent variables are FS (firm size defined as natural log of total assets), TANG (tangibility defined as the ratio of fixed asset to total assets), PROF (profitability defined as ratio of earning before interest and tax to total assets), LIQ (liquidity is defined as short term assets to total liabilities ratio), GROWTH (sales growth defined as change in sales revenue between two consecutive years) and AGE (age defined as total life of the company))

Models	Intercept	Regression Coefficient of LEV						Adj R ²	SEE	F Value
		FS	TANG	PROF	LIQ	GROWTH	AGE			
1	9.759 (4.919**)	-0.994 (-4.586**)						0.166	1.18	21.03
2	0.602 (5.271**)		0.190 (5.436**)					0.220	1.144	29.549
3	0.377 (2.533**)			4.516 (2.933**)				0.070	1.25	8.603
4	0.731 (5.444**)				-0.007 (-1.32)			0.007	1.29	1.75
5	0.766 (3.97**)					-0.004 (-0.622)		0.01	1.30	0.38
6	0.344 (0.881)						0.02 (0.902)	0.01	1.29	0.814
7	7.506 (4.013**)	-0.75 (-3.69**)	0.158 (4.647**)					0.308	1.078	23.48
8	5.83 (3.171**)	-0.604 (-3.048**)	0.176 (5.384**)	4.502 (3.469**)				0.077	1.022	21.41
9	5.579 (3.036**)	-0.573 (-2.886**)	0.177 (5.426**)	4.649 (3.590**)	-0.006 (-1.421)			0.384	1.017	16.73
10	5.705 (3.079**)	-0.578 (-2.902**)	0.175 (5.349**)	4.638 (3.570**)	-0.006 (-1.460)	-0.003 (-0.658)		0.380	1.02	13.393
11	5.691 (3.056**)	-0.588 (-2.904**)	0.173 (5.213**)	4.604 (3.517**)	-0.006 (-1.372)	-0.03 (-0.584)	0.006 (0.326)	0.374	1.025	11.047

1. Figures in parentheses are t-values.
2. The asterisk (**) and (*) sign indicates that the results are significant at 0.01 and 0.05 level of significance respectively.

The table 4 exhibits the firm size having negative impact on leverage. This means larger insurance companies tend to use lower portion of leverage in their capital structure. On the other hand, tangibility was found to have a positive impact on leverage. This means that the insurance companies with larger portion on fixed asset tend to use more leverage. This finding is consistent with the findings of Raman and Kakakhel (2014), Ali (2011) and Frank and Goyal (2009). Likewise, profitability was found to have a positive impact on leverage. This means that the insurance companies having higher return on asset tend to use more leverage. This result is also consistent with the findings of Ali (2011) and Frank and Goyal (2003) similarly, age of firms was found to have a positive impact on leverage. This means that the older insurance companies tend to use more leverage than new ones. This finding is consistent with the findings of Raman and Kakakhel (2014). On contrary to this, firm size, liquidity and growth are found to have negative impact on leverage. However, the results are significant only for firm size, tangibility and profitability.

4. Summary and conclusion

This study attempts to find the major determinants of capital structure of insurance companies in Nepal. This study is based on secondary data of 102 sample size, gathered from 15 companies for the period of 6 years, as a representation of the population of Nepalese insurance companies.

From this study, it has been observed that firm size is negatively related to leverage. This means that higher the leverage, lower would be the firm size. Similarly, tangibility and profitability are positively related to leverage. Liquidity and growth has negatively related to leverage which indicates that higher the liquidity, lower would be the leverage and similarly, higher the growth rate, lower would be the leverage. But the findings are significant only for firm size, tangibility and profitability.

This study also reveals positive impact of tangibility, profitability and age on leverage. On

the other hand firm size, liquidity and growth are found to have a negative impact on leverage. However, the results are significant only for firm size, tangibility and profitability. It is therefore, recommended that the management of insurance companies in Nepal should always consider their position using these significant determinants as important inputs before making financing decision.

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TECHNOLOGY AND INSURANCE SERVICES: A CASE STUDY OF BIDAR (KARNATAKA)

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ABSTRACT

Technology plays a vital role in all fields of the human life. Thus the insurance services is not behind that, The customers are also becoming literates of technology and with the same way facilities given by the government or non government sectors are using the latest technologies. The following paper witnesses the use and satisfaction of technology among customers. Who are using online insurance services. How best we can use the internationally standardized technology to upgrade online insurance services.? Questionnaire method is used to collect the data about the use and importance of the technology in insurance services and result drawn on the basis of collected data suggestions are followed.

KEYWORDS: Customer; Insurance Services; Government; International; Questionnaire Method; Technology;

I. INTRODUCTION:

Life Insurance is a professional service which is characterized by high involvement of the consumers, and technology. Life insurance is known as Life Assurance has, in recent times ceased to be only a Protection or 'Legacy' for the family and has turned into an important investment outlet. India's Insurance sector is the biggest in the world with about 1,442 lakhs policies. In Insurance business, India is ranked 11 among 88 countries with a market share of around 2 percent in global life insurance market and India stands 15th globally with respect to premium income.

The Insurance Industry of India consists of 53 insurance companies of which 24 are in life insurers and 29 are non-life insurers. Non-life insurance includes broadly motor, health, Fire, marine, travel and others. Since 2000, Insurance sector is functioning under the control of Insurance Regulatory and Development Authority of India (IRDAI). Among Non-life insurance, the Motor Insurance alone share of 44.14 percent, followed

by health insurance which share of 27 percent and remaining shared by fire, marine, travel and others.

The financial services sector contributes 11.5% to India's GDP. The employs have a number of aspects of the online financial service sector. Which are unknown a case studies of Bidar is took to examine how exactly the Indian financial services sector was affected by technology. Technology is an emerging in all the fields of society and its application in the field of insurance services is a need of the requirement . Here we will focus on the areas where the technology could be used to improve greater efficiency, to gain cost efficiency and improve feasibility of providing insurance services to customer. Today's market is a competitive market. If you want to survive in the market you should adopt latest international standardized technology in online insurance services .Today's economy is based on knowledge and technology. Technology is to be considered as one of the factor of production after land labour, capital and organization. The organization place is replaced by the technology.

It is better to know what should be included in technology before studying its role in online insurance services. The term technology includes computers, and its associated software. In the present context raw material for doing any business is intellectual rather than physical. Technology has integrated the world by the use of internet. Now

we can use internet economy world it is most suitable for today's business. Now a days all business activities are associated with modern technology directly or indirectly. The following table shows the technology instruments adoption in selected countries (Per 1000);

TABLE 1. TECHNOLOGY INSTRUMENTS ADOPTED IN SELECTED COUNTRY (PER 1000)

Name of the country	Daily news papers	Television Sets	Telephone Main lines	Mobile Phones	Personal Computers	Internet Users
USA	194	990	570	780	762	695
UK	292	980	550	1150	758	554
France	431	940	360	1080	575	491
Japan	551	990	110	780	676	685
Canada	175	990	640	530	876	681
Russian Federation	92	980	280	840	122	180
China	74	890	280	350	43	104
India	73	320	45	150	16	55

Source: World Bank Report

TABLE 2. EMPLOYMENT GROWTH RATE BY DIFFERENT SERVICE SECTOR

Service sector	2000-2005	2005-2010
Agriculture	15.2%	-8.2%
Mining	27.7%	4.7%
Manufacturing	43.4%	-6.3%
Electricity & Gas	32.5%	-5.3%
Construction	65.0%	70.0%
Trade & Hotel	37.3%	4.5%
Transport & Storage	43.3%	10.8%
Financial & Business services	90.6%	31.4%
Public admin, Social services	25.5%	5.4%

Source: <http://info.shine.com/industry/banking-financial-services/8.html>

TABLE 3. EMPLOYMENT IN SEGMENTS OF THE FINANCIAL SERVICES SECTOR,

Industry Segments	Total employment (in thousands)	% of total
Banking	1150	30
Insurance	250	4
NBFC	28	1
Mutual funds	18	1
Financial Intermediaries	2750	64
Total		100

Source: <http://business.mapsofindia.com/sectors/financial/growth.html>

The sector survived the effects of the global financial crisis. It has a well-established industrial relationships. How exactly the Indian financial services sector was affected by the global financial crisis? While it is true that at the macro-level the effect has been minimal, there are likely to be organizations affected by the crisis. This needs further research. Mainstream media such as television, radio and print have been the primary channel for financial service providing institutions to convey information to the potential customers due to its mass access. Internet base Social media has emerged as a supporting media to mainstream media due to, interactive features and feedback mechanism.

II. TECHNOLOGY AND INSURANCE

LIC has been using information technology for enhancing the quality of its service to customers. Being the biggest insurer in India, LIC provided technology to provide the best of services to its customers and other stakeholders. Today, LIC customers can pay their premium not only in any one of its offices, but also through LIC's Premium Payment Gateway on our website through partner Banks like Corporation Bank, Axis Bank or through associate agencies like AP Online, MP Online, *etc.* Customers can also use their Net Banking accounts, Debit Cards and Credit Cards to pay premiums online.

LIC reaches out to its customers through IVRS, Call Centres, Customer Zones, SMS, e-mail, website and now even the Social Networking sites. LIC has also undertaken many other initiatives like Enterprise Document Management System, Portal for Customers, Agents, Development officers and Employees, *etc.* today all LIC offices and Training Centres have been connected to a Wide Area Network for more than 10 years now. In order to safeguard its IT infrastructure from external threats, LIC has also installed the latest IT Security products in its setup. To keep pace with changes in the business environment and the technology platforms, LIC migrated our Core Insurance Application to web based architecture. The project called e-FEAP helps LIC to deliver quality service to its policy holders and marketing force.

III. RELATIONSHIP BETWEEN ICT AND INSURANCE INDUSTRY:

Due to the global use of ICT it relations to insurance industry is pre dominant which can be under stood by following key points:

- ✓ Increased speed and quality of insurance services, accuracy of data entry to policy holders of insurance companies.
- ✓ Increase the speed of processing of recorded information, in order to reduce human errors in decision-making.
- ✓ Increases accuracy in insurance activities speed up the process of issuing insurance policies and pay damages “compensation”.
- ✓ Reduce the fraud and illegal services.
- ✓ Enhance the ability of insurance companies to establish relationship with international insurers to use global knowledge.
- ✓ Updates insurance mechanized system on the latest hardware and software to elimination of lengthy and costly process of issuing insurance policies.

IV. CHALLENGES OF USING TECHNOLOGY IN INSURANCE.

- ✓ Risk is the most important factor in adopting technology in Insurance sector. Customers are very weak in adopting new technology..
- ✓ Most of the Insurance are associated in developing country like India is not good or not suitable for rural area. Most of the time insurance products are only available to metro cities only.
- ✓ Major issues of Technology: The working group which is set up by the ministry of information technology has identified four major issues, Information and services, Electronic Governance, Education and Mass campaign for IT awareness.

- ✓ Initial start-up costs for adopting technology in insurance service providing industry is too high
- ✓ Limited previous experience is the big challenge in adoption of new technology in insurance sector.

V. STEPS TO OVER COME THE ABOVE CHALLENGES:

Innovation in solar wind and bike power there are N no of alternative available for power generation..Use of hand held devices like mobile phones, electronic tablets and scanners theses device work in less power and adopt the virtual branches through agent network, mobile banking units and establishing low infrastructure branches.

- ✓ Client access to savings, credit and insurance: the cost of service delivery especially in rural areas are influenced by physical infrastructure, labour cost and overall regulation to solve above problem adopt a hand held device such as remote data devices.
- ✓ Access to market and production information: Here adoption of wireless communication technologies will increase the access to financial product, pricing of product in the local, national and international market.
- ✓ Collateral management: Using technology to improve the efficiency and transparency of physical stocks movement and real time information access regarding financial commodity.
- ✓ MIS (Management Information System): Centralized MIS is must and adoption of WAN across the financial institution. data base should be easily access able among all branches. It will decrease the cost compared to traditional system.
- ✓ Distance learning: Access learning and application of the learning in the work place can be increased using distance learning technology. With this cost of training per employee will be decreased.

VI. REVIEW OF LITERATURE

Number of literature have been published on a given topic,. The selected have been studied and presented here. **Schumpeter (1942)** states that large firms prefer to go for technology innovation due to two main reasons. First, Research & development projects usually involve huge expenses that can only be recovered with exhaustive sales.

Scherer and Ross (1990) suggested that smaller firms may be more comfortable to become rapid adoption of technology if Research & Development in larger firms is undermined by loss of managerial control or a bureaucratic approach to innovation.

In a theoretical model developed by **Aron and Lazear (1990)**, new (or start-up) firms are more likely to initiate new research programmes and introduce new products that may result in higher profits over the longer term. An existing firm might also suffer if the cost of adopting technology in current product is adversely affected by the introduction of a new one, possibly causing scope diseconomies.

Bhattacharyya and Nanda (2000) shows that higher market share and more developed client relationships increase the incentive of investment banks to innovate. Technological shocks stimulate innovation: Shocks to technology are thought to provide a “supplyside” explanation for the timing of some innovations. IT and other inventions and innovations in telecommunications (and more recently the Internet) has facilitated a number of innovations . **White (2000)** articulates this technological view of financial innovation. New “intellectual technologies,” i.e., derivative pricing models, are credited with stimulating the growth and popularization of a variety of new contracts. Different forms of technology such as on-line retirement planning services (like Financial Engines), and new valuation techniques (like real options) clearly were facilitate

Rasoolian, Fathnejad, & Nadeali (2009) in a study entitled The Role of Communication and information technology on development of

Electronic Insurance describes the insurance industry is dependent on information technology. The results show that all the indexes have a great impact on development of electronic insurance.

VII. SCOPE AND RESEARCH METHODOLOGY:

Survey method has been used with the questionnaire tool having 20 questions based on the objectives of the study. The pilot study was conducted in a selected survey area. The study restricted to the Bidar city. Further 50 selected respondents were selected randomly. The received data has been tabulated and presented in a simple tabular and pie diagram form.

VIII. NEED AND IMPORTANCE OF THE STUDY

As earlier researcher stated that, technology plays a vital role in all fields of the human beings. Thus the insurance sector is not behind. All the human being becoming Technology literates, further it felt important to know the use and satisfaction by customer on using the technology in online insurance sector.

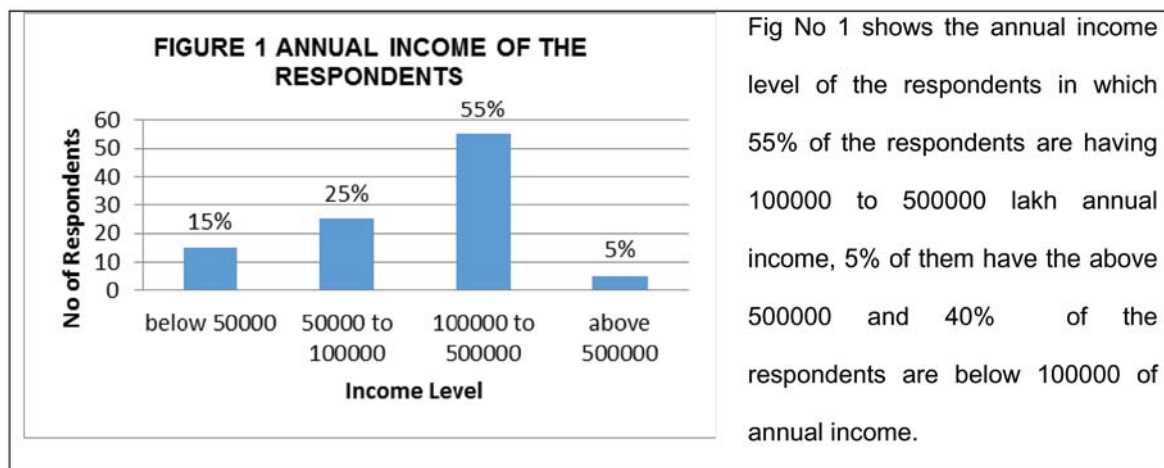
IX. OBJECTIVE OF THE STUDY:

The basic objectives of the study are;

- ✓ To know the gender, qualification, and annual income level of customers who are using online insurance services.
- ✓ To know the customer awareness of online insurance services.
- ✓ To know the use and effects of technology in online insurance services.
- ✓ To know the factors that influence the customers to use online insurance services
- ✓ To know the problems faced by the customers while transaction with online insurance services.

X. DATA ANALYSIS AND INTERPRETATION

The collected data shows that 80% of respondents are Male and 20% are female among them 10% of respondents are below SSLC qualification, 15% are SSLC, 20% are PUC and only 55% of respondents are Degree and above qualification. 55% of the respondents are frequently using online insurance services, 35% of the respondents occasionally and only 10% of the respondents are rarely use online insurance services.



Among the received data 82% of the respondents are aware of insurance services, and 18% of respondents are not aware. 55% of the respondents are using online insurance services, 45% of the

respondents are not using. 70% of the respondents are aware of insurance and banking services where as only 30% of the respondents are aware of mutual fund and shares.

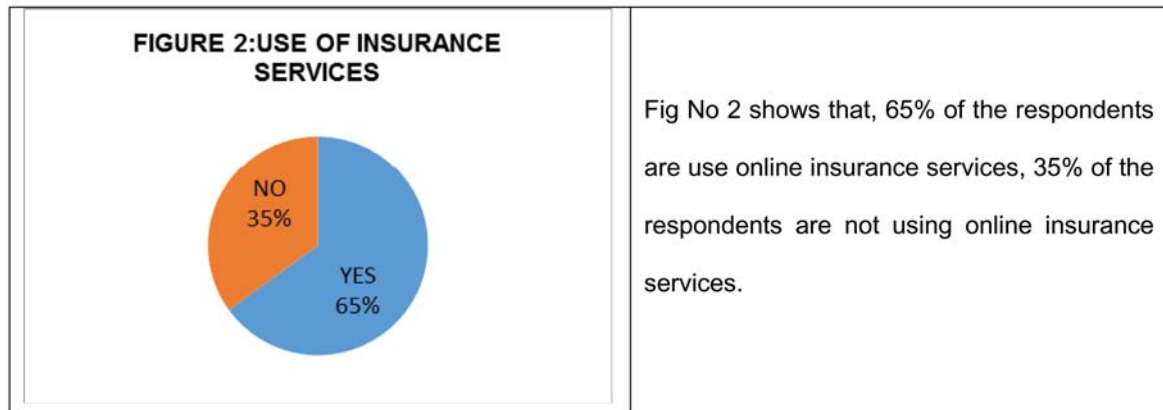


TABLE NO 1: HOW RESPONDENTS FEEL ONLINE INSURANCE SERVICES

Sl. No	Particulars	Respondents
1	User Friendly	70 %
2	Complex	20%
3	Risky	10%

The table No 1 Shows the use of online insurance services 70% of the respondents feel online insurance services are user friendly,20% of the

respondents feel it is complex and only 10% of the respondents are feel it is risky.

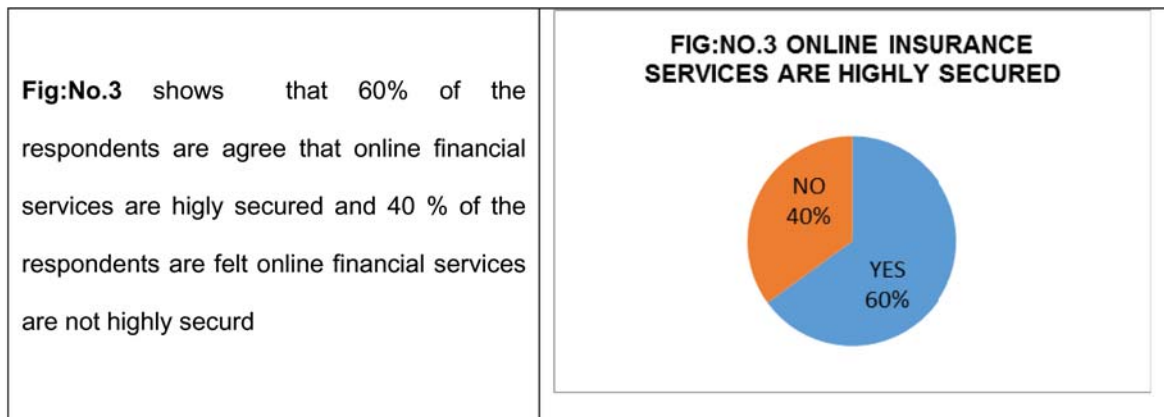
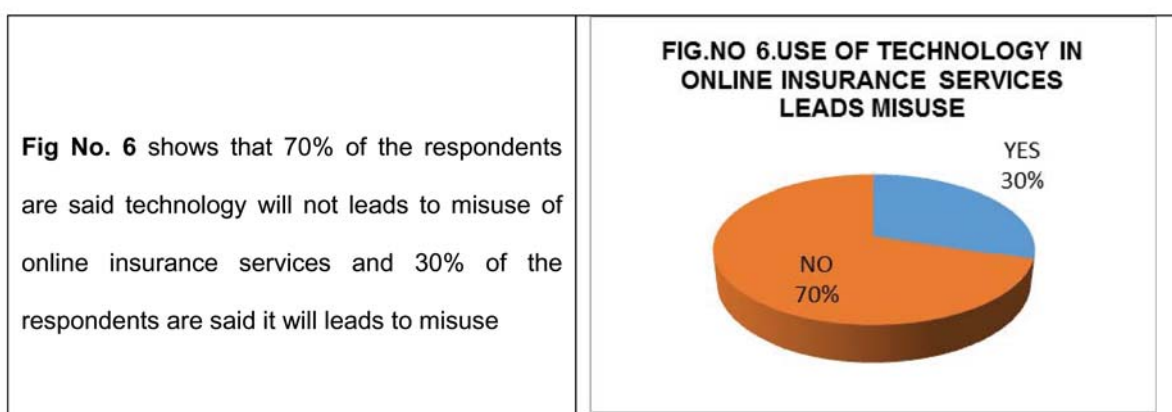
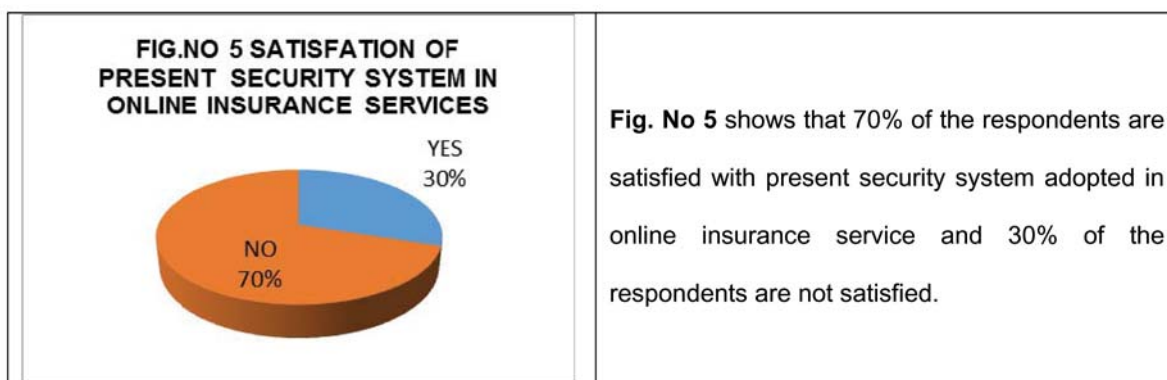
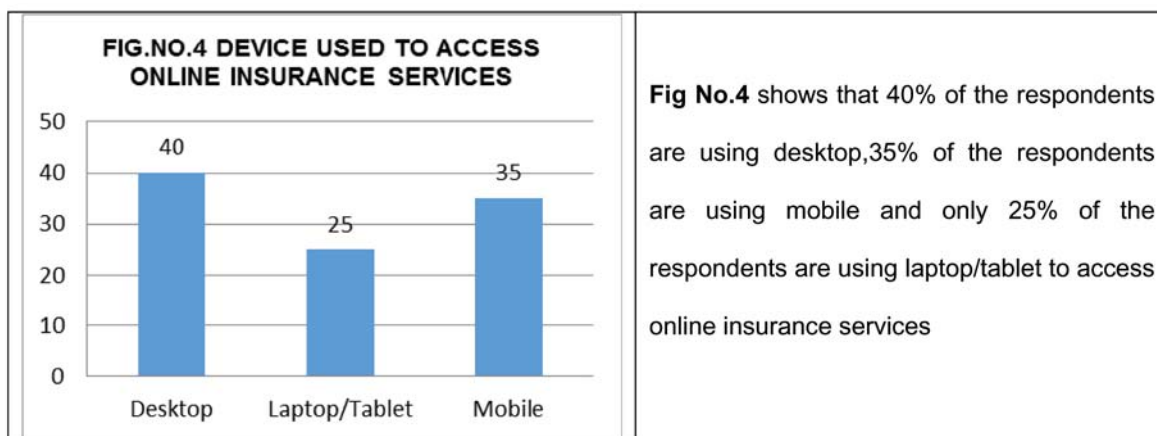


TABLE NO2: SECURITY IN ONLINE INSURANCE SERVICES

Sl. No	Particulars	Respondents
1	Simple Password	40%
2	Complex Password with OTP	20%
3	Face and Fingerprint recognition	40%

The Table No 2 Shows the security in online financial services 40% of the respondents want simple password,20% of the respondents want

complex password with OTP and only 40% of the respondents are want face and fingerprint recognition.



Most of the respondents will get information of online insurance services in Television media very few respondents get information in other media such as radio, face book, twitter, whats app and email. Majority of the respondents are opinioned that technology in online insurance service will decrease the cost of the service providing and few respondents are opinioned that technology in online insurance service is no role. The final answer is that Technology and insurance services are complimentary to each other.

XI. CONCLUSION AND SUGGESTIONS

The paper witnesses the use and satisfaction of Technology among users of online insurance services and how best we can use these techniques to upgrade the online financial services. Most of customers of the study are graduates and maximum customers are using the Smart mobile for accessing online insurance services and television as a information media but very less customer are using the radio, twitter, whats, facebook and email. Maximum

customers of the study area are having 1 to 5 lakh annual income. Maximum customers are satisfied with the present technology in online insurance services. The researcher suggest to get more and more technological knowledge irrespective of gender, qualification, and annual income. The customer should get the latest development information on online insurance services through newspapers, radio and television and security in present system should be enhanced according to the requirement of the customer, technology has revolutionised almost all the sectors thus, insurance service should not lag behind.

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CLAIMS SETTLEMENT OF MOTOR INSURANCE IN SELECT INDIAN PUBLIC SECTOR GENERAL INSURANCE COMPANIES

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ABSTRACT

General Insurance business lion share of Indian insurance sector; Indian insurance companies are running healthy business depending on the claim management. Claim management area is very crucial area in General Insurance. However, the success of general insurance business mostly depending on motor insurance segment. But, liberalization of insurance sector, resulted in rapid growth in introducing new technology and new product models.

In the present paper it is covered the Claims rejection, Evaluation the Claims Settlement of New India Assurance and United India Insurance Company Ltd. The study period from 2010-11 to 2014-15. It is concluded reveals that the higher percentage of the claim settlement indicates that the top two companies i.e. New India Assurance Co. Ltd. (88.83%), United India Insurance Company Co. Ltd. (73.96%). It indicates more transparent in the management of the process of claim settlement and they adhere to the provisions of protection of policy holders under Motor Insurance Act 1988.

Key words: Motor Insurance, Claims Paid, Claims fraud, Motor Insurance Act, 1988.

Introduction

Motor vehicle is probably single biggest asset after real estate property and financial instruments. Therefore, it makes sense to insure your vehicle from accidents, collisions, damage from natural calamities, theft, and third party claims. Moreover, third party insurance is mandatory in India and covers claims of damage to other and their assets due to your car. This paper focuses on claims rejection and claims settlement of two selected Public Sector Under taking Companies such as New India Assurance and United India Insurance Ltd.

Claims Protection of Policy Holders, IRDA Regulation, 2002:

On receipt of claim intimation

1. The insurer shall respond immediately and direct the insured on the procedures to be followed
2. Surveyor to be appointed within 72 hours
3. Surveyor shall communicate his findings to the insurer within 30 days of his appointment
4. In special circumstances, due to special and complicated nature of claim, surveyor shall seek extension of time for submission of his report; in no case shall a surveyor take more than six Months from the date of his appointment to furnish his report
5. The insurer to seek additional information, if any required from the surveyor within 15 days of the receipt of original survey report

6. The surveyor shall furnish the additional report within three weeks from the date of receipt of communication from insurer.
7. Offer of settlement or rejection of a claim to be issued by the insurer within 30days, on receipt of survey report or the additional survey report as the case may be.
8. On acceptance of the offer of settlement by the insured, payment shall be made within seven days. For any delay in payment, interest at a rate which is two percent above the bank rate shall be payable insurer.

It should be noted that Motor Third Party claims are however, governed by the procedures and time-schedules of the Motor Accident Claims Tribunals.¹

Need of the Important Documents for the Claims Procedure

- *Third Party Claim and Own Damage Claim:*
 - a) Proof of insurance. b) Copy of registration book. c) Tax receipt (original) copy of driving license of the person driving the vehicle at the time of accident. d) FIR, e) estimate repair from the repairer where the vehicle is to be repaired. f) Repair bills/invoices and payment receipts after the job is completed. g) Discharge voucher
- **Theft Claim:**
 - a) Original policy document, b) Original registration book, c) All the sets of keys/ service book let/warranty card original purchase invoice. d) FIR, f) Acknowledged copy of letter addressed to RTO intimating theft and informing NON-USE, g) Form 28, 29 and 30 signed by the insured and form 35 signed by the financier, h) Subrogation cum special power authority, i) Consent towards agreed claim statement value form yourself and financier, j) NOC from the financier if claims is to be settled

in your favour. k) Indemnity bond & discharge voucher.

3. Objectives of the Paper

The main objective of the paper is:

1. To analyse the reasons for rejection of claims by the Companies.
2. To evaluation the claims settlement of select companies.

4. Source of the Data

This research study is based on secondary data. The secondary data has been collected through annual reports of the UIICL and NIA companies' official directory, Journals and newspapers.

5. Period of the study and limitation

The study mainly focused on claims settlement and rejection of claims for the period of the study five years from 2010-11 to 2014-15.

Reasons for Rejection of Claims:

Rejection of motor insurance claims is also pretty common and is usually based on genuine reasons. Most of the rejections take place either due to the policy holder's ignorance or negligence. In such a scenario, it will help to know policy covers and the reasons for it getting rejected².

Some of the major reasons on the basis of which insurance may be rejected.

1. Under taking the repairs before informing your insurer about the accident.
2. Not informing the insurer within the limited timeframe
3. Not transferring your name in your insurance policy copy after purchasing a used car
4. Driving under the influence of alcohol or drugs
5. Driving without valid license
6. Using private car for commercial purpose
7. Failure to prevent theft
8. Consequential loss

9. Not informing your insurer about CNG/ LPG kit installation
10. Damages from mechanical or electrical breakdown

Claim Aging

The claim aging report lets you see balances due based on how old the balance is. The aging report breaks the balances down by age brackets of 0-29 day, 30-59 days, 60-89days, etc. This report is

useful for is useful for catching charges that are going unpaid.

The claim aging report has two different views: client balances and insurance balances. In addition, the client balances due can be viewed as either all charges (both balances that are still open to insurance and balances that are closed, or due by the client) or it can just view the balances that are closed (due by the client)³.

Table-1
Motor Insurance Ageing of Claims NIA from 2010-11 to 2014-15(Rs. in Lakhs)

No of claims paid	2010-11	2011-12	2012-13	2013-14	2014-15
1month	-	-	-	-	125801
1-3months	44523	100228	138576	163106	76259
3-6months	28681	19029	22846	18361	21388
6-1year	17795	8259	13672	12116	12769
>1year	13213	12356	20956	23398	23946
Total Number of Claims Paid	1,04,212	1,39,872	1,96,020	2,16,981	2,60,163
Total Amount Claims Paid	50,237	70,703	67,587	87,148	1,13,638

Source: NIA public disclosures

The above table 1 shows that the motor insurance ageing of claims of New India Assurance company, The number of claims paid from 2010 to 2015 has increased gradually from 1,04,212 lakhs to 2,60,163. The total amount of claims paid from

the years 2010 to 2015 has also increased from Rs. 50,237 in lakh to Rs. 1, 13,638 in lakh. It is observed that the NIA take time to settle the claims are more in 2011 – 14.

Table-2
Motor Insurance Ageing of Claims UIICL from 2010-11 to 2014-15 (Rs. in Lakhs)

No of Claims Paid	2010-11	2011-12	2012-13	2013-14	2014-15
1month	26850	30192	33129	33016	37746
1-3months	64291	22571	24872	23498	47644
3-6months	8793	35340	7780	16039	18476
6-1year	13882	17352	4666	10848	14319
>1year	155405	30467	40156	42001	25544
Total Number of Claims Paid	24,605	1,36,322	1,10,603	1,25,402	1,43,729
Total Amount Claims Paid	87,056	61,775	62,240	74,866	55,090

Source: UII public disclosures

The above table 2 observed that the motor insurance ageing of claims of UIICL company, the Number of claims paid from 2010 to 2015 is increased gradually from 24,605 lakhs to 1, 43,729. The total amount claims paid from the years 2010

to 2015 is decreased from Rs. 87,056 to Rs. 55,090. It is observed that the UIICL claims are more in the year 2010-11 and 2014-15.

Insurance Claim:

An insurance claim is a formal request to an insurance company asking for a payment based on the terms of the insurance policy. Insurance claims are reviewed by the company for their

validity and then paid out to the insured or requesting party (on behalf of the insured) once approved.

Table-3
NIAMotor Insurance Gross and Net Claims From 2010-11 to 2014-15 (Rs.Lakhs)

<i>Years</i>	<i>Gross Premium</i>	<i>Gross Claims</i>	<i>Percentage of Claims (%)</i>	<i>Net Premium</i>	<i>Net Claims</i>	<i>Percentage of Claims (%)</i>
2010-11	284291	241715	85.02	198569	150101	75.59
2011-12	373239	299438	80.22	344291	273211	79.35
2012-13	46180400	4178500	9.04	50939596	35484270	69.65
2013-14	55481099	26958961	48.59	40996165	24239188	59.12
2014-15	6476850	54891417	84.75	60037993	49697049	82.77

Source: NIA public disclosures

Table 3 shows the motor insurance claims of New India Assurance company from 2010 to 2015 it shows the percentage claims from 2010-11 to 2014-15 indicates 85.02% in 2010-11 and 84.75% in 2014-15. It is also observed that the percentage of net claims during reference period. It indicates 75.59% in 2010-11 and 82.77% in 2014-15. However, very less net claim percentage is noticed in 2013-14 (i.e. 59.12%).

It could be observed that net claims are always less than the gross claims but surprisingly the net claims are more than the gross claims in 2013-14. It indicates the general insurance business is completely depending on external environmental factors.

Table-4
UIICL Motor Insurance, Gross and Net Claims From 2010-11 to 2014-15 (Rs.Lakhs)

<i>Years</i>	<i>Gross Premium</i>	<i>Gross Claims</i>	<i>Percentage of Claims (%)</i>	<i>Net Premium</i>	<i>Net Claims</i>	<i>Percentage of Claims (%)</i>
2010-11	212467	167283	78.73	188930	191646	101.43
2011-12	295709	194707	65.84	275846	179693	65.14
2012-13	339066	190342	56.13	307743	225121	73.15
2013-14	371014	247476	66.70	345987	221491	64.01
2014-15	416916	282769	67.82	390460	252524	64.67

Source: UII public disclosures

Table 4 shows, the UIICL motor insurance gross and net claims from 2010-11 to 2014-15. It is observed from table that the gross claims has declined from 78.73% in 2010-11 to 67.82% in 2014-15 and there was drastic reduction in claims in 2012-13 (i.e. 56.13%) the percentage of net claims is 101.43% in 2010-11 and it also gradually declined to 64.67% in 2014-15. It is significant to note that this company (UIICL) never approved the net claims are more than the gross claims and

the claims ratios indicates that this company is more effectively controlling claims than that of New India Assurance Company Ltd.

Grievance Redressal:

Insurance is a contract in which an individual or entity receives financial protection or reimbursement (indemnity) against losses from an insurance company. Thus, an insurer settles claims against policies issued by him. The efficiency of

the claims management and settlement process has a direct impact on a company's ability to retain customers and to minimize grievances.

Grievance Redressal Cell of IRDA:

The interest of policyholder is on top of the agenda of Insurance Regulatory and Development Authority. IRDA has established its own grievance cell at its headquarter for discontented insurance customers.

These days IRDA is investing in to execute Integrated Grievance Management System (IGMS) through automation of the Grievance Cell for on-line registration of complaints. IGMS will act as a gateway for policyholders to register their

complaints with the insurance companies first and if required these complaints can then be escalated directly to the IRDA Grievance Cell. With IGMS, can also route complaint. A complaint registered through IGMS will flow simultaneously to the insurers system as well as to IRDA repository.

A recent introduction by IRDA for the facilitation of policyholder is IRDA Grievance Call Centre (IGCC). IGCC acts as an additional and easily accessible channel for policy holders to lodge their grievances and also seek their status over phone/email. If need arises then investigations and inquiries are carried out by IRDA. The details of grievances disposal of NIA & UIICL from 2010-11 to 2014-15 is presented in Table 5 & 6.

Table-5
Grievances Disposal of NIA from 2010-11 to 2014-15

Year	Fully Accepted	Partial Accepted	Rejected	Total	Grievances Pending	Percentage of Grievances Rejected
2010-11	-	-	-	-	-	-
2011-12	1588	150	525	2,263	301	23.19
2012-13	3746	1004	1178	5,928	197	19.87
2013-14	2271	670	845	3,786	126	22.31
2014-15	349	60	433	842	101	51.42
Total	7,954	1,884	2,981	12,819	725	23.25

Source: NIA public disclosures

It is observed from Table 5 that the grievances clearness of New India Assurance company from the years 2010-2015. The total number of grievances fully accepted are 7954, partial accepted are 1884, rejected are 2,981 and the

pending grievances are 725. And the change in percentage of grievances rejected is 23.25. The grievances pendings are on an average 23.25 during the reference period.

Table-6
NIA Grievance Disposal Duration Wise Pending Status from 2010-11 to 2014-15

Years /days	Complaints Made By Customers					Complaints Made By Intermediaries					Total
	2010-11	2011-12	2012-13	2013-14	2014-15	2010-11	2011-12	2012-13	2013-14	2014-15	
7-15 days	986	272	172	50	24	-	-	-	-	-	1504
15-30 days	3574	29	25	76	77	-	-	-	-	-	3781
Total	4560	301	197	126	101						5285

Source: NIA public disclosures

The above table 6 shows that the New India Assurance company duration wise pending status grievance disposal from years 2010 to 2015. it shows that the duration has taken 7-15 days in 2010-11, the highest number of complaints made by customers are 986 and the minimum complaints made by customers are 24 in 2014-15, out of 1504, there is no complaints made by intermediaries. And in the years 2010-15 the complaints made by

customers and they have to wait for 15-30 days are 3574, is highest in the year 2010-11 and the minimum complaints made by customers is 25 in 2012-13 and the total complaints made by customers are 3781. And there is no complaints made by intermediaries. It is concluded that the complaints made by customers are decreasing when it comparing with the years from 2010 to 2015.

Table-7
UII Grievances Disposal from 2010-11 to 2014-15

Year	Fully Accepted	Partial Accepted	Rejected	Total	Grievances Pending	Percentage of Grievances Rejected
2010-11	1107	319	1578	3004	599	
2011-12	969	751	986	2706	336	36.43
2012-13	1666	143	799	2608	260	30.61
2013-14	1200	167	494	1861	109	26.54
2014-15	1261	188	568	2017	55	28.16
Total	6,203	1,568	4,425	12,196	1,359	36.28

Source: UII public disclosures

Table 7 shows that the grievances clearness of UIIL company from the years 2010-2015. The total number of grievances fully accepted are 6203 , partial accepted are 1568, rejected are 4425 and the pending grievances are 1359. The total

percentage grievances are rejected is 26.54 percentages and 36.43 percentages. (Maximom) The grievances pendings are increased from 2010 to 2015.

Table-8
UII Grievance Disposal Duration Wise Pending Status from 2010-11to2014-15

Years /days	Complaints Made By Customers					Complaints Made By Intermediaries					Total
	2010-11	2011-12	2012-13	2013-14	2014-15	2010-11	2011-12	2012-13	2013-14	2014-15	
7-15days	411	-	5	4	-	0	0	10	6	5	441
15-30days	188	336	16	5	-	-	-	30	17	3	595
Total	599	336	21	09	-	-	-	40	23	8	1036

Source: UII public disclosures

Table 8 is shows that the National Insurance Assurance company grievance disposal duration wise pending status from years 2010 to 2015. It shows that the duration has taken 7-15 days in the years 2010-11 the highest complaints made by customers are 411 and the minimum complaints made by customers are 4, and there is no claims in the years 2011 and 2014. However the total

complaints made by the customers and intermediaries are 441. And complaints made by intermediaries in the year 2012-13 it is high that is intermediaries are 10 and low in the year 2014-15 is 5. And in the years 2010-15 the complaints made by customers 15-30 days are highest in the year 2012-13 is 336 and the minimum complaints made by customers is 5 in the years 2013-14 and

the total complaints made by customers are 545. And complaints made by intermediaries complaints made high in the year 2013-12 is 30, lowest claims is in the year is 3 and the total claims are 595. It is concluded that the complaints made by customers are decreased when it comparing with years in 2010 and 2015.

Conclusion:

Insurance is a contract in which an individual or entity receives financial protection or reimbursement (indemnity) against loss from an insurance company. Thus, an insurer settles claims against policies issued by him. The efficiency of the claims management and settlement process has a direct impact on a company's ability to retain customer and to minimize grievances. It highlights the evolution of claims settlement of NIA and UIICL. It is found that UIICL has never approved the net claims more than gross claims and sharp dealing claims ratios indicate the efficiency and effective control on claims than that of their counterparts.

It is concluded that in the comparative analysis that higher percentage of the claim settlement

indicates in the top two companies i.e. New India Assurance Co. Ltd. (88.83%), United India Insurance Company Co. Ltd. (73.96%). It also indicates these insurance companies are more transparent in the management of the process of claim settlement and they adhere to the provisions of protection of policy holders Motor Insurance Act 1988.

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PROSPECTS OF BANCASSURANCE IN NEPAL

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ABSTRACT

This study examines the prospects of bancassurance in Nepal. The prospect of bancassurance is the dependent variable. Distribution channel, consumer awareness, product design and partner selection are the independent variables. The study is based on primary data which were collected from 104 respondents. To achieve the purpose of the study, structured questionnaire is prepared. The regression models are estimated to test the significance and importance of selected factors and prospects of bancassurance in Nepal.

The result shows that there is positive relationship of distribution channel and prospects of bancassurance. It indicates that better the distribution channel, better would be the prospects of bancassurance. Similarly, consumer awareness, product design and partner selection are positively correlated to the prospects of bancassurance. It indicates that higher the level of consumer awareness, product design and partner selection, better would be the prospect of bancassurance. The regression results show that a distribution channel is the most important factor affecting the prospects of bancassurance followed by product design and customer awareness. The partner selection plays a least important role in determining the prospects of bancassurance in Nepalese commercial banks.

Keywords: *Prospects of bancassurance, distribution channel consumer awareness, product design and partner selection.*

1. Introduction

Bancassurance can be defined as the partnership between a bank and an insurance company whereby the insurance company sells its policies through the bank network. The need for survival as a result of changes in regulation, globalization and changes in customer demand have paved the way for the emergence of financial conglomerates resulting in bancassurance (Karunagaran, 2006).

Financial institutions for a long time have been grappling with the decrease in their interest margins as a result of the rise in competition, changes in technology and the deregulation of the financial sector as well as globalization. With the rise of financial innovation, bancassurance is the way to go. Anja et al. (2010) described bancassurance as the selling of insurance through the bank distribution channel. Bancassurance provides banks with the opportunities to acquire

additional revenue streams while promoting customer retention.

Chen et al. (2009) noted that developing countries such as Asian countries took much longer to adopt the concept of bancassurance, due to the lack of establishment of regulatory frameworks and guidelines in the financial industry. According to Karunagaran (2006), bancassurance has become widely adopted across the world from then on with banks setting up subsidiaries or going into joint ventures to facilitate this service.

Bancassurance refers to banks acting as corporate agents for insurers to distribute insurance products. Bank acts as a mediator between the insurance company and their customers. Bancassurance has grown differently in different countries and taken shape according to the demography, economy and legislative prescriptions in that country (Agrawal and Hajela, 2011). Bancassurance is the simplest

way of distribution of insurance products through the bank distribution channel. It is process of selling insurance products and services by leveraging vast customer base of a bank and fulfills the banking and insurance needs of the customers at the same time (Chowdhury, 2006).

According to Florido (2002), bancassurance is a combination of the word “banque or bank” and “assurance” signifying that both banking and insurance are being provided by the same corporate entity. This strategy is beneficial to both the bank offering its channel and the insurance company providing the services as the bank earns a risk-free income, referred to as fee-based income while the insurance company increases its capacity in reaching a wider customer base, thus increasing its numbers. Kiragu (2014) noted that the increasingly competitive environment in the financial services markets has put pressure on the firms to develop and utilize alternative delivery channels. Financial deregulation, convergence of markets and globalization has a negative effect in the banking and insurance industries respectively. Banks have to come up with innovative ideas to maintain their customer base as well as increasing income. On the other hand, insurance companies, faced with a stagnant growth and fairly mature markets, have to come up with innovative ideas to ensure survival.

Bancassurance is the process by which an insurance company uses the bank network to sell its policies (Anja et al., 2010). The insurance company uses the bank’s network to reach a wide customer base over which to market its products while the bank gains from the income other than interest income, which is risk-free. Arora (2013) stated that insurance companies require immense distribution strength and great power to reach a huge customer base. This distribution is facilitated immensely by various insurance companies who bring their policies to the common man through the basic network of banks. According to Arthur and Iris (2003), bancassurance represented 69 percent of new insurance business with seven out of ten new business generated through cross-selling activities at bank branches. Deregulation

that allows diversification across both financial services as well as geographic areas provides a potential rationale for growth of banking and insurance in the years ahead.

Jongeneel (2004) have noted that banks in the recent years have moved from traditional strategies of earning income to non-traditional strategies such as investment banking, securities brokerage, mutual funds and insurance agencies. The ever increasing competitive nature of the banking industry has led to an increase in the cost of funds leading to banks having to come up with alternative deployment tactics to ensure that their interest margins are maintained.

Kumari (2012) investigated on the awareness level of the banks’ customer on bancassurance in the Indian market. The study found that only a smaller number of people had taken the bancassurance policy from their respective banks. Similarly, some of the respondents believed that private sector banks are better in bancassurance, because of the quality services provided by them and the aggressive selling policies adopted by the private sector (Sreedevi and Auguskani, 2014).

Bancassurance provides endless opportunities for a bank to earn high fee income at low cost. Firstly, it is much easier for a bank to sell insurance products to its customers as it has complete knowledge about the financial status of its customers through their spending and savings patterns. Additionally, banks have an easier approach to customers in terms of persuasion to get an insurance product, since customers trust their banks more than an insurance company (Kumar, 2008). Bancassurance provides limitless advantages to banks. Bancassurance opens doors to new markets for growth; there is little or no competition, and an extremely high level of fee income on investments due to charging of high premiums.

According to Kumar (2008), distribution channels in bancassurance are career agents, special advisors, salaried agents, platform bankers, brokerage firms, direct response, internet and E brokerage. Klein (2001) examined that the type

of insurance products which bank wants to sell is very closely bound up with the methods of distribution which bank plans to use. This is because the effort and expertise needed to sell a given product must be appropriate to the skills and cost base of the chosen distribution method. The type of distribution channels that a company uses affects the design and pricing of its products, as well as the way in which the products are promoted and perceived in the marketplace. It seems very difficult for a single distribution channel to successfully reach the bancassurer's goals and specific target markets. Many bancassurers are using multiple distribution channels. Alavudeen and Rosa (2015) examined bancassurance has a bright future as it offers insurers a readymade distribution platform with a tremendous distribution network.

Pejawar(2008) explored various reasons namely shrinking profit margins, regulatory changes, operational efficiency, customer loyalty and better information about customers, for banks to enter into bancassurance. The study showed that insurance companies should take care of commitment level, brand name, customer base, capital strength, technology and compatibility with products of banks while choosing bancassurance partners. Twardy (2009) found that regarding partner selection criteria, financial resources of the partner is the criterion that is the most important for alliance success. Standardized governance of the partner selection is another important success factor for partner selection. Companies need to clarify who is to be responsible, accountable, consulted, informed in each partnering phase.

According to Joshi (2016), preference of insurance companies on bancassurance over traditional agent showed that wider customer base is ranked top followed by stronger brand name, lower distribution cost and simplified financial transaction as less important. Finally, for most contributing factor on success of bancassurance in Nepal, consumer awareness is ranked highest followed by product design, distribution channel, brand name and awareness of retail banks respectively.

The above discussion reveals that there is no consistency in the findings of various studies concerning the prospects of bancassurance.

The major objective of the study is to study the prospects of bancassurance in Nepal. More specifically, it examines the relationship of distribution channel, consumer awareness, partner selection and product design with prospects of bancassurance in Nepal.

The remainder of this study is organized as follows: Section two describes the sample, data and methodology. Section three presents the empirical results and the final section draws conclusion and discuss the implications of the study findings.

2. Methodological aspects

The study is based on the primary data which were gathered from 104 respondents. This study has employed descriptive research design and causal comparative research design to deal with issues associated with the prospects of bancassurance in Nepal.

The model

As a first approximation, this study assumes that the prospects of bancassurance depends on the various factors such as distribution channel, consumer awareness, partner selection and product design. Therefore, the model takes the following form.

Model :

$$PB = \hat{\alpha}_0 + \hat{\alpha}_1 DC + \hat{\alpha}_2 CA + \hat{\alpha}_3 PD + \hat{\alpha}_4 PS + \hat{\alpha}$$

PB= Prospects of bancassurance is the possibility of future success of bancassurance.

DC= Distribution channel is defined as the medium to transfer the bancassurance product.

CA= Consumer awareness is defined as level of knowledge with the customer.

PD= Product design is plan for the product to be offered.

PS= Partner selection is defined as the act of selecting the partner.

Distribution channel

Distribution channel is defined as the medium which transform the bancassurance product. Klein (2001) found that there is strong relationship between distribution channel and prospects of bancassurance. Distribution channels should be integrated in accordance with the established model in order to ensure cost saving and increased productivity of bancassurance (Kumar,2008). Alavudeen and Rosa (2015) revealed that distribution channel positively influence the performance of bancassurance. Based on it, this study develops the following hypothesis:

H1: There is positive relationship between distribution channel and prospect of bancassurance.

Customer awarness

Consumer awareness is defined as level of knowledge of the customers. The understanding by an individual of their rights as a consumer concerning available products and services being marketed and sold is termed as customer awareness.Rajkumari(2007) and Kumari (2012) found a positive relationship between customer awareness and prospect of bancassurance.Based on it, this study develops the following hypothesis:

H1: There is positive relationship between customer awareness and prospect of bancassurance.

Product design

Product design is the plan for the product to be offered. It is creating a new product to be sold by a business to its customers. Artikis et al. (2008) found that product design of insurance companies helps to retain the relationship between bank and

insurance company.Based on it, this study develops the following hypothesis:

H1: There is positive relationship between product design and prospect of bancassurance.

Partner selection

Partner selection is defined as the act of selecting the partner for operating the business. Agrawal and Hajela (2011); Pejawar(2008) indicted that appropriate partner selection process results in the success of bancassurance. Twardy (2009) suggested that there is positive relationship between partner selection and performance of bancassurance. Based on it, this study develops the following hypothesis:

H1: There is positive relationship between partner selection and prospect of bancassurance.

Correlation analysis

On analysis of data, correlation analysis has been undertaken first and for the purpose, Pearson's correlation coefficients have been computed and the results are presented in Table 1.

Table 1: Pearson's correlation coefficientsmatrix for the dependent and independent variables

(This table reveals the Kendall's correlation coefficients between dependent and independent variables. PB (prospects of bancassurance is the possibility of future success of bancassurance) is dependent variable. The independent variables are DC (distribution channel is defined as the medium to transform the bancassurance product), CA (consumer awareness is defined as level of knowledge with customer), PD (product design is the plan for the product to be offered) and PS (partner selection is defined as the act of selecting the partner).

Variables	Mean	S.D.	DC	CA	PD	PS	PB
DC	2.159	0.441	1				
CA	2.197	0.679	0.470**	1			
PD	2.151	0.647	0.457**	0.506**	1		
PS	2.519	0.954	0.202*	0.171	0.043	1	
PB	1.973	0.494	0.507**	0.457**	0.495**	0.227*	1

The results show that there is positive relationship of distribution channel with the prospects of bancassurance which indicates that appropriate distribution channel leads to the success of bancassurance. Likewise, the study observed positive relationship between consumer awareness regarding bancassurance and prospects of bancassurance indicating increase in consumer awareness leads to success of bancassurance. Similarly, the positive relationship between product design and prospect of bancassurance reveals that better product design of bancassurance product leads to widen the prospects for bancassurance. Likewise, partner selection is positively related to prospect of bancassurance which indicates that better selection of the partners of bancassurance leads to better prospects of bancassurance.

Regression analysis

Having indicated the Pearson's correlation coefficients, the regression analysis has been

carried out and the results are presented in Table 2.

Table 2: Regression of distribution channel, customer awareness, product design and partner selection on prospects of bancassurance.

(The results are based on 104 observations by using liner regression model. The model is $PB = \hat{\alpha}_0 + \hat{\alpha}_1 DC + \hat{\alpha}_2 CA + \hat{\alpha}_3 PD + \hat{\alpha}_4 PS + \hat{\alpha}$ where, PB (prospects of bancassurance is the possibility of future success of bancassurance is dependent variable). The independent variables are DC (distribution channel is defined as the medium for transform the bancassurance product), CA (consumer awareness is defined as level of knowledge with customer), PD (product design is the plan for the product to be offered), PS (partner selection is defined as the act of selecting the partner).

Model	Intercept	DC	CA	PD	PS	Adj. R ²	SEE	F-value
1	0.746 (3.545)**	0.568 (5.947)**				0.250	0.428	35.365
2	0.642 (8.439)**		0.333 (5.195)**			0.201	0.441	26.989
3	0.662 (7.882)**			0.377 (5.749)**		0.237	0.431	33.056
4	0.678 (12.485)**				0.117 (2.349)*	0.142	0.480	5.518
5	0.569 (2.779)**	0.398 (3.925)*		0.253 (3.668)**		0.332	0.403	26.567
6	0.521 (2.556)**	0.337 (3.192)**	0.132 (1.873)	0.202 (2.755)**		0.348	0.399	19.320
7	0.415 (1.950)	0.309 (2.915)**	0.119 (1.686)	0.214 (2.918)**	0.068 (1.607)	0.358	0.396	15.365

Notes: 1. Figures in parenthesis are t-values

2. The asterisk sign (*) indicates that result is significant at 5% level and double asterisk sign (**) indicates that result is significant at 1%.

The study indicated that beta coefficient for distribution channel is positive and has significant impact on prospects of bancassurance. It reveals that better the distribution channel, better would be the prospects of bancassurance academic. This finding is similar to the findings of Alavudeen and Rosa (2015). Similarly, the results show that beta coefficient is positive for consumer awareness indicating increase in consumer awareness leads to success of bancassurance. The finding is consistent with the findings of Kumari(2012). The study also shows that the beta coefficient for product design is positive with prospects of bancassurance. It reveals that appropriate product design of bancassurance leads to increase the prospect of bancassurance. This finding is similar to the findings of Klein (2001). Likewise, the results show positive beta coefficients for partner selection which indicates that better selection of the partners of bancassurance leads to better prospects of bancassurance. The finding is consistent with the findings ofAgrawal and Hajela (2011).

3. Summary and conclusion

Bancassurance as a channel of selling insurance is growing in Nepal. The network of banks spread across the country and this enables the insurance company to increase the customers for their products. In Nepal, people from almost all part of the country are getting access to the banking services, so there is immense scope for the bancassurance in Nepal. The conversion of insurance company and bank has given the synergy effect to both bank and insurance companies by providing opportunities to cover large untapped market.

This study attempts at determining the prospects of bancassurance in Nepal. This study is based on primary of data collection from 104 respondents. Moreover, this study hypothesizes that the prospects of bancassurance depends on several factor such as distribution channel, customer awareness, product design and partner selection.

The study reveals that customer awareness, distribution channels, product design and partner

selection have positive impact on the prospect of bancassurance. This means higher the customer awareness, distribution channels, product design and partner selection, better would be the prospect of bancassurance. However, the most important determinant has been noticed to be distribution channels followed by product design, customer awareness and partner selection. The study concludes that distribution channels play the most influencing role while partner selection plays a least important role in determining the better prospects of bancassurance in Nepal.

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FACTORS AFFECTING EMPLOYEE ABSENTEEISM IN NEPALESE INSURANCE COMPANIES

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ABSTRACT

This study examines the factors affecting employee absenteeism in Nepalese insurance companies. The employee absenteeism is the dependent variable. Working condition, health problem, job satisfaction and stress related problems are the independent variables. The study is based on 100 respondents from 5 Nepalese insurance companies. To achieve the purpose of the study, structured questionnaire is prepared. The regression models are estimated to test the significance and importance of the determinantsof employee absenteeism in Nepalese insurance companies.

The study shows that the stress related problems are positively correlated to employee absenteeism. This indicates that increase in stress related problems leads to increase inabsenteeism. The result also shows that working condition, health problem, and job satisfactions are negatively correlated to employee absenteeism. This indicates that better working condition, health problem, job satisfaction leads to increase in employee absenteeism. The regression results show that the beta coefficients for stress related problems are positive with employee absenteeism in Nepalese insurance companies. The study concludes that stress related problems play the most influencing role while working condition plays a least important role in determining the employee absenteeism in Nepalese insurance companies.

Keywords: Employee absenteeism, health condition, working condition, job satisfaction and stress related problems.

1. Introduction

Absenteeism is a habitual pattern of absence from a duty or obligation. Traditionally, absenteeism has been viewed as an indicator of poor individual performance, as well as a breach of an implicit contract between employee and employer. It was seen as a management problem and framed in economic or quasi-economic terms. Cascio (2003) defined absenteeism as any failure of an employee to report for or remain at work as scheduled regardless of reason. From a business perspective, the employee is absent and is simply not available to perform his or her job, results in higher cost to the organization.

Tiwari (2014) defined absenteeism as absence of workers from the regular work without prior permission. Excessive absenteeism involves a

considerable loss to the enterprise because work scheduled are upset and delayed and management has to give overtime wages to meet the delivery dates. The rates of overtime wages are doubled than the normal rates of wages. Therefore, study of cause of absenteeism is essential to deal with the problem. According to Ivancevich and Matteson (2004), absenteeism is costly because it reduces output and is disruptive because it requires that schedules and programs be modified. Van der Merwe (2008) established a positive relationship between absenteeism and labour turnover.

According to Nel et al. (2006), absenteeism is withdrawal behavior when it is used as a means to escape an undesirable working environment. Job satisfaction is defined as the attitude that employees may have towards their jobs and the organizations in which they work. Though there

are various factors that affect job satisfaction, the level of job satisfaction will differ from individual to individual (Chen, 2008). Managers must strive to maintain an acceptable or high level of job satisfaction amongst the workforce, as job dissatisfaction may increase the rate of absenteeism and then negatively impact on the organization's ability to perform in order to successfully meet its organizational goals (Cohen and Golan, 2007). Low morale and hindered productivity may result from the increased pressure, increased workload, and frustration from a shortage of staff. However, Goldberg and Waldman (2000) found no correlation between job satisfaction and absenteeism. Instead, it remains the responsibility of management to motivate the workforce.

The choice made by employees which occurs when an employee is absent due to reasons other than illness (Rogers and Herting, 1993). Basically, absence can be divided into an involuntary part and a voluntary part. Involuntary absence, e.g. certified sickness or funeral attendance, is beyond the employee's immediate control, whereas voluntary absence, e.g. uncertified sickness and shirk, is under the direct control of employee and is often based on personnel claims (Nielsen, 2008). The study defined absenteeism as unscheduled absence from work, regardless of the reason, including long and short term disability.

According to Singh et al. (2016), the main causes of absenteeism amongst security officers within the organization are attributed to illness, transportation, fatigue, family problems, and long working hours. In addition to this, the failure of management to adequately manage absenteeism in the workplace has contributed to the perpetuation of the problem. This has resulted in service delivery being compromised to the extent that a substantial number of clients have been lost. Excessive costs, low productivity, and inefficient service delivery have challenged the sustainability of the business.

Jenson and McIntosh (2007) found that days absent for both men and women are correlated to

the variables which describe their individual characteristics such as gender, age, educational attainment, occupation, sector, the number of children living at home, health status, and job duration. When tackling the absenteeism problem, companies often need to focus their energy on non-work-related issues. This can boost both productivity and to curtail disability costs (Quinley, 2003). Employee assistance program (EAPs) can be implemented to help workers deal with issues outside of work that employees bring to the workplace.

In most cases, absenteeism presents adverse effect on the performance of organization. However, despite the awareness that relatively high absenteeism have negative effect on organizational performance, the operations of some organizations tend to increase the level of absenteeism either intentional or unintentional. Intentionally, some organization takes advantage of the increasing level of unemployment to exploit workers by hiring and firing workers at will. Unintentional, some organizations do not adequately motivate workers as the workers are not paid commensurate wage rate, delayed promotion, non-provision of adequate working tools, lack of conducive work environment, lack of insurance cover, no adequate provision of health care facilities amongst others. All these factors tend to increase absenteeism which affects the level of organizational performance (Onikoyi et al., 2015).

The study stated that the poor and intolerable working conditions in the factories irritate the workers. Excess heat, noise, either too much or too low lighting, poor ventilation, dust, smoke etc., cause poor health of the workers. These factors cause the workers to be absent (Rathod and Reddy, 2012).

According to McHugh (2002), when the employees are likely to have more ill health then employees' absence is high. The study further disclosed that in such situations of poor health, there are higher absence levels, low morale, high levels of stress, poor communication and poor relationships between management and staff. The

study stated that the poor and intolerable working conditions in the factories irritate the workers. Excess heat, noise, either too much or too low lighting, poor ventilation, dust, smoke etc., cause poor health of the workers. These factors cause the workers to be absent (Rathod and Reddy, 2012). Oniyoki et al. (2015) studied on the improvement of employee job satisfaction and working conditions. The study showed a commitment by management helps to enhance the professional environment of the employee. This results in an improvement in productivity, service delivery, profitability, and also reduces absenteeism.

According to the Tiwari (2014), the absenteeism reduces the level of an organization's productivity, profitability, quality service delivery, and promptness of satisfying the customers' needs. The study found that the effective management of labor reduced absenteeism in the organization and led to an improvement in the level of productivity, organizational effectiveness, efficient and effective service delivery, profitability and overall organizational performance. Therefore, it appears as though a negative relationship exists between absenteeism and organizational performance.

Robbins (2009) linked absenteeism to satisfaction and deduced a negative correlation. In the organization when there is no satisfaction there is a cause for absenteeism. Derry et al. (2006) indicated there were a number of different factors that have a significant effect on the incidence of absenteeism. These causal factors include job motivation, routine of work and supervisory support as well as absence culture and the employees' external responsibilities. In addition, policy issues relating to previous disciplinary warnings and the accumulation of sick pay were identified as significant determinants of absence behavior.

In the context of Nepal, the study revealed that the employee participation is positively related to job satisfaction, employee fairness perception and organizational commitment which results in lowering the employee absenteeism rate (Pandey and Joshi, 2010). Chapagai (2011) examined the

relationship between employees' participation and job satisfaction in Nepal for which four Nepalese commercial banks were chosen. The result indicated that there is the strong positive relationship between employee participation practices and job satisfaction in Nepalese banking sector. Increased employee participation makes a positive effect on job satisfaction of Nepalese banking employees, lowering down the employees' absenteeism rate and intention to quit the job.

Gautam (2011) investigated the trends of HRM practices in Nepalese organization. The findings of the study revealed that Nepalese organizations prefer experienced and mid-career human capital as compared to fresh graduates and undergraduates. Such practice of hiring experienced personnel not only saves time of the organization, but also saves cost on training and reduces absenteeism rate.

The above discussion reveals that there is no consistency in the findings of various studies concerning determinants of employee absenteeism.

The main purpose of the study is to analyze the determinants of employee absenteeism in Nepalese insurance companies. Specifically, it examines the impact of working condition, job satisfaction, health condition and stress related problems on employee absenteeism.

The remainder of this study is organized as follows. Section two describes the sample, data and methodology. Section three presents the empirical results and the final sections draws conclusion and discusses the implications of the study findings.

2. Methodological aspects

The study is based on the primary data which were gathered from 100 respondents of 5 Nepalese insurance companies. This study has employed descriptive research design and causal comparative research design to deal with issues associated with the selected factors and employee absenteeism of insurance companies in the context of Nepal. Table 1 shows the list of insurance companies along with the number of respondents selected for the study.

Table 1: Number of insurance companies selected for the study along with number of respondents

S.N.	Name of the insurance companies	Number of respondents
1	National Life Insurance Company Limited	20
2	Asian Life Insurance Company Limited	20
3	American Life Insurance Company Limited)	22
4	Gurans Life Insurance Company Limited	20
5	Surya Life Insurance Company Limited	18
Total number of respondents		100

The model

As a first approximation, the model estimated in this study assumes that the employee absenteeism depends on several variables such as working condition, job satisfaction, health condition and stress related problems. Therefore, the model takes the following form:

$$EA = \alpha + \alpha_1 WC + \alpha_2 JS + \alpha_3 HC + \alpha_4 S + \alpha$$

Where,

EA= Employee absenteeism is a habitual pattern of absence from a duty or obligation

WC = Working condition refers to the working environment under which a job is performed.

JS = Job satisfaction is the degree to which employees like the job or individual aspects such as nature of work or supervision

HC= Health condition is the ability of individual to adapt and self-manage when facing mental, physical and social change.

S = Stress related problem is a problem related to conscious or unconscious psychological feeling or physical situation.

Working condition

Working conditions refers to the working environment and all existing circumstances affecting labor in the workplace, including job hours, physical aspects, legal rights and responsibilities. In general, working conditions cover from working time (hours of work, rest periods, and work schedules), to remuneration, as well as the physical conditions and mental

demands that exists in the workplace. To reduce the absenteeism, the working condition of organization should be appealing to work (Onikoyi et al., 2015). According to Spector (1985), employees who perceive high levels of constraints in terms of their working environment tend to be dissatisfied with their jobs which results in absenteeism. Based on it, this study develops the following hypothesis:

H₁: There is negative relationship between working condition and absenteeism.

Job satisfaction

Job satisfaction is the degree to which employees like the job or individual aspects such as nature of work or supervision. Dawis & Lofquist (2001) pointed out that job satisfaction is a pleasurable affective condition resulting from one's appraisal of the way in which the experienced job situation meets one's needs, value, and expectations. A high rate of employee satisfaction is directly related to a lower turnover rate and absenteeism. Atchison (1999) stated that many organizations are spending much time on employee satisfaction initiatives in an effort to reduce turnover, absenteeism, improve productivity and to help organizations succeed. Based on it, this study develops the following hypothesis:

H₂: There is negative relationship between job satisfaction and absenteeism

Health condition

Health condition is the ability of individual to adapt and self-manage when facing mental, physical and social change. Poor health condition of employees results in absenteeism which leads to decrease in

organizational performance (Cascio, 2003). Brooke and Price (1989) suggested that reutilization, centralization, pay, distributive, justice, work involvement, role ambiguity, conflict and overload, kinship possibility, organizational permissiveness, job satisfaction, and alcohol involvement as the determinations of absenteeism. Based on it, this study develops the following hypothesis:

H₃: There is negative relationship between health condition and absenteeism.

Stress related problems

Stress is a conscious or unconscious psychological feeling or physical situation which comes as a result of physical or/and mental 'positive or negative pressure' to overwhelm adaptive capacities. The stress level of employees affect negatively on worker performance which also increases absenteeism rate. Employees tend to carry this stress to work, which impacts on their work performance and results in low productivity and absenteeism (Stannack, 1996). Based on it, this study develops the following hypothesis:

H₄: There is positive relationship between stresses related problem and absenteeism.

3. Results and discussion

Correlation analysis

On analysis of data, correlation analysis has been undertaken first and for this purpose, Pearson's correlation coefficients have been computed and the results are presented in Table 2.

Table 2: Pearson's correlation coefficients matrix for the dependent and independent variables

This table shows the Pearson's correlation coefficients matrix between dependent variables and independent variables of selected Nepalese insurance companies. The coefficients are based on the data from 5 insurance companies with 100 observations. EA (Employee absenteeism is a habitual pattern of absence from a duty or obligation) is the dependent variable. The independent variables are WC (Working condition refers to the working environment under which a job is performed), JS (Job satisfaction is the degree to which employees like the job or individual aspects such as nature of work or supervision), HC (Health condition is the ability of individual to adapt and self-manage when facing mental, physical and social change), S (Stress related problem is a problem related to conscious or unconscious psychological feeling or physical situation)

Variables	Mean	S. D.	WC	JS	HC	S	EA
WC	2.084	0.679	1				
JS	1.916	0.480	0.559**	1			
HC	2.488	0.943	0.431**	0.505**	1		
S	2.165	0.729	-0.438**	-0.507**	-0.685**	1	
EA	1.785	0.510	-0.340**	-0.400**	-0.486**	0.518**	1

Notes:

The asterisk sign (*) indicates that result is significant at 5% level and double asterisk sign (**) indicates that result is significant at 1%.

The results show that there is negative relationship of working condition with absenteeism which indicates that poor working condition leads to increase in employee absenteeism. Likewise, the study observed negative relationship between job satisfaction and employee absenteeism which indicates that increase in employees' job satisfaction leads to decrease in employee

absenteeism. Similarly, the negative relationship between health condition and employee absenteeism reveals that poor health condition leads to increase in employee absenteeism. Likewise, there is positive relationship between stress and absenteeism which indicates that higher the stress, higher would be the absenteeism.

Regression analysis

Having indicated the Pearson's correlation coefficients, the regression analysis has been carried out and the results are presented in Table 3.

Table 3: Regression on job satisfaction, working condition, stress related problems and health condition on employee absenteeism

The results are based on panel data of 100 observations by using linear regression model.

$EA = \hat{\alpha}_0 + \hat{\alpha}_1 PW + \hat{\alpha}_2 JS + \hat{\alpha}_3 HC + \hat{\alpha}_4 S + \hat{\alpha}_5$, Where, EA

(Employee absenteeism is a habitual pattern of absence from a duty or obligation) is the dependent variable. The independent variables are WC (Working condition refers to the working environment under which a job is performed), JS (Job satisfaction is the degree to which employees like the job or individual aspects such as nature of work or supervision), HC (Health condition is the ability of individual to adapt and self-manage when facing mental, physical and social change), S (Stress related problem is a problem related to conscious or unconscious psychological feeling or physical situation)

Model	Intercept	WC	JS	HC	S	Adj.R ²	SEE	F-value
1	-1.257 (-8.040)**	-0.254 (-3.556)**				0.106	0.482	12.648
2	-0.971 (-4.971)**		-0.427 (-4.300)**			0.151	0.469	18.492
3	-1.131 (-8.863)**			-0.262 (-5.475)**		0.228	0.448	29.974
4	0.988 (6.958)**				0.37 (5.908)**	0.261	0.442	34.907
5	-0.921 (-6.431)**			-0.138 (-3.068)**	0.241 (2.762)**	0.286	0.405	20.193
6	-0.741 (-3.922)**		-0.163 (-3.463)**	-0.112 (-1.598)	0.214 (2.413)*	0.294	0.413	14.339
7	-0.725 (-3.775)**	-0.141 (-2.504)**	-0.137 (-1.119)	-0.108 (-1.556)	0.207 (2.300)*	0.288	0.434	10.731
8	-0.921 (-4.971)**			-0.138 (-3.068)**	0.241 (2.762)**	0.286	0.495	20.193

Note:

- Figures in parentheses are t-value.
- The asterisk sign (*) indicates that result is significant at 5% level and double asterisk sign (**) indicates that result is significant at 1%.
- Employee absenteeism is dependent variable.

The study indicates that beta coefficient for working condition is negative and significant with employee absenteeism. It reveals that poor working condition leads to increase in employee absenteeism. This finding is similar to the findings of Spector (1985). Similarly, the beta coefficient is negative for job satisfaction with employee absenteeism. It indicates that increase in employees' job satisfaction leads to decrease in employee absenteeism. This finding is similar to the findings of Dawis & Lofquist (2001). Likewise,

the study reveals that beta coefficient for health condition is negative with absenteeism. It reveals that poor health condition increases the absenteeism. The finding is consistent with the findings of Cascio (2003). The study reveals positive beta coefficients for stress related problems with employee absenteeism. It reveals that higher the stress, higher would be the absenteeism. The finding is consistent with the findings of Stannack (1996).

The study indicates that beta coefficient for working condition is negative and significant with employee absenteeism. It reveals that poor working condition leads to increase in employee absenteeism. This finding is similar to the findings of Spector (1985). Similarly, the beta coefficient is negative for job satisfaction with employee absenteeism. It indicates that increase in employees' job satisfaction leads to decrease in employee absenteeism. This finding is similar to the findings of Dawis & Lofquist (2001). Likewise, the study reveals that beta coefficient for health condition is negative with absenteeism. It reveals that poor health condition increases the absenteeism. The finding is consistent with the findings of Cascio (2003). The study reveals positive beta coefficients for stress related problems with employee absenteeism. It reveals that higher the stress, higher would be the absenteeism. The finding is consistent with the findings of Stannack (1996).

4. Summary and conclusion

Absenteeism is one of the problems faced by all the organizations in this modernized world which results in employee turnover. Organizations over the years have sought means of improving employee resource management particular with the interest of reducing the employee work absenteeism and to maintain low level of employee turnover. Employee motivation, shift work system, team work and other means of enhancing employee happiness and job satisfaction have been applied by management to reduce employee absenteeism and labor turnover to improve overall organizational performance. Despite the awareness of the adverse effect of absenteeism on overall organizational productivity and performance, the level of absenteeism tends to remain high.

This study attempts at determining the factors affecting employee absenteeism in Nepalese insurance companies. This study is primarily based on primary sources of data collected from 100 respondents. Moreover, this study hypothesizes

that the employee absenteeism depends on several factors such as working condition, job satisfaction, health condition and stress related problem.

The study reveals that stress related problems have positive impact on employee absenteeism. This means that higher the stress related problems, higher would be the employee absenteeism. However, the study shows negative relationship of employee absenteeism with working condition, job satisfaction and health condition. It indicates that better working condition, job satisfaction and health condition leads to decrease in the employee absenteeism. The most important determinants of employee absenteeism have been noticed to be stress related problems followed by health condition, job satisfaction and working condition. The study concludes that stress related problems play the most influencing role while working condition plays a least important role in determining the employee absenteeism in Nepalese insurance companies.

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AN ANALYSIS OF PERFORMANCE OF DISTRIBUTION CHANNELS OF SELECT INDIAN LIFE INSURANCE COMPANIES

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ABSTRACT

Liberalization of Indian insurance sector in the year 1999-2000 has opened gates to private players to grab the market. The public sector companies have already established themselves in the market. But there are multiple challenges faced by the new insurance companies, of which two are critical:

Designing of products suiting the market and using the right distribution channel to reach the customer

The companies have been successful in dealing with the existing product features and leveraging the technical know-how of their partners. Though the product is ready with the company it should reach the ultimate customer, which is possible through an intermediary or a distribution channel which plays an important role in reaching the right product to the right customer. Here in case of life insurance business it is the distributor who makes the difference in terms of the quality of advice for choice of product, post sales services and settlement of claims. In the Asian markets, the distinct cultural and social values will play a major role in shaping the distribution channels and their effectiveness. In today's scenario, insurance companies must move from selling insurance to marketing an essential financial product. The distributors have to become trusted financial advisors for the clients and trusted business associates for the insurance companies. This leads to introducing multiple distribution channels in a cost effective and customer friendly manner. Before liberalization of life insurance sector in India, LIC was the only life insurance company satisfied the life insurance requirements of the public with mass number of agents who used to sell the policies in areas in which they reside. Being a monopoly in the Indian insurance market LIC could not tap the markets, which lead the Govt. to liberalize the insurance industry. After the entry of private players, to reach the product to the ultimate customer the companies came with new intermediaries. In this context, the present study focuses on various types of distribution channels used by Indian life insurance companies and their contribution to the total business of select life insurance companies.

Key words: *Distribution channels, corporate agents, Bancassurance, Brokers, Direct selling.*

1. INTRODUCTION:

Liberalization of insurance sector has opened gates to private players to grab the market. The public sector companies have already established themselves in the market. But there are multiple challenges faced by the new insurance companies, of which two are critical: Designing of products

suiting the market, using the right distribution channel to reach the customer

While the companies have been quite successful in dealing with the existing product features and leveraging the technical know-how of their partners. Though the product is ready with the company it should reach the ultimate customer,

which is possible through an intermediary / a distribution channel which plays vital role in reaching the right product to the right customer. Here in case of insurance business it is the distributor who makes the difference in terms of the quality of advice for choice of product, servicing of policy post sale and settlement of claims. In the Asian markets, with their distinct cultural and social ethos, these conditions will play a major role in shaping the distribution channels and their effectiveness. In today's scenario, insurance companies must move from selling insurance to marketing an essential financial product. The distributors have to become trusted financial advisors for the clients and trusted business associates for the insurance companies. This leads to introducing multiple distribution channels in a cost effective and customer friendly manner.

2. NEED OF THE STUDY:

Before liberalization of insurance sector in India, LIC was the only life insurance company satisfied the life insurance requirements of the public. Being a monopoly in the Indian insurance market LIC could not tap the markets, which lead the Govt. to liberalize the insurance industry. After the entry of private players, to reach the product to the ultimate customer the companies came with new intermediaries. At present there are four major distribution channels through which insurance companies are serving the needs for the public. They are individual agent, corporate agents (banks and others), brokers and direct selling. Considering all the above aspects the present study is undertaken to analyse the performance of various distribution channels of select life insurance companies to know how each channel is contributing to an individual companies' total business.

3. OBJECTIVES :

1. An overview of various distribution channels in Indian life insurance sector.
2. To compare the share of each distribution channel in the total business (in terms of number of policies sold) of select life insurance companies.

4. HYPOTHESIS:

H0: There is no significant difference in the channel-wise performance (Individual) of select life insurance companies (in terms of number of policies sold).

5. REVIEW OF LITERATURE:

Abhijit Sen Gupta (2007)- In the report titled "Banking and Insurance Services Liberalization in the context of Indo-EU trade and Investment Agreement", he expressed that Even in the Indian insurance sector, EU firms corner a dominant position. Though morethan 67% of the insurance market is captured by the public sector LIC, joint ventures with EU companies have cornered nearly 80% of the remaining market. Between April and October 2007, joint ventures with partners from the EU accounted for Rs. 9500 crore of insurance premium. Of this more than 50% was from joint ventures with UK companies, including HDFC Standard Life, ICICI Prudential, and Dabur CGU Life Insurance. Other important EU countries with which Indian companies have set up business include Germany (Bajaj Allianz), the Netherlands (ING Vysya) and France (SBI Life Insurance). Other major players in the Indian life insurance market include the USA and Australia.

Hand book on Indian Insurance statistics(2007-08) –revealed that Not only private sector insurance companies grabbing the market of LIC, the banks which are in to insurance like HDFC std, ICICI pru, IDBI Fartis(started in 2007) ,ING Vysya, SBI Life are also growing well, if the contribution to total life insurance premium is observed LIC had a growth of 17.19% in 2007-08 than the previous year, whereas the above said banks HDFC std, ICICI pru, , ING Vysya, SBI Life showed a growth rate of 70.13%, 71.38%, 63.87%, 91.98 % respectively for the year 2007-08 over its previous year.

Subbiah.B (2010)- Stated that the liberalization of insurance sector has given immense opportunities to the private companies. This eliminated the monopolistic business of Life Insurance Corporation of India. It helped to cover the wide range of risk in general insurance and also in life insurance by introducing new range of products to satisfy the needs of the customers by providing better customer services. The privatization has also helped in mobilization of funds that can be utilized for the purpose of infrastructure development. As many commercial banks entered in to insurance business, they could mobilize funds from rural areas because of the availability of vast branches of the banks. And most important thing is that the liberalization has generated many employment opportunities in the country.

Gurupreet Kaur (2010) – He noted that the distribution channels have become the strongest drivers for the growth of insurance sector. In her study on “Distribution channels of Life Insurance in India”, she examined the alternative distribution channels of life insurance business as how they are important and their contribution for the growth of the insurance business. The author also worked out on the perceptions and satisfaction of the customers towards various distribution channels as how the age, gender, income and occupation levels have an impact on the selection of an insurance company, the type of intermediary to be selected for taking the policy and preferences towards different insurance plans. The study examined the satisfaction levels regarding services of companies and post sales services provided by insurance companies. It has been found that individual agents are playing major role in increasing new business of insurance sector, it is concluded that the distribution channels play a never ending role and may help in increasing awareness and knowledge among people, it can differentiate its products on the basis of customer needs and they can make the distribution channel more customer oriented than target oriented.

Kanagaraj.K, Savithaa.J and Panchanatham N(2014): in their research paper “ A Framework

on Enhancing Competency of Bancassurance Staff in Public and Private Sector Banks” the authors collected the data through group discussion and interview of higher officials of banks and insurance specialists and found 3 competencies are required by a bancassurance officer like business competency, technical competency, and CRM competency .they also found in their interview that the bank employees are not trained on insurance products and are lack in selling those products without any knowledge of handling queries on insurance products and moreover employees are over loaded with their operational work due to which they are unable to spend time to sell insurance products. It was concluded that bank employees are to be properly trained with regards to the products and selling techniques, if needed with a certificate course, the staff should also be encouraged by incentives for their performance in selling the products.

Tapas kumar Padia(2014) – in his article Banking with insurance in India- Agency / broker expressed that liberalization of insurance industry driven a huge growth in life insurance business, this is because of the entry of new players and evolution of new channels of distribution of insurance products. Specifically banks are playing important role as distribution channel in selling of life insurance products by using various models of bancassurance like Referral model, Corporate agency, Subsidiary, Insurance broker. As on Oct.13 there are 464 insurance brokers selling the policies of the insurers’ all over India with the policy of one bank one insurance company. And he also mentioned that to penetrate the insurance business the finance ministry on Dec-13 has asked all public sector banks to switch to the broker model from the existing corporate agency structure of distribution of products.

6. RESEARCH METHODOLOGY:

Four companies viz. Bajaj Allianz, Birla SunLife, Max Life, Reliance life , have been taken as a sample to analyse the performance of various distribution channels in their total business for 11 years i.e. from the financial year 2004-05 to the

year 2014-15. The data is analysed using One way ANOVA with the help of SPSS. Secondary data is collected from the reports of IRDA, IRDA Hand Book on Indian Insurance Statistics, and the annual reports of various life insurance companies, IRDA online journals and other articles on the subject and other related websites.

7. OVERVIEW ON DISTRIBUTION CHANNELS OF LIFE INSURANCE SECTOR:

Before liberalization of insurance sector in India, LIC was the only life insurance company satisfied the life insurance requirements of the public. Being a monopoly in the Indian insurance market LIC could not tap the markets, which lead the Govt. to liberalize the insurance industry. After the entry of private players, to reach the product to the ultimate customer the companies came with new intermediaries. Let us look at the various insurance distribution channels presently used by various life insurance companies to grab the market.

- **Individual Agent:** According to Insurance act 1938, section 42 and with section 12 (2) (a) &(c) of the IRDA act 1999 defined the *“Insurance Agent” means an individual appointed by an insurer for the purpose of soliciting or procuring insurance business including business relating to the continuance, renewal or revival of policies of insurance. Any individual who wants to become an insurance agent need to satisfy requirements laid down by IRDAI.*
- **Banks:** With the objective of increasing insurance penetration using the entire network of bank branches, the Finance Minister in the budget speech 2013-14 announced that banks will be permitted to act as insurance brokers. Consequent to the announcement, IRDA formulated and notified the IRDA (Licensing of Banks as Insurance Brokers) Regulations, 2013 to enable banks to take up the business of insurance broking departmentally. Reserve Bank of India has given guidelines for banks to undertake insurance business by setting up

a subsidiary/joint venture, as well as undertake insurance broking/ insurance agency/either departmentally or through a subsidiary. However, it may be noted that if a bank or its group entities, including subsidiaries, undertake insurance distribution through either broking or corporate agency mode, the bank/other group entities would not be permitted to undertake insurance distribution activities, i.e., only one entity in the group can undertake insurance distribution by either one of the two modes mentioned above.

- **Broker:** Sections 14 and 26 of the Insurance Regulatory and Development Authority Act, 1999 (41 of 1999), defines Broker : “Insurance broker” means a person for the time-being licensed by the Authority under regulation 15, who for remuneration arranges insurance contracts with insurance companies and/ or reinsurance companies on behalf of its clients. The requirements to be satisfied by a person / institution to become a broker are clearly explained in schedule IV of Insurance and Regulatory Authority of India (Insurance Brokers) Regulations, 2013.
- **Directing Selling:** Few life insurers sell life policies through direct sales, where companies use direct mail or advertising by television or radio calling for coupon or telephone response. Group life insurance is a popular product sold through direct sales, usually as large sales to companies and employers. It is also called as Distance marketing includes every activity of solicitation (including lead generation) and sale of insurance products through the following modes:
 - ✓ Voice mode, which includes telephone-calling.
 - ✓ Short Messaging service (SMS).
 - ✓ Electronic mode which includes e-mail, internet and interactive television (DTH).
 - ✓ Physical mode which includes direct postal mail and newspaper & magazine inserts.
 - ✓ Solicitation through any means of communication other than in person.

These Guidelines cover distance marketing activities of insurers/brokers and corporate agents (with specific approval of insurers) at the stages including offer, negotiation as well as conclusion of sale.

Therefore distribution channels play vital role in the development of insurance companies, industry and economy as a whole.

8. DATA ANALYSIS: To test the significant difference in the channel wise performance of select life insurance companies a One way ANOVA test is conducted. The relevant data related to this aspect is presented in the following tables 1 and 1.1.

H0: There is no significant difference in the channel-wise performance (Individual) of select life insurance companies in terms of no. of policies sold).

TABLE1: SHARE OF EACH DISTRIBUTION CHANNEL IN THE TOTAL BUSINESS (IN TERMS OF NO. OF POLICES SOLD)

SUMMARY OF ONE WAY ANOVA							
Variable	Company	N	Mean	Std. Deviation	F	Sig.	H0
Individual agent	Bajaj Allianz	11	56.5736	24.34268	.956	.423	Accept
	Birla SunLife	11	60.3564	25.21221			
	Max Life	11	47.1255	19.25063			
	Reliance life	11	62.8627	24.40989			
	Total	44	56.7295	23.38747			
Corporate agent	Bajaj Allianz	11	26.8264	16.64492	1.057	.378	Accept
	Birla SunLife	11	15.1325	17.35676			
	Max Life	11	22.2696	11.76237			
	Reliance life	11	19.1947	17.28062			
	Total	44	20.8558	15.96335			
Bancassurance	Bajaj Allianz	11	2.5645	2.54296	6.219	.001	Reject
	Birla SunLife	11	5.5509	4.97029			
	Max Life	11	17.5964	19.92300			
	Reliance life	11	.0182	.04854			
	Total	44	6.4325	12.08269			
Broker	Bajaj Allianz	11	.5836	.37022	6.277	.001	Reject
	Birla SunLife	11	3.6527	2.18259			
	Max Life	11	1.0645	1.24938			
	Reliance life	11	4.8891	4.83280			
	Total	44	2.5475	3.19353			
Direct selling	Bajaj Allianz	11	3.8764	3.83551	5.417	.003	Reject
	Birla SunLife	11	1.8945	2.36944			
	Max Life	11	2.7927	1.78761			
	Reliance life	11	13.0327	13.86270			
	Total	44	5.3991	8.39889			

Source: SPSS

The table reveals that there is no statistically significant difference in the share of individual and corporate agents in the total business of Baja Allianz, Birla Sun Life, Max Life and Reliance Life, as the F values (0.956 and 1.057) are found to be significant respectively. And the sig.(p) values are greater than 0.05. therefore, the null hypothesis is accepted. This means the mean values of share of individual agent and corporate agents' in the total business (no. of policies sold) of the four life insurance companies is assumed to be same.

The table depicts that there is a statistically significant difference in the share of

bancassurance, broker and direct selling in the total business of the four companies. The 'F' values of the above mentioned variables are found to be significant at 5% level of significance and (3, 40) degrees of freedom and the sig. (p) values are lesser than 0.05. Therefore, the null hypothesis is rejected. This means there is a difference in the share of the three distribution channels in the total business of the four companies.

To further find out as which company is differing with each other a Tukey post hoc test is conducted, the results are presented below.

**TABLE 1.1: TUKET POST HOC TESTS
MULTIPLE COMPARISONS**

Dependent Variable	(I) company	(J) company	Mean Difference (I-J)	Sig.	H0
Bancassurance	Bajaj Allianz	Birla Sun Life	-2.98636	.905	Accept
		Max Life	-15.03182*	.008	Reject
		Reliance Life	2.54636	.938	Accept
	Birla SunLife	Max Life	-12.04545*	.044	Reject
		Reliance Life	5.53273	.597	Accept
	Max Life	Reliance Life	17.57818*	.002	Reject
Broker	Bajaj Allianz	Birla Sun Life	-3.06909	.055	Accept
		Max Life	-.48091	.976	Accept
		Reliance Life	-4.30545*	.004	Reject
	Birla SunLife	Max Life	2.58818	.134	Accept
		Reliance Life	-1.23636	.714	Accept
	Max Life	Reliance Life	-3.82455*	.011	Reject
Direct selling	Bajaj Allianz	Birla SunLife	1.98182	.921	Accept
		Max Life	1.08364	.986	Accept
		Reliance Life	-9.15636*	.028	Reject
	Birla SunLife	Max Life	-.89818	.992	Accept
		Reliance Life	-11.13818*	.005	Reject
	Max Life	Reliance Life	-10.24000*	.011	Reject

*The mean difference is significant at 0.05 level

The table exhibits that there is no significant difference in the share of bancassurance in the total business of Bajaj Allianz and Birla Sun Life as the Sig.(p=.905) is greater than 0.05, therefore the null hypothesis is accepted. The same is observed in case of Bajaj Allianz and Reliance Life, the sig.(p= .938) is greater than 0.05 and the null hypothesis is accepted in this case. It is found that there is a significant difference in the share of bancassurance in the total business of Bajaj Allianz and Max Life as the Sig.(p=.008) is lesser than 0.05, therefore the null hypothesis is rejected. In case of Birla Sun Life and Max Life , it is found that there is a significant difference in the share of bancassurance in their total business. Hence the null hypothesis is rejected ($p=0.044 < 0.05$), there is no significant difference in the share of bancassurance in the total business of Birla Sun Life and Reliance Life, as the Sig.(p= 0.597) is greater than 0.05. Therefore, the null hypothesis is accepted. When the same is compared between Max Life and Reliance life, it is found that there is a significant difference in the share of bancassurance in their total business, as the Sig (p= 0.002) is lesser than 0.05, the null hypothesis is rejected.

When the share of broker in the total business of Bajaj Allianz and Birla Sun Life is observed , it is found that there is no significant difference in the share of broker in the total business of Bajaj Allianz and Birla Sun Life as the Sig.(p=.055) is greater than 0.05, therefore the null hypothesis is accepted. The same is observed in case of Bajaj Allianz and Max Life, the sig.(p= .976) is greater than 0.05 and the null hypothesis is accepted in this case. There is a significant difference in the share of broker in the total business of Bajaj Allianz and Reliance Life as the Sig.(p=.004) is lesser than 0.05, therefore the null hypothesis is rejected. When the same is observed between Birla Sun Life and Max Life and Reliance Life , it is found that there is a significant difference in the share of broker in their total business. Hence the null hypothesis is accepted. There is a significant difference in the share of broker in the total business of Max Life and Reliance life, as the Sig

(p= 0.011) is lesser than 0.05, the null hypothesis is rejected.

It is evident from the above table that there is a statistically significant difference in the share of direct selling in the total business of Bajaj Allianz and Birla Sun Life as the Sig.(p=.921) is greater than 0.05, therefore the null hypothesis is accepted. The same is observed in case of Bajaj Allianz and Max Life, the sig.(p= .986) is greater than 0.05 and the null hypothesis is accepted in this case. There is a significant difference in the share of direct selling in the total business of Bajaj Allianz and Reliance Life as the Sig.(p=.028) is lesser than 0.05, therefore the null hypothesis is rejected.

There is no significant difference in the share of direct selling in the total business of Birla Sun Life and Max Life and Reliance Life , as the Sig.(p= .992) is greater than 0.05, therefore the null hypothesis is accepted. It is found that there is a significant difference in the share of direct selling in the total business of Birla Sun Life and Reliance, as the $p=0.055$ is lesser than 0.05. Hence the null hypothesis is rejected. There is a significant difference in the share of direct selling in the total business of Max Life and Reliance life, as the Sig (p= 0.011) is lesser than 0.05, the null hypothesis is rejected.

9. SUMMARY AND CONCLUSION:

From the analysis it is found that there is no statistically significant difference in the share of individual and corporate agents in the total business of Bajaj Allianz, Birla Sun Life, Max Life and Reliance Life. In case of the rest of the distribution channels, it is found that there is a significant difference in the share of

Bancassurance, broker and direct selling in the total business of Bajaj Allianz, Birla Sun Life, Max Life and Reliance Life insurance company. It is concluded that though the insurance companies have been working hard to grab the life insurance market with variety of products, marketing strategies and different distribution channels, still the life insurance market is untapped and there is lot scope for the companies to penetrate the Indian life insurance sector.

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LEVEL OF CONSUMER AWARENESS TOWARDS LIFE INSURANCE IN KATHMANDU VALLEY

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ABSTRACT

This study examines the factors affecting the level of consumer awareness towards life insurance in Kathmandu valley. The awareness of life insurance is the dependent variable. Education, growth of life insurance sectors, government initiatives, accessibility and product of life insurance are the independent variables. The study is based on 109 respondents from Kathmandu valley. To achieve the purpose of the study, structured questionnaire is prepared. The regression models are estimated to test the significance and importance of selected factors and level of consumer awareness towards life insurance in Kathmandu valley.

The result shows that education and growth of life insurance sectors are positively related with awareness of life insurance. This indicates that higher the education and growth of life insurance sectors, higher would be the awareness of life insurance. Similarly, government initiatives and accessibility are positively correlated to awareness of life insurance. It indicates that higher the government initiatives and accessibility, higher would be the awareness of life insurance.

The regression result shows that the beta coefficients for product of life insurance and growth of life insurance are positive and significant with the awareness of life insurance. The result also shows that the beta coefficients for education, accessibility and government initiatives are positive and significant with the awareness of life insurance in Kathmandu valley.

Keywords: Awareness of life insurance, education, growth of life insurance sectors, government initiatives, accessibility and product of life insurance.

1. Introduction

Insurance is a contract in which an individual or entity receives financial protection or reimbursement against losses, damage, illness or death in return for the payment of a specified premium from an insurance company. It is an instrument for contractual saving, based on an anticipated future (i.e. policy claim) from a sum of discounted present values (Omar, 2007).

An entity which provides insurance is known as an insurer, insurance company, or insurance carrier. A person or an entity who buys insurance is known as an insured or policy holder. It is a kind of investment from which one gets return only when certain loss occurred from predetermined

incidents. Life insurance encourages saving in the society because insured is paid back a lump sum amount with some bonus if he/she alive at the end of the period. From the economic point of view, insurance is a business through which the scattered savings are collected in the form of premium and become an important source of funds for capital investment (Singh, 2010).

According to Dar (2011), the awareness about insurance is low but the role of media in creating awareness is high. Thus, the study focuses on the aspect that insurance companies should target general people, by awareness campaigns like radio and television advertisements. The study finally claimed that as long as people do not perceive life

insurance as a major factor to influence their life, growth in insurance does not take place, for which, appropriate insurance policy needs to be developed that is accessible, available, affordable and acceptable to all sections of the society. Increase the awareness of the life insurance to every sections of the society. The postal life insurance was also encouraged to bring more people of weaker sections under insurance coverage at the cost of very nominal premium (Tagra and Dhiman, 2017).

Khudar and Bhubaneswar(2012) analyzed the customers expectation about insurance product in Indian life insurance and found that life insurance sector has a lot of potential both in terms of sales, revenue and employment generation and difficult to estimate the required customer expectation. Customers realize two basic types of expectation such as desired and adequate services. Their personal as well as technical knowledge catalyzes the acceptance of life insurance.

Rao (2004) argues that the distribution channel means a set of interdependent organizations involved in the process of making a product or service available for use or consumption by the consumer by creating place utility and the value of having the products where the customer wants them, when they want them. The study shows that in distribution in life insurance requires the intermediaries.

According to Anderson and Nevin (1975), there is a negative association between education and the amount of life insurance purchased. The study explained that higher educated people may believe that inflation often decreases the cash value of life insurance from a savings standpoint and hence declines their need for life insurance.

Gandolfi and Miners (1996) revealed that there is a positive relationship between education and life insurance demand. The study recognized that those who have a better education will purchase more life insurance. The study found the positive relationship because due to a greater loss of human capital when the households head dies. Households with a head will bring more financial loss to the family as compared with those with lower

education. Hence, the purchase of life insurance for those with greater education increases as the value of the lost human capital increases.

In today's modern and accident prone age, insurance has become an unavoidable part of the life. It has become a necessity of life along with food, clothing and shelter. It not only provides financial protection to the policyholders but also act as better investment. Life insurance is one of the secured and assured sources of provision for old age when earnings of a person are either stopped or reduced (Banne and Bhola, 2014).

A study on the awareness of insurance analyzed that various factors such as sound economic fundamentals, a rising middle class, an improving regulatory framework, and rising risk awareness are giving birth to the rapid growth in the Indian life insurance market. They have observed that nowadays customers are getting educated by media and are always in search of the best product quality and brand name. The researchers further indicated that awareness has improved consumer awareness aspects relating to life insurance product as increase in the product of life insurance (Sastry, 2010).

Tagra and Dhiman (2017) examined that the government initiatives are promoting the insurance in the rural area. *Insurance sector in India was liberalized and insurance regulatory development authority was established to increase the insurance penetration and density. The aim of government to increase the insurance coverage cannot be achieved until insurance benefit reaches in rural and social areas. The government of India has also launched certain scheme to provide insurance and social security. The studies the schemes of government and initiatives of IRDA in promoting life insurance in rural and social sectors.*

In the context of Nepal, Gurung (2012) has attempted to link the insurance as an essential security element attached with human life stating that human life is precious with the fact that nobody in the world wants to die but the reality is that everyone has to die someday. This scholar has advised that life insurance does not only serve as a financial security seal to make sure that the

family becomes capable of paying debt in the income holder's absence, but also if somebody wants to invest for future purpose, it can be a good option to get the appropriate value of money.

According to Paudel and Silwal (2014), the education is an important factor which effect the buy decision of the consumer. The result of insurance awareness hypothesis shows that education is an important factor which affects the buying decision of consumers in life insurance. The survey result produces the result that in spite of the immense benefits and security provided by the life insurance, public awareness regarding it is low. The study also provides light in the aspect that insurance awareness is positively affected by educational level of attainment whereas it is statistically independent to gender, income and professional line of involvement.

Thapa and Neupane (2000) examined that the insurance business started to flourish in Nepal because many industries were established and the people really became aware of the life insurance business. As a result, many people were involved in it which ultimately contributed to the national development.

Ghimire (2014) revealed that there is dynamic relationship between the insurance and economy growth. The study also found that insurance had played significant role on economic growth of the country.

The above discussion reveals that there is no consistency in the findings of various studies concerning the studies on level of consumer awareness towards life insurance.

The major objective of the study is to analyze the factors affecting level of consumer awareness towards life insurance in Kathmandu valley. More specifically, it examines the impact of education, growth of life insurance, government initiatives, accessibility and product of life insurance on level of consumer awareness towards life insurance in Kathmandu valley.

The remainder of this study is organized as follows: Section two describes the sample, data and methodology. Section three presents the empirical results and the final section draws

conclusion and discuss the implications of the study findings.

2. Methodological aspects

This study is based on primary data which were gathered from the 109 respondents, which mainly deals with the factors affecting level of consumer awareness towards life insurance in Kathmandu valley.

The Model

As a first approximation, this study assumes that awareness of life insurance depends on several dimensions (education, growth of life insurance sectors, government initiatives, product of life insurance and accessibility). Therefore, the regression model used in this study takes the following form:

Awareness of life insurance = $f(E, GL, GI, PL \text{ and } A)$

More specifically,

$$AL = \hat{\alpha}_0 + \hat{\alpha}_1 E + \hat{\alpha}_2 GL + \hat{\alpha}_3 GI + \hat{\alpha}_4 PL + \hat{\alpha}_5 A$$

Whereas,

AL = Level of awareness of life insurance

E = Education

GL = Growth of life insurance sector

GI = Government initiatives

PL = Product of life insurance

A = Accessibility

Education

Education is the process of facilitating learning, or the acquisition of knowledge, skills, values, beliefs, and habits. Yusuf et al. (2009) revealed that educational level of the household is positively related to awareness of life insurance. Similarly, Gandolfi and Miners (1996) and Baekand Devaney (2005) revealed that there is a positive relationship between education and life insurance demand. Based on it, this study develops following hypothesis:

H1: There is positive relationship between education and awareness of life insurance.

Growth of life insurance sector

Life insurance is the contract between an insurance policy holder and an insurer or assurer, where the

insurer promises to pay a designated beneficiary a sum of money in exchange for a premium, upon the death of an insured person. Thapa and Neupane (2000) revealed that growth of life insurance sector has positive impact on the awareness of life insurance. Likewise, Patil (2012) and Gizaw and Pagidimarri (2014) found that growth of life insurance sector is positively associated with the awareness of life insurance. Based on it, this study develops following hypothesis:

H2: There is positive relationship between growth of life insurance sector and awareness of life insurance..

Government initiatives

Government initiatives is defined as the exercise of political authority over the actions and affairs of a political units. According to Tagra and Dhiman (2017), there is a positive relationship between government initiatives and awareness of life insurance. Similarly, Allain et al. (2012) revealed that better government initiatives helps to increase the awareness of life insurance. Based on it, this study develops following hypothesis:

H3: There is positive relationship between government initiatives and awareness of life insurance.

Product of life insurance

Life insurance is the contract between an insurance policy holder and an insurer or assurer, where the insurer promises to pay a designated beneficiary a sum of money in exchange for a premium, upon the death of an insured person. Robson and Sekhon (2011) found that there is positive relationship between product of life insurance and awareness of life insurance. Likewise, Sastry (2010) and

Maes and Sels (2014) revealed that product of life insurance has positive impact on the awareness of life insurance. Based on it, this study develops following hypothesis:

H4: There is positive relationship between product of life insurance and awareness of life insurance.

Accessibility

Accessibility is defined as the extent to which a consumer or user can obtain a good or service at the time it is needed. Dar (2011) revealed that as awareness of life insurance is directly influenced by the accessibility. Similarly, Esch et al. (2009) found that accessibility has positive impact on the consumer awareness. Based on it, this study develops following hypothesis:

H5: There is positive relationship between accessibility and awareness of life insurance among consumers.

3. Results and discussion

Correlation analysis

On analysis of data, correlation analysis has been undertaken first and for the purpose, Pearson's correlation coefficients have been computed and the results are presented in Table 3.1.

Table 3.1: Pearson's correlation matrix for the level of consumer awareness towards life insurance in Kathmandu valley

This table shows the correlation between dependent variable is awareness of life insurance (AL) and independent variables are education (E), growth of life insurance (GL), government initiatives (GI), product of life insurance (PL), and accessibility (A).

Variables	Mean	Std. Deviation	E	GL	GI	A	PL	AI
E	2.42	0.73	1					
GLi	2.33	0.73	.631**	1				
GI	2.88	0.75	.537**	.617**	1			
A	2.63	0.72	.634**	.574**	.622**	1		
PLi	2.5	0.73	.669**	.639**	.515**	.624**	1	
ALi	2.02	0.78	.621**	.545**	.348**	.539**	.687**	1

*** indicates that correlation is significant at the 0.01 level (2-tailed).*

The table shows that average value of awareness of life insurance is 2.0275. Similarly, average values of respondent response on level of education, growth of life insurance sector, government initiative, accessibility and product of life insurance are observed to be 2.429, 2.335, 2.885, 2.640 and 2.507 respectively.

The result shows that education is positively related to awareness of life insurance. This means that increase in the education leads to increase in the awareness of the life insurance. Likewise, the result shows that growth of life insurance sector is positively correlated to awareness of life insurance. This means that increase in the growth of life insurance sector leads to increase in the awareness of life insurance.

Similarly, government initiative is positively correlated to awareness of life insurance. This indicates that increase in the government initiative leads to increase in the awareness of life insurance. Likewise, the result shows accessibility is positively correlated to awareness of life insurance. This means that increase in the accessibility leads to increase in the awareness of life insurance. Moreover, the result shows that product of life insurance is positively correlated to awareness of life insurance. This indicates that increase the product of life insurance leads to increase the awareness of the life insurance.

Regression analysis

Having indicated the Pearson correlation coefficients, regression analysis has been conducted and the results are presented in Table 3.2.

Model	Constant	Regression coefficient of					Adj. R ²	SEE	F
		E	GL	GI	A	PL			
1	0.419 (2.05)*	0.66 (8.20)**					0.38	0.614	67.24
2	0.67 (3.18)**		0.58 (6.73)**				0.29	0.657	45.24
3	0.99 (3.55)**			0.36 (3.85)**			0.11	0.735	14.78
4	0.5 (2.09)*				0.58 (6.63)**		0.28	0.66	43.89
5	0.19 (0.99)					0.73 (9.79)**	0.47	0.57	95.81

The table shows that the beta coefficient for education is positive and significant. It indicates that better the education, higher would be the awareness of life insurance. This finding is consistent with the findings of Gandolfi and Miners (1996). Likewise, the beta coefficient is positive for growth of life insurance sector. It reveals that increase in life insurance sector leads to an increase in awareness of life insurance. This finding is consistent to the findings of Thapa and Neupane (2000).

Moreover, the beta coefficient is also positive for government initiative. This indicates that higher the government initiative, higher would be awareness of life insurance. This finding is consistent to the findings of Tagra and Dhiman (2017). Likewise, the results shows that beta coefficient of accessibility is also positive. It shows that increase in accessibility of life insurance leads to an increase in the awareness of life insurance. This finding is similar to the findings of Dar (2011).

Table 3.2 Regression results of E, GI, GI, and PL on level of consumer awareness towards life insurance in Kathmandu valley

The result are based on 100 observations by using linear regression model. The model is $AL = \hat{\alpha}_0 + \hat{\alpha}_1 E + \hat{\alpha}_2 GL + \hat{\alpha}_3 GI + \hat{\alpha}_4 PL + \hat{\alpha}_5 A$, whereas, dependent variable is AI (awareness of life insurance) and independent variables are E (Education), GL (growth of life insurance), GI (government initiatives), PL (product of life insurance) and A (Accessibility).

6	0.04 (0.21)	0.31 (3.22)**				0.52 (5.43)**	0.51	0.546	57.29
7	0.08 (0.35)	0.35 (3.41)**		0.10 (1.12)		0.55 (5.54)**	0.51	0.545	38.70
8	0.1 (0.08)	0.3 (2.88)**		0.15 (1.62)	0.16 (1.52)	0.51 (4.94)**	0.52	0.542	29.97
9	0.01 (0.06)	0.27 (2.47)*	0.151 (1.425)	0.19 (2.01)*	0.16 (1.45)	0.47 (4.36)**	0.52	0.539	24.62

Note:

- a) Figures in diversion are t-values.
- b) ** denotes that the results are significant at 1% level of significance.
- c) * denotes that the results are significant at 5% level of significance.

Similarly, the results shows that beta coefficient of product of life insurance is also positive. It shows that increase in product of life insurance leads to an increse in the awareness of life insurance. This findings is similar to the findings of Sastry (2010).

4. Summary and conclusion

Life insurance is a cooperative device which spreads risk of a person over a large number of people against different types of contingencies such as death of a person due to accident or sickness etc. There is still a lack of awareness about the importance of insurance and many are focusing on advertisement campaigns. The awareness about the insurance service or product is necessary in the today's market.

This study attempts at determining the factors affecting level of consumer awareness towards life insurance in Kathmandu valley. This study is primarily based on primary sources of data collected from the 109 respondents. This study hypothesizes that the awareness of life insurance depends on several factors such as education, growth of life insurance, government initiatives and product of life insurance.

The correlation analysis shows that education, growth of life insurance, government initiatives, accessibility and product of life insurance are positively related to awareness of life insurance. It reveals that higher the product of life insurance and growth of life insurance sectors, higher would be awareness of life insurance. The regression analysis shows that education and product of life

insurance have positive impact on awareness of life insurance. Similarly, government initiatives and accessibility also have positive impact on awareness of life insurance. This indicates that increase in the government initiatives and accessibility leads to increase in the awareness of life insurance.

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IMPACT OF CORPORATE CITIZENSHIP ACTIVITIES (CCA) ON FINANCIAL PERFORMANCE OF NEPALESE INSURANCE COMPANIES

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ABSTRACT

This study examines the impact of CCA practices on financial performance of Nepalese insurance companies. Return on asset (ROA) and earnings per share (EPS) are taken as dependent variables. Economical responsibility, legal responsibility, ethical responsibility and discretionary responsibility are independent variables. The primary and secondary sources of data are used to assess the opinion of respondents with respect to impact of CCA practices on financial performance of Nepalese insurance companies. The survey is based on 80 respondents of employees from different Nepalese insurance companies and annual report of 10 insurance companies. To achieve the purpose of the study, structured questionnaire is prepared. The regression models are estimated to test the significance and importance of selected factors on financial performance of Nepalese insurance companies.

The result shows that economical responsibility, legal responsibility, ethical responsibility and discretionary responsibility are positively related to return on asset (ROA). It indicates that higher the economical responsibility and legal responsibility, higher would be ROA. It also means that increase in ethical responsibility and discretionary responsibility leads to increase in ROA. However, the result shows that economical responsibility, legal responsibility, ethical responsibility and discretionary responsibility are negatively related to earning per share (EPS). It indicates that higher the economical responsibility and legal responsibility, lower would be EPS. It also means that increase in ethical responsibility and discretionary responsibility leads to decrease in EPS.

The regression result shows that economical responsibility, legal responsibility, ethical responsibility and discretionary responsibility have positive impact on ROA. However, economical responsibility, legal responsibility, ethical responsibility and discretionary responsibility have negative impact on EPS.

Keywords: *Economical responsibility, legal responsibility, ethical responsibility, discretionary responsibility, return on asset and earnings per share.*

Introduction

In the last few years, corporate social responsibility (CSR) as a concept has captured the attention of the majority of management scholars, with studies of corporate citizenship, ethics and social responsibility appearing with greater frequency. CSR as a term is often used interchangeably in these studies with such concepts as corporate responsibility, corporate citizenship, social enterprise, sustainability, sustainable development,

triple-bottom line, and corporate ethics and, in some cases, corporate governance (Bassen et al., 2006).

According to McWilliams (2001), actions of firms that contribute to social welfare, beyond what is required for profit maximization are classified as corporate social responsibility. The possibility that firms can develop a competitive edge over rivals by investing in social responsibility has been made increasingly likely over recent years by changes

in investors' behavior and attitudes towards the society.

Corporate social responsibility is a business approach that contributes to sustainable development by delivering economic, social and environmental benefits for all stakeholders. Corporate responsibility includes being consistent with ethical principles and conducts such as honesty, integrity and respect for others. By voluntarily accepting responsibility for its actions, corporations earn their license to operate in society (Meijer and Schuyt, 2005).

Caramela (2005) argued that there is no completion to invest in social activities but if an organization invests in the social welfare activities it will help to build strong social relationship with society. Financial performance of an organization is measured by the return on assets and market performances are measured in terms of market value per shares. Financial performance reveals through the profit in corporate citizenship activity an organization view themselves as a part of public. Corporate social responsibility refers to business practices involving initiatives that benefit society. A business's CSR can encompass a wide variety of tactics, from giving away a portion of a company's proceeds to charity, to implementing "greener" business operations.

Jones (1995) examined the impact of corporate citizenship activities in financial performance and market performance of an organization. Most of the studies have yield combine result. Some studies has found the positive relationship and some are negative relationship. Nowadays, the corporate citizenship has been growing because it helps to bust up the return in terms of profit. For the successful corporate citizenship activities, it should be able to create some value to meaningfulness of the corporate activities.

According to Friedman (1970), corporate social responsibility reporting is a part of accountability in the context of corporate governance, since the disclosure of the environmental issues might give potential impact on the welfare of the shareholders. There is one and only one social responsibility of

business – to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game, which is to say, engages in open and free competition without deception or fraud.

A study on the corporate social responsibility may consider how CSR initiatives impact financial performance across different industries, whether CSR programs add value to intangible assets such as brand, and how transparency of CSR reporting impacts stakeholder decisions and, ultimately, financial performance (Galaskiewicz and Colman, 2006).

Friedman et al. (1970) examined that further rationalize that CSR activities lower economic efficiency and profit; impose unequal cost amongst competitors; impose hidden costs passed on to stakeholders; and place responsibility on business rather than individuals.

Carroll (1991) advised to focus on 'making profit' – the overriding goal and responsibility of businesses. However, in fast-developing CSR literature, many scholars and global institutions have rejected the notion that firms should focus all their efforts and resources on maximization of profit. Accordingly, firms have other equally-important social responsibilities aside from profit maximization. These additional activities are contained in a number of CSR models propounded by researchers that seek to capture the various responsibilities of firms.

According to Galbreath (2009), structures framework within the strategic scope of a firm, including a firm's long-term objectives, internal and external impact on a firm's mission, a firm's markets, products and/or services needed, available internal resources and a firm's performance within competitive markets .

Makni et al. (2009) examined the relationship between corporate social and financial performance in Canadian firms. The study found no relationship between their corporate social responsibility and financial performance, though they did identify a negative relationship between environmental factors and financial performance.

Blazovich and Smith (2009) analyzed the relationship of ethical corporate citizenship to financial performance (greater profitability and efficiency, and lower cost of capital) and market-value premiums. The study found a significant relationship between ethical corporate behavior and financial performance, but no relationship between being recognized as ethical at least once and the market value of equity. The study concluded that ethical corporate citizenship does indeed benefit a firm.

Kotler et al. (2005) described that companies can gain great benefits from participating in CSR and that these benefits are the reasons for their engagement in CSR. Porter et al. (2007) argued that the reasons for participating in CSR by moral obligation, sustainability, license to operate and reputation. The study revealed that CCA impact not only in the financial performance including companies' profits with employee participation, social obligation etc. in the ongoing times characterized by an even more globalized world, the reduction of distances as a result of modern technologies makes people and system(economic, social, cultural etc.) strongly interrelated and juxtaposed.

According to Sarbutts (2003), if CSR affect a company's reputation, it is also very likely that this will affect the company's financial performance. Balabanis et al. (1998) argued that companies engage in CSR due to enlightened self-interest since CSR is believed to enhance corporate image and thereby improve financial performance. However, he also points out that all researchers do not share this point of view. This is mainly due to the fact that there are diverse results from previous research on how investing in CSR affect a company's performance. Several authors argue that companies can gain enormous benefits by being socially responsible (Idowu and Papasolomou, 2007).

Soliman (2012) examined that the large number of different views of why companies engage in CSR and what benefits a company actually gets from participating in CSR. Companies participate

in CSR in order to look better, feel better, do better and live longer. The study explains that by participating in CSR the company will look good in the view of potential customers, business colleagues, investors and in the media etcetera. Furthermore, employees, claim that companies with a strong reputation for CSR will last longer.

In the context of Nepal, Rajbahak (2016) revealed that all the corporate social responsibility variables have strong impact on financial performance. The study found that there is positive impact of economic responsibility, legal responsibility, ethical responsibility, discretionary responsibility and environmental responsibility on Tobin's Q. The study also found positive relation of ethical responsibility, discretionary responsibility and environmental responsibility with firm size, whereas economic responsibility and legal responsibility has negative and insignificant effect on firm size.

Dhungel and Dhungel (2013) revealed that corporate social responsibility is not mandatory in Nepal. The study also showed that education, training and welfare of underprivileged, contributions to associations, clubs and other organizations, contributions for healthcare and environment, etc. were the most commonly reported corporate social responsibility activities.

The above discussion reveals that there is no consistency in the findings of various studies concerning the studies on impact of CCA on financial performance of Nepalese insurance companies.

The main objective of the study is to find out the impact of CCA practices on financial performance of Nepalese insurance companies. Specifically, this study examines the impact of economical responsibility, legal responsibility, ethical responsibility and discretionary responsibility on return on asset and earnings per share.

The remainder of this study is organized as follows: Section two describes the sample, data and methodology. Section three presents the empirical results and final section draws the

conclusion and discuss the implication of the study findings.

2. Methodological aspects

This study is based on primary and secondary data which were gathered from the 80 respondents and annual report of 10 Nepalese insurance companies,

which mainly deals with the impact of CCA practices on financial performance of Nepalese insurance companies.

Table 1 shows the number of commercial banks selected for the study along with the study period and number of observations.

Table 1: List of insurance companies along with the number of observations

Name of banks	No of respondents
1.Surya life insurance com	8
2. Metlife	9
3. Nepal life insurance co.	11
4. Nepal insurance company	10
6. LIC Life Insurance Corporation Nepal Ltd.	7
7. Everest insurance com. Ltd.	10
8. Shikhar insurance com. Ltd.	8
9. Prime life insurance	9
10. Siddharth insurance limited	8
Total number of observations	80

Thus, this study is based on 80 observations.

The Model

As a first approximation, this study assumes that ROA and EPS depend on several dimensionsof CCA practices (economical responsibility, legal responsibility, ethical responsibility and discretionary responsibility). Therefore, the regression model used in this study takes the following form:

$$ROA = \alpha + \beta_1 E + \beta_2 L + \beta_3 ER + \beta_4 D + e..(i)$$

$$EPS = \alpha + \beta_1 E + \beta_2 L + \beta_3 ER + \beta_4 D + e...(ii)$$

Whereas,

ROA= Return on asset

EPS= Earnings per share

E = Economic responsibility

L= Legal responsibility

ER= Ethical responsibility

DR= Discretionary responsibility

α = Regressionconstant

Economical responsibility (E)

According to Carroll(1979),economic responsibility means striving to ensure that we are profitable in order to create long-term value for our stakeholders and contribute to a global and sustainable economy. Gregory et al. (2014)revealed that economical CSR has positive relationship with return on assets. However, Friedman (1970)argued that CSR has negative relationship with earning per share. Based on it, this study develops following hypothesis:

H1: There is positive relationship of economical responsibility with ROA.

H2:There is negative relationship of economical responsibility with EPS.

Legal responsibility (LR)

Legal responsibility refers to the legally liable of the business towards the society, nation and individual. Nareeman et al. (2013) revealed that legal CSR has positive relationship with return on assets. However, Soliman (2012) argued that legal CSR has negative relationship with earning per

share. Based on it, this study develops following hypothesis:

H3: There is positive relationship of legal responsibility with ROA.

H4: There is negative relationship of legal responsibility with EPS.

Ethical responsibility (ER)

Ethical responsibilities could include being environmentally friendly, paying fair wages or refusing to do business with oppressive countries. Simpson and Kohers (2002) revealed that ethical CSR has positive relationship with return on assets. However, Friedman (1970) argued that CSR has negative relationship with earning per share. Based on it, this study develops following hypothesis:

H5: There is positive relationship of ethical responsibility with ROA.

H6: There is negative relationship of ethical responsibility with EPS.

Discretionary responsibility (D)

Discretionary responsibilities are responsibilities that go above and beyond what is simply required or what the company believes is right. Cannon (1992) revealed that discretionary CSR has

positive relationship with return on assets. However, Soliman (2012) argued that CSR has negative relationship with earning per share. Based on it, this study develops following hypothesis:

H5: There is positive relationship of discretionary responsibility with ROA.

H6: There is negative relationship of discretionary responsibility with EPS.

3. Results and discussion

Correlation analysis

The Pearson's correlation coefficients have been computed to analyze the strength of linear relationship between CCA and financial performance and the results are presented in Table 3.1.

Table 3.1: Pearson's correlation matrix for the E, LR, ER and D with EPS

This table reveals the Pearson's correlation coefficients between dependent and independent variables. Earnings per share (EPS) and return on asset (ROA) are the dependent variables and independent variables are economical responsibility (E), legal responsibility (LR), ethical responsibility (ER) and discretionary responsibility (D).

Variables	Mean	SD	ROA	EPS	E	LR	ER	D
ROA	2.14	0.651	1					
EPS	29.693	20.422	0.194	1				
E	1.85	0.3852	0.043	-0.182	1			
LR	1.7205	0.4412	-0.149	-.224*	.280*	1		
ER	1.9425	0.4547	0.044	-0.034	.430**	.425**	1	
D	2.1875	0.6089	0.021	-0.216	.277*	.282*	.425**	1

*** indicates that correlation is significant at the 0.01 level (2-tailed).*

The table shows that the average value of ROA and EPS are 2.14 and 29.69. Similarly, the average value of economical responsibility, legal responsibility, ethical responsibility and discretionary responsibility are 1.85, 1.72, 1.94 and 2.18 respectively.

The result shows that economical responsibility is positively related to ROA. This means that increased in the economical responsibility leads

to increase in the ROA of Nepalese insurance. Similarly, legal responsibility is positively correlated to ROA. This indicates that increase in legal responsibility leads to increase in the ROA. Likewise, the result shows that ethical responsibility is positively related to ROA. This indicates that betterment in the ethical responsibility leads to increase in the ROA. Likewise, the result shows that discretionary

responsibility is positively correlated to ROA. This means that betterment in the discretionary responsibility leads to increase in the ROA.

Likewise, the result shows that economical responsibility is negatively related to EPS. This means that increased in the economical responsibility leads to decrease in the EPS. Similarly, legal responsibility is negatively correlated to EPS. This indicates that increase in legal responsibility leads to decrease in the EPS. Likewise, the result shows that ethical responsibility is negatively related to EPS. This indicates that betterment in the ethical responsibility leads to decrease in the EPS. Likewise, the result shows that discretionary responsibility is negatively correlated to EPS. This means that betterment in the discretionary responsibility leads to decrease in the EPS.

3.2 Regression analysis

Having indicated the Pearson correlation coefficients, regression equations have been computed and the results are presented in Table 3.1. More specifically, it shows the regression of impacts of CCA on earning per share.

Table 3.2: Regression of impact of E, LR, ER and D on EPS

The result are based on 80 observations by using linear regression model. The model is $EPS = \alpha + \beta_1E + \beta_2L + \beta_3ER + \beta_4D + e$, where, dependent variable is return on assets (ROA). Independent variables are economical responsibility (E), legal responsibility (LR), ethical responsibility (ER) and discretionary responsibility (D).

Model	Intercept	E	LR	ER	DR	Adj. R ²	SEE	F-value
1	47.55 (4.26)*	-9.66 (-1.64)				0.021	20.208	2.675
2	47.89 (5.18)*		-10.45 (-2.01)**			0.038	20.177	4.02
3	32.68 (3.23)*			-1.54 (-0.303)		-.012	20.540	.092
4	45.55 (5.41)*				-7.25 (-1.96)	0.035	20.066	3.82
5	47.89 (5.18)*		-10.45 (-2.01)**			.038	20.177	4.02
6	56.59 (5.19)*		-8.20 (-1.52)		-5.73 (-1.48)	.053	20.020	3.14
7	50.84 (4.30)*		-10.68 (-1.86)	7.15 (1.23)	-7.50 (-1.82)	.059	19.953	2.61
8	59.24 (4.42)*	-8.63 (-1.32)	-9.91 (-1.73)	9.68 (1.58)	-6.91 (-1.68)	.068	19.855	2.41

The table shows that beta coefficient is negative for the EPS. It indicates that higher the economical responsibility, lower would be the earning per shares. Similarly, the beta coefficient is negative and significant for legal responsibility. This means that higher the legal obligation, lower would be the earning per shares. This finding is consistent with the findings of Jones (1995).

Likewise, the regression shows that beta coefficient is negative for ethical responsibility and

discretionary responsibility. It shows that increase in ethical activities and social welfare programs leads to decrease in earnings per share. This finding is similar to the findings of Soliman et al. (2012).

Table 3.3 presents the regression result of economic responsibility, legal responsibility, ethical responsibility and discretionary responsibility on return on assets.

Table 3.3: Regression of impact of E, LR, ER and D on ROA

The result are based on 80 observations by using linear regression model. The model is $ROA = \alpha + \beta_1 E + \beta_2 L + \beta_3 ER + \beta_4 D + e$. Whereas,

dependent variable is return on assets (ROA). Independent variables are economical responsibility (E), legal responsibility (LR), ethical responsibility (ER) and discretionary responsibility (D).

Model	Intercept	E	LR	ER	D	Adj. R ²	SEE	F-value
1	4.75 (1.13)	1.89 (.85)				0.08	7.614	.725
2	4.12 (1.20)		2.35 (1.21)			0.06	7.514	1.47
3	3.89 (1.04)			2.24 (1.20)		0.04	7.580	1.43
4	-3.10 (-1.06)				5.20 (4.04)*	0.16	6.957	16.29
6	-2.09 (-.50)	-0.97 (-.46)			5.49 (4.13)*	0.17	6.869	8.84
7	-1.74 (-.39)	-0.75 (-.332)	-10.68 (-1.86)	-.54 (-.27)	5.49 (4.14)*	0.16	6.912	5.84
8	-2.24 (-.48)	-0.84 (-0.36)	0.71 (0.35)	-0.77 (-.036)	5.57 (3.85)*	0.15	6.953	4.36

The table shows that beta coefficient is positive for the economical responsibility. It indicates that higher the economical responsibility, higher would be the ROA. Similarly, the beta coefficient is positive and significant for legal responsibility. This means that higher the legal obligation, higher would be the ROA. This finding is consistent with the findings of Simpson and Kohers (2002).

Likewise, the regression shows those beta coefficients are positive for ethical responsibility and discretionary responsibility. It shows that increase in ethical activities and social welfare programs leads to increase in ROA. This finding is similar to the findings of Makni et al. (2009).

4. Summary and conclusion

Corporate citizenship involves the social responsibility of businesses and the extent to which they meet legal, ethical and economic responsibilities, as established by shareholders. The goal is to produce higher standards of living and quality of life for the communities that surround them and still maintain profitability for stakeholders. The demand for socially responsible corporations continues to grow,

encouraging investors, consumers and employees to use their individual power to negatively affect companies that do not share their values.

This study attempts at determining the CSR dimensions effecting financial performance of Nepalese insurance companies. This study is primarily based on primary and secondary sources of data collected from the 80 respondents and annual report of 10 insurance companies. This study hypothesizes that the financial performance depends on several CCA dimensions such as economic CSR, legal CSR, ethical CSR and discretionary CSR.

The correlation analysis shows that economic CSR, legal CSR, ethical CSR and discretionary CSR are positively related to ROA. It reveals that higher the economic and legal CSR practices, higher would be the ROA. However, economic CSR, legal CSR, ethical CSR and discretionary CSR are negatively related to EPS. It reveals that higher the economic and legal CSR practices, lower would be the EPS. This also indicates that higher the ethical and discretionary CSR practices, lower would be the EPS.

The regression analysis shows that economic and legal CSR have positive impact on ROA. Similarly, ethical and discretionary CSR also have positive impact on ROA. This indicates that increase in the economic and legal CSR leads to increase in the ROA. It also reveals that increase in the ethical and discretionary CSR practices implies to increase in the ROA. However, ethical and discretionary CSR also have negative impact on EPS. This indicates that increase in the economic and legal CSR leads to decrease in the EPS. It also reveals that increase in the ethical and discretionary CSR practices leads to decrease in the EPS.

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DEGREE COLLEGE TEACHERS' PERCEPTION TOWARDS HEALTH INSURANCE: A STUDY OF KARIMNAGAR TOWN

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ABSTRACT

Health is wealth. The Father of the Nation Mahathma Gandhi says "It is health that is real wealth and not pieces of gold and silver". Good health is one of the basic human needs and worldwide recognized goal for faster socio-economic development. In simple terms health insurance can be defined as a contract where an individual or group purchases in advance the health coverage by paying a fee called premium. According to National Sample Survey (NSS) data released recently, about 82 per cent of India's population is not covered under any health insurance schemes. The present study is an effort in the area of health insurance to assess the awareness and perception of Degree College Teachers in Karimnagar. It is an effort to explore the factors that motivated them towards health insurance. Further, it is also aimed at examining the barriers for taking health insurance. The study found that only 26 per cent of the respondents had health insurance and most of them were of Govt. Degree College Teachers. It is to conclude that still more awareness is to be created about health insurance among the public in general and Degree College Teachers in particular. It can be suggested that the health insurance companies should ensure easy and hassle free access to linked hospitals, provide wide policy options and avoid more hidden costs so as to encourage and motivate more customers towards health insurance.

Keywords: Health Insurance, Degree College Teachers, Awareness and Perception, Out-of-Pocket Expenses and Barriers.

Introduction

Health is wealth. The Father of the Nation Mahathma Gandhi says "It is health that is real wealth and not pieces of gold and silver". Good health is one of the basic human needs and worldwide recognized goal for faster socio-economic development. Health is an important aspect of human life at present it has also become an important aspect of any nation's public services and planning. Good health confers on a person or group's freedom from illness and the ability to realize one's potential. Health is therefore best understood as the indispensable basis for defining a person's sense of well being. Healthcare in India is in a state of enormous transition: increased income and health consciousness among the

majority of the classes, price liberalization, reduction in bureaucracy and the introduction of private healthcare financing drive the change.

Health Insurance

The concept of health insurance was proposed in the year 1694 by Hugh the elder Chamberlen from Peter Chamberlen family. In simple terms health insurance can be defined as a contract where an individual or group purchases in advance health coverage by paying a fee called premium. Health insurance is an insurance against the health related risks which covers various medical expenses. In the light of escalating health care costs, coupled with demand for health care services, lack of easy access of people from low income group to quality

health care, health insurance is emerging as an alternative mechanism for financing healthcare.

According to National Sample Survey (NSS) data released recently, about 82 per cent of India's population is not covered under any health insurance schemes. Around 86 per cent of the rural population and about 82 per cent of the urban population was not covered under any scheme of health expenditure support. Further, in India, as many reports stated, about 80 per cent of medical expenses in rural area and 75 per cent of the medical expenses in urban are to be paid from out-of-pocket payments.

In the Union Budget 2017-18, the overall health budget increased from Rs. 39,879 crore (1.97% of Total Union Budget of 2016-17) to Rs. 48, 878 crore (2.27% of Total Union Budget).

As of March 31, 2016, there are 54 insurers operating in India of which 24 are life insurance companies, 24 are general insurance companies and 5 are standalone health insurance companies exclusively doing health insurance business. In addition, GIC is the sole national reinsurer. Of the 54 insurance companies presently in operation, 8 are in the public sector and remaining 46 are in the private sector. 2 specialized insurers viz. ECGC and AIC, one life insurer viz. LIC, 4 in general insurers and one in reinsurer viz. GIC are in public sector. On the other hand, 23 life insurance companies, 18 general insurance companies and 5 standalone health insurance companies are in private sector.

Review of Literature

With a view to present the findings and conclusions of various relevant studies, the following studies have been reviewed and presented hereunder.

Suwarna Madhukumar et al (2012) investigated the awareness and perception regarding health insurance. The study observes that the subscription depended on education, socio-economic status and type of family. Further, study found that the main barriers for the subscription of health insurance were low income or uncertainty of income, not reliable, not taken by friends or relatives and not adequate knowledge regarding its benefits.

Nilay Panchal (2013) in her study concludes that the respondents' knowledge and confidence about health insurance was good. Further, it found that the awareness about existence of health insurance was fine but willingness was very low.

Suman Goel (2014) made a research on health insurance to study consumer behaviour and stated that health insurance is rapid rising as an important mechanism to funding healthcare needs of the people. The study concludes that most of the respondents were of the opinion that government should come out with a clear cut policy, where the public can be made to contribute compulsorily to a health insurance scheme to ensure unnecessary out of pocket expenditures and also better utilization of their healthcare facilities.

Nirav, R. Jhoshi and Suraj, M. Shah (2015) examined the consumers' perception towards health insurance and explored that health insurance companies should give more focus on some demographic criteria like age and gender. It concludes that health insurance companies should give more focus on age between 18-30 years and female and concentrate on various important factors like risk coverage, protection against high unexpected medical cost and tax benefits.

A.Priya and R. Srinivasan (2015) in their study explored that the good health confers on a person or groups' freedom from illness and the ability to realize one's potential. The study concludes that clarity of the disease covered by the policy, when and how a claim has to be submitted with the insurance company procedures and documents to be submitted in case of critical and other hospitalization with the insurance company. Finally, it suggested that an advisor must be available in all hospitals who can clearly explain and suggest suitable policy for the person or the family.

It is very clear from the above review of literature that there are hardly few research studies on employees' perception towards health insurance in the district towns. In this backdrop, the present study is an effort in the area of health insurance to assess the awareness and perception of employees'

who are working in Degree Colleges. It is an effort to explore the factors that motivated them towards health insurance. It is also aimed at examining the barriers taking health insurance.

Objectives of the Study

1. To study the awareness level and perception of Degree College Teachers towards health insurance.
2. To find out the factors that motivated the Degree College Teachers towards health insurance
3. To examine the major barriers for taking health insurance.

Research Methodology

The present study is an analytical as well as descriptive type of research in nature. It is based on both Primary and Secondary data.

Sampling Design: The present study is based on the survey method. The primary data has been collected from a sample of 150 Degree College Teachers working in Govt. as well as Private Colleges located in Karimnagar town by administering a structured and pre-tested questionnaire. Convenience sampling technique has been adopted to select the respondents.

Profile of Karimnagar: Karimnagar, the administrative head quarters of Karimnagar District, is situated 160 km northeast of Hyderabad in Telangana. The locals specialize in Silver Filigree, a delicated form of metal work. As many as 18 UG Colleges are located in Karimnagar district headquarters, of which 3 are working under Govt. Sector and remaining 15 colleges are running under Private management. More than 1200 Degree College Teachers are working in all the Degree colleges both in Govt. as well as in Private Colleges in the town.

Data Collection: The primary data has been collected by survey method by administering a structured and pre-tested questionnaire from 150 Degree College Teachers working in both Govt. and Private Colleges in Karimnagar town. On the other hand, the secondary data for the study has

been collected from the various sources such as IRDA Annual Reports, Various Reports, Articles published in Journals and Magazines, Online Data base and News Papers etc.,

Statistical Tools: The primary data so collected has been processed and analyzed by adopting various statistical tools like percentages, averages, ANOVA, Chi-square and Cronbach's Alpha with the help of SPSS (20).

Period of the Study: The survey was carried out in Karimnagar town during 15th April and 15th May, 2017.

Results and Discussion

General Information of the Respondents: The data regarding the demographic and socio-economic profile of the respondents has been depicted in the Table 1. It is clearly evident from the Table 1 that majority of the respondents i.e., 109 were of Male that accounts for 72.7 per cent and about 27.3 per cent of the respondents were of Female. As far as the age of the respondents is concerned, most of the respondents i.e., 52 per cent were in the age group of 30 to 40 years, followed by 19.3 per cent were under the age group of below 30 years and 18.7 per cent of the respondents were in the age group of 40-50 years.

With regarding to marital status and type of family, overwhelming majority of the respondents i.e., 88.7 per cent and 60 per cent, got married and living in joint families respectively. When it comes to education, overwhelming majority of the respondents were Post Graduates (76.7%), followed by Doctorates (12%), and M. Phil. holders (11.3%). About 55.3 per cent of the respondents were of Private Degree College Teachers, followed by 28.7 per cent were of Govt. Degree College Teachers and around 14.7 per cent were working on contract basis. Regarding annual income, most of the respondents' i.e., 38.7 per cent, income was in the range of Rs. 1-2 lakh, followed by 28.7 per cent of the respondents whose income was more than Rs. 4 lakh as most of them were Govt. Teachers.

Table 1: Demographic and Socio-Economic profile of the Respondents

Sl. No	Variable	Classification	Frequency	%
1	Gender	Male	109	72.7
		Female	41	27.3
		Total	150	100
2	Age	Below 30 Yrs	29	19.3
		30 to 40 Yrs	78	52.0
		40 to 50 Yrs	28	18.7
		Above 50 Yrs	15	10.0
		Total	150	100
3	Marital Status	Single	16	10.7
		Married	133	88.7
		Divorced	1	0.7
		Total	150	100
4	Type of Family	Joint	90	60.0
		Nuclear	60	40.0
		Total	150	100
5	Education	Post Graduation	115	76.7
		M. Phil	17	11.3
		Ph. D	18	12.0
		Others	0	0
		Total	150	100
6	Type of Employee	Govt.	43	28.7
		Contract	22	14.7
		Private	83	55.3
		Part Time (Out Sourcing)	2	1.3
		Total	150	100
7	Income (Per Annum)	Below Rs. 1 Lakh	21	14.0
		Rs. 1 – 2 Lakh	58	38.7
		Rs. 2 – 3 Lakh	24	16.0
		Rs. 3 – 4 Lakh	4	2.7
		Above Rs. 4 Lakh	43	28.7
		Total	150	100

Source: Primary Data

Table 2 shows the data pertaining to health insurance. It is very clear from the Table 2 that about 111 respondents did not have Health

Insurance Policy which accounts for 74 per cent and only 39 respondents have Health Insurance Policy which accounts for 26 per cent.

Table 2: About Health Insurance Policy

Response	Frequency	%
Yes	39	26.0
No	111	74.0
Total	150	100.0

Source: Primary Data

Policy Holders Awareness and Perception towards Health Insurance

The data relating to awareness level and type of health insurance policy that the College Teachers taken has been placed in the Table 3. Interestingly, significant proportion of the respondents i.e., 64.1 per cent, have taken private health insurance and about 35.9 per cent of the respondents have taken public health insurance. As far as the type of health insurance is concerned, most of the respondent

policy holders i.e., 64.1 per cent have chosen Family Floater Policy to cover their entire family, followed by 28.2 per cent the respondents opted Individual Policy and only 7.7 per cent of the respondents obtained Group Policy. Most of the policy holders were of Govt. Degree College Teachers and even though they have Employee Health Scheme (EHS) they have purchased health insurance.

Table 3: Policy Holders Awareness towards Health Insurance

Particulars		Frequency	%
Insurance Company	Public	14	35.9
	Private	25	64.1
	Total	39	100
Type of Policy	Individual	11	28.2
	Group	3	7.7
	Family Floater	25	64.1
	Total	39	100

Source: Primary Data

The information regarding the reasons for going in for health insurance has been demonstrated in the Table 4. It can be analyzed from the Table 4 that most of the respondents (Policy Holders) gave most preference for risk coverage against future illness, old age etc (51.3%), followed by next preference given to avail good quality medical treatment (43.6%), third preference to tax planning measure (51.3%), fourth preference given to

existing illness (61.5%), fifth preference to employer's contribution (66.7%) and least preference given to travelling abroad (79.5%). Hence, it is to infer that the main reasons for going in for health insurance are risk coverage against future illness, old age etc(51.3%), avail good quality medical treatment(43.6%), and tax planning measure (51.3%).

Table 4: Reasons for Going in for Health Insurance

Particulars		Most Pref.	2 nd Chance	3 rd Chance	4 th Chance	5 th Chance	Least Pref.	total
Risk Coverage against future illness, at old age etc	Freq.	20	16	3	0	0	0	39
	%	51.3	41.0	7.7	0	0	0	100
Avail good quality medical treatment	Freq.	17	11	11	0	0	0	39
	%	43.6	28.2	28.2	0	0	0	100
Tax planning measure	Freq.	2	12	20	0	1	4	39
	%	5.1	30.8	51.3	0	0.7	2.7	100
Employer's contribution	Freq.	0	0	0	11	26	2	39
	%	0	0	0	28.2	66.7	5.1	100
Existing illness	Freq.	0	0	5	24	8	2	39
	%	0	0	12.8	61.5	20.5	5.1	100
Travelling Abroad	Freq.	0	0	0	4	4	31	39
	%	0	0	0	10.3	10.3	79.5	100

Source: Primary Data

Table 5: Motivation towards Health Insurance and Chance of Renewal of Present Policy

Particulars		Frequency	%
Motivation towards Health Insurance	Insurance Officer/Agent	12	30.8
	Colleague	8	20.5
	Relatives	1	2.6
	Friends	11	28.2
	Income Tax Advocate	2	5.1
	Yourself	5	12.8
	Total	39	100
Chance of renewing of present Insurance Policy	100%	26	66.7
	50%	7	17.9
	25%	2	5.1
	0%	4	10.3
	Total	39	100

Source: Primary Data

Table 5 exhibits the data regarding motivation towards health insurance and chance of renewal of present policy. Analysis of the Table 5 reveals that majority of the respondents i.e., 30.8 were motivated towards health insurance by insurance agents, closely followed by 28.2 per cent of the respondents were encouraged by their friends and 20.5 per cent of them were motivated by their

colleagues at work place. In regard to chance of renewal of present insurance policy, interestingly, 66.7 per cent of the respondents stated that 100% chance for renewal and 17.9 per cent opined that there is a 50% chance for renewal of their health insurance policy. Therefore, it can be stated that Agents (30.8%) and Friends (28.2) motivated the respondents towards health insurance and majority

of the respondents (66.7%) opined that there is a 100% chance of renewal of their health insurance.

Reliability Analysis for Research Instrument:

Table 6 shows the results about the reliability analysis for research instrument. It is very clear

from the Table that the Cronbach's Alpha for the research instrument is 0.779 for 12 items which is found to be more than 0.70. Hence, it can be stated that there is an internal consistency in measuring the factors considered while taking the health insurance.

Table 6: Reliability Analysis for Research Instrument

Research Instrument	Cronbach's Alpha	No. of Items
Factors Considered for Choosing Health Insurance	.779	12

Source: Calculation on SPSS

Important Factors Considered for Taking Health Insurance

An attempt has been made here to study and analyze the important factors that motivated for taking health insurance. The respondents were asked to give their response on Likert's Five Point Scale ranging from 'Strongly Agree' to 'Strongly Disagree'. The data relating to the most important factors considered while taking health insurance has been depicted in the Table 7. Retrospection of the Table 7 reveals that majority of the respondents i.e., 74.36 per cent opined that they

strongly agree with name and reputation of insurance company as most important factor considered while taking health insurance. About 61.54 %, 53.8 %, 53.8% and 51.3% of the respondents expressed that they agree with the use of modern technology by insurance company, availability of maximum consumable income, comprehensive coverage and courteousness, capability and knowledge of employees respectively as the important factors considered while choosing health insurance.

Table 7: The Most Important Factors Considered while Taking Health Insurance

Sl. No	Variables	Measures	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total
1	Name and Reputation of the Insurance Company	Frequency	29	7	1	1	1	39
		%	74.36	17.96	2.56	2.56	2.56	100
2	Use of modern technology by Insurance Company	Frequency	7	24	5	2	1	39
		%	17.96	61.54	12.82	5.13	2.56	100
3	Courteousness, Capability and Knowledge of employees, brokers and corporate agents	Frequency	9	20	7	1	2	29
		%	23.1	51.3	17.96	2.56	5.1	100
4	Availability of maximum consumable income	Frequency	8	21	6	1	3	39
		%	20.5	53.8	15.38	2.56	7.69	100
5	Maximum customers' satisfaction	Frequency	10	15	9	3	2	39
		%	25.6	38.5	23.08	7.7	5.1	100
6	Prompt claim processing with least of formalities	Frequency	6	15	8	5	5	39
		%	15.4	38.5	20.5	12.8	12.8	100

7	Nominal premium charged and wide policy options	Frequency	3	18	8	8	2	39
		%	7.7	46.2	20.5	20.5	5.1	100
8	Reliability of services offered	Frequency	8	18	8	2	3	39
		%	20.5	46.2	20.5	5.1	7.7	100
9	Comprehensive coverage	Frequency	7	21	3	2	6	39
		%	17.9	53.8	7.7	5.1	15.4	100
10	Cashless facility	Frequency	15	17	2	3	2	39
		%	38.5	43.6	5.1	7.7	5.1	100
11	Easy accessibility and availability of services in linked hospitals	Frequency	14	19	2	3	1	39
		%	35.9	48.7	5.1	7.7	2.56	100
12	Availability of tax benefits	Frequency	13	17	3	2	4	39
		%	33.33	43.6	7.7	5.1	10.3	100

Source: Primary Data

On the other hand, regarding nominal premium charged, reliability of services offered, cashless facility and easy accessibility, about 46.2%, 46.2%, 48.7% and 43.6 % of the respondents agreed respectively. However, 23.08 per cent of the respondents were neutral on maximum customers' satisfaction.

Non-Policy Holders' Perception towards Health Insurance

Out of the total sample 150 respondents majority of them i.e., 111 are non health insurance policy holders (hereafter called as respondents). An attempt has been made in this section to assess the awareness and perception of these non-policy holders towards health insurance. Table 8 depicts the data pertaining to awareness level and sources of awareness about health insurance.

Table 8: Awareness Level and Sources of Awareness about Health Insurance

Particulars	Response	Frequency	%
Awareness about Health Insurance	Yes	75	67.57
	No	33	29.73
	Can't Say	3	2.70
	Total	111	100
Sources of Awareness about Health Insurance	News Papers	10	13.33
	TV	5	6.67
	Agents	20	26.67
	Family	6	8.00
	Friends	17	22.67
	Colleagues	16	21.33
	Others	1	1.33
	Total	75	100

Source: Primary Data

It is evident from the Table 8 that majority of the respondents i.e., 67.57 were aware of health insurance and however about 29.73 per cent of the respondents stated that they were not aware of the same. With regard to sources of awareness about health insurance, respondents expressed that major sources of awareness were Insurance Agents (26.67%), followed by Friends (22.67%), Colleagues (21.33%) and News Papers (13.33%). Even though health insurance is not a new concept, yet this awareness level has not reached to the level of subscription of health insurance products.

Reliability Analysis for Research Instrument:

Table 9 demonstrates the results about the reliability analysis for research instrument. It is very clear from the Table 9 that the Cronbach's Alpha for the research instrument is 0.922 for 12 items which is found to be more than 0.70. Hence, it can be stated that there is an internal consistency in measuring the barriers for taking the health insurance.

Table 9: Reliability Analysis for Research Instrument

Research Instrument	Cronbach's Alpha	No. of Items
The Barriers for taking Health Insurance	.922	12

The Barriers for Taking Health Insurance

There are various barriers for showing interest towards taking health insurance. The non health insurance policy holders were asked to respond on various barriers for not taking health insurance on Likert's Five Point Scale ranging from 'Strongly Agree' to 'Strongly Disagree'. The information regarding the barriers for taking health insurance has been placed in the Table 10. It is evident from the Table 10 that most of the respondents i.e., 60.36 per cent stated that they strongly agree with the low salary/non availability of funds as the one of the barriers for health insurance, followed by about 44.14 per cent of the respondents opined that they strongly agree with lack of willingness to buy health insurance as a barrier and 31.53 per cent of

the respondents strongly agreed with unaware about health insurance as barrier for health insurance.

On the other hand, about 38.74%, 32.43%, 31.53%, 31.53% and 28.83% of the respondents expressed that they agree with the more hidden costs involved, prefer to invest money in some other areas, difficulty in availing services in hospitals, narrow policy options and lack of easy accessibility to linked hospitals respectively as the major barriers for taking health insurance. When the respondents were asked to respond on lack of suggestion to take and lack of comprehensive coverage, dramatically about 37.84 per cent and 30.63 per cent of the respondents were neutral on the same.

Table 10: The Barriers for Taking Health Insurance

Sl.No	Variables	Measures	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total
1	Low salary/ non availability of funds	Freq.	67	17	5	6	16	111
		%	60.36	15.32	4.50	5.41	14.41	100
2	Lack of willingness to buy health insurance	Freq.	49	28	11	7	16	111
		%	44.14	25.23	9.91	6.31	14.41	100
3	Lack of Awareness about it	Freq.	35	32	9	12	23	111
		%	31.53	28.83	8.11	10.81	20.72	100

4	Prefer to invest money in some other areas	Freq.	33	36	13	18	11	111
		%	29.73	32.43	11.71	16.22	9.91	100
5	Lack suggestion to take	Freq.	13	29	42	16	11	111
		%	11.71	26.13	37.84	14.41	9.91	100
6	Lack of comprehensive coverage	Freq.	15	31	34	20	11	111
		%	13.51	27.93	30.63	18.02	9.91	100
7	Lack of reliability and flexibility	Freq.	12	25	24	38	12	111
		%	10.81	22.52	21.62	34.23	10.81	100
8	Difficult to approach insurance agents	Freq.	9	24	26	29	23	111
		%	8.11	21.62	23.42	26.13	20.72	100
9	Lack of easy accessibility to linked hospitals	Freq.	17	32	19	15	27	111
		%	15.32	28.83	17.12	13.51	24.32	100
10	Difficulty in availing services in linked hospitals	Freq.	25	35	10	16	25	111
		%	22.52	31.53	9.01	14.41	22.52	100
11	Narrow policy options	Freq.	34	35	14	5	23	111
		%	30.63	31.53	12.61	4.5	20.72	100
12	More hidden costs involved	Freq.	28	43	17	5	18	111
		%	25.23	38.74	15.32	4.5	16.22	100

Source: Primary Data

However, 34.23 per cent and 26.13 per cent of the respondents opined that they disagree with lack of reliability and flexibility and difficulty to approach insurance agents respectively as barriers for health insurance.

The data pertaining to willingness to take health insurance and preferred insurance company & policy has been shown in the Table 11.

Table 11: Willingness to take Health Insurance and Preferred Insurance Company & Policy

Particulars	Response	Frequency	%
Willingness to Take Health Insurance	Ready to buy	10	9.01
	Still need some time	72	64.86
	Not ready to buy	19	17.12
	No response	10	9.01
	Total	111	100
Preferred Insurance Company	Public	106	95.5
	Private	5	4.5
	Total	111	100
Preferred Health Insurance Policy	Individual	15	13.51
	Group	5	4.5
	Family Floater	91	81.98
	Total	111	100

Source: Primary Data

It can be analyzed from the Table 11 that about 64.86 per cent of the respondents still need some time to go for health insurance and about 17.12 per cent of them not ready to buy the health insurance. While 10 per cent of the respondents are now ready to buy health insurance, 10 per cent of them not responded anything. As far as the preference of the insurance company is concerned, interestingly, 95.5 per cent of the respondents opined that they prefer public health insurance company while purchasing policy and about 81.98 per cent of the respondents will prefer Family floater health insurance when they go for health insurance.

Table 12 shows the data pertaining to ideal age to go for health insurance. It is can be seen from the Table 12 that about 49.55 per cent of the respondents elicited that the ideal age group to go for health insurance was 35-45 years, followed by about 27.03 per cent of the respondents opined that the age group of 25-35 years was the ideal for health insurance and however about 14.41 per cent stated that the age group of 45-55 year was the ideal age for health insurance. Hence, it is to infer that majority of the respondents (49.55%) opined that age of 35-45 years was the ideal age to go for the health insurance.

Table 12: Ideal Age for Health Insurance

Response	Frequency	%
Below 25 Yrs	2	1.8
25-35 Yrs	30	27.03
35-45 Yrs	55	49.55
45-55 Yrs	16	14.41
55-65 Yrs	6	5.41
Above 65 Yrs	2	1.8
Total	111	100

Source: Primary Data

Findings of the Study

- It is found that that majority of the respondents i.e. 72.7 per cent, were of Male and about 27.3 per cent of the respondents were of Female and most of the respondents i.e., 52 per cent were in the age group of 30 to 40 years.
- With regarding to marital status and type of family, overwhelming majority of the respondents i.e., 88.7 per cent and 60 per cent, got married and living in joint families respectively.
- It is observed that overwhelming majority of the respondents were Post Graduates (76.7%), and about 55.3 per cent of them were Private Degree College Teachers.
- As far as the income is concerned about 38.7 per cent of the respondents' income was in

the range of Rs. 1-2 lakh, followed by 28.7 per cent of the respondents income was more than Rs. 4 lakh as most of them were the Govt. Teachers.

- It is found overwhelming majority of the respondents i.e., 74 per cent were not having health insurance and only 26 per cent of the respondents had health insurance and most of them were of Govt. Degree College Teachers.
- Interestingly, most of the policy holder respondents had preferred Private Health Insurance (64.1%) and chosen Family Floater Policy (64.1%).
- As far as the reasons for going in for health insurance, it is examined that the main reasons were risk coverage against future illness and at old age (51.3) as most

preferred, followed by availing good quality medical treatment (43.6) and tax planning measure (30.8) as other important reasons.

- It is to infer that most of the respondents were motivated by Insurance Agents (30.8%), followed by Friends (28.2%) and Colleagues (20.5%) towards health insurance. And most of the respondents i.e., 66.7% stated that there was a 100% chance for the renewal of their present health insurance policy.
- It is observed that the most important factors considered by most of the respondents while taking health insurance were Name and Reputation of the insurance company (74.36%), Use of modern technology by insurance company (61.54%), Availability of maximum consumable income (53.8%), Comprehensive Coverage (53.8%) and Courteousness, Capability and Knowledge of employees (51.3%) etc.
- As far as the awareness and source of awareness is concerned, about 67.57 per cent of the respondents were aware of health insurance and main sources of awareness were Insurance Agents (26.67%), Friends (22.67%) and Colleagues (21.33%).
- Analysis of barriers for taking health insurance reveals that low salary/funds (60.36%), lack of willingness (44.14%), lack of awareness (31.53%), and other investments choices (32.43%), lack of easy access to linked hospitals (28.83%), narrow policy options (30.63%) and more hidden costs (38.74) were perceived as major barriers for taking health insurance.
- With regard to willingness, and preferred insurance company and policy, about 64.86 per cent of the respondents stated that they still need some time to go for health insurance and undoubtedly, 95.5 per cent of the respondents opined that they prefer public health insurance company while purchasing policy and about 81.98 per cent of the respondents expressed that they will

prefer Family floater health insurance when they go for health insurance.

- It is to infer that majority of the respondents (49.55%) opined that the age of 35-45 years was the ideal age to go for the health insurance.

Conclusion

Indian health insurance industry is growing at a fast pace and there is a lot of potential for growth in future. With the rising healthcare cost, increase in disposable income and high out-of-pocket expenditure for funding healthcare, the only way forward for financing healthcare in a country like India is through health insurance mechanism. From the above discussion, it is to conclude that still more awareness is to be created about health insurance among the public in general and Degree College Teachers in particular as the study found that only 26 per cent of them got health insurance coverage. Interestingly, it is examined in the study that the most of the Govt. Degree College Teachers, even though they are having EHS facility being sponsored by the State Government, have taken health insurance in order to avail good quality medical treatment, to cover risk against future illness and to avail tax saving. It is to suggest, as most of the respondents suggested, that the health insurance companies should ensure easy and hassle free access to linked hospitals, wide policy options and avoid more hidden costs so as to encourage and motivate towards health insurance. Further, it is suggested that regular check-up or OP facility should be provided at all linked hospitals right from the very first year of policy. If insurance players come up with good policies suitable to the customers, there is possibility to tap remaining untapped market of 80 per cent in the days to come.

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FDI IN INDIAN LIFE INSURANCE SECTOR – A STUDY

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ABSTRACT :

Insurance industry in India expanded by leaps and bounds in terms of number and the nature of business and has grown its business on account of the increased GDP, and the entry of Foreign Direct Investment (FDI). Hence, it is a research area to examine the flows of FDI and the trends in the growth of insurance business. The entire analysis is based upon the secondary data. The present research is confined to an analysis of FDI inflows is examined concerning the life Insurance business. Further, the impact of the FDI on the growth of life insurance business is analyzed. This research paper analyze the trends in the receipt of FDI in insurance sector over a period of 16 years followed the impact of FDI flows on the insurance industry in aggregate terms. This study is primarily confined to the analysis of FDI inflows into life-insurance sector with a specific focus on the private insurers in the life insurance business. Out of 24 life insurance companies present 20 life insurers are receiving FDI inflows, up to the year 2011-12, 22 life insurance companies received FDI inflows.]

KeyWords: Inflows of FDI, Life Insurance.

1.Introduction:

In this Research article, it is proposed to analyze the trends in the receipt of FDI in Life insurance sector over a period of 16 years followed the impact of FDI flows on the Life insurance industry in aggregate terms. This study is primarily confined to the analysis of FDI inflows into life-insurance sector with a specific focus on the private insurers in the life business.

2.Concept of Life insurance:

Life insurance is a formal system of assailing the loss of income by the death of bread winner of the family. This loss might be the result of natural incidence or by accident whichever is earlier. In a contract of insurance, the insurer agrees to make good the loss of certain amount of income arising on account of death of the insured. Thus, there are two parties to an insurance contract: (a) insurer and (b) insured. The document laying down the terms of a contract is called (Life insurance) policy.

It can be seen that the life insurance policies are broadly of three types viz., endowment policies, whole life policies and pension/annuity plans. In addition to the life plans given above, there are some companies offering health insurance which is considered as general insurance scheme. In India, nearly 80 percent of population is without life insurance cover, health insurance and non-life insurance. In other words, insurance coverage is far below the international standards. However, there is an immense growth potential for insurance sector in India. Further, it indicates that there is a huge potential for insurance business in the country.

3. Statement of the problem:

The Indian Insurance market is a potential market, but it is not growing properly because of the number of insurers are very less and the coverage of insurance in India is less than 20 percent of total population. To increase the insurance coverage the

government of India taken a decision to allow FDI into insurance sector, and allowed private insurers into Indian insurance market, but, even after this also the insurance coverage is not increased as they expected.

4. Objectives of the Study:

1. To study the aggregate analyses of FDI inflows into Indian Life Insurance Sector.
2. To analyse the growth of Indian Life Insurance sector due to FDI inflows.
3. To know the impact of FDI inflows in expansion of the Life insurance business in terms of number of insurance companies and number of insurance branches in India.
4. To reveal the impact of FDI inflows in expansion of the Life insurance business in terms of number of insurance policies and Premium.
5. To identify the summary of findings and offer suitable suggestions.

5. Organisation and Management of Life Insurance Business:

Life insurance business in India is offered by the government organizations and private companies also. Table-1 presents a list of 24 Life Insurance Companies existing as on Dec, 2016. From the below Table-1 it can be understood that the Life Insurance Corporation of India (LICI) is the oldest company in the government sector and the rest of 23 are operating in the private sector from the year of their establishment in different years. It can also be seen that out of 24 companies only four are not having FDI inflows. They are: (a) Life Insurance Corporation of India and (b) Sahara India Life Insurance Company Ltd. (c) Exide Life Insurance company Ltd. (d) Shriram Life Insurance Company Ltd. The former is a public sector undertaking and the later are private companies. In the later three private insurance companies, former not receiving FDI inflows from inception and later two are initially received FDI inflows but because of change in management, the foreign promoters withdrew their share in the year 2012.

Table - 1		
List of Life Insurance Companies as on 17-12-2016		
	Year of Operation	Yr. from which FDI inflows started.
A. Public Sector Companies		
1.Lic of India	1956-57	No FDI
B. Private Sector Companies		
1. Birla Sunlife Insurance Company Ltd.	2000-01	2002-03
2. HDFC Standard Life Insurance Company Ltd.	2000-01	2002-03
3. ICICI Prudential Life Insurance Company Ltd.	2000-01	2002-03
4. MaxLife Insurance Company Ltd.	2000-01	2002-03
5.Bajaj Allianz Life Insurance Company Ltd.	2001-02	2002-03
6. Exide Life Insurance co.Ltd.(formerly ING Vysya Life Insurance Company Ltd,ING Life Insurance co.)	2001-02	2002-03, From 2012 No FDI
7. Kotak Mahindra OM Life Insurance Company Ltd.	2001-02	2002-03
8.PNB Metlife India Insurance Company Ltd.	2001-02	2002-03
9. Reliance Nippon Life Insurance Company Ltd.,(formerly Reliance Life Insurance Company Ltd., AMP Sanmar)	2001-02	2011-12
10. SBI Life Insurance Company Ltd.	2001-02	2002-03

11. TATA AIA Life Insurance Company Ltd.	2001-02	2002-03
12. Aviva Life Insurance Company Ltd.	2002-03	2002-03
13. Sahara India Life Insurance Company Ltd.	2004-05	No FDI
14. Shriram Life Insurance Company Ltd.	2005-06	2005-06, From 2012 No FDI
15. Bharti AXA Life Insurance Company Ltd.	2006-07	2006-07
16. IDBI Federal Life Insurance Company Ltd.	2007-08	2007-08
17. Future Generali Life Insurance Company Ltd.	2007-08	2007-08
18. AEGON Life Insurance Company (formerly Aegon Religare Life Insurance Company)	2008-09	2008-09
19. Canara HSBC OBC Life Insurance Company Ltd.	2008-09	2008-09
20. DHFL Pramerica life Insurance Company Ltd. (formerly DLF Pramerica life Insurance co. Ltd.)	2008-09	2008-09
21. Star Union Dai-ichi Life Insurance Company Ltd.	2008-09	2008-09
22. India First Life Insurance Company Ltd.	2009-10	2009-10
23. Edelweiss Tokio Life Insurance Company Ltd.	2011-12	2011-12

Source: IRDA Annual Reports and Hand book on Indian Insurance Statistics 2011-12.

6. Growth of Life Insurance Business vis-a-vis FDI inflows into the Sector:

Consequent to the financial reforms, the insurance sector is opened to the private investment. As India is recognized as one of the biggest markets due to huge population, foreign companies started looking for the business opportunities. The Government also formulated a policy to attract the foreign investment into the country. As such, the financial sector including insurance received huge capital through the direct channels. Hence, a study of FDI inflows into this sector is attempted. As such, the Growth of life insurance business in India and growth of FDI inflows is presented in Table – 2. An analysis of data in Table - 2 explains that the number of life insurance companies increased from 5 in 2000-2001 to 24 in 2011-2012, which is a symptom of continuous growth. But after 2011-12 no new company started. Similarly the number of branches increased year after year. The number of branch offices increased from 2199 in 2000-2001 to 11167 registering an increase by five times over a period of 12 years. In terms of average number of branches per company also increased from 440 in 2000-01 to 465 in 2011-12 and

registered an average growth of 17.58 percent. But from 2010-11 the number of branch offices are decreased, later from 2013-14 a small increase registered. It also explains that the aggregate capital of the industry increased from Rs.544.79 crores in 2000-01 to Rs.26691.46 crores in 2015-16 recording an increase by 49 times over a period of sixteen years. It can also be seen that the aggregate capital registered a continuous increase year after year. In no year there is a drop in the percent growth of capital. As against all these positive trends, it can also be observed that the FDI inflows into the life insurance sector continued prior to 2000-01. It can also be noted that, except in 2012-13 year, in all the remaining years of study FDI inflows are received (Column. 6). It is observed that in the year 2012-13 the FDI inflows are negative because of withdrawn of FDI from INGVYSSA and SHRIRAM LIFE. As a matter of fact there is an erratic trend in the FDI inflows over the period under study. The average FDI inflows per annum are worked out to Rs 468.66 crores. After allowing the FDI cap upto 49% into Life insurance sector to till to 2015-16, out of 24 only 4 Life insurance companies reached to 49%

of FDI inflows into this sector. Thus it can be said that the aggregate FDI inflows into the life insurance sector having more scope to get further FDI inflows into this sector. All these analysis

indicate that the FDI inflows into this sector have been encouraging. Hence, there is a need to study the overall impact of FDI on the life insurance business in India.

Table – 2							
Growth of life Insurance Business in India Vs Growth of FDI inflows							
YEAR	No. of companies	No. of branch offices	Life Insurance Industry Capital (Rs. in Crores)	Incremental capital (Rs .in Crores)	FDI Inflow(in crores)	Cumilative FDI (Rs. in crore)	Cumilative FDI percent to Industry capital
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
2000-01	5 (-)	2199 (-)	544.79 (-)		161.25	161.25	29.6
2001-02	12 (140)	2306 (4.87)	1661.11 (204.91)	1116.32	287.55	448.8	27.02
2002-03	13 (8.33)	2445 (6.03)	2228.11 (34.13)	567	99.04	547.84	24.59
2003-04	13 (0)	2612 (6.83)	3082.25 (38.33)	854.14	234.5	782.34	25.38
2004-05	14 (7.69)	3001 (14.89)	4350.41 (41.14)	1268.16	271.6	1053.94	24.23
2005-06	15 (7.14)	3865 (28.79)	5890.73 (35.41)	1540.32	301.4	1355.34	23.01
2006-07	16 (6.67)	5373 (39.02)	8123.66 (37.91)	2232.93	454.4	1809.34	22.27
2007-08	18 -12.5	8913 (65.88)	12294.84 (51.35)	4171.18	1011.89	2821.63	22.95
2008-09	22 (22.22)	11815 (32.56)	18253.69 (48.47)	5958.85	1532.88	4354.51	23.86
2009-10	23 (4.55)	12018 (1.72)	21019.23 (15.15)	2765.54	699.47	5053.98	24.04
2010-11	23 (0)	11546 (-3.93)	23661.19 (12.57)	2641.96	669.83	5723.81	24.19
2011-12	24 (4.35)	11167 (-3.28)	24931.38 (5.37)	1270.19	600.45	6324.26	25.37
2012-13	24 (0)	10285 (-7.90)	25518.72 (2.36)	587.34	-278.35	6045.91	23.69
2013-14	24 (0)	11032 (7.26)	25938.51 (1.65)	419.79	67.47	6113.38	23.57
2014-15	24 (0)	11033 (0.01)	26244.14 (1.18)	305.63	33.49	6146.87	23.42
2015-16	24 (0)	11071 (0.34)	26691.46 (1.70)	447.32	1351.76	7498.63	28.09

Source: IRDA Hand Book on Indian Insurance statistics 2011-12. Page no3,123; Colum no.6 : Annual Reports of IRDA (2001-12);

Note: Fig. in brackets indicates growth percent.

7. Life Insurance Business in India:

The strength of business of the life insurance companies may be the reason for choosing the companies in which foreign investors come forward to invest. Another important criterion for

choosing the potential companies for investment is the prospects of the business. Therefore, it is necessary to examine the trends in the business of the life insurance companies which is presented in Table - 3 gives the details of the business carried out by the insurance companies in aggregate terms.

Table – 3						
Trends in Life Insurance Business						
Year	No. of companies	Number of new policies issued during the year in Lakhs	Total Premium during the year Rs. in crore	Market share of LIC in % (based on Total Premium)	Average Number of new policies per company in Lakh	Average premium per policy in Rs.
2000-01	5 (-)	NA	34898 (-)	99.98 (-)	NA	NA
2001-02	12 (140)	NA	50094 (43.54)	99.46 (-0.52)	NA	NA
2002-03	13 (8.33)	253.71 (-)	55748 (11.29)	97.99 (-1.48)	19.52	21973.1
2003-04	13 (0)	286.27 (12.83)	66654 (19.56)	95.32 (-2.72)	22.02	23283.6
2004-05	14 (7.69)	262.11 (-8.44)	82855 (24.31)	90.67 (-4.88)	18.72	31610.8
2005-06	15 (7.14)	354.62 (35.29)	105876 (27.78)	85.75 (-5.43)	23.64	29856.2
2006-07	16 (6.67)	461.52 (30.14)	156076 (47.41)	81.9 (-4.49)	28.85	33817.8
2007-08	18 (12.5)	508.74 (10.23)	201351 (29.01)	74.39 (-9.17)	28.26	39578.4
2008-09	22 (22.22)	509.23 (0.1)	221785 (10.15)	70.92 (-4.66)	23.15	43553
2009-10	23 (4.55)	532.25 (4.52)	265447 (19.69)	70.1 (-1.16)	23.14	49872.6
2010-11	23 (0)	481.52 (-9.53)	291605 (9.85)	69.78 (-0.46)	20.94	60559.3
2011-12	24 (4.35)	441.93 (-8.22)	287072 (-1.55)	70.68 (1.29)	18.41	64958.7
2012-13	24 (0)	441.87 (-0.01)	287202.49 (0.05)	72.7 (2.02)	18.41	64997.06
2013-14	24 (0)	409 (-7.44)	314301 (9.44)	75.39 (2.69)	17.04	76846.21
2014-15	24 (0)	259 (-36.67)	328102 (4.39)	73.05 (-2.34)	10.79	126680.3
2015-16	24 (0)	267 (3.09)	366943 (11.84)	72.81 (-0.24)	11.13	137431.8

Source: Handbook on Indian Insurance statistics 2011-12,2015-16 IRDA.

Note: Fig. in brackets indicates growth percent.

On the analyses of data in Table - 3, it is interpreted that, the number of new policies secured by the insurance enterprises present a steady growth over the years up to 2009-2010 but later it is showing a decreasing trend. The number of insurance policies obtained increased from 253.71 lakhs in 2002-03 to 532.25 lakhs in 2009-10 and in the subsequent years there is a drop in the policies executed by the companies. The total premium collected by all insurance companies increased from Rs. 34898 crores in 2000-01 to Rs.366943 crores in 2015-16 by registering a growth of 10.52 times. The average growth of the premium received by the companies over the period is 17.78 percent. All these business operations are analyzed in aggregate terms, which cannot be a precise indication of the growth because of variation in the number of companies during the period under study. Hence, the growth of business indices (total premium collected and the policies processed) are shown in ratios (average) and shown in the Table (Columns: 6 and 7). There is an erratic trend in the growth of average number of policies processed per company. However, the average number of policies per company processed increased from 19.52 lakhs in 2002-03 to 20.94 lakhs in 2010-11 later it decreased. The average growth of number of policies over the years is worked out to 0.49 percent. However, the average amount of premium per policy is showing a consistent increase over the years. Even in 2011-12 with a drop in the average number of policies executed the average amount of premium per policy increased from Rs.60559.27 in 2010-11 to Rs.64958.70 in 2011-12. The average growth of the per-policy premium amount is worked out to 13.30 percent. Similar trend is visible in 2004-05; 2008-09 and 2010-11. All these operational details of the insurance business sector, Further in aggregate terms, indicate a fair opportunities for investment.

At this juncture, it is necessary to note that all the above analysis include the business done by the LIC. In Indian life business sector, the LIC is the leader since its market share range between 72.81 percent (2015-16) and 100 percent (2000-

01). Its market share dwindled gradually year after year on account of the establishment of new companies. The policy of the government, as stated earlier, is to allow the private companies to operate in the life insurance sector. Again it is also a reason and cause to the flow of foreign direct investment.

8. Operating Costs of LICs:

It is understandable that the operating costs go on increase for two reasons. First, the volume of business that leads to the varying levels of variable costs such as staff, maintenance, publicity, agent's commission and office contingencies. The second cause for increase operating cost is establishment of branch offices at various locations to extend the service facilities to the policy holders. Earlier it is understood that the volume of business in terms of policies executed and the premium amount collected increased significantly. Hence, it is appropriate to examine the trends in operating costs. Table - 4 gives the year-wise details of agents engaged in procuring business to the insurance companies.

Table - 4				
Year-wise details of agents - An analysis				
Year	No. of Individual agents	Growth %	No. of corporate agents	Growth %
2001-02	476902	-	275	-
2002-03	1038802	117.82	757	175.27
2003-04	1556817	49.87	2436	221.8
2004-05	481250	-69.09	819	-66.38
2005-06	1423839	195.86	216	-73.63
2006-07	1993199	39.99	656	203.7
2007-08	2520492	26.45	2415	268.14
2008-09	2937435	16.54	2506	3.77
2009-10	3742439	27.4	2930	16.92
2010-11	2639392	-29.47	2165	-26.11
2011-12	2358885	-10.63	882	-59.26
2012-13	2122757	-10.01	739	-16.21
2013-14	2188500	3.1	689	-6.77
2014-15	2067907	-5.51	503	-27
2015-16	2016565	-2.48	416	-17.3

Source: Handbook on Indian Insurance statistics 2011-12, and 2015-16. IRDA.

From the data analyses in Table - 4, we can see that these agents are broadly two types viz., individual agents and corporate agents. The number of individual agents increased from 476902 in 2001-02 to 2016565 in 2015-16 by 4.23 times in the study period, but a sudden drop in 2004-05 and gradually increased up to 2009-10, later it decreased gradually. The average growth of number of individual agents is 23.32 percent in the 16 years of study period. Similarly it is found that the number of corporate agents registered an erroneous growth. The number of corporate agents

is increased from 275 in 2001-02 to 416 in 2015-16 by 1.51 times of increase in the 16 years of study period and also it has an average growth of 39.8 percent.

An analysis of operating costs is relevant to interpret the efficiency of the business. Normally the business of insurance is comprised of the collection premium amount born out of the number of new policies processed and accepted. Table - 5 shows the growth of life insurance business regarding first year premium of new policies issued by all insurers.

Table - 5			
Growth of Life Insurance Business			
Year	First Year Premium(including single premium) in crores of Rs.	Number of new policies issued in Lakhs (No.s)	Average premium per new policy issued (Rs.)
2000-01	9707	-	-
2001-02	19857	-	-
2002-03	16942	253.71	6677.7
2003-04	19788	286.27	6912.36
2004-05	26218	262.11	10002.67
2005-06	38786	354.62	10937.34
2006-07	75649	461.52	16391.27
2007-08	93713	508.74	18420.61
2008-09	87331	509.23	17149.62
2009-10	109894	532.25	20647.06
2010-11	126381	481.52	26246.26
2011-12	113942	441.93	25782.82
2012-13	107361.08	441.87	24296.98
2013-14	120325	409	29419.32
2014-15	113330	259	43756.76
2015-16	138862	267	52008.24

Source: Handbook on Indian Insurance statistics 2011-12, IRDA.

The analysis of data in Table - 5 explains that, the first year premium amount collected by all the 24 life insurers (including LICI) increased significantly over the period of 16 years. The first year premium amount received grew by about 14.3 times. However, the number of policies registered increased by 1.052 times which means the average amount of premium received per policy increased

significantly around 7.79 times. In other words, the operating costs of the insurers must be either constant or fall down. Hence, a scrutiny of the cost of operation of business is a matter of research study. Table - 6 Ratio analysis of operating costs of life insurers are given below.

Table – 6					
Ratio Analysis of Operating Costs					
Year	No. of companies	Operating expenses Rs. in Lakhs	Commission paid Rs. in Lakhs	Average Operating expenses Per company Rs. in Lakh	Average commission per Company Rs. in Lakh
2000-01	5	-	-	-	-
2001-02	12	467417	456691	38951.42	38057.58
2002-03	13	545115	515273	41931.92	39636.38
2003-04	13	642483	615838	49421.77	47372.15
2004-05	14	821560	709861	58682.86	50704.36
2005-06	15	961105	863548	64073.67	57569.87
2006-07	16	1358584	1226864	84911.5	76679
2007-08	18	2030673	1468058	112815.17	81558.78
2008-09	22	2583190	1549598	117417.73	70436.27
2009-10	23	2890628	1803559	125679.48	78415.61
2010-11	23	3294230	1828029	143227.39	79479.52
2011-12	24	2967459	1848619	123644.13	77025.79
2012-13	24	3156170	1926146	131507.1	80256.08
2013-14	24	3746541	2084537	156105.9	86855.71
2014-15	24	3685916	1946068	153579.8	81086.17
2015-16	24	3878309	2026669	161596.2	84444.54

Source: Handbook on Indian Insurance statistics 2011-12, IRDA.

The data analysis in Table - 6 presents the trends in operating costs in terms of administrative costs and commission to agents. But, the former may include fixed as well as variable costs whereas the latter is exclusively variable expenses. A close look at the operating costs explains that there is a gradual increase in absolute terms as well as in percent growth. The operating expenses (administrative costs) increased from Rs.467417 lakhs in 2001-02 to Rs.3878309lakhs in 2015-16 registering a growth by more than 8 times. Agents' Commission paid by all the insurers also increased from Rs.456691 lakhs in 2001-02 to Rs.2026669 lakhs in 2015-16 registering a growth by 4.44 times. Since the analysis are based upon the aggregate data, average operating costs in terms of administrative expenses and agents' commission are also examined here. They clearly explain that the operating costs have significantly increased over the years. At this stage, it is necessary to read the average operating costs in collation with the average number of policies enrolled and the average premium collected by the

insurers. Hence, it is evident that the operating costs increased whereas the average number of policies per company executed decreased. As such, there is a need to streamline the management of insurance companies to be efficient.

In the aforesaid paragraphs it is noted that the insurance business in India in aggregate terms is assuring a steady development over the years. As such, to high light the impact of FDI on various business variables an attempt is made to examine the mutual inter-dependence of business and FDI inflows.

9. Impact of FDI on the Growth of Life Insurance Business:

Business acumen requires that every induction of capital must be followed by the additional business potentials. The marginal revenue of the additional capital must be optimal otherwise; there should not be any need to further injection of funds. Even the investors will also estimate the benefits that accrue to the firm by the additional investment. The amount of premium collected by the life

insurers is also an indication of volume of business secured during the year. In aforesaid paragraphs, it is observed that the FDI inflows and the two types of funds are mutually dependents and their growth is found to be perfect positivity. As a matter of fact, the amount of premium collected by the insurers also reflects the efficiency of management. It is assumed that higher the FDI inflows greater

is the possibility of mobilizing new business in terms of premium collection. Further, greater the number of policies, higher could be the collection of premium amount. Hence, an attempt is made to examine the trends in premium collections during the year and the FDI inflows during that year. The Table - 7 growth of total premium received Vis-à-vis FDI inflows is given below.

Table - 7				
Growth of total Premium received vis-à-vis FDI inflows				
Year	Total Premium received during the year Rs. in crore	Total FDI inflows to Life Insurance Sector	Service Sector contribution to GDP Rs. in crore	% of premium to Service sector GDP
2000-01	34898 (-)	161.25 (-)	1179976	2.96
2001-02	50094 (43.54)	287.55 (78.33)	1261159	3.97
2002-03	55748 (11.29)	99.04 (-65.56)	1349035	4.13
2003-04	66654 (19.56)	234.5 (136.77)	1457796	4.57
2004-05	82855 (24.31)	271.6 (-15.82)	1576255	5.26
2005-06	105876 (27.78)	301.4 (10.97)	1748173	6.06
2006-07	156076 (47.41)	454.4 (50.76)	1923970	8.11
2007-08	201351 (29.01)	1011.89 (122.69)	2121561	9.49
2008-09	221785 (10.15)	1532.88 (51.49)	2333251	9.51
2009-10	265447 (19.69)	699.47 (-54.37)	2577192	10.3
2010-11	291605 (9.85)	669.83 (-4.24)	2818125	10.35
2011-12	287072 (-1.55)	600.45 (-10.36)	3082507	9.31
2012-13	287202.49 (0.05)	(-278.35) (-146.36)	4296288	6.68
2013-14	314301 (9.44)	67.47 (-124.24)	4685208	6.71
2014-15	328102 (4.39)	33.49 (-50.36)	5161062	6.36
2015-16	366943 (11.84)	1351.76 (3936.31)	5567308	6.59

Source: IRDA Hand Book on Indian Insurance statistics 2011-12 , 2015-16 and annual reports varies years.

Note: Fig. in brackets indicate growth percent.

Table - 7 presents the details of premium collected, FDI inflows during the year, and percent of premium to the total service sector contribution to the nation's GDP. Premium collected over the period of 16 years show a steep rise except in 2011-12. The average growth of premium collected during the year is worked out to 17.78 percent which is an indication that the life insurance business is stable. Over the 16 years period under study, it is found that the FDI inflows are not even because after 2008-09 the collections tapered down and from 2009-10 to 2014-15 it had a negative growth in last year of study it registered high growth. However, the average growth of FDI inflows in each year is found as 261.07 percent. In other words, FDI inflows increased from Rs.161.25 crores in 2000-01 to Rs.1532.88 crores in 2008-09 without any let up. As a matter of fact, the FDI inflows will have lag-effect. Earlier it is noticed that the service sector contribution to national GDP is around 58 percent and the contribution of life insurance business in terms of premium collected ranged between 2.96 percent and 10.35 percent over the period under study. This percent of contribution cannot be considered as insignificant as the service sector is composed of many elemental factors.

Conclusion:

In brief, the above analysis indicates that there is an absolute and perfectly positive dependence of FDI inflows and business variables. As such, the induction of FDI inflows is not going without results.

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EFFECTS OF CSR PRACTICES ON CUSTOMER SATISFACTION: A STUDY ON NEPALESE INSURANCE COMPANIES

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ABSTRACT

This study examines the effects of CSR practices on customer satisfaction of Nepalese insurance companies. Customer satisfaction is the dependent variable. Economic CSR, ethical CSR, legal CSR, and philanthropic CSR are four independent variables. The study is carried out in Kathmandu valley by distributing 100 questionnaires through field survey. To achieve the purpose of the study, structured questionnaire is prepared. The regression models are estimated to test the significance and importance of selected factors on customer satisfaction of Nepalese insurance companies.

The result shows that there is positive relationship of economic CSR and legal CSR with customer satisfaction. This indicates that higher the economic and legal CSR practices, higher would be customer satisfaction. Similarly, ethical and philanthropic CSR are positively correlated to customer satisfaction. It means that better the ethical and philanthropic CSR practices, higher would be the customer satisfaction.

The regression result shows that the beta coefficients for economic and legal CSR are positive and significant with customer satisfaction. The result also reveals that the beta coefficients for ethical and philanthropic CSR are positive and significant with customer satisfaction in Nepalese insurance companies.

Keywords: Customer satisfaction, economic CSR, ethical CSR, legal CSR and philanthropic CSR.

1. Introduction

Kotler and Lee (2005) defined CSR as “a commitment to improve societal well-being through discretionary business practices and contributions of corporate resources”. CSR activities are broadly conceptualized as the company’s status and activities with respect to its perceived societal obligations.

Maignan et al. (2005) suggested that company’s customers can be potential stakeholders who cares about not only the economic performance of organizations but also to the overall standing (including social performance) of the company. Thus, customers are likely to be more satisfied if service or product providers develop CSR initiatives and present a socially responsible

behavior towards the society. Hence, the study found that there is positive relationship between CSR and customer satisfaction.

Luo and Bhattacharya (2006) found positive relationship between CSR and customer satisfaction. Chung et al. (2015) showed that CSR practices positively influences the customer satisfaction more than customer loyalty. Also, consumer protection is the most important factor for CSR while environmental factor is the least important one.

According to McDonald and Rundle-Thiele (2008), many enterprises have been spending huge amount of money on CSR activities in order to build a stronger relationship with their customers.

Thus, the study concluded that there is positive relationship between CSR and customer satisfaction. This change is possibly due to increased competition, increased pressure from increased customer expectations towards a particular enterprise. Embracing this strategy has also provided many companies with increases net profit, customer satisfaction, loyalty and trust.

Green andPeloza (2001) indicated that customers highly support companies that engage in CSR pointing out that they do not take CSR as one overall impression of a company but they take interest on how each CSR activity can add to their overall value evaluation. Galbreath (2010)argued that firms can improve their consumption experiences with customers by demonstrating CSR. The results indicate that CSR is positively linked to customer satisfaction.

All CSR dimensions have positive influence on customer satisfaction and loyalty (economic measured by mean of price fairness), except making profit to shareholders. This means organization concentrating on making profit for shareholders cannot drive customer satisfaction. Regarding managerial perspectives, CSR initiatives have shown to be significantly determined that how much organization paid attention to society issues. The finding was organization, indeed, should realize and invest in corporate social responsibility scheme in order to enhance their relationships with customers. Moreover, organization should communicate CSR ways to the general public (OnlaorandRotchanakitumnuai, 2010).

According to Friedman (1962), management has one responsibility and that is to maximize the profits of its owners or shareholders. The studyanalyzed that social issues are not the concern of business people and that these problems should be resolved by the unfettered workings of the free market system. Further, this view holds that, if the free market cannot solve the social problems, it falls not upon business, but upon government and legislation to do the job.

Ali et al. (2010) argued that customers pay more attention to pricing strategy than CSR activities. The study of cellular industry found no relationship between awareness of corporate social responsibility and consumer purchase intension. The study also found no relationship between customer satisfaction and purchase intention. The customer can be satisfied and retained only by offering competitive pricing packages and services. If the cellular firm cannot provide competitive pricing, the consumers will switch to other service providers offering lower prices and better services.

A study on corporate social responsibility: theory of firm perspective showed that managers should treat decisions regarding CSR precisely as they treat investment decisions. The study also argued that managers have to evaluate the possibility of product/service differentiation. Where there is little ability to differentiate the product or service, demand may not increase with the provision of CSR(McWilliams and Siegel, 2001).

According to Green and Peloza (2011), consumer support for CSR in a new context i.e. recession combined with an uncertain economic outlook. In a situation like this, consumers would like to retrench to criteria of price and quality at the expense of “higher order” criteria-CSR. Consumer shrinks back in their decision-making processes and forsake CSR.

In the context of Nepal, Katwal (2010) argued that CSR is not mandatory and some enterprises voluntarily do the disclosure of social responsibility. It is a very new concept and Nepalese often confuse it with charitable activities naming it as philanthropic effort. In spite of not being satisfactory due to internal problems of management, traditional approach of earning profit, favoritism, sycophancy attitude of stakeholders and unstable political circumstances and undue political pressure, it is slowing improving and making its own legacy.

In recent times, all the businesses and enterprises are under massive pressure to carry out their businesses being socially and ethically responsible

from their shareholders, investors, government, media, suppliers and customers as well. Thus, socially responsible corporate houses have started to report their CSR activities in their respective websites (Upadhyay-Dhungel and Dhungel, 2013).

A study on corporate social responsibility in Nepal discussed the concept of CSR and its significance in Nepal. It emphasized on the part of companies to comply with and motivated their activities for the protection of vulnerable section of society. This study indicated that a company brings its business with a main objective for making profit. But because it is a part of the society itself, it has its certain obligation and responsibility towards it. Being a part of society, it has to be responsible to the various stakeholders' interest of the society such as financiers, employees, creditors, workers, debtors, community, customers, prospective investors and state (Shah, 2012).

Chapagain (2013) revealed that managers in Nepal, at least from two prominent corporate sectors i.e. manufacturing and banking sector, are clearly aware of the company's duty towards different segments of society. Likewise, it can also be inferred that the managers are convinced enough with the fact that CSR and profit maximization are not the conflicting goals of the firm. Interestingly, research also revealed that despite the positive attitudes of Nepalese managers towards CSR, the role of government, pressure groups and other stakeholders is crucial to promote CSR in Nepal.

A study related to corporate social responsibility revealed that a majority of managers from both financial service and manufacturing sectors have positive strategic and moral views towards CSR. But, moral view is much stronger than the strategic view and actual CSR performance of companies is not encouraging, at least in all aspects of CSR. So, the government, pressure groups and other stakeholders are also required to encourage socially responsible corporate behavior in order to sustain and increase their positive views and actual practice on CSR (Chapagain, 2012).

The above discussion reveals that there is no consistency in the findings of various studies concerning the studies on CSR dimensions affecting the customer satisfaction.

The major objective of the study is to analyze the CSR dimensions affecting customer satisfaction in Nepalese insurance companies. More specifically, it examines the impact of economical, legal, ethical and philanthropic CSR on customer satisfaction in Nepalese insurance companies.

The remainder of this paper is organized as follows. Section two describes the data and methodology. Section three presents the empirical results and final section draws conclusions and discusses the implications of the study findings.

2. Methodology aspects

This study is based on primary data which were gathered from the 100 respondents, which mainly deals with the CSR dimensions affecting customer satisfaction in Nepalese insurance companies.

The Model

As a first approximation, this study assumes that customer satisfaction depends on several CSR dimensions (economical, legal, ethical and philanthropic CSR). Therefore, the regression model used in this study takes the following form:

Customer satisfaction = $f(ECO, LE, ETH \text{ and } PH)$

More specifically,

$$CS = \hat{\alpha}_0 + \hat{\alpha}_1 ECO + \hat{\alpha}_2 LE + \hat{\alpha}_3 ETH + \hat{\alpha}_4 PH + e \dots \dots (i)$$

Where,

CS = customer satisfaction

ECO = economic CSR

LE = legal CSR

ETH = ethical CSR

PH = philanthropic CSR

$\hat{\alpha}_0$ = intercept of dependent variable

e = error term

$\hat{\alpha}_1, \hat{\alpha}_2, \hat{\alpha}_3$ and $\hat{\alpha}_4$ are the beta coefficients of the explanatory variables to be estimated.

Economic CSR (ECO)

Economic responsibility of CSR dimension is measured in terms of shareholders wealth maximization, maximizing profit, dividend payment to shareholders, being competitive. Friedman (1962) argued that management has only one responsibility and that is to maximize the profits of its owners or shareholders. The study argued that social issues are not the concern of business people. There is positive and significant relationship between economic CSR and customer satisfaction (Wu and Lin, 2014). Based on it, this study develops following hypothesis:

H1: There is a positive relationship between economic CSR and customer satisfaction.

Legal CSR (LE)

Legal responsibilities of CSR dimension is measured in terms of the extent that organization's activities are consistent with laws and regulations, meet legal requirements related to goods and services, pay taxes and government dues timely and avoid corruption. Nareeman et al. (2013) revealed that legal CSR have positive relationship with customer satisfaction. However, McDonald and Rundle-Thiele (2008) argued that legal CSR have positive relationship with customer satisfaction. Based on it, this study develops following hypothesis:

H2: There is a positive relationship between legal CSR and customer satisfaction.

Ethical CSR (ETH)

Ethical responsibility of CSR dimension is measured in terms of ethical norms and values, extent that organization adjust them to be good corporate citizen and the extent that organization try to provide adequate information about its products or services. According to Wu and Lin (2014), ethical CSR and customer satisfaction have positive relationship with each other. Similarly,

Chung et al. (2015) revealed that ethical CSR is positively associated with customer satisfaction. Based on it, this study develops following hypothesis:

H3: There is a positive relationship between ethical CSR and customer satisfaction.

Philanthropic CSR (PH)

Philanthropic responsibility of CSR dimension is measured in terms of support provided to local culture and art activities, assistance provided to private and public educational institutions and the extent that managers and employees of the organization involve in charitable activities. McDonald and Rundle-Thiele (2008) revealed that philanthropic has positive impact on customer satisfaction. Likewise, Onlaor and Rotchanakitumnuai (2010) found that there is positive relationship between customer satisfaction and philanthropic CSR. Based on it, this study develops following hypothesis:

H4: There is a positive relationship between philanthropic CSR and customer satisfaction.

3. Result and discussion

Correlation analysis

The Pearson's correlation coefficients have been computed to analyze the strength of linear relationship between selected factors and customer satisfaction and the results are presented in Table 2.

Table 2: Pearson correlation coefficients for dependent and independent variables

This table reveals the Pearson's correlation coefficients between dependent and independent variables. Customer satisfaction (CS) is the dependent variable and economical CSR (ECO), legal CSR (LE), ethical CSR (ETH) and philanthropic CSR (PH) are the independent variables.

Variables	Mean	Std. Deviation	ECO	LE	ETH	PH	CS
ECO	2.13	0.463	1				
LE	2.12	0.629	.534**	1			
ETH	1.783	0.519	.434**	.495**	1		
PH	2.043	0.745	.606**	.527**	.517**	1	
CS	1.953	0.606	.456**	.629**	.662**	.724**	1

The table shows that the average value of economic CSR is 2.13. Likewise, the average value of legal CSR is 2.12. Similarly, the average value of ethical CSR, philanthropic CSR and customer satisfaction are 1.78, 2.04 and 1.95 respectively.

The result shows that economic CSR is positively related to customer satisfaction. This means that increased in the economic CSR practices leads to increase in the customer satisfaction. Similarly, legal CSR is positively correlated to customer satisfaction. This means that increase in legal CSR practices leads to increase in the level of customer satisfaction.

Likewise, the result shows that ethical CSR is positively related to customer satisfaction. This indicates that betterment in the ethical CSR practices leads to increase in the customer satisfaction. Likewise, the result also reveals that philanthropic CSR is positively correlated to

customer satisfaction. This means that betterment in the philanthropic CSR leads to increase in the customer satisfaction.

Regression analysis

Having indicated the Pearson correlation coefficients, regression analysis has been conducted and the results are presented in Table 3.2.

Table 3.2: Regression analysis of economic CSR, legal CSR, ethical CSR, and philanthropic CSR on customer satisfaction

The results are based on pooled cross sectional data and customer satisfaction with 100 observations by using linear regression model. The model is $CS = \hat{\alpha}_0 + \hat{\alpha}_1 ECO + \hat{\alpha}_2 LE + \hat{\alpha}_3 ETH + \hat{\alpha}_4 PH + e$. Where, dependent variable is CS (customer satisfaction) and independent variables are ECO (economic CSR), LE (legal CSR), ETH (ethical CSR), PH (philanthropic CSR) and e = Error term.

Model	Intercept	ECO	LE	ETH	PH	Adj. R ²	SEE	F-value
1	0.68 (2.66)**	0.56 (5.08)**				0.20	0.54	25.77
2	0.67 (3.10)**		0.61 (8.00)**			0.39	0.47	64.14
3	0.58 (3.51)**			0.77 (8.73)**		0.43	0.46	76.25
4	0.75 (6.08)**				0.59 (10.39)**	0.52	0.42	107.93
5	0.27 (1.94)			0.46 (5.49)**	0.42 (7.29)**	0.63	0.37	85.03
6	0.08 (0.52)		0.24 (3.40)**	0.37 (4.46)**	0.35 (5.91)**	0.66	0.35	66.75

Notes:

- (1) Figures in parentheses are t-values.
- (2) * * * denotes that the results are significant at 1% level of significance.
- (3) * * denotes that the results are significant at 5% level of significance.
- (4) Customer satisfaction as dependent variable.

The table shows that beta coefficient is positive and significant for economic CSR. It indicates that higher the economic CSR practices, higher would be the customer satisfaction. This finding is similar to the findings of Wu and Lin (2014). Similarly, the beta coefficient is positive and significant for legal CSR. This means that higher the legal CSR practices, higher would be the customer satisfaction. This finding is consistent with the findings of McDonald and Rundle-Thiele (2008) and Onlaori and Rotchanakitumnuai (2010).

Likewise, the result shows that beta coefficient is positive and significant for ethical CSR. This means that higher the ethical CSR practices, higher would be the customer satisfaction. This finding is similar to the findings of Wu and Lin (2014). Similarly, beta coefficient is positive and significant for philanthropic CSR. It indicates that better the philanthropic CSR practices, higher would be the customer satisfaction. Thus finding is consistent with the findings of Noamene and Elouadi (2015).

4. Summary and conclusion

Customer satisfaction has been characterized as an overall judgment of their expectations and perception of the value received. Recently, corporate social responsibility and issues related to CSR have received more and more attention. Some may support it by saying that it will help companies to make long term profit with sustainable success. While others may argue that it will distract corporate from the economic function of all businesses i.e. earning profit. Despite the ongoing debate on CSR, it cannot be denied that majority of the businesses have been initiating various socially responsible activities in the present context.

This study attempts at determining the CSR dimensions effecting customer satisfaction in Nepalese insurance companies. This study is primarily based on primary sources of data collected from the 100 respondents. This study hypothesizes that the customer satisfaction depends on several CSR dimensions such as economic CSR, legal CSR, ethical CSR and philanthropic CSR.

The correlation analysis shows that economic CSR, legal CSR, ethical CSR and philanthropic CSR are positively related to customer satisfaction. It reveals that higher the economic and legal CSR practices, higher would be customer satisfaction. This also indicates that higher the ethical and philanthropic CSR practices, higher would be the customer satisfaction. The regression analysis shows that economic and legal CSR have positive impact on customer satisfaction. Similarly, ethical and philanthropic CSR also have positive impact on customer satisfaction. This indicates that increase in the economic and legal CSR leads to increase in the customer satisfaction. It also reveals that increase in the ethical and philanthropic CSR practices implies to increase in the customer satisfaction.

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IMPACT OF FDI ON INDIAN NON-LIFE INSURANCE SECTOR

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ABSTRACT

Today, the era of LPG has great impact on the growth of an economy. There are various sectors that contribute in the economy of a country and these sectors are greatly influenced by FDI. Insurance Sector is one of them where FDI plays an important role. So, this paper is to know the impact of FDI on the insurance sector especially in Non-Life Insurance Sector. Secondary data has been collected from the period 2008-09 to 2013-14 to achieve the objectives. By applying regression technique and with regression model it is found that FDI in Non-Life Insurance Sector has a significant impact on Indian Non-Life Insurance Sector.

Keywords: *FDI, Insurance sector, Non-Life Insurance Sector, Equity Share Capital.*

Introduction

Insurance in India refers to the market for insurance in India which covers both the public and private sector organisations. The insurance sector has gone through a number of phases by allowing private companies to solicit insurance and also allowing foreign direct investment. Foreign Direct Investment is a direct investment into production or business in a country by an individual or company of another country either by buying company in the target country or by expanding operations of an existing business in that country. India allowed private companies in insurance after the enactment of **Insurance Regulatory and Development Authority Act 1999 (IRDA Act 1999)**. This Act permitted shareholding in insurance companies to the extent of 26%. The parliament has passed Insurance Laws (Amendment) Bill 2015. The Amendment Bill hikes FDI cap in the insurance sector to 49% from present 26 per cent.

The present scenario has revealed 53 Insurance companies working in Indian markets. Out of which 24 are in life insurance and 29 are in Non-Life Insurance Sector. General insurance or Non-Life Insurance is typically defined as any insurance that is not life insurance. It is called property and

casualty insurance in the United States and Non-Life Insurance in continental Europe.

Review of Literature

Hasan, A. (2015). In his research paper titled impact analysis of FDI on insurance sector in india has found that Motor Insurance business in Non life insurance sector covered 47.90 % as a largest part in this sector followed by Health department with a share of 22.18%. The lowest share in this sector was found of the Marine department by covering 4.47% share only. He concluded that participation of foreign investment in Indian insurance sector is important for the future growth of Indian economy. It was expected that Indian insurance industry would grow up to 125% in coming years.

Kapoor. (2003). in the article entitled “Issues and challenges facing the Insurance Industry” remarks that “Indian insurance industry has opened wide opportunities for service and infrastructure sectors. The author stated that the some of the major challenges that have to be addressed for channelizing growth of insurance sector are product innovation, distribution network, investment management, customer service and education. He further pointed out that the competition will result in the market to grow

beyond current rates and offer additional consumer choice through the introduction of new products, services and price options.

Objectives of the Study

- To study the trend pattern of Equity Share Capital and FDI in Non-Life Insurance Sector from the period 2008-09 to 2013-14.
- To know the impact of FDI in Non-Life Insurance Sector.

Research Methodology

- This study is considering only Non-Life Insurance Sector.
- Period of Study: To achieve the objectives, the data for the period 2008-09 to 2013-14 have been taken.
- Analysis Method: The collected data are analyzed with the help of **Linear Regression**.

- Sources of Information: This study is based on Secondary data, the data is collected from various sources:-

- Handbook of Indian Insurance Statistics
- Annual Reports from IRDA and other insurance companies
- Books
- Publications
- Journals
- Internet

Analysis and Interpretation

1. FDI in equity share capital in Indian Non-life Insurance sector

Table 1 highlights the trend of equity share capital in the Indian Non-Life Insurance Sector along with the share of foreign promoters in it i.e. the share of Foreign Direct Investment.

Table 1.

Year wise FDI in equity share capital in Indian Non-life Insurance sector (Rs. Crore)

Year	Equity share capital	Share of foreign promoter	FDI (%)
2008-2009	4,829.91	676.62	14.01
2009-2010	5,684.67	896.32	15.77
2010-2011	6,705.89	1,090.08	16.26
2011-2012	7,826.10	1,324.45	16.92
2012-2013	9,519.65	1,586.63	16.67
2013-2014	10,140.21	1,678.86	16.56
2014-2015	11504.31	NA	NA

*Source: Compiled from Various Reports of IRDA and Indian Insurance Companies.

It seems from the Table 1 that in 2008- 2009, the equity share capital of the Non-Life Insurers was Rs.4829.91 crore where the contribution of foreign promoters was Rs.676.62 crore i.e. % of FDI was 14.01. With the lapse of time, the cumulative figures showed an increasing trend. With the passing of each financial year, it was increased consistently. In 2013-14, the Non-Life Insurance

Sector was having paid-up capital worth Rs.10, 140.21 crores with Rs.1678.86 crore as a share of foreign promoter. So, % of FDI was raised to the extent of 16.56 %.

1. Regression analysis

- Regression Analysis of FDI in Non-Life Insurance sector.

The impact of FDI on Equity share capital of non-life insurance sector over the financial years from 2008-09 to 2013-14.

Independent variable: FDI in Non- Life insurance sector

Dependent variable: Equity share capital in Non-Life insurance sector

Table 2.
Descriptive Statistics

	Mean	Std. Deviation	N
Equity Share Capital in Non-Life Insurance Sector	7451.0717	2106.99248	6
FDI in Non-Life Insurance Sector	1208.8267	392.94798	6

Table 3.
Correlations

		Equity Share Capital in Non-Life Insurance Sector	FDI in Non-Life Insurance Sector
Pearson Correlation	Equity Share Capital in Non-Life Insurance Sector	1.000	.996
	FDI in Non-Life Insurance Sector	.996	1.000
Sig. (1-tailed)	Equity Share Capital in Non-Life Insurance Sector	.	.000
	FDI in Non-Life Insurance Sector	.000	.

Table 4.
Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.996 ^a	.993	.991	202.54232	.993	537.084	1	4	.000	1.349

a. Predictors: (Constant), FDI in Non-Life Insurance Sector

b. Dependent Variable: Equity Share Capital in Non-Life Insurance Sector

Table 3 & 4 indicates the strength of relationship between the model and the dependent variable i.e. Equity share capital in Non-Life insurance sector.

Table 3 shows the correlation between the dependent variable (Equity share capital) and Independent Variable (FDI). Value of R= .996 which indicates high degree of correlation between predictor (FDI) and outcome (Equity share capital in Non-Life insurance sector). In the model summary (Table: 4) value of R² tells about how much variations in Equity share capital in non-

life insurance sector are due to variations in FDI in non-life insurance sector. Value of $R^2 = .993$ shown in table 4 indicates that 99.3% variations

in Equity share capital in Non-Life insurance sector are due to variations in FDI in Non-Life insurance sector.

Table 5.
ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	22032993.032	1	22032993.032	537.084	.000 ^b
Residual	164093.563	4	41023.391		
Total	22197086.595	5			

a. Dependent Variable: Equity Share Capital in Non-Life Insurance Sector

b. Predictors: (Constant), FDI in Non-Life Insurance Sector

Table 5 presents the ANOVA analysis in which value of $F = 537.084$ which are significant at 5% level of significant as p value is .000 i.e. ($p < 0.05$).

Table 6.
Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	993.329	290.660		3.417	.027
FDI in Non-Life Insurance Sector	5.342	.231	.996	23.175	.000

a. Dependent Variable: Equity Share Capital in Non-Life Insurance Sector

Table 6 of coefficients executes the estimates of b-values (Unstandardized coefficients) that explicate the individual contribution of independent variable to the model. The positive value shows the positive relationship between the predictor and outcome variable and vice-versa. When we replace the B values in equation we find the model as:

$GDP = b_0 + b_1$ (FDI in Non-Life Insurance Sector)

$= 993.329 + 5.342(\text{FDI in Non-Life Insurance Sector})$

The value of $b_1 = 5.342$ indicates that as FDI in non-life insurance sector increases by one unit, Equity Share Capital in it increases by 5.342 units.

Therefore, every additional unit of FDI is associated with an extra 5.342 unit's increment in Equity Share Capital.

The standardized beta values in the table 6 indicate the volume of change in standard deviation outcome due to one standard deviation change in the predictor. This value indicates that as FDI increases by one standard deviation (392.94798), Equity Share Capital increases by .996 standard deviation. This is true only if the effects of other factors held constant.

Testing of Hypothesis

H01: There is no significant impact of FDI in Non-Life insurance Sector.

The P-value related to FDI is less than .05. So, Null Hypothesis is rejected and concluded that there is significant impact of FDI in Non-Life Insurance Sector in India.

CONCLUSION

This is concluded from this study that FDI in Non-Life Insurance Sector plays an important role in India. By applying Regression and by making a regression model it is come to know that the value of $b_1 = 5.342$ indicates that as FDI increases by one unit, Equity Share Capital increases by 5.342 units. Therefore, every additional unit of FDI is associated with an extra 5.342 unit's increment in Equity Share Capital. In nutshell, it is found that FDI has significant impact on Equity Share Capital in Non-Life Insurance Sector.

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DETERMINANTS OF MARKET VALUE OF NEPALESE INSURANCE COMPANIES

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ABSTRACT

This study examines the determinants of market value of Nepalese insurance companies. Market price per share and Tobin's Q are the dependent variables. Return on assets, return on equity, age of the company, size of the company, and dividend per share are the independent variables. The data were collected from the annual report published by respective insurance companies, report published by BimaSamiti. The regression models are estimated to test the significance and importance of return on assets, return on equity, debt ratio, age of the company, size of the company and dividend per share.

The study reveals that debt ratio is negatively correlated to market price per share which indicates that higher the debt ratio, lower would be the market price per share. However, return on assets, return on equity, age of the company, size of the company and dividend per share are positively correlated to market price per share. This reveals that higher the return on assets, return on equity, age of the company, size of the company and dividend per share, higher would be the market value per share. Similarly return on assets, return on equity, debt ratio, age of the company, size of the company and dividend per share have positive correlation with Tobin's Q . It implies that higher the return on assets, return on equity, debt ratio, age of the company, size of the company and dividend per share, higher would be the Tobin's Q . The regression result shows that beta coefficient is positive for return on assets, debt ratio, age of the company, size of the company and dividend per share. However, the beta coefficient is negative for return on equity.

Keywords: Return on equity, Return on assets, Debt ratio, Age of the company, Size of the company and Dividend per share.

1. Introduction

According to Almumani (2014) Stock markets operate as an intermediary between savers and users of capital by means of pooling funds, sharing risk and transferring wealth.

Market capitalization has become a universally accepted indicator of business valuation. It represents the aggregate value of a company or stock (Jaya & Sundar, 2012). Market capitalization by taking into account the current market price, which reflects the current value and the total number of shares which reflects the size, gives a clear picture of the market value of a company. The success or failure of imperative decisions like mergers, acquisitions and takeover has great

impact on the value of a company. Similarly acceptance of new projects also has a bearing on its value. Thus, management takes any decision not only on the project's viability but also on the changes it is expected to bring in the value of a company. The efficient performance of a company as reflected by its continued earnings results in better valuation of market capitalization.

Shiller (1981) found that stock prices are not stable and fluctuate excessively in relation to the news about fundamentals primarily due to market irrationality. Thus, it is asserted that understanding the impact of various fundamental variables on stock price is very much helpful to investors as it will help them taking profitable investment

decisions. Chauvin & Hirschey (1993) sought to examine the perception of investor on calculating the market value based on advertising and research and development expenditure positively influenced market value. AL-Khalayleh (2001) showed a significant positive relationship between the market price per share with the ratio of return on assets and return on equity.

Dividend has a significant effect on market stock price in both banking and non-banking sector. Quasi et al. (2016) found that there is no effect between ROE and market stock price in insurance companies listed on ASE. There is effect between debt ratio and market stock price in insurance companies listed on ASE. There is effect between company's age and market stock price in insurance companies listed on ASE. There is effect between Company's Size and market stock price in insurance companies listed on ASE (Amman Stock Exchange). Barakat (2014) revealed that there is direct relationship between two independent variables: return on equity and capital structure and the dependent variable represented by stock market price. However, there is weak and inverse relationship between financial leverage and stock value, and this relationship is not significant, so there is no statistically significant relationship between financial leverage and company's value.

Claessens et al. (2002) confirmed that matured and larger firms have more liquid trading, better disclosure, well diversified, managing portfolio in reducing risk but less growth opportunity. Hosseini et al. (2012), found that there exists a significant negative relationship between the two variables of debt ratio and current ratio with market value. Quasi et al. (2016) found that there is no relationship between ROE and market stock price in these insurance companies.

Malhotra and Tandon (2013) attempted to determine the factors that influence stock prices in the context of National Stock Exchange of 100 companies. The result indicated that the firm's book value, earning per share and price earnings ratio are having a significant positive association with firms stock price while dividend yield is

having a significant inverse association with market price of common stock. Amidu (2007) argue that there is a strongest evidence for the relevance of dividend policy to the firms' performance in Ghana.

In context of Nepal, market value is the value of a company according to the stock market. It is used to refer to the market capitalization of a publicly traded company. Profitability and growth are basically considered as the major determinants of firm value. Corporate strategies can be accessed on the basis of their expected effect on profitability, growth and firm value. The value based planning models suggests that management of a firm aims to create shareholder wealth by maximizing market value of the equity thereby creating excess value over the book value of the firm (Bista, 2015).

According to Shrestha and Subedi (2014), the stock market index is taken as a barometer of an economy. Growth in stock index is normally considered as a good sign since it implies the investors are confident about the future prospect of the economy. It helps promote investment in the economy. However, a rapid increase in the stock market index is always a matter of concern. If the increase in the index is not justified by the fundamentals, such a rise cannot be sustained and eventually the index will plummet endangering the economic and financial stability. Hence, it is essential that the policymakers keep eyes on the stock market development and be ready to take appropriate measures, if needs arise, to prevent the buildup of bubbles and collapse in the market.

According to Joshi (2010), the impact of dividends is more pronounced than that of retained earnings in the context of Nepal. Pradhan (2003) found that Nepalese stockholders give more importance to dividend income than capital gains. The above discussion reveals that there is no consistency in the findings of various studies concerning the determinants of market value of insurance companies.

The main objective of this study is to analyze the determinants of market value in Nepalese insurance companies. More specifically, it

examines the impact of return on assets, return on equity, dividend per share, firm size, age of the company and debt ratio on market price per share and Tobin's Q of Nepalese insurance companies.

The remainder of this study is organized as follows: Section two describes the sample, data and methodology. Section three presents the empirical results and the final section draws conclusion and discusses the implication of the study findings.

2. Methodological aspect

The study is based on secondary data, which were gathered for 18 Nepalese insurance companies, with a total of 99 observations. The data were collect from the annual report published by respective insurance companies, report published by BimaSamiti.

Table 1 shows the list of Nepalese insurance companies selected for the study along with study period and number of observation.

Table 1: Number of insurance company selected for the study along with the study period and number of observations

S.N.	Name of Insurance Companies	Year	No. of observation
1	Asian life insurance company limited	2007/2008-2013/014	8
2	Everest insurance Company Limited	2010/2011-2011/011	2
3	Himalayan general insurance company limited	2010/2011-2016/017	7
4	Neco insurance company limited	2011/2012-2015/016	5
5	NLG insurance company limited	2014/2016-2016/017	4
6	Sagarmatha insurance company limited	2009/2010-2015/016	7
7	Shikhar insurance company limited	2010/2011-2015/016	6
8	Siddartha insurance company limited	2013/2014-2015/016	5
9	Surya life insurance company limited	2009/2010-2013/014	5
10	Prudential insurance company limited	2011/2012-2013/014	5
11	Alliance insurance company limited	2006/2007-2009/2010	5
12	Lumbini general insurance company limited	2010/2011-2014/2015	5
13	NB insurance company limited	2010/2011-2015/016	6
14	Premier insurance company limited	2010/2011-2015/016	6
15	Nepal life insurance company limited	2009/2010-2015/016	7
16	National life insurance company limited	2010/2011-2014/015	5
17	Gurans life insurance company limited	2010/2011-2013/2014	5
18	Life insurance company limited	2010/2011-2014/015	6

Thus, the study is based on the 99 observations.

The model

As a first approximation, the model estimated in this study assumes that the market value per share and Tobin's Q depends on several insurance companies' variables. Therefore, the model takes the following form:

$$\ln \text{MPS}_{it} = \hat{\alpha}_0 + \hat{\alpha}_1 \text{DR}_{it} + \hat{\alpha}_2 \text{DPS}_{it} + \hat{\alpha}_3 \text{AC}_{it} + \hat{\alpha}_4 \text{ROE}_{it} + \hat{\alpha}_5 \text{ROA}_{it} + \hat{\alpha}_6 \text{SC}_{it} + e_{it} \dots \dots \dots (1)$$

$$\ln \text{Q}_{it} = \hat{\alpha}_0 + \hat{\alpha}_1 \text{DR}_{it} + \hat{\alpha}_2 \text{DPS}_{it} + \hat{\alpha}_3 \text{AC}_{it} + \hat{\alpha}_4 \text{AROE}_{it} + \hat{\alpha}_5 \text{ROA}_{it} + \hat{\alpha}_6 \text{SC}_{it} + e_{it} \dots \dots \dots (2)$$

Where,

MPS= It is defined as market price per share.

Q =Tobin's q define as market value of the firm to book value of the firm.

DR =Debt ratio define as total debt to total assets.

DPS =Dividend per share define as earning per share to no. of outstanding share.

AC=Age of the company define as number of year insurance's existence.

ROE =Return on equity is defined as net income divided by total shareholders' equity.

ROA =Return on assets is defined as net profit to total assets.

SC =Size of the company define as log of total assets.

e =Error term

Return on assets (ROA)

Return on assets is the ratio of the net profit to total assets. Return on assets is an indicator of how profitable a company is relative to its total assets and gives an idea as to how efficient management is at using its assets to generate earnings (Brigham and Houston, 2007). (AL Khalayleh(2001) tested the relationship between accounting performance indicators and market performance indicators for a sample of (40) Jordanian public companies listed in Amman Security Exchange during the period between the year of 1984 to 1996. The results showed a significant positive relationship between the market price per share with the ratios of return on assets and return on equity. Based on it, the following hypothesis has been developed:

H1: Return on assets of a firm and market value of the firm is positively correlated.

Return on equity (ROE)

Return on equity is a measure of profitability that calculates how many dollars of profit a company generates with each dollar of shareholder's equity. A rising ROE suggests that a company is increasing its ability to generate profit without needing as much. Fouzanand Al Qaisi1 et al. (2016) found that there is no effect between ROE and market stock price in these insurance companies. Zhang and Chen (2007) revealed that the positive relationship between Return on equity, and change in profitability, change in capital investment. Brealey et al. (2006) and Brigham and Ehrhardt (2011) argued that maximizing the market value of a firm offers the most essential objective function which is necessary for the efficient management of a firm. Thus, the importance of return on equity as a profitability indicator becomes evident taking into account the fact that it measures how effectively the management generates wealth for shareholders. Based on it, the following hypothesis has been developed:

H2: Return on equity and market value of the firm is positively correlated.

Debt Ratio (DR)

The debt ratio is defined as the ratio of total long-term and short-term debt to total assets. It can be interpreted as the proportion of a company's assets that are financed by debt. The higher this ratio, the more leveraged the company is, implying greater financial. At the same time, leverage is an important tool that companies use to grow, and many businesses find sustainable uses for debt. Regarding to their studies, MM(1958) confirmed the assumption that the leverage factor is significant only because of the tax benefits, though they examined their assumptions by the profit variable, as well. Their second study suffers from some deficiencies, as well as the first one. According to Gordon (1994), the MM's formula used for public utilities is unsuitable. Based on it, the following hypothesis has been developed:

H3: *Debt ratio of a firm and market value of the firm is negatively correlated.*

Size of the company (SC)

Firm size is measured in terms of total assets of the insurance company. It is generally expected that larger financial institutions perform better than that of smaller financial institutions. However, the economies of scale and economies of scope is also a prime factor to be considered. Amato and Burson (2007) found negative relationship between firm size and firm profitability. However, Vijayakumar and Tamilzheshlvan (2010) found a positive relationship between firm size and profitability. Based on this, following hypothesis has been developed:

H4: *Size of the company and market value per share of the firm is positively correlated.*

Age of the company (AC)

Age of firm can be defined in terms of number of year between observation year and the year of formation, or incorporation or listing. In this study, it is measured as the number of years since the establishment of insurance company (Singh & Davidson 2003). Age could actually help insurance company become more efficient. Claessens et al.(2002) confirmed that matured and larger firms have more liquid trading, better disclosure, well diversified, managing portfolio in reducing risk but less growth opportunity. Bhak and Gort (1993) argued that insurance company is the organizations that can be restructured as needs evolve; there is no priori reason why they age. In fact, as they mature, firm should be able to learn. They can learn by doing or by investing in research and development; they can hire human capital and train their employees; and they can learn from other financial institutions in the same and in other industries. Based on this, following hypothesis has been developed:

H5: *Age of the company and market value per share of the firm is positively correlated.*

Dividend per Share (DPS)

Dividend per share (DPS) is the sum of declared dividends issued by a company for every ordinary

share outstanding. Dividend per share (DPS) is the total dividend paid out by a business, including interim dividend, divided by the number of outstanding ordinary shares issued. The dividend in this study is years dividend as considered by Gordon(1959).Dividend depends in part on the firm's current earnings and in part on the dividend for the previous year(Lintner,1956). The most cited literature Modigliani and Miller (1961) of irrelevance proportion, according to which dividend policies are all equivalent and there is no particular policy that can increase shareholders wealth in perfect capital markets. Amidu(2007) argue that there is a strongest evidence for the relevance of dividend policy to the firms' performance in Ghana. Pradhan(2003) argued that Nepalese stockholders give more importance to dividend income than capital gains. Based on this, the following hypothesis was developed:

H6: *Dividend per share and market value per share of the firm is positively correlated.*

3. Result and discussion

Descriptive statistics

Table 2 presents the descriptive statistics of selected dependent and independent variables.

Table 2: Descriptive statistics

(This table shows the descriptive statistics of dependent and independent variables of selected Insurance Company. The descriptive statistics are based on the data from 18 samples with 99 observations for the period. Dependent variables are MPS(market price per share is define as the closing price of last date end of the fiscal year)and Q(Tobin's q is define as market value of the firm to book value of the firm)and independent variable are DR(Debt ratio is define as total debt to total assets)and DPS(dividend per share is define as earning per share to no. of outstanding share)and AC(Age of the company is define as number of year insurance's existence)and ROE(Return on equity is defined as net income divided by total shareholders' equity)and ROA(Return on assets is defined as net profit to total assets)and SC(Size of the company is define as log of total assets)

	Minimum	Maximum	Mean	Std. Deviation
MPS	100	4351.00	741.04	935.83
Q	0.02	35.92	1.78	3.71
ROA	-19.33	45.92	5.52	6.57
ROE	-32.23	35.16	11.14	11.57
DR	2.44	105.57	42.49	28.17
AC	1.00	26.00	12.96	6.12
SC	17.21	24.32	21.07	1.26
DPS	0.00	127.00	17.06	24.61

The maximum market price per share is Rs.4351 and minimum of Rs.100 with on an average of Rs. 741.04. Similarly, minimum Tobin's Q value is 0.02 and maximum value is 35.92 with an average of 1.78. The minimum return on assets is -19.33 percent and maximum of 45.92percent, leading to an average of 5.52percent. Similarly return on equity has a minimum of -32.23percent and maximum of 45.92percent, leading to an average of 11.14. In addition, Debt to equity ratio has a minimum of 2.44 and maximum of 105.57, leading to an average of 42.49. Likewise, Age of the firm has a minimum of 1 and maximum of 26, leading to an average of 12.96. Similarly, size of the firm has a minimum of 0 and a maximum of 127, leading to an average of 17.06.

Correlation analysis

Having indicated the descriptive statistics, Pearson correlation's coefficients are computed. The Pearson's correlation coefficients for the selected Insurance Company have been computed and the results are presented in Table 3.

Table 3: Pearson's correlation coefficients matrix for Nepalese insurance companies

This table shows the vicariate Pearson's correlation coefficients between different variables used in the study. The correlation coefficients are based on the data from 19 samples with 99 observations. The dependent variables are MPS (market price per share is define as the closing price of last date end of the fiscal year) and Q (Tobin's q is define as market value of the firm to book value of the firm) and independent variable are DR (Debt ratio is define as total debt to total assets) and DPS (dividend per share is define as earning per share to no. of outstanding share) and AC (Age of the company is define as number of year insurance's existence) and ROE (Return on equity is defined as net income divided by total shareholders' equity) and ROA (Return on assets is defined as net profit to total assets) and SC (Size of the company is define as log of total assets).

Correlations								
	MPS	Q	ROA	ROE	DR	AC	SC	DPS
MPS	1							
Q	0.567**	1						
ROA	0.307**	0.709**	1					
ROE	0.008	0.082	0.633**	1				
DR	-0.173	0.196	0.394**	0.549**	1			
AC	0.220*	0.106	0.135	0.261**	0.427**	1		
SC	0.575**	0.005	-0.123	-0.168	-0.602**	0.084	1	
DPS	0.380**	0.233*	0.180	-0.028	-0.221*	0.052	0.427**	1

Notes: The asterisk signs (**) and (*) indicate that the results are significant at 1 percent and 5 percent level respectively.

The result shows that debt ratio is negatively related to market price per share which indicates that higher the debt ratio, lower would be the market price per share. Similarly, the study observed positively related to return on assets, return on equity, age of company, Size of company, dividend per share. It indicates that higher the return on assets, return on equity, age of the company, size of the company and dividend per share, higher would be the market per share.

Likewise, the study shows that return on assets, return on equity, debt ratio, age of the company, size of the company and dividend per share is positively related with Tobin's Q. It indicates that higher the return on assets, return on equity, debt ratio, age of the company, size of the company and dividend per share, higher would be the Tobin's Q.

Regression analysis

Having indicated the Pearson's correlation coefficients, the regression analysis has been carried out and the results are presented in Table 4. More specifically, the table shows the regression

results of return on assets, return on equity, debt ratio, age of the company, size of the company and dividend per share on market value per share of Nepalese insurance company.

Table 4: Estimated regression results of return on assets, return on equity, debt ratio, age of the company, size of the company and dividend per share on market value per share.

This result is based on panel data of 19 insurance companies by using linear regression model. The model is $\ln MPS_{it} = \hat{\alpha}_0 + \hat{\alpha}_1 DR_{it} + \hat{\alpha}_2 DPS_{it} + \hat{\alpha}_3 AC_{it} + \hat{\alpha}_4 ROE_{it} + \hat{\alpha}_5 ROA_{it} + \hat{\alpha}_6 SC_{it} + e_{it}$, where MPS (market price per share is define as the closing price of last date of the fiscal year), Tobin's Q independent variable are ROA (return on assets is defined as net profit to total assets), ROE (return on equity is defined as net income divided by total shareholders' equity), DR (debt ratio define as total debt to total assets), AC (age of the company define as number of year insurance's existence), SC (Size of the company define as log of total assets), and DPS (Dividend per share define as earning per share to no. of outstanding share)

S.N.	Intercept	Regression coefficient of MPS						Adj-R ²	SEE	F
		ROA	ROE	DR	AC	SC	DPS			
1	499.19 (4.24)	43.79 (3.18**)						0.09	895.09	10.12
2	734.17 (5.58)		-0.62 (-0.07)					0.01	940.62	0.01
3	985.28 (5.83)			5.749 (1.73)				0.02	926.45	2.99
4	304.87 (1.41)				33.66 (2.22*)			0.04	917.58	4.94
5	-8288.08 (-6.35)					428.63 (6.93**)		0.32	769.26	48.04
6	494.81 (4.64)						14.43 (4.04**)	0.14	870.27	16.32
7	-9331.21 (-7.92)	54.71 (5.16**)				463.80 (8.37**)		0.47	684.17	43.68
8	-8921.1 (-7.66)	74.34 (5.59**)	-17.92 (-2.36**)			448.66 (8.23**)		0.49	668.45	32.36
9	-8866.28 (-7.79)	75.49 (5.81**)	-22.26 (-2.91*)		26.24 (2.32*)	431.92 (8.03**)		0.51	653.47	26.75

10	-1031.08 (-6.21)	73.72 (5.65**)	-26.03 (-3.15**)	5.16 (1.19)	17.07 (1.25)	498.30 (6.44**)		0.52	652.01	21.78
11	-10143.6 (-5.80)	72.40 (5.28**)	-25.66 (-3.06**)	5.16 (1.19)	16.99 (1.24)	489.60 (5.96**)	1.02 (0.33)	0.51	655.16	17.99

Note:

- Figures in parenthesis are t-values
- The asterisk signs (**) and (*) indicate that the results are significant at 1 percent and 5 percent level respectively.
- Market value per share is dependent variable.

The beta coefficients are positive for return on assets, debt ratio, age of the company, size of the company and dividend per share. It indicates that higher return on assets, debt ratio, age of the company, size of the company and dividend per share, higher would be the market value per share. This finding is contradicted with the findings of Hosseini et al. (2012). Similarly, this finding is similar with the findings of Pradhan (2003).

Table 4 shows that the beta coefficients are negative for return on equity. It indicates that higher the return on equity, lower would be the market value per share. This finding is consistent with the findings of Qaisi et al. (2016).

The regression results of return on assets, return on equity, debt ratio, age of the company, size of the company and dividend per share on Tobin's Q of selected Nepalese insurance companies are presented in Table 5.

Table 5: Estimated regression results of return on assets, return on equity, debt ratio, age of the company, size of the company and dividend per share on Tobin's Q.

This result is based on panel data of 19 insurance companies by using linear regression model. The model is $\ln Q_{it} = \hat{\alpha}_0 + \hat{\alpha}_1 DR_{it} + \hat{\alpha}_2 DPS_{it} + \hat{\alpha}_3 AC_{it} + \hat{\alpha}_4 AROE_{it} + \hat{\alpha}_5 ROA_{it} + \hat{\alpha}_6 SC_{it} + e_{it}$, where MPS (market price per share is defined as the closing price of last date of the fiscal year), Tobin's Q independent variable are ROA (return on assets is defined as net profit to total assets), ROE (return on equity is defined as net income divided by total shareholders' equity), DR (debt ratio defined as total debt to total assets), AC (age of the company defined as number of year insurance's existence), SC (Size of the company defined as log of total assets), and DPS (Dividend per share defined as earning per share to no. of outstanding share).

SN	Intercept	Regression Coefficients of Tobin's Q						Adj-R ²	SEE	F
		ROA	ROE	DR	AC	SC	DPS			
1	-0.43 (-1.25)	0.40 (9.91**)						0.49	2.63	98.17
2	1.486 (2.858)		0.26 (0.809)					0.04	3.72	0.65
3	0.68 (1.02)			0.03 (1.97*)				0.03	3.66	3.89
4	0.94 (1.07)				0.06 1.05			0.01	3.71	1.11
5	1.492 (0.24)					0.01 (0.05)		0.01	3.73	0.01
6	1.18 (2.65)						0.04 (2.36*)	0.04	3.63	5.57

7	0.54 (1.95)	0.62 (15.96**)	-0.19 (-8.922)		0.07 (2.36*)			0.72	1.95	128.62
8	-0.342 (-0.74)	0.62 (16.42**)	-0.21 (-9.44)					0.73	1.91	91.69
9	-11.25 (-2.26)	0.61 (15.69**)	-0.23 (-9.75)	0.03 (2.78**)	0.01 0.37	0.50 (2.15*)	0 0.29	0.75	1.86	49.53
10	-11.29 (-2.39)	0.61 (16.51**)	-0.23 (-9.90)	0.03 (2.79**)	0.01 0.04	0.51 (2.29*)		0.75	1.85	60.09
11	-12.03 (-2.83)	0.61 1.63	-0.23 (-9.96)	0.04 (3.66**)		0.54 (2.84**)		0.75	1.84	75.77

Note:

- Figures in parenthesis are t-values
- The asterisk signs (**) and (*) indicate that the results are significant at 1 percent and 5 percent level respectively
- Market value per share is dependent variable.

The result reveals that the beta coefficients are negative to ROE which indicates that higher the ROE lower would be the Tobin's Q. And the result is insignificant. This finding is contradicted with the findings of Qaisi1 et al. (2016).

The beta coefficients of return on asset are positive and significant. It indicates that higher the return on assets higher will be the Tobin's Q. This finding is consistent with the findings of Khalayleh (2001). The beta coefficients of debt ratio are positive and significant. It indicates that higher the debt ratio higher will be the Tobin's Q. The finding is contradicted with the findings of Hosseiniet al. (2012).

Likewise dividend per share has also positive and significant coefficient, indicate that higher the DPS, higher will be market value of the company. This finding is consistent with the findings of Pradhan (2003).

4. Summary and conclusion

This paper examines the determinants of market price per share on Nepalese insurance company, which has been passing through up and down in recent years. Since market price tends to be highly sensitive and volatile. Insurance is a contract, represented by a policy, in which an individual or entity receives financial protection or reimbursement against losses from an insurance company. The company pools clients' risks to make payments more affordable for the insured.

This study attempts to examine the effect of market value per share on Nepalese insurance companies. This study is based on secondary data of 18 insurance companies with 99 observations.

Return on equity has negative influence on market value per share. This result indicates that higher the debt ratio, lower would be the market value per share. Whereas return on assets, return on equity, age of the company, size of the company and dividend per share has positive impact on market value per share. This indicates that higher the return on assets, return on equity, age of the company, size of the company and dividend per share higher would be the market value per share and vice versa. Similarly, return on assets, debt ratio and dividend per share have positive influence o Tobin's Q. It means higher the return on equity, debt ratio and dividend per share higher would be the Tobin's Q and vice versa.

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IMPACT OF INSURANCE SECTOR DEVELOPMENT ON THE GROWTH OF NEPALESE ECONOMY

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ABSTRACT

This study empirically investigates the impact of insurance sector development on the growth of the Nepalese economy. The gross domestic product (GDP) is taken as dependent variable and claim payment, insurance premium, insurance paid up capital, insurance investment, and insurance returns as independent variables. This study is based on the secondary sources of data that are collected from 18 Nepalese insurance companies from 2008/09 to 2014/15 leading to total of 103 observations. The data were collected from the economic survey, annual report, and websites of the selected Nepalese insurance companies. The regression models are estimated to test the significance and impact of insurance sector development on Nepalese economy.

This study reveals that claim payment, insurance premium, insurance paid up capital, insurance investment, and insurance return are positively related to gross domestic product of Nepal. This indicates that higher the claim payment, higher would be the gross domestic product. Likewise, higher the insurance premium, higher would be the gross domestic product. Similarly, higher the insurance paid up capital, higher would be the gross domestic product. And higher the insurance investment, higher would be the gross domestic product. The regression results show that beta coefficients are significant for claim payment, insurance paid up capital, insurance investment. However, the coefficients are significant only for claim payment, insurance paid up capital, insurance investment, and insurance return at 1 percent level significance.

Key words: gross domestic product, economic development, insurance

I. Introduction

The insurance industry is a highly specialized industry that gives greater security to the fortunes of common people and among the whole society. It is one of the financial institutions in Nepal today that aid economic development and growth. Insurance is a risk transfer mechanism whereby the individual or the business enterprise can shift some of the uncertainties of life on the shoulder of the other. The role of insurance for economic development is risk transfer, information role, and capital market role. Insurance is a barometer of economic activity in a country. If the economy of any country grows the insurance industry of that country also grows in the same proportion. Insurance serves a number of valuable economic functions that are largely distinct from other types of financial intermediaries. Insurance

reduces the need for expensive loan workout and bankruptcy procedures. In order to highlight specifically the unique attributes of insurance, it is worth focusing on those services that are not provided by other financial services providers, excluding for instance the contractual savings features of whole or universal life products. Insurance that provides compensation in the case of a large adverse shock, such as a natural catastrophe, helps stabilize demand, finance reconstruction, and reduce pressure on the budget.

Insurance can be defined as the business of pooling resources together to pay compensation to the insured or assured (i.e. the policy holder) on the happening of a specified event in return for a periodic consideration known as premium. Insurance companies practice would affect

economic growth through the channels of marginal productivity of capital, protection, and technological innovations and savings rate. Insurance companies indemnify the ones who suffer a loss and stabilize the financial position of individuals and firms with possibility of transfer of different kinds of risks to insurance companies.

Insurance business is also seen as the backbone of any country's risk management system, since it ensures financial security, serves as an important component in the financial intermediation chain, and offers a ready source of long term capital for infrastructural projects in Nigeria (Augustine & Nwanneka, 2011). Similarly, insurance business plays a vital role in the Nigerian economy through risk bearing, employment of labour, payment of tax, providing vehicle for investors and other financial investment services, (Hamadu & Mojekwu, 2010). Therefore, it is important to ensure that insurance companies Nigeria are performing efficiently and significantly.

The importance of the insurance industry in the development process of a country was already acknowledged in 1964: a sound national insurance sector represents an essential feature of a proper economic system, contributing to economic growth and fostering high employment (UNCTAD, 1964). “. Large body of literature are available that explores the role of insurance in global, cross countries and single country perspective. The importance of life and non-life insurance in society, family, individual, and economy is increasing multifold. Still, in Nepalese context, insurance is not given importance as bank and financial institution. There are merely studies are found written on importance of insurance in economic development and society in the context of Nepal. But, in the global context, abundance researched has been carried out on insurance and economic development.

There have been a lot of theories and empirical research determining the impact of insurance practice on the economic growth both in the context of developed and developing countries which Nigeria is among. Merton and Bodie (1995)

developed a theory called modern theory of financial intermediation which comprises traditional theory and the changes in financial environment. Peter and Kjell (2006) worked on the relationship of insurance and economic growth, a theoretical and empirical analysis.

Francois Outreville (UNCTAD, 1990) pioneered the examination of the relationship between insurance development and economic growth for developing countries. His findings indicated that both non-life and life insurers generate significant economic growth. Maurice Kugler and Reza Ofoghi (University of Southampton, 2005) use co integration analysis to show that an increase in the market size of the different property and liability lines of business has a positive and statistically significant effect on economic growth.

Oke (2012) used fixed effect model and co-integration analysis to determine the short-run and long-run relationship between economic growth and insurance sector growth and development in Nigeria. The study spanned from the period of 1986 to 2009. The result reveals that insurance sector growth and development positively and significantly affects economic growth. The result of the granger causality test indicates that the extent of influence the insurance sector growth had on economic growth was limited and not direct because of some cultural, attitudinal traits and values in the economy.

Mojekwu, Olowokudejo and Agwuegbo (2011) used a dynamic factor model to estimate the impact of insurance contributions on the growth of Nigerian economy within the period of 1981 to 2008. The result indicates that the functional relationship between the volume of insurance contribution and economic growth in Nigeria is a first order autoregressive model. This model observed that economic growth is positively correlated with insurance contributions.

In the context Nepal Ghimire (2014) argues that total insurance premium and insurance premium has positive and significance contribution to the Nepalese economy. Nepalese insurance history dates back almost six and half decade. The first

non-life insurance company Nepal Insurance Company was established in 1947. The organized life insurance history started by 1972 after establishment of Rastriya Beena Sansthan (government owned insurance company which does business of Life and non-life) in 1968. Among 25 insurance companies, 8 are life, 16 are non-life, and 1 is both life and non-life insurance companies' according to fiscal year 2013/14.

The main objective of this paper is to explore the different role of insurance in economic development of Nepal. The specific objective of the study is to empirically investigate the relationship and impact of insurance development on economic growth, to examine whether change in insurance premium (IP) adequately explain change in GDP, to evaluate the relationship between insurance returns (IR) and GDP, and to

appraise how the claim payment by the insurance firm stimulates economic growth.

II. Methodological aspects

The study is based on the secondary data which were gathered for 18 insurance companies in Nepal from 2008/09 to 2014/15 leading to a total of 103 observations. The main source of data includes Nepal Stock Exchange, Insurance Board of Nepal and annual reports of selected Nepalese insurance companies. The data were collected on GDP, claim payment, insurance premium, insurance paid up capital, insurance investment, and insurance returns.

The list of sample companies for the study along with the study period and number of observations are presented in Table 1.

Table 1: Number of insurance companies and number observation

S.N	Name of Insurance Companies	Study Period	No. of Observation
1	Asian Life Insurance Company Limited	2008-2013	6
2	Everest Insurance Company Limited	2010-2011	2
3	Gurans Life Insurance Company Limited	2009-2015	7
4	Himalayan General Insurance Company Limited	2010-2015	5
5	Life Insurance Company Limited	2009-2014	6
6	Lumbini General Insurance Company Limited	2009-2015	7
7	National Life Insurance Company Limited	2009-2015	7
8	NB Insurance Company Limited	2009-2015	7
9	Neco Insurance Company Limited	2012-2015	4
10	Nepal Insurance Company Limited	2009-2015	7
11	Nepal Life Insurance Company Limited	2010-2015	6
12	NLG Insurance Company Limited	2014-2015	2
13	Premier Insurance Company Limited	2008-2015	8
14	Sagarmatha Insurance Company Limited	2009-2015	7
15	Siddhartha Insurance Limited	2010-2015	6
16	Surya Life Insurance Company Limited	2009-2015	7
17	Shikhar Company Ltd.	2009-2015	7
18	United Insurance Co. (Nepal) Ltd.	2014-2015	2
	Total Observation		103

Hence, the study is based on 103 observations.

Model

The model estimated in this study assumes that the Gross Domestic Product (GDP) is dependent variable and Insurance Premium, Insurance Return, Claim payment, Insurance Paid up Capital and Insurance Investment are defined as independent variable.

Therefore, following model is taken for analysis:

$$\ln(\text{GDP}) = \alpha_0 + \alpha_1 \ln(\text{IP}) + \alpha_2 \ln(\text{IR}) + \alpha_3 \ln(\text{CP}) + \alpha_4 \ln(\text{PC}) + \alpha_5 \ln(\text{II}) + e \dots \dots \dots (i)$$

Where,

$\ln(\text{GDP})$	=	\ln of Gross Domestic Product
$\ln(\text{IP})$	=	\ln of insurance premium
$\ln(\text{CP})$	=	\ln of claim payment
$\ln(\text{PC})$	=	\ln of insurance paid up capital
$\ln(\text{II})$	=	\ln of insurance investment

Gross Domestic Product

Gross Domestic Product is conceptualized the sum of money value of all final goods and services produced within the domestic territory of a country during a year. GDP is commonly used as an indicator of the economic health of a country, as well as a gauge of a country's standard of living. The GDP (current price) is taken for the study.

Insurance premium

Insurance premium is the rate or price paid by the insured for various Insurance policy purchased. Gabriel(2015) found that total insurance premium has positive and significance contribution to the development and growth of the economy. Also, Ghimire(2014) argue that total insurance premium has positive and significance contribution to the Nepalese economy.

H1: The insurance premium is positively related with gross domestic product.

Claim payment

Total claim payment is a payment from the insurance company to the insured for cover losses in order to restore the insured to the financial position (Torbira, 2013). Gabriel(2015) found that total claim payment has positive and significance

contribution to the development and growth of the economy. Victor(2013) found that total insurance claim payment has positive and significance contribution to the development and growth of the economy.

H2: The insurance investment is positively related with gross domestic product.

Insurance paid of capital

Paid-up capital is the amount of money a company has received from shareholders in exchange for shares of stock. Paid-up capital is only created when a company sells its shares on the primary market directly to investors. Paid-up capital, also called paid-in capital or contributed capital, is comprised of two funding sources: the par value of stock and additional paid-in capital. Victor(2013) found that total insurance paid of capital has positive and significance contribution to the development and growth of the economy.

H3: The insurance paid up capital is positively related with gross domestic product.

Insurance investment

Insurance investment is conceptualized as the economic activities design to increase, improve, and maintain the productive quality of the existing stock of the capital in an economy. Gabriel(2015) argues that total insurance investment has positive and significance contribution to the development and growth of the economy. Also, Ghimire(2014) argue that total insurance investment has positive and significance contribution to the Nepalese economy.

H4: The insurance investment is positively related with gross domestic product.

Insurance Returns

Insurance returns here are expressed in term of profit. Gabriel(2015), argue that total insurance return has positive and significance contribution to the development and growth of the economy. Victor(2013) found that total insurance return has positive and significance contribution to the development and growth of the economy.

H5: The insurance return is positively related with gross domestic product.

I. Data analysis and presentation

Descriptive statistics

Table 1 presents the descriptive statistics of selected dependent and independent variables during the fiscal year 2001/02 to 2013/14.

Table 2: Descriptive statistics

(Table 2 presents the descriptive statistics of selected dependent and independent variables during the period 2008/09 to 2014/15. Dependent

	Minimum	Maximum	Mean	Std. Deviation
GDP	27.43	28.38	28.087	.219
IP	15.37	25.02	20.291	1.191
IR	0.00	20.25	15.900	5.751
ICP	12.32	20.52	17.869	1.830
PC	18.42	20.80	19.215	.612
II	17.49	23.61	20.507	1.336

Table 2 shows that the ln of insurance premium ranges from minimum of 15.37 to a maximum of 25.02, leading to an average of ln insurance premium to be 20.2909 with standard deviation of 1.191. The ln insurance return ranges from minimum of 0.00* to a maximum of 20.25, leading to an average of ln insurance return to be 15.90 with standard deviation of 5.751. Similarly, ln claim payment ranges from minimum of 12.32 to a maximum of 20.52, leading to an average of ln insurance claim to be 17.869 with standard deviation of 1.830. The ln paid up capital ranges from minimum of 18.42 to maximum of 20.80, leading to an average of total paid up capital to be 19.215 with standard deviation of 0.612. The ln insurance investment ranges from minimum of 17.49 to a maximum of 23.61, leading to an average of ln insurance premium to be 20.507 with standard deviation of 1.336.

Correlation analysis

Having indicated the descriptive statistics, the Pearson correlation coefficients are computed and the results are presented in Table 3.

variables is GDP (Gross domestic product is define as ln of gross domestic product) and independent variables are IP (Insurance premium is defined as ln of insurance premium collected by insurance companies), IR (insurance return define as ln of insurance profit of insurance companies), CP (claim payment is define as ln of claim payment of insurance companies), PC (paid up capital is define as ln of paid up capital of insurance companies) and II (insurance investment is define as ln of investment of insurance companies).

Table 3: Pearson correlation matrix

(The results are based on pooled cross-sectional data of 18 insurance companies with 103 observations during the period 2008/09 to 2014/15 by using Pearson correlation. Where, dependent variables is GDP (Gross domestic product is define as ln of gross domestic product) and independent variables are IP (Insurance premium is defined as ln of insurance premium collected by insurance companies), IR (insurance return define as ln of insurance profit of insurance companies), CP (claim payment is define as ln of claim payment of insurance companies), PC (paid up capital is define as ln of paid up capital of insurance companies) and II (insurance investment is define as ln of investment of insurance companies).

	GDP	IP	IR	ICP	PC	II
GDP	1					
IP	.163	1				
IR	.302**	.230*	1			
ICP	.456**	.563**	.100	1		
PC	.395**	.402**	.282*	.162	1	
II	.290**	.697**	.213	.488**	.703**	1

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

The results show that insurance premium is positively correlated to gross domestic product. It shows that increase in insurance premium leads to increase in gross domestic product. Likewise, insurance return is also positively correlated to gross domestic product; it indicates that increase in insurance return leads to increase in gross domestic product. Similarly, claim payment, insurance paid up capital and insurance investment is positively related to gross domestic product (GDP); it shows that insurance companies have great contribution in Nepalese economy.

Regression analysis

The estimated regression result of firm's corporate governance variables on non-performing loan is presented in Table 4

Table 4: Regression of independent variables on gross domestic product

Model	Intercept	IP	IR	CP	PC	II	Adj.R2	SEE	F-value
1	27.48 (66.38)**	0.03 (1.47)					0.014	0.217	2.16
2	27.905 (405.01)**		0.011 (2.813)**				0.08	0.2097	7.913
3	27.114 (126.194)**			0.054 (4.555)**			0.198	0.1958	20.746
4	25.378 (35.764)**				0.141 (3.821)**		0.145	0.2021	14.59
5	27.114 (74.114)**					0.047 (2.692)**	0.072	0.2106	7.247
6	27.55 (68.619)**	0.018 (0.897)	0.011 (2.528)**				0.077	0.210	4.349
7	27.013 (12.37)**		0.010 (2.668)**	0.051 (4.437)**			0.256	0.189	14.737
8	258.221 (38.555)**		0.007 (1.909)	0.047 (4.189)**	0.01 (2.878)**		0.319	0.180	13.502

(The results are based on pooled cross-sectional data of 18 insurance companies with 103 observations during the period 2008/09 to 2014/15 by using linear regression model This model is $\ln(\text{GDP}) = \hat{\alpha}_0 + \hat{\alpha}_1 \ln(\text{IP}) + \hat{\alpha}_2 \ln(\text{IR}) + \hat{\alpha}_3 \ln(\text{CP}) + \hat{\alpha}_4 \ln(\text{PC}) + \hat{\alpha}_5 \ln(\text{II}) + e$ (i). Where, dependent variables is GDP (Gross domestic product is define as ln of gross domestic product) and independent variables are IP (Insurance premium is defined as ln of insurance premium collected by insurance companies), IR (insurance return define as ln of insurance profit of insurance companies), CP (claim payment is define as ln of claim payment of insurance companies), PC (paid up capital is define as ln of paid up capital of insurance companies) and II (insurance investment is define as ln of investment of insurance companies).

The regression result shows that the beta coefficients are positive and significance at 1 percent level of significance for insurance return. It indicates that an increase in insurance return of insurance companies leads to increase in gross domestic product. This finding is consistent with the finding with Gabriel (2015). Result also shows that insuranceclaim payment has positive and significance impact on gross domestic product at 1 percent level of significance. It reveals that increase in insurance claim payment leads to increase in gross domestic product. This finding is similar to the findings of Ghimire (2014), Victor (2013) and Gabriel (2015). Similarly, beta coefficient is positive and significant at 1 percent level for insurance investment. It states that higher the insurance investment higher would be gross domestic product (GDP). This finding is similar to the findings of Ghimire (2014), Victor (2013) and Gabriel (2015).

Summary and conclusion

This study is aimed at empirically investigating the impact of insurance sector development on the growth of the Nepalese economic and especially how the services rendered by the insurance sector have contributed to the Gross Domestic Product(GDP).The main objective of this paper is to explore the different role of insurance in economic development of Nepal.

In this study is based on the secondary data of Nepalese insurance companies listed in NEPSE for the period of 2008/09 to 2014/15 with 103 observations. These data were tested to determine to the impact of insurance sector development on the Nepalese economy.

The result of the findings reveals thatinsurance investment,insurance return, claim payment, and total paid up capital has contributed positively and significantly to the development and growth of the Nepalese economy. This implies that an increase in the activities (i.e insurance investment, insurance return, claim payment, and paid up capital) of insurance companies' will trigger Nepalese economic growth. On the other hand, insurance premium has positive and insignificant

impact on the development and growth of the Nepalese economy. The beta coefficients are significant only for claim payment, insurance paid up capital, insurance investment, and insurance return at 1 percent level significance.

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A REVIEW OF MOTOR INSURANCE IN OMAN WITH SPECIAL EMPHASIS ON TAKAFUL

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ABSTRACT

Oman is one of the fast developing and high income country. But due to over dependence on oil and gas and associated vulnerability to volatile global energy markets remain key risks. Financial sector is the major contributor for the exchequer of Oman and Insurance sectors contribution is significant and remarkable. Insurance sector is in the nascent stage and specifically motor insurance is developing at a pace. The sector features 22 insurance companies (including 11 foreign insurers). Multiple players are operating insurance business in Oman which includes national and foreign players. The researcher felt the need to study the motor insurance and its contribution with reference to different players and also to know the growth and progress of Takaful insurance in Oman. For the purpose of study both primary and secondary data collected. Secondary data had been collected from journals, newspapers, websites, textbooks and other sources. Primary data has been collected through a structured undisguised questionnaire by selecting a sample from Nizwa city consisting of 100 respondents by considering various demographic variables like age occupation and education etc and the result showed that most of them preferred to purchase comprehensive policy for motor insurance. 37% of respondents purchasing from Dhofar insurance company which is the leading company in Oman that offers good service and economical price. The study has been conducted during February and March 2017.

Key words: Takaful Insurance, Insurance Company, Claim, Premium, Market share.

Introduction

Oman's rather modest insurance sector, like that of many of its peer nations still offers investors significant upside potential that the Central Bank of Oman (CBO), also the banking regulator of the Sultanate is keen to develop, along with the other components of its broader capital markets. The sector features 22 insurance companies (including 11 foreign insurers), which in 2014 had a total asset base of \$2.15 billion, marking a YoY rise of roughly 5% according to official numbers in what remains a relatively under-insured market. That being said, the rather crowded arena has seen inevitable price competition over what are essentially similar services being offered.

Insurance penetration today is at around 1.3%, which while comparable to GCC peers, is notably less than the 6.5% global average. Another metric of how far the market still has to go is its Oman's insurance density of less than \$259.71 in contrast to the GCC average of \$366.19 and global average of \$654.46 per capita. The sector has remained well capitalized boasting a capital-to-asset ratio of over 30%, and today insurers retain on average 55% of premiums, while the remainder goes to reinsurers. Official data points to a higher retention ratio of 86% of premiums for motor insurance, albeit with the added risk this entails. New motor registrations recovered in 2014 topping the

140,000 mark. This is why the CBO has been urging insurance firms to develop more challenging branches, notably life, to diversify revenue sources and grow capacity to handle larger deals.

The role of insurance sector and its importance to the national economy is attributed to the huge funds invested in this sector which were at the end of 2015 about RO 503 million. Direct gross premiums of the insurance market were RO 442 million. This report highlights the various aspects of the insurance market in the Sultanate. Directorate General of Insurance Supervision Royal Decree No. 90/2004 transferred the insurance jurisdiction and assets from the Ministry of Commerce and Industry to the Capital Market Authority which commenced its responsibilities on 9 January 1999. CMA is a government entity that enjoys juristic personality, financial and administrative independence. The sector grew by 11% in 2015 compared to 2014. Direct gross insurance premiums were about RO 442 million in 2015 according to the audited financial statements with 12% growth in the five past years due to the impact of various types of insurance products. The sector has witnessed remarkable growth in 2015 thanks to the economic growth the Sultanate has witnessed during the past period. The indicators reflect the increased insurance awareness in the Omani community. The most salient indicators that reflect development in the performance of the insurance industry is the depth of the insurance sector which is evident in the contribution of the sector in the GDP of the Sultanate.

Models of Takaful Business

The Takaful business can be managed generally by adopting three basic concepts known as: al-mudharabah, al-wakalah, al-waqf or a combination of the three contracts.

Al-Mudharabah Model (trustee profit-sharing) It is a contractual agreement between the entrepreneur (mudharib) and the capital provider (sahibul mal) for a business venture whereby each agree on a specific profit-sharing ratio. However, the capital

provider will bear alone the whole responsibility of losses except that resultant from the misconduct of the entrepreneur, his negligence or violation of the policy conditions (Htay& Salman (2013)). Under Takaful contract, the participants are the capital providers and the entrepreneur is the Takaful operator who takes care of the Islamic insurance business based on the contributions of the first partner. Sometimes, the ratio of profit sharing in Takaful business may not be specified.

Al-Wakalah Model The Arabic word ‘wakalah’ refers to the delegation of a task to another or carrying out a job on behalf of others. The AAOIFI Shari’ah Standard No. 23 defines wakalah as, “The act of one party delegating the other to act on its behalf in what can be the subject matter of delegation”. Practically, wakalah means agency. In Takaful context, the operator named the wakeel is responsible to manage the funds of the participants (their agent) and he is earning a specific fee ‘the ujah’ for his services. The participants receive the profit or losses from the management of their Takaful fund unless defeats were not due to the misconduct or negligence of the agent.

Al-Waqf model Islamic scholars defined Waqf as ‘detention’ which means legally ‘the devotion or the dedication of a possession for religious and charitable purposes. According to Htay& Salman (2013), this agreement gives the right to the dedicator ‘the Waqif’ the right to transfer the ownership of the property to Allah (swt). For Takaful policy under Waqf model, the operator collects the contributions of the participants under the Takaful fund in which a waqf account should be established and will be relinquished later on as a waqffund.

Mixed/ Hybrid Model This model is a combination of al-mudharabah and al-wakalah models. Under this contract, the Takaful operator has the role of the entrepreneur and the agent of the participants’ whereas the latter is the principal and capital provider simultaneously. With reference to Htay& Salman (2013), under this model the Takaful operator will earn an upfront agency fee from the contributions of the participants and he

is also allowed to share the profit on the investment of the Takaful fund according to the conditions of the policy.

Mechanism of Takaful Business

Takaful business can be grouped under two basic forms: family and general takaful. Each is based on the concepts of Mudharabah and Tabarru. Thus, the element of interest from the insurance policy is disappeared and Gharar is converted into tolerable form.

Family Takaful

Family Takaful is created as a substitute of conventional life insurance to offer a financial assistance to the relatives of the deceased participant. As per Yasid & al (2012), Islamic life insurance is based on three main principles: the participant has to save over a specific period of time with a specific amount. Then, he receives returns from investment on the basis of his contributions. In the event of his death, his heirs will earn before the maturity of the insurance contract. Under this form, Takaful fund is divided into two separate Accounts namely the Participants' Special Account (PSA) and the participants Account (PA). The portion installed in the PSA is perceived as a donation for the Takaful operator to indemnify the heirs of any participant in case of his death prior to the policy maturity date. The remaining portion will be credited into the PA as a mean of investment and savings.

General Takaful

Contradictory to family Takaful which is supposed to be a long term insurance policy, general Takaful is a mean of protection on a temporary basis practically one year period. The purpose of such business is to provide protection against the legal responsibility of the participant toward the loss or damage happening in material goods or causing an unexpected death of a third party. Htay & Salman (2013) stated that General Takaful may offer various types of products like motor marine engineering, aviation transport Takaful and employer's liability Takaful, burglary Takaful to contract work Takaful. Under general Takaful the

contributions of the participants are utilized under the models of Wakalah and Mudarabah.

Oman Insurance History

In Oman five foreign insurance companies started their business in the year 1980. They are; Axa Insurance Gulf (BSC) New India Assurance Co. Ltd, New Arabia Assurance Co. Ltd American Life Insurance Co. and Iran insurance company. National Life & General Insurance Company SAOC, commenced operations in 1983 and was the first Omani Life Insurance Company to be established in Oman. Today, National Life & General is one of the most progressive and successful investment and insurance company in the Sultanate.

Overview of Takaful in Oman

Takaful' is an Arabic word which means 'mutual or joint responsibility'. Accordingly, Takaful insurance works as mutual or co-operative insurance, whereby participants contribute – by way of 'tabarru' (donation) - a certain sum of money to a common pool. Takaful Insurance: Is a type of Islamic insurance, where members contribute money into a pooling system in order to guarantee each other against loss or damage. Takaful-branded insurance is based on Sharia, Islamic religious law, and explains how it is the responsibility of individuals to cooperate and protect each other. Takaful insurance's joining the conventional insurance activities contributed to increase the market competition. The Takaful will seek to avoid prohibited elements of uncertainty by structuring its subscriber contributions as tabarru (from the Arabic "to donate, contribute or give away"). Under this concept, payments that the Takaful makes on claims by a subscriber would be considered a partial donation by the other subscribers of the capital that they have contributed to the Takaful.

Gross direct premiums of Takaful insurance companies stood at RO 38.77 million with an increase of 64% compared to RO 23.69 in 2014. Takaful insurance represented 9% of the gross direct premiums in 2015. General Takaful and Family Takaful insurance represented 9% and 7%

respectively. The data indicated the percentage of Takaful insurance claims to the total paid claims represent 5% in 2015. General Takaful and Family Takaful insurance represent 5% and 4% respectively. Percentage of Takaful to total insurance policies, total commissions and the costs of production, total general and administrative expenses and total assets 4%, 8%, 15% and 9% Consecutively. The direct premiums, paid claims, number of issued policies by Takaful insurance companies by type in 2015. Takaful insurance represents not more than 9% of the total conventional insurance. However, there is a good rate in certain types of insurance. It is noted that the percentage of the direct premiums in other types of insurance is 34% and number of life insurance policies (group) is 19%. Statistical data indicated that retention ratio of Takaful insurance companies in 2015 was 50% falling by 8% compared to 2014 and the loss ratio for Takaful insurance companies was 38% in 2015 dropping by 4% compared to 2014. Total investments of Takaful companies dropped by 1% to record RO 30.90 million in 2015 compared to RO 31.12 million in 2014. Takaful represented about 6% of the total investments of insurance companies in 2015. Total returns from the investments of Takaful companies increased by 19% to reach RO 1.05 million in 2015 compared to RO 0.88 million in 2014. The ratio of Takaful was 10% of the total returns from the investments of insurance companies in 2015.

The data indicated that the brokers have played a substantial role in the premiums collection. Premiums collected by the brokers were RO 122.8 million which represented around 28% of the total premiums. The number of brokers at the end of 2015 was 39 brokers compared to 36 brokers at the end of 2014. The data analysis proved two brokerage companies have acquired 48% of the total premiums collected by the insurance brokers.

Further, Oman's insurance companies have posted a 1.9 per cent growth in gross direct premium income at OMR454.64 million in 2016, from OMR446.18 million for the previous year. Life insurance portfolio posted a 213.3 per cent growth

at OMR33.40 million in 2016, marking the highest rise among different insurance segments, the Capital Market Authority said in a report. Likewise, health insurance posted a 12.5 per cent growth at OMR121.41 million, over the previous year. However, motor insurance declined to OMR157.89 million from OMR162.83 million during the period, while marine insurance stood more or less same at OMR14.17 million. There was a decline in motor sales in the country last year. The gross premium income from property insurance dropped to OMR43.18 million in 2016, from OMR47.04 million in the previous year, while engineering insurance premium was lower at OMR20.11 million (against OMR25.46 million in the previous year). The CMA report also noted that the motor insurance has the biggest share in direct premium income with a 34.73 per cent share, followed by medical insurance. The CMA report said that net direct premium income of insurance firms in Oman stood higher at OMR258.26 million in 2016, against OMR249.24 million for the previous year. Like gross premium income, motor and medical insurance segments showed maximum share in this segment as well. The Sultanate has 22 insurance firms, which include almost 10 locally incorporated insurance companies. Of this, four companies, including two Islamic insurance firms, are listed on the Muscat Securities Market (MSM). The recent investment in infrastructure and better demand for medical insurance are driving the growth in premium income in Oman. Healthcare insurance is another growth area for Omani companies, with more and more locals going for medical cover. Medical insurance is fast becoming top priority for local companies in the Sultanate. The tendency of companies to make arrangements with designated clinics for providing healthcare facilities is becoming a story of the past, and a group medical coverage is now the norm, rather than the exception.

Review of Literature

Takaful is based on the concept of mutual contribution to help among the participants if they face any unfortunate events. In this arrangement,

the Takaful operators will be coordinating this activity. Although Takaful has been formally introduced by the Muslim scholars, it is for anyone, regardless of the religion. It seems that Takaful has been widely accepted by other religions since it has been offered not only in Muslim but also non-Muslim countries (World Takaful Report, 2012). Altuntas et al. (2011) try to provide an answer to the question whether Takaful insurance companies can be profit-maximizing firms. They compare a Takaful operator with a clear business objective and a Takaful operator which focuses on a non-business-related objective (i.e. to support the needy) in an environment that makes it difficult to generate profits: the Indonesian micro insurance market. The study shows that Takaful insurance can indeed be successfully offered on a for-profit basis. They conclude that growing Muslim population in the USA represents an interesting business opportunity for the US insurers in their home country. Another line of research in Takaful is efficiency studies and its applications in corporate governance and organizational form. Kader et al. (2010) examine the cost efficiency of non-life Takaful insurance firms. They find that non-executive directors and separating the Chief Executive Officer's and Chairman's functions do not improve cost efficiency. However, board size, firm size and product specialization have positive effect on the cost efficiency of Takaful insurers. Saad et al. (2006) investigate efficiency of the life insurance industry in Malaysia. Both conventional insurances and Takaful companies are comparatively analyzed. Overall, Takaful National has been found to be below average in TFP but slightly above average for technical change (TECch). However, in the case of efficiency and pure efficiency change, Takaful National was below average. Ismail et al. (2011) conduct an efficiency analysis for the coexistence of family Takaful and conventional insurance. They found that Takaful has lower technical efficiency (TE) than conventional insurance. Yakob et al. (2012) identify factors that affect the solvency of the insurers/Takaful operators in Malaysia. It is determined that investment income, total benefit paid to capital and surplus ratio, financial leverage

and liquidity are significantly related to solvency, in which the investment income has a positive relationship, while the other three have a negative relationship. Islamic insurance, which is popularly known as Takaful insurance, is gaining popularity in Oman with the players achieving a robust growth of 64 per cent in gross direct premium at OMR39 million last year, which constitutes around 9 per cent of insurance industry's OMR442 million direct premium income and 5 per cent of total paid claims. The success of Takaful insurance firms, despite an economic slowdown in view of a slump in oil prices, was mainly due to the ability of Takaful players to gain people's trust, ability to offer affordable and competitive premium and quality service. The Sultanate's two Takaful insurance firms – Al Madina Takaful and Takaful Oman Insurance – are taking efforts to create awareness among the public on the importance of Sharia-compliance insurance schemes. According to the CMA's insurance review, the direct gross premiums of the insurance industry grew by 11 per cent to OMR442 million in 2015, from OMR396.2 million in the previous year. Also, the average annual growth in insurance sector in the last five years was 12 per cent, which shows the popularity of both conventional insurance products and Sharia-compliant Takaful insurance schemes in the country.

Research Methodology

Present study is conducted on motor insurance companies in Oman to know the different product and services they are offering to customers and in the process the researcher had contacted Takaful insurance company in Nizwa city for collecting information to know the difference between Takaful and other insurance companies operating in Oman and also contacted the respondents in Nizwa to know the awareness of Takaful.

Research design and sampling

The present study is exploratory in nature to understand the motor insurance scenario in Oman. The information gathered from the respondents for the study is from primary source with a structured undisplayed questionnaire covering different type of question like dichotomous,

multiple choice and Likert's five point scale to know respondent views, secondary data has collected from various books, journals, newspaper, website etc. For the present study a sample of 100 respondents were considered covering private sector, government employees, business, student, and others. Convenient sampling method is used for collecting data from respondents.

Need for Study

Oman economy is one of the developing economies in GCC countries and the financial sector plays a significant role in the development process. Insurance plays a major role in financial sector for contributing for the development of Sultanate of Oman. Presently there are 22 players in the insurance sector in Oman are competing with innovative services for customers to increase their

market share. The present study is initiated to know the prospects of Takaful insurance in Oman in relation to other insurance companies.

Objective of the Study.

1. To study and evaluate the performance of Takaful insurance in Oman.
2. To understand the motor insurance awareness among the respondents.
3. To know the satisfaction level of customers towards motor insurance.

Scope of the Study

The scope of the study is confined to motor insurance in Oman. As far as geographical location is considered it is restricted to Nizwa only and number of respondent 100 only.

Data Analysis and Interpretation

Table no: 1 Business figures of leading motor insurance companies in Oman (in OMR)

No	Insurance company	Years				
		2012	2013	2014	2015	2016
1	Dhofar Insurance	24100541	26672458	24840400	24064798	NA
2	Muscat Insurance	2083599	2993072	5027609	7261626	NA
3	Al Ahlia Insurance	21241242	21993556	19828079	20156460	NA
4	New India Assurance	62,876	12582767	18118083	16573820	30019222
5	Oman Takaful	NA	NA	60693	1171653	291120
6	Al Madina Takaful	3655679	7989352	10067690	8184663	NA

From the above table no:1 it is evident that Dhofar Insurance is a leading insurance company with consistent growth in terms of motor insurance from 24100541 OMR in 2012 to 24064798 OMR in 2015 followed by Al Ahalia with variations in business figures 21241242 OMR in 2012 to 20156460 OMR in 2015. New India Assurance being a foreign company increasing its prosperity consistently with 62876 OMR in 2012 to 30019222 OMR in 2016 and the last place is taken by Takaful insurance companies in Oman.

Factor Analysis

Kaiser –Meyer-olkin and Bartlett's test sampling adequacy is 0.745(> 0.5) is acceptable for the present study.

Awareness and satisfaction of respondents towards the motor insurance services

Factor analysis is performed for the data obtained from the questions asked to the respondents related to the services of motor Insurance. Principle component analysis method and varimax rotation with Kaiser Normalization is done.

The component matrix found that there are 6 factors extracted from original 21 variables. Table no: 2 examines the total variance explained by the factor analysis and gives an indication about the number of useful factors. The table no: 2.has three parts. First part titled initial Eigen values gives the variance explained by all the possible factors. Second part extraction sums of squared loading gives the information for factors with Eigen values

greater than one The last part titled, rotated sum of squares gives the information for extracted factors after rotation. The result indicates six factors with Eigen values greater than one suggesting a six factor solution. The factor 1 explains 13.28 percent of variance (under varimax rotation) out of total variance of 61.11 percent of 6 factors.

Table no :2 Total variance of respondent's awareness and satisfaction towards motor insurance.Total Variance Explained

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	5.236	24.934	24.934	5.236	24.934	24.934	2.791	13.289	13.289
2	1.923	9.158	34.093	1.923	9.158	34.093	2.559	12.186	25.475
3	1.629	7.756	41.849	1.629	7.756	41.849	2.185	10.406	35.881
4	1.578	7.516	49.365	1.578	7.516	49.365	2.054	9.780	45.661
5	1.327	6.319	55.684	1.327	6.319	55.684	1.853	8.824	54.485
6	1.141	5.432	61.116	1.141	5.432	61.116	1.392	6.631	61.116
7	.965	4.596	65.712						
8	.851	4.053	69.765						
9	.773	3.681	73.446						
10	.695	3.308	76.754						
11	.678	3.230	79.984						
12	.664	3.161	83.145						
13	.582	2.771	85.916						
14	.552	2.628	88.544						
15	.481	2.289	90.834						
16	.434	2.064	92.898						
17	.395	1.883	94.780						
18	.340	1.621	96.401						
19	.304	1.447	97.849						
20	.247	1.178	99.027						
21	.204	.973	100.000						

Extraction Method: Principal Component Analysis.

Factor-1 :Service quality

1. My Insurance company attempts my case very fast during any problem (Accident)
2. Claims settlement procedure in my insurance company is simple.
3. Time bound settlement of claims are done by my insurance company.
4. My insurance company is available online 24 X 7
5. The quality of service provided by the Insurance Company is excellent.

Factor-2 :Level of satisfaction

1. Encountered a problems with the insurance company with which i deal in relation to the insurance service.
2. Staff of my insurance company are very effective in handling customer queries.
3. I can contact any branch in Oman (my insurance company) for solving my problem.
4. The quality of service provided by the Insurance Company is excellent.
5. I feel that my insurance company is the best among all the insurance companies in Oman.
6. I refer my insurance company to my friends and relatives

Factor-3 :Communication

1. I frequently receive insurance awareness program news.
2. I know all the terms and conditions of motor insurance.
3. I am familiar with regulatory authority of Insurance in Oman
4. I know the next authority to approach when my problem is not settled by an Insurance company.

Factor-4 :Benefits offered

1. I am aware of accident coverage by motor insurance.
2. I know all the terms and conditions of motor insurance.

3. Premium charged for my motor insurance is less.
4. The staff provide all the information about the insurance when taking a policy.
5. My insurance company provides me value added services for policy taken.

Factor-5 :Insurance regulations

1. I am aware of the benefit of motor insurance.
2. I am aware of accident coverage by motor insurance.
3. I am aware of my responsibility towards informing Insurance Company in the event of accident.
4. Staff of my insurance company are very effective in handling customer queries.

Factor-6 :Information solicited

1. I want to update my knowledge about insurance services.

Descriptive statistics of the of the respondents' awareness and satisfaction towards motor insurance.

From the analysis it is revealed that most of the respondents accepts that their insurance company is available online 24X7 (mean = 3.23) with S.D. of 0.96, followed by premium charged for their motor insurance is less (mean = 3.16) with S.D. of 1.10 and Insurance company provides them value added services for policy taken. (Mean = 2.97) with S.D. of 0.989.

Conclusion:

Sultanate of Oman have twenty two insurance companies twelve of them are national insurance company and remaining are foreign insurance companies. So there is strong competition between those insurance companies. There is more scope in the market for insurance companies to grow and increase their market share. We found many customer are disagree with premium they charge comparing to the service offering by insurance company to the respondents because they are not

satisfied with that service and they expect effective service from insurance companies. The insurance companies should open 24 hours in a day and 7 days in a week. They should solve customer problems within short time to make customer happy. Takaful insurance company should create customized advertising to increase customer awareness. Insurance companies should update information every year to evaluate insurance companies performances, measuring customer satisfaction and comparing services offered with level of customer satisfaction. Also in future insurance companies should bring new strategies with their policies to offer hassle free services to customers.

The system has been originally developed to target the Muslims in jurisdictions where some Muslims do not consider conventional Insurance to be acceptable. However the system of Takaful insurance does not limit only to Muslim customers, it is open to all people. Takaful insurance is a new concept in Omani insurance market and the only way it can realize its potential is through spirited campaign to create awareness, this would enhance public understanding on philosophy on which Takaful insurance is formed and also to remove the perception that it is only meant for Muslim faith. The Takaful Insurance model is an alternative to conventional system of insurance. The word "Takaful" means Joint Guarantee and is meant to provide pooling of risks to the individuals to face, with the mindset of helping each other in the event of any defined losses. In addition, Takaful operators need to invest a substantial portion of their resources in training their human capital which will be vital in pushing Takaful agenda in the insurance market. Moreover, Takaful operators should develop and innovate products that would serve the interest of their target market.

Future trends of Takaful insurance in Oman

With the upgradation of higher technical skills, distribution experiences, customer orientation and financial sound, the foreign insurers are anticipated to further expand their presence in Oman. There commended unified insurance scheme for motors may generate some tuning in

insurance rates in Oman. It may also ease the way toward enhancing unification measures within the insurance sector. Further, the new distribution channels like Bancassurance and online policy approvals are gradually becoming common. Islamic bank sare likely to arise as a key medium in the marketing and sales of family Takaful products. The Oman insurance companies have shifted their investments toward relatively low-risk investments while dropping the exposure to equities. This practice has helped them to reduce risk and volatility in investments and generate relatively stable returns. The Oman's insurance sector is also anticipated to structurally advance going forward, consistent with optimistic regulatory reforms and efforts by some companies toward achieving better operational scale and efficiency.

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PRICING OF LIFE INSURANCE PRODUCTS - PERCEPTION ANALYSIS

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ABSTRACT

The article Pricing of Life Insurance Products – An Perception Analysis tries to evaluate the differences in the perceptions of the customers and the executives of the life insurance products in the state of Tamilnadu regarding the buying decisions of the policy holders. The elements involved are Price, Payment Terms, Customer's anticipated value, Quality and Price comparison, Differentiation, Flexibility, Clarity and Incentives and Discounts. Statistical tools like arithmetic mean and standard deviation were used to find out the differences in the perceptions among the respondents. This study will be a model for life insurers to formulate a pricing strategy to persuade the purchasing behaviours of the customers.

1. Introduction

Pricing is a influential component in the life insurance marketing strategy which hugely influence the final sale of the product. Price is the estimation placed upon the product by the life insurer. The management must take decisions regarding pricing i.e., premium, investment return, premium level, premium mode, commission rate, insured sum amount, life covered, pricing strategy, under writing and price related contingencies. Cost driver is the issue whose change causes incurring of costs, i.e., the number of times the cost has been incurred. Activity-based costing is a very useful tool when competition is very stiff between life insurance companies and various types of products. It helps cut costs for unused resources and finds potential resources. The insurers earn their income all the way through: premiums, profit / loss on sale/ redemption of investments and interests and dividends on premiums on these investments.

2. Review of related studies

In Booms and Bitner (2011) says, the human touch is introduced to deal with the service delivery, namely the firm's personnel and other customers. In services such as life insurance, the firm's

personnel highly influence customer perceptions of the product.

Berry (2010) opined that the firm people are part of the product and hence product quality is inseparable from the quality of the service provider. After the 7P's concept came to the limelight, all the elements of traditional marketing mix got a new meaning incorporating human element for service products.

Kotler (1976) 4P's model with the new 7P's model to analyse the variations developed in the elements. The pricing element in old mix involved only three sub elements, namely, price level, discounts/ allowances and terms of payments. But, the pricing element in the new mix added three more sub-elements to the existing sub-elements, namely, customer's own perceived value, quality/price interaction and price differentiation. These new variables along with the existing variables were used as the items under policy pricing scale in this study.

Mukherjee (2005) has opined about product pricing in Indian life insurance sector. In the insurance industry, with the entry of private players, advancement of technology and speed in

communication, communicating with the remotest customers also became very easy. Pricing of life insurance products plays a major role in marketing them. In this study, he has explained extensively the pricing methodology of insurance companies. Low pricing attracts the customers whereas high pricing drives them away. Therefore, competitive pricing which takes care of the interests of both the insurer and the insured should be implemented.

Dash & Khan (2011) tried to assess the perception of the executives about the various life insurance policy pricing attributes through a detailed empirical analysis. The various elements involved in the policy pricing are outlined as: affordability of the price level, flexibility of terms and conditions, worth of its value, uniqueness and better than alternate policies, simple and clear price structure and discounts and incentives.

3. Objectives of the study

The objectives of this study are

1. To examine the perceptions of both the buyers and the sellers with respect to the impact of life insurance policy pricing on the customers buying behaviour.
2. To find out the extent of differences in their respective perceptions.
3. To assess the impact of their location on their respective perceptions regarding the impact of policy pricing on the customers final buying decision.

4. Hypothesis of the study

The following hypotheses were framed for the study.

H₁: There is no significant difference in the perceptions of the customers and the executives with respect to the impact of policy pricing on the customers buying decision.

H₂: There is no significant difference in the perceptions of the customers of the urban area and

the customers of the rural area regarding the impact of policy pricing on the customers buying decision.

H₃: There is no significant difference in the perceptions of the executives of the urban area and the executives of the rural area about the impact of policy pricing on the customers buying decision.

H₄: There is no significant difference in the perceptions of the customers of the urban area and the executives of the urban area regarding the impact of policy pricing on the customers buying decision.

H₅: There is no significant difference in the perceptions of the customers of the rural area and the executives of the rural area with respect to the impact of policy pricing on the customers buying decision.

5. Methodology

The data for this study was collected from primary sources which consisted of both the customers and the executives involved in life insurance marketing process. The area chosen was the state of Tamilnadu. The period of data related to the year 2016. 810 life insurance customers and 414 life insurance executives were interviewed in this process. These respondents were from urban and rural area in order to assess the impact of residing locality on their perceptions. A well structured interview schedule was framed with questions on their perceptions of the various sub elements involved in the life insurance policy pricing. For this purpose, a seven-point scale (from 1 to 7) has been adopted with 1 being "Very Strongly disagree" and 5 being "Very Strongly Agree".

For both the customers and the executives, Cronbach's α were found to be 0.746 and 0.663 respectively which are more than 0.6. Again, all the items under both the scales were found to be having a loading of more than 0.5.

TABLE No. 1**RELIABILITY ESTIMATES WITH FACTOR LOADINGS FOR PRICING POLICY**

Variables	Scale Items		Factor Loadings	No. of items	Cronbach's α
Policy Pricing of Customers	1	P1	.532	6	.746
	2	P2	.759		
	3	P3	.863		
	4	P4	.672		
	5	P5	.864		
	6	P6	.515		
Policy Pricing of Executives	1	P1	.581	6	.663
	2	P2	.863		
	3	P3	.801		
	4	P4	.540		
	5	P5	.802		
	6	P6	.624		

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

6. Results and discussion

If the perceptions of all the respondents are taken in to consideration, the impact of life insurance policy pricing on the customers buying behaviour was found to be highly positive. As per these respondents perceptions, the pricing strategies of Indian life insurers positively influence the customers decision to buy a life insurance policy. Coming to the perceptions of the individual categories of respondents, executives of urban area have highest perception (positive) of the policy pricing closely followed by the executives taken as a whole who also have a positive opinion. But,

executives of rural area have the least perception of its impact on the customers buying behaviour. This study shows that both the customers and the executives have positive perceptions regarding this factor's impact on customers buying decision. But, the executives are more positive about its impact then the customers Hence, it can be inferred that the sellers think more positively about the impact of policy pricing on the buyers purchasing decision whereas the buyers, themselves, also think positively about its impact on their behaviour.

TABLE No. 2**PERCEPTIONS OF THE IMPACT OF POLICY PRICING ON THE CUSTOMERS' BUYING DECISION**

Respondents	Mean	Ranking
All customers and executives	3.8600	4
Customers	3.8531	5
Urban Customers	3.8640	3
Rural Customers	3.8457	6
Executives	3.8736	2
Executives Urban	3.9801	1
Rural Executives	3.7884	7

Source: Primary Data

The table No. 2 shows that, there is a difference in the perceptions of the buyers and the sellers of life insurance products regarding the influence of policy pricing on the policy holders buying behaviour. Especially, the executives of urban area have significantly higher perceptions than the executives working in rural area. To assess the extent of these differences, these perceptions were compared using t-test. The table reveals that there is a negligible difference in the perceptions of the customers and the executives as the significance level (0.70) was found to be more than the given level of 0.05. Hence, the first null hypothesis, H_1 , was accepted. Similarly, the customers of both the urban and rural area possess almost similar perceptions with the significance level (0.79) exceeding the given level of 0.05 by a huge margin.

Hence, the second null hypothesis, H_2 , was also accepted. But, the third null hypothesis, H_3 , was rejected as the level of significance (0.03*) was found to be less than 0.05.

Again, customers and executives of urban area had differences in their perceptions, though not so significant as the significance level (0.13) is more than 0.05. Hence, the fourth null hypothesis, H_4 , was accepted. Similarly, the last hypothesis, H_5 , was also accepted as the significance level was more than the given level. Though the various categories of respondents had differences in their perceptions, the difference was not so huge to affect the results except between executives of urban area and executives of rural area.

TABLE No. 3
TESTING OF HYPOTHESES

Factor	Null Hypotheses	Comparison of Respondents	t-value	Difference	Result
Policy Pricing	H_1	Customers and Executives	-0.321	0.70	Accepted
	H_2	Urban Customers and Rural Customers	0.219	0.79	Accepted
	H_3	Urban Executives and Rural Executives	2.001	0.03*	Rejected
	H_4	Urban Customers and Urban Executives	-1.411	0.13	Accepted
	H_5	Rural Customers and Rural Executives	0.618	0.49	Accepted

*Significant at 5% level

** Significance at 1% level

This is a general assumption that the sellers have a more positive perception regarding the product compared to the same of the customers. Though both of them have positive perception about the impact of policy pricing on the customers' buying behaviour, the executives have an edge over the customers. Generally the executives were more educated than the average customers. The education level along with awareness and understanding of the marketing process made the executives perceptions more positive than the customers. Further, the sellers operating in the urban area within the data collection zone differed

significantly from their colleagues working in rural belts. This difference can be attributed to better education and awareness among the urban executives. The same is not true in case of the customers. Both the urban and rural customers have a similar perception. Though the urban customers were more developed than the rural customers, they had no differences in their perceptions.

7. Conclusion and Suggestions

From the above analysis, the price level should be well within the affordability level of the customer.

Flexibility and convenience of terms of payment must be followed as per the requirements of the potential customer. The insurers must ensure that the price of the policy should not exceed its worth as anticipated by the buyer. Again, a transparent comparison with the price levels of similar policies provided by the rival companies should be made before the prospective buyers. A clear and simple price structure should be provided by the selling companies to the customer that can be understood easily by a lay man. The promotional measures like discounts and incentives should be included in the pricing structure in order to attract buyers.

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A STUDY ON AWARENESS AND PERCEPTION TOWARDS HEALTH INSURANCE POLICES WITH RESPECT TO WORKING WOMEN

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ABSTRACT

Insurance provides financial protection against a loss arising out of happening of an uncertain event a person can avail this protection by paying premium to an insurance company. A great advantage of insurance is that it spreads the risk of a few people over a large group of people exposed to risk to similar type. A Health Insurance Policy would normally cover expenses reasonably and necessarily incurred under the following heads in respect of each insured person subject to overall ceiling of sum insured for all claims during one policy period. Third Party Administrator (TPA) will arrange direct payment to the Hospital. Expenses beyond sub limits prescribed by the policy or items not covered under the policy have to be settled by the insured direct to the Hospital. The insured can take treatment in a non-listed hospital in which case he has to pay the bills first and then seek reimbursement from Insurance Co. There will be no cashless facility applicable here.

Insurance sector in India is small but growing at a very fast pace. Health problem and medical expenses are increasing day by day. Health insurance is used as a tool for giving coverage for meeting such expenses. Hence an attempt is made to study “

“A study on awareness and perception towards health insurance policies with respect to working women”

Introduction

Insurance provides financial protection against a loss arising out of happening of an uncertain event a person can avail this protection by paying premium to an insurance company. A pool is created through contributions made by persons seeking to protect themselves from common risk. Premium is collected by insurance

Companies which also act as a trustee to the pool. Any loss to the insured in case happening of an uncertain event is paid out of this pool. Insurance works on the basis principle of risk-sharing .A great advantage of insurance is that it spreads the risk of a few people over a large group of people exposed to risk to similar type.

Health insurance

Health insurance in India is growing segment of India's economy. In 2011, 3.9% of India's gross domestic product was spent in the Health sector. According to the world Health organisation (WHO), this is among the lowest of the BRICS (Brazil, Russia, India, China, South Africa) economies. Policies are available that offer both individual and family cover. Out of this 3.9%, Health insurance accounts for 5-10% of expenditure, employers account for around 9% while personal expenditure amounts to an astounding 82%.For the finical year 2014-2015 Health insurance premium was Rs 20,440 cores. For the finical year 2016-2017 Health insurance premium was Rs 5188.63 cores.

Health Insurance The term ‘Health Insurance’ relates to a type of insurance that essentially covers your medical expenses. A health insurance policy like other policies is a contract between an insurer and an individual / group in which the insurer agrees to provide specified health insurance cover at a particular “premium” subject to terms and conditions specified in the policy.

A Health Insurance Policy would normally cover expenses reasonably and necessarily incurred under the following heads in respect of each insured person subject to overall ceiling of sum insured for all claims during one policy period.

a) Room, Boarding expenses , b) Nursing expenses , c) Fees of surgeon, anaesthetist, physician, consultants, specialists , d) Anaesthesia, blood, oxygen, operation theatre charges, surgical appliances, medicines, drugs, diagnostic materials, X-ray, Dialysis, chemotherapy, Radio therapy, cost of pace maker, Artificial limbs, cost of organs and similar expenses.

- **Cost of Health Check-up:** Health policies may also contain a provision for reimbursement of cost of health check-up. Minimum period of stay in Hospital In order to become eligible to make a claim under the policy, minimum stay in the Hospital is necessary for a certain number of hours. Usually this is 24 hours. This time limit may not apply for treatment of accidental injuries and for certain specified treatments. Read the policy provision to understand the details.

- **Pre and post hospitalization expenses:** Expenses incurred during a certain number of days prior to hospitalization and post hospitalization expenses for a specified period from the date of discharge may be considered as part of the claim provided the expenses relate to the disease / sickness. Cashless Facility Insurance companies have tie-up arrangements with a network of hospitals in the country.

If the policyholders take treatment in any of the network hospitals, there is no need for the insured person to pay hospital bills. The Insurance Company, through its Third Party Administrator

(TPA) will arrange direct payment to the Hospital. Expenses beyond sub limits prescribed by the policy or items not covered under the policy have to be settled by the insured direct to the Hospital. The insured can take treatment in a non-listed hospital in which case he has to pay the bills first and then seek reimbursement from Insurance Co. There will be no cashless facility applicable here.

- **Additional Benefits and other standalone policies:** Insurance companies offer various other benefits as “Add-ons” or riders. There are also stand alone policies that are designed to give benefits like “Hospital Cash”, “Critical Illness Benefits”, “Surgical Expense Benefits” etc. These policies can either be taken separately or in addition to the hospitalization policy. A few companies have come out with products in the nature of Top Up policies to meet the actual expenses over and above the limit available in the basic health policy.

- **Exclusions** The following are generally excluded under health policies:

- a) All pre- existing diseases , b) Under first year policy, any claim during the first 30 days from date of cover, for sickness / disease. This is not applicable for accidental injury claims. c) During first year of cover – cataract, Benign prostatic hypertrophy, Hysterectomy for Menorrhagia or Fibromyoma, Hernia, Hydromel, Congenital Internal diseases, Fistula in anus, piles, sinusitis and related disorders.

- d) Circumcision unless for treatment of a disease , e) Cost of specs, contact lenses, hearing aids , f) Dental treatment / surgery unless requiring hospitalization

- g) Convalescence, general debility, congenital external defects, V.D., intentional self-injury, use of intoxicating drugs / alcohol, AIDS, Expenses for Diagnosis, X-ray or lab tests not consistent with the disease requiring hospitalization.

- h) Treatment relating to pregnancy or child birth including caesarean section

Health insurance policies are available from a sum insured of Rs 5000 in micro-insurance policies to even a sum insured of Rs 50 lakhs or more in certain critical illness plans. Most insurers offer policies between 1 lakh to 5 lakh sum insured. As the room rents and other expenses payable by insurers are increasingly being linked to the sum insured opted because it may not be easy to increase the sum insured after a claim occurs

non-life insurance companies offer health insurance policies for a duration of one year, there are policies that are issued for two, three, four and five years duration also. Life insurance companies have plans which could extend even longer in the duration. A Hospitalization policy covers, fully or partly, the actual cost of the treatment for hospital admissions during the policy period. This is a 6/7 wider form of coverage applicable for various hospitalization expenses, including expenses before and after hospitalization for some specified period. Such policies may be available on individual sum insured basis, or on a family floater basis where the sum insured is shared across the family members. Another type of product, the Hospital Daily Cash Benefit policy, provides a fixed daily sum insured for each day of hospitalization.

There may also be coverage for a higher daily benefit in case of ICU admissions or for specified illnesses or injuries. A Critical Illness benefit policy provides a fixed lump sum amount to the insured in case of diagnosis of a specified illness or on undergoing a specified procedure. This amount is helpful in mitigating various direct and indirect financial consequences of a critical illness. There are also other types of products, which offer lump sum payment on undergoing a specified surgery (Surgical Cash Benefit), and others catering to the needs of specified target audience like senior citizens.

Literature on Health Insurance

Health insurance is a mechanism by which a person protects himself from financial loss caused due to accident and or disability. Though disability is not fixed, precise and immutable state affected

as it is by numerous influences, both objective and subjective, its significance to society is that condition of ill health arising from disease or injury that prevents the individual from pursuing his normal routine of living. The universality of the hazard of disability is everywhere recognized; just as "uncertainty is one of the fundamental facts of life" (Knight 1921). It may be because of this reason why the earlier society looked into health insurance as a mechanism to reduce the uncertainty attached to disability.

The life and the earning ability of the breadwinner is the biggest asset of the average family. Viewing the home and the family as man's primary business, without insurance against loss or impairment of that life value, the family is vulnerable to, what is often, a catastrophic blow. The two hazards to which every income producer is subject are premature natural death and economic death due to disability (Faulkner 1960).

The spending on healthcare also remains much skewed. In the U.S., the top 1 percent of medical care users consume an average of nearly \$50,000, each, in a year (in 1987 dollars), and account for 30 percent of medical spending. The top ten percent of users account for nearly three quarters of total medical spending (Berk and Monheit 2001). Therefore, in such a situation, health insurance is one important method which helps significantly to spread the risk.

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Health Insurance choice essential decision - whether or not to purchase private health insurance (Barrett and Conlon 2003). Binary discrete choice models using either legit or probit has been used to analyze determinants of this type of purchase

decision. Cameron and Trivedi (1991) specified a conditional expected utility function that is associated with alternative health care regimes. The consumer chooses the regime that maximises expected utility. The utility gains, expected from the purchase of private insurance are related to the expected medical need of the people in the first instance. Some individuals face greater risk vulnerability than others due to their age, pre-existing health status, job profile and marital status.

The perception of individuals towards the risk is also an important factor. A consumer's knowledge of being at risk by being a member of a particular group of people with high-risk characteristics (e.g., those who know they have high cholesterol) likely to influence their insurance decision. Hopkins and Kidd (1996) and Butler (1999) found that smokers are less likely to purchase insurance. Smoking behavior is viewed in these studies as a proxy for risk-aversion. Of the other possible determinants of the decision to purchase insurance, an obvious factor is price. However few studies have attempted to estimate price elasticity of demand. This is because of lack of price information and also because of limited variation in price in highly regulated health insurance market. To overcome this problem Butler (1999) constructed effective prices' from information on insurance fund premium revenue (averaged over policies sold) and the expected benefits paid out by age category

The studies in Indian context on health insurance are scanty. Several recent papers and reports have critically reviewed the Indian health delivery and financing system (Bhat and Mavalankar 2000, Berman and Khan 1993, World Bank 1995, Planning Commission 1996, etc). These studies have documented issues and challenges the system faces in terms of 24 accessibility, efficiency and quality of the health care delivery

Conceptual back round of the study

Insurance sector in India is small but growing at a very fast pace. Health problem and medical expenses are increasing day by day. Health insurance is used as a tool for giving coverage for meeting such expenses. The insurance companies in general, have experienced significant growth

during last decade in India. It offers many facility, reimbursement at the end of the hospital stay, tax benefit etc.

Through these facilities many people can be benefited. Making Health insurance mandatory awareness will increase. Hence an attempt is made to study **“A study on awareness and perception towards health insurance policies with respect to working women”**

Objectives of the study

- To know the policy holders awareness on health insurance policy.
- To understand the perception of health insurance policy holder.
- To study the reasons for taking health insurance policy.
- To know how to increase health insurance awareness.
- To know the claim settlement process in health insurance.

Hypotheses

H₀₁: There is no association between age of the respondents and having Health insurance policy.

H₀₂: There is no association between education of the respondents and having Health insurance policy.

H₀₃: There is no association between occupation of the respondents and having Health insurance policy.

H₀₄: There is no association between annual income of the respondents and having health insurance policy.

Scope of the study

The main purpose is to know about the awareness and perception towards health insurance policies with respect to working women in karaikal district.

Limitations of the study

- The study is restricted to karaikal, Pondicherry (UT).
- Sample size is less; it does not represent the universe.
- The conclusion drawn may be biased.

RESEARCH DESIGN

Descriptive research design has been adopted for this study. Because the objective is to find awareness and perception towards Health insurance policies with respect to working women

SAMPLING METHODOLOGY

Population: Working women Health insurance policy holders in karaikal

Sample frame: The research has been conducted under the Star Allied Health insurance, branch office, karaikal. The survey has been conducted among working women Health insurance policy holders.

Sample unit: Health insurance policy holders of different Health insurance companies and also who have taken under star Allied Health insurance company,, karaikal.

Sample Technique: The sample techniques used for the research is convenience sampling method

Sample size and the area of the study

For the purpose of the study the sample size has taken 100. And the area of the study is karaikal

DATA COLLECTION

In order to understand the perception and awareness towards Health insurance policies with respect to working women, the respondents have been selected through the primary data source and secondary data

The primary data have been collected from the working women in karaikal through a structured questionnaire by face to face interview and secondary data is collected from the company, published and non published literature and III books

DATA ANALYSIS TECHNIQUES:

For analysis of the study simple percentage and chi-square test techniques have been used.

Data Analysis:

After collected the data is analysed by using SPSS package version 22.00

From the below table 1 It is observed that the age of the respondents. Between 25-34 Years are 38%, between 35-44 are 31%, between 45-54 Years are 13% and Les than 25 years and above year's age of the respondents are 9%.

Table-1 Age of the respondents

Age	Frequency	Percent
Less than 25 years	9	9.0
Between 25-34 years	38	38.0
Between 35-44 years	31	31.0
Between 45-54 years	13	13.0
Above 55 years	9	9.0
Total	100	100.0

Source: computed from primary data

Table-2 Cross tabulation of age of the respondents and Health insurance policy

Do have Health insurance policy	Age					Total
	Less than 25 years	Between 25-34 years	Between 35-44 years	Between 45-54 years	Above 55 years	
Yes	1	7	12	6	6	32
No	8	31	19	7	3	68
Total	9	38	31	13	9	100

The chi-square test as shown that there is an association between age and ownership of Health insurance policy. The chi-square results shows that P value is less than 0.05 hence the null hypothesis is rejected at 5%level of significant. The result of chi-square test shows below table-3

Table-3 chi-square test for age of the respondents and Health insurance policy

Chi-Square Tests	Value	Df	Asymp. Sig. (2-sided)	Result
Pearson Chi-Square	11.834 ^a	4	.019	Significant @5%level
Likelihood Ratio	12.005	4	.017	
Linear-by-Linear Association	11.262	1	.001	
N of Valid Cases	100			

From the below table 4.2 It inferred that the Marital status of the respondents. Married respondents are 65%, unmarried are 18%, widows are 4% and divorce respondents are 3% and widow are 14%

Table-4 Marital status of the Respondents

Marital status	Frequency	percent
Married	65	65.0
Unmarried	18	18.0
Divorce	3	3.0
Widow	14	14.0
Total	100	100.0

Source: computed from primary data

It noticed from the below table 5 the Family type of the respondents. It observed that Joint family of respondents are 52% Nucleus family of respondents are 48%.

Table-5 Family type of the Respondents

Type of family	Frequency	percent
Joint	52	52.0
Nucleus	48	48.0
Total	100	100.0

Source: computed from primary data

From the below table 6 It is observed that the Education qualification of the respondents. Graduation of the respondents are 31% Post graduation of the respondents are 29%,Metric respondents are 14% and Higher secondary and B.Ed, M.phil, Ph.d of the respondents are 13%.

Table-6 Education qualification of the respondents

Education	Frequency	Percent
Metric	14	14.0
Higher secondary	13	13.0
Graduation	31	31.0
Post graduation	29	29.0
Others(B.Ed,M.phil,Ph.d)	13	13.0
Total	100	100.0

Source: computed from primary data

Table-6 Cross tabulation of Education of the respondents and Health insurance policy

Health Insurance policy	Education					Total
	Metric	Higher secondary	Graduation	Post graduation	Others	
Yes	0	0	15	12	5	32
No	14	13	16	17	8	68
Total	14	13	31	29	13	100

The chi-square test as shown that there is an association between Education and ownership of Health insurance policy. The chi-square results shows that P value is less than 0.05 hence the null hypothesis is rejected at 5%level of significant. The result of chi-square test shows below given table-7

Table-7 chi-square test for education of the respondents and Health policy

Chi-Square Tests	Value	df	Asymp. Sig. (2-sided)	Result
Pearson Chi-Square	17.953 ^a	4	.001	Significant @5%level
Likelihood Ratio	25.772	4	.000	
Linear-by Linear Association	9.433	1	.002	
N of Valid Cases	100			

It noticed from the below table 8 the Occupation of the respondents Private employees are 62% and Government employees are respondents 38%.

Table-8 Occupation of the respondents

Occupation	Frequency	Percent
Government Employed	38	38.0
private Employed	62	62.0
Total	100	100.0

Source: computed from primary data

Table-9 Cross tabulation of occupation of the respondents and Health insurance policy

Insurance Policy	Occupation		Total
	Government Employed	Private Employed	
Yes	23	9	32
No	15	53	68
Total	38	62	100

The chi-square test as shown that there is an association between occupation and ownership of Health insurance policy. The chi-square results shows that P value is less than 0.05 hence the null hypothesis is rejected at 5%level of significant. The result of chi-square test below table-10

Table- 10 chi-square test for occupation of the respondents and policy holders

Insurance policy	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Result
Pearson Chi-Square	22.921 ^a	1	.000			Significant @1%level
Likelihood Ratio	23.028	1	.000			
Linear-by-Linear Association	22.691	1	.000			
N of Valid Cases	100	1				

From the below table 10 It is inferred that Annual income of the respondents. Above 2, 00,000 are 33%. Followed by between 50000-100000 are 23%, less than 50,000 are 20%, between 100000-150000 are 14% and between 150000-200000 annual income of the respondents are 10%.

Table-11 Annual income of the Respondents

Income	Frequency	Percent
Less than 50000	20	20.0
Between 50000-100000	23	23.0
Between 100000-150000	14	14.0
Between 150000-200000	10	10.0
Above 200000	33	33.0
Total	100	100.0

Source: computed from primary data

Table-12 Cross tabulation of annual income of the respondents and Health insurance policy

Insurance Policy	Annual Income					Total
	Less than 50000	Between 50000-100000	Between 100000-150000	Between 150000-200000	Above 200000	
Yes	0	3	5	2	22	32
No	20	20	9	8	11	68
Total	20	23	14	10	33	100

The chi-square test as shown that there is an association between Income and ownership of Health insurance policy. The chi-square results shows that P value is less than 0.05 hence the null hypothesis is rejected at 5%level of significant. The result of chi-square test below table-13

Table-13 chi-square test for annual income of the respondents and Health insurance policy

Chi-Square Tests	Value	Df	Asymp. Sig. (2-sided)	Result
Pearson Chi-Square	32.186 ^a	4	.000	Significant @5%level
Likelihood Ratio	37.295	4	.000	
Linear-by Linear Association	28.208	1	.000	
N of Valid Cases	100			

From the below table 14 .It is observed Having Health insurance policy of respondents are 32% doesn't have Health insurance policy of respondents 68%.

Table-14 regarding having Health insurance policy

Insurance policy	Frequency	percent
Yes	32	32.0
No	68	68.0
Total	100	100.0

Source: computed from primary data

It noticed from the below table -15 It is inferred the policy holder and having insurance policy in Public insurance company are 20% and private insurance company 12% of respondents.

Table-15 Type of insurer

Name of the Insurer	frequency	percent
Public insurance company	20	20.0
Private insurance company	12	12.0
Total	32	32.0

Source: computed from primary data

From the below table 16 It is observed that Name of the insurance company of the respondents. Others (LIC, National) insurance company are 19%, Star Health insurance company are 11% and Apollo Munich Health insurance company are 2%.

Table-16 Name of the insurance company of the Respondents

company name	Frequency	Percent
Star Health insurance	11	11.0
Apollo Munich	2	2.0
Others(LIC,National)	19	19.0
Total	32	32.0

Source: computed from primary data

Seen from the below table 17. It shows the type of health insurance respondents Family floater Health insurance policy are 15%,Group Health insurance policy are 11% and individual Health insurance policy holders are 6%.

Table-17 Type of Health Insurance policy of the respondents

Health insurance	Frequency	Percent
Individual Health insurance	6	6.0
Group Health insurance	11	11.0
Family Floater Health	15	15.0
Total	32	32.0

Source: computed from primary data

Table-18 Reasons for having Health insurance

Reasons	Frequency	Percent
Existing Illness	1	1.0
Avail good quality medical Treatment	11	11.0
Risk coverage against future illness, old age etc	20	20.0
Total	32	32.0

Source: computed from primary data

From the below table 18 It is observed that the Reasons for having Health insurance of the respondents. It clearly shows that 20% of respondents availed policy for the reasons of Risk coverage against future illness, old age etc.11% of the respondents Avail good quality medical Treatment and 1% of the respondents are existing illness.

Seen from the below table 19 Motivation to buy Health insurance Policy of the respondents. It shows that 15% of the respondents Motivated by agent followed by 9% of the respondents Motivated by family members,4% the respondents motivated by the friends and family members and 2% of the respondents are motivated by the broker and colleagues.

Table-19 Motivation to buy Health insurance policy

Inspired you to purchase	Frequency	Percent
Agent	15	15.0
Broker	2	2.0
Family members	9	9.0
Friends and Relatives	4	4.0
colleagues	2	2.0
Total	32	32.0

Source: computed from primary data

From the below table 20 It shows that the Respondent purchased Health insurance. It clearly shows that 16% of respondents purchased policy from the agent .15% of the respondents purchased policy from company itself and 1% of the respondents purchased policy from broker.

Table-20 Respondents purchased policy

Purchased policy	Frequency	Percent
From the agent	16	16.0
Broker	1	1.0
Company itself	15	15.0
Total	32	32.0

Source: computed from primary data

Seen from the below table 21 service delivery effective of Health insurance policy. It clearly shows that 32% of respondents are getting service delivery effectively by the company.

Table-21 Service Delivery effective of Health insurance policy

Delivery effective	Frequency	Percent
Yes	32	32.0
No	0	0.0
Total	32	32.0

Source: computed from primary data

Seen from the below table 22 continuation of the policy by the respondents.30% of respondents continuing their Health insurance policy and 2% of respondents not continuing their health insurance policy .

Table-22 continuation of the policy by the respondents

Policy continuing	Frequency	Percent
Yes	30	30.0
No	2	2.0
Total	32	32.0

Source: computed from primary data

From the below table 23 It shows that Renewing policy of the Health insurance. It clearly shows that 23% of respondents renew their Health insurance100percent. 6% of the respondents not say anything about renewing of their Health insurance policy.2% of respondents renews their Health insurance policy 50percent and 1% of the respondents renew their Health insurance services 25percent.

Table-23 Renewing policy of the Health insurance

Renewing service	Frequency	Percent
100%	23	23.0
50%	2	2.0
25%	1	1.0
I can't say	6	6.0
Total	32	32.0

Source: computed from primary data

From the below table 24 .It shows that paying more premium for additional Health care of the respondents. It shows that 20% of the respondents are willing to pay

more premium for additional health care benefit.9% of the respondents are not willing to pay more premium for additional benefit of the health care.3% of the respondents are didn't say anything about more premium for additional benefit of the Health care.

Table-24 Pay more premium for additional Healthcare benefit

More premium	Frequency	Percent
Yes	20	20.0
No	9	9.0
I can't say	3	3.0
Total	32	32.0

Source: computed from primary data

From the below table 25 It shows that increased health insurance awareness can be increased.13% of respondents opinion that Health insurance awareness can be increased by newspapers.11% of respondents opinion that Health insurance awareness can be increased by making health insurance mandatory, 5% of respondents opinion that Health insurance awareness can be increased by internet and 3% of respondents opinion that Health insurance awareness can be increased by advertisement.

Table-25 Increased Health insurance awareness

Awareness can be increased	Frequency	Percent
Newspapers	13	13.0
Advertisement	3	3.0
Internet	5	5.0
Making Health insurance Mandatory	11	11.0
Total	32	32.0

Source: computed from primary data

From the below table 26 it shows that know the claim settlement process in health insurance process. It clearly shows that 22%of the respondents know the claim settlement process in health insurance.10% of the respondents doesn't know claim settlement process in health insurance.

Table-26 know the claim settlement process in Health insurance

Settlement process	Frequency	Percent
Yes	22	12.0
No	10	10.0
Total	32	32.0

Source: computed from primary data

From the below table 27 respondents gone for Health insurance claim settlement. It clearly shows that 18% of the respondents gone for Health insurance claim settlement. 14% of the respondents not gone for the health insurance claim settlement.

Table-27 Respondents gone for claim settlement

Gone for claim settlement process	Frequency	Percent
Yes	18	18.0
No	14	14.0
Total	32	32.0

Source: computed from primary data

From the Table 28 .it shows that how many times respondents gone for claim settlement. 15% of the respondents gone for claim settlement one time, 14% of the respondents not gone for Health insurance claim settlement. And 3% of the respondents gone for the settlement two times.

Table-28 how many times gone for claim settlement

Claim settlement	Frequency	Percent
One time	15	15.0
Two time	3	3.0
Zero time	14	14.0
Total	32	32.0

Source: computed from primary data

Seen from the below table 29 know about Health insurance policy by the respondents. 38% of respondents know about the Health insurance policy and 30% of respondents doesn't know the health insurance policy .

Table-29 know about Health insurance

Know the about Health insurance	Frequency	Percent
Yes	38	38.0
No	30	30.0
Total	68	68.0

Source: computed from primary data

From the below table 30 it is observed that like to know the health insurance. It clearly shows that 28% of the respondents don't like know about the health insurance policy. 2% of the respondents like to know about health insurance policy.

Table-30 Like to know about Health insurance policy

Health insurance	Frequency	Percent
Yes	2	2.0
No	28	28.
Total	30	30.0

Source: computed from primary data

From the below table 31 it is shows that Reasons for not taking health insurance policy. 14% of the respondents are not taking policy due to less salary, the 10% of the respondents reason for not taking policy due to difficult in availing services in hospital, 9% of the respondents reason for not taking policy due to saving in some other areas to meet health care needs. 3% of the respondents reason for not taking policy due to linked hospitals are not easily accessible and 1% of the respondents reason for not taking policy due prefer to invest money in some other areas and don't like to buy.

Table-31 Reasons for not taking Health insurance policy

Reasons for not taking health insurance	Frequency	Percent
Low salary /non availability of fund	14	14.0
Don't like to buy	1	1.0
prefer to invest money in some other areas	1	1.0
saving in some other areas to meet Health care needs	9	9.0
Linked hospitals are not easily accessible	3	3.0
Difficult in availing services in hospitals	10	10.0
Total	38	38.0

Source: computed from primary data

From the below table 32 .It is observed that willing to purchase Health insurance policy. It shows that 25% of respondents need some time to purchase health insurance policy. 8% of the respondents are not ready to purchase health insurance policy. 5% of the respondents are ready to purchase health insurance policy.

Table-32 willing to purchase health insurance policy

Purchase policy	Frequency	Percent
Ready to buy	5	5.0
Not ready to buy	8	8.0
Need sometime	25	25.0
Total	38	38.0

Source: computed from primary data

Seen from the below table 33 prefer insurance company. It clearly shows that 31% of respondents are will prefer public insurance company and 7% of respondents are will prefer private insurance company.

Table-33 Prefer insurance company

Insurance company you will prefer	Frequency	Percent
Public Insurance company	31	31.0
private insurance company	7	7.0
Total	38	38.0

Source: computed from primary data

Seen from the below table 34 Type of Health insurance of prefer by respondents. 21% of respondent will prefer Family floater Health insurance policy, followed by 13% of respondents will prefer Group Health insurance policy of respondents and 4% of respondents will prefer individual Health insurance.

Table-34 Type of health insurance policy will prefer

Type of Health insurance policy	Frequency	Percent
Individual Health insurance	13	13.0
Family Floater Health insurance	21	21.0
Group Health insurance	4	4.0
Total	38	38.0

Source: computed from primary data

From the below table 35 .it shows that mode of pay health insurance premium. It's clearly shows that 21% of respondents are will prefer to pay Yearly .followed by 9% of respondents are will prefer to pay half monthly,5% of respondents are will prefer to pay and 3% of respondents are will prefer to pay quarterly.

Tabl-35 Mode of pay health insurance premium

Mode of pay Health insurance premium	Frequency	Percent
Monthly	3	3.0
Quarterly	5	5.0
Half Monthly	9	9.0
Yearly	21	21.0
Total	38	38.0

Source: computed from primary data

Findings of the study

- Majority of the respondents having health insurance are between the ages of the group of 35-44 years.
- 65% Married respondents are taken Health insurance policies.
- Majority of the Health insurance respondents are graduates.
- Most of the policy holders are private employees.
- In the total sample 33% of the respondents having insurance policy, these respondent groups having annual income of above¹ 2,00,000.
- Majority of the respondents don't have Health insurance policies. Because they don't have awareness.
- Most of the respondents prefer to purchase having Health insurance policies of respondents they preferred only public insurance company.
- Mostly public insurance companies (LIC, National) handling the Health insurance.
- Public insurance companies creating more awareness than private insurance companies.
- Majority of the respondents have taken family floater health insurance. It is observed that respondents choosing family health insurance compare to individual Health insurance and Group Health insurance.
- Majority respondents preferring Health insurance policy for Risk coverage against future illness, old age etc.
- 23% of the respondents want to renew of the service of the Health insurance policy 100percent.
- Majority of the respondents willing to pay more premiums on Additional health care benefits.

- Majority of the respondents opinions that Health insurance awareness can be increased through news papers
- Major problem in respondents for not taking police due to less salary/non availability of fund and Difficult in availing services in hospitals.
- 31% of the respondents will prefer to purchase Health insurance policies in public insurance company. It is observed that respondent more interest to take policies from public sector.
- Majority of the Respondents willing to pay premium on Yearly basis.

SUGGESTIONS

- The insurance company has to consternate on above age of 50 Years. Because at this age mostly people require health care.
- Health insurance companies make understand about Health insurance to metric and higher secondary education respondents.
- Insurance companies provide plans for less premium for who are earning annual income less than ¹ 50,000.
- A private company has to increase more awareness regarding Health care insurance as well as Benefits of the Health insurance policy.
- Provide more Health insurance plans for individual respondents so that employees will prefer.
- There should be uniformity in all coverage of the all kind of future risks.
- Health insurance companies should spread awareness through company advertisement and internet.
- Insurance linked hospitals should available at particular places.

CONCLUSION:

Now a day, people in the society are becoming very busy not taking any care of their health because of their busy scheduled life, tension work load in the office resulting in hypertension BP, diabetic, Backache, arthritis etc. The cost of the treatment for the operations or surgeries will be very high. To overcome the uncertainty of the health illness costs, it is necessary to have health insurance and the policies holder should have awareness about the health insurance schemes.

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CUSTOMERS' PERCEPTIONS TOWARDS BIG BAZAAR SERVICES IN HYDERABAD CITY

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ABSTRACT:

The rising demand for branded products and increase in purchasing power has lured these retailing companies to enter the Indian market with huge expectations. Significant number of retail stores has already captured the major parts of the metro cities. Big Bazaar is one of the major players and catering to the needs of urban population. In order to know whether the customer has met those expectations or not is the pertinent issue to be explored. In this paper an attempt has been made to analyze the customer satisfaction towards Retailing as a case study of Big Bazaar in Hyderabad city. A sample of 300 customers was included based on convenient sampling method. It is concluded that Big Bazaar giving the best services to the customers when compared to its competitors in the study area.

Key words: Retailing, growing market, customer expectations, customer satisfaction

INTRODUCTION

The Internet revolution is making the Indian consumer more accessible to the growing influences of domestic and foreign retail chains. Reach of satellite T.V. channels is helping in creating awareness about global products for local markets. About 47% of India's population is under the age of 25; and this will increase to 65% by 2020. This young population, which is Technology – say, watch more than 50 T satellite channels, and display the highest propensity to spend, will immensely contribute to the growth of retail sector in the country. Further, availability of quality real estate and mall management practices. Retail is clearly the sector that is poised to show the highest growth in the next five years. The sector is set for a huge demand, as both the present players and new entrants are gearing up to explore the market. This sector contributes 10% of India's GDP and the current growth rate is 8.5%.

The present size of the organized retailing sector is approximately 3% and is expected to grow to 35 – 40% by the year 2020. There are about 500 new malls, 2500 supermarkets and 625

departmental stores currently under construction. Many players are coming up with huge investments, due to which the present 12 million mom and – pop shops and kirana stores fear losing their business. Most predictions say that the sector might reach to US\$ 700 – 900 billion by the year 2020. Global retail giants such as Wal – Mart, Tesco, Germany's Metro AG and many others are ready to enter the retail markets. The rising demand of branded products and increase in purchasing power has lured these retailing companies to enter the Indian market with huge expectations (Malik, Manju (2011).

LITERATURE REVIEW

Manju Malik (2012) in his study it was to determine the perception of service quality of organized retail stores and their satisfaction among 500 respondents from organized retail outlets in Haryana, and across these dimensions: Product aspects, Price aspect, Physical aspect, Promotional schemes, and Personnel Interaction and After Sales Services. The study also investigated differences between the dimensions of service quality of organized retail stores and demographic variables:

age, gender and annual income, and the relationship between service quality of retail stores and the customer satisfaction as dependent variables. Dineshkumar & Vikkraman (2012) Customer satisfaction is widely recognized as a key pressure in the formation of consumers' future purchase intentions. Satisfied customers are also likely to tell others of their favorable experiences and thus engage in positive word of mouth advertising. This study aim was to investigate the customer satisfaction towards organized retail outlets in Erode city of Tamil Nadu. Kour and Bedia (2012) analyze the customer satisfaction in shopping malls with respect to product, price, place and promotion in Indore city and to study the variations in customer satisfaction due to different demographic variables.

Sameera (2015) says Customer satisfaction has been recognized as the key pressure in the formation consumer's future purchase intentions. Lakshmi Narayana, Ajata Shathru Samal and Nagaraja Rao (2012) present the concept of retail is primitive in Indian context. We had Grocery stores, medical stores and lot many other stores working surprisingly well all over the country. Recently people are getting idea of the traditional stores going to be vanished. But just to remind us, we should never forget how deep rooted is this old concept. The very modern organized stores have taken the idea of retailing nowhere else then from these old shops. Kameshwar Mishra, Abhinav Kumar Shandilya (2013) customers use to purchase their daily needs in small quantities from the retailers whenever required and the retailer keeps a stock on behalf of consumers to meet the demand. With the change in demography and preference, the expectations of customers are changing and it is a continuous process. The purchase experience of the customers not only evaluate any outlet on the basis of goods available but the evaluation is based on a mix of goods available, comfort of purchasing, the quality of time spend in the outlet and many more. The increasing demand of organized retailing in urban areas with continuous changing customer expectation.

LEADING INDIAN RETAILERS

Bata India Ltd., Best Price, Big Bazaar, Crossword, Ebony Retail Holdings Ltd., Food Bazaar, Globus Stores Pt. Ltd., Liberty shoes Ltd., Music World Entertainment Ltd., Pantaloon Retail India Ltd., Shoppers Stop, Subhiksha, Titan Industries, Trent and the new entrants penetrating the market soon will include Reliance Retail Ltd., Wal – Mart Stores etc.,

NEED FOR THE STUDY

India's GDP stands at the trillion dollar mark, and with a sustained growth rate of over 8 per cent, it is confidently poised to be the leading centre of global economy by 2020. GDP of

India is expected to be around US\$ 1.1 trillion by 2010 and would reach a staggering US\$ 37 trillion by 2050 which would make it the third largest economy in the world. This would mean that India's GDP will increase close to US\$ 1 trillion on an average year-on-year over the next 40 years. This fast GDP growth is driving towards Indian consumerism. Indian consumers today are more confident and willing to splurge owing to increased income levels. India's consumer market will be the world's fifth largest (from twelfth) by 2025 and India's middle class will swell by over ten times from its current size of 50 million to 583 million people by 2025. The high sustained growth of Indian economy over the past 5 years has been a boon to the retail sector. The sector is on a high growth trajectory and is expected to grow by more than 27 per cent over the next 5 years (Ratna Manikyam, 2012).

OBJECTIVES OF THE STUDY

1. To know the kind of retail services expected by customers to feel satisfaction;
2. To determine the services and the store environment at Big Bazaar;
3. To study which company is giving better service and satisfaction; and
4. To analyze the customers perception towards Big Bazaar services in Hyderabad city.

HYPOTHESES

- There is no significance difference between the service expected and by customer satisfaction.
- There is no significance difference between the Big Bazaar service and shopping environment.
- There is no significance difference between services levels and levels of satisfaction.
- There is no significance difference between customer's feeling and the services provided by the Big Bazaar.

RESEARCH METHODOLOGY

Both primary and secondary sources of data have been used (to measure the customer satisfaction towards Big Bazaar services in Hyderabad) in this study. However, focus was given to primary data through a structured questionnaire. Due to time and resource constraint, the sample size is taken as 300 respondents which include 100 each from 3 Big Bazaar retail stores located in Ameerpet, Kukatpalli and LB Nagar in Hyderabad city. Primary data was collected by using convenience sampling method. For analyzing the collected data, statistical tools such as mean, ANOVA (both one-

way and Two- way) has been used to validate the results. The details of the formulae and related description have been given in the analysis part. The survey is conducted during June-July, 2016, keeping in view of monsoon offers.

RESULTS AND DISCUSSION

In order to measure the customer satisfaction towards the services of Big Bazaar in Hyderabad, here an attempt has been made to analyze the frequency of visiting the store, purpose of visit and product and service expectations from the service provider were included in the study. Further, reasons for choosing the Big Bazaar, factors determining customer satisfaction, services derived and overall satisfaction levels were among other variables.

Frequency of visit: Table 1 presents the frequency of customer visit to BIG Bazaar and it is found that more than half of the customers (51%) who have participated in the survey responded that they visit big bazaar monthly once, similarly, 27% of the customers responded that they visit big bazaar weekly basis, 17% of the customers responded that to visit big bazaar daily, and only 5% of the customers responded that to visit big bazaar yearly once.

Table -1 Frequency of visiting Big Bazaar

Visit to big bazaar	Respondents	Percentage
Daily	50	17
Weekly	82	27
Monthly	152	51
Yearly	16	5
Total	300	100

Source: Primary data

Customer Expectations: It is found that the majority of customers (50%) responded expecting to have quick service from big bazaar, 23% of them are expecting more service centers in the Big Bazaar, 20% of the customers expecting the proper communication and only 7% of them have expecting better service.

Table -2 Service expectations of customers

Types of service	Respondents	Percentage
Quick service	150	50
Better service	20	7
More service centers	70	23
Proper communication	60	20
Total	300	100

Source: Primary data

Image of Big Bazaar: It is seen from the table- 3 that majority of the customers (54%) have responded that less price is famous for big bazaar, 29% of the customers said that service is famous for big bazaar, 8% of them opined that the big bazaar is famous for variety of products, only 9% of the customers responded as big bazaar is famous for availability of products.

Table -3 Big Bazaar famous for

Famous for Big Bazaar	Respondents	Percentage
Service	87	29
Variety of products	25	8
Less price	162	54
Availability of products	26	9
Total	300	100

Source: Primary data

Factors Affecting Customer Satisfaction: It is observed that majority of the customers (27%) have responded that satisfy the customers with availability in Big Bazaar, 27% of them felt more representatives in Big Bazaar made them to satisfy, 23% of the respondents viewed that satisfy with the different variety of products, similarly, an equal number of customers (23%) responded towards less price in Big Bazaar.

Table -4 Customer Satisfaction factors

Satisfy the customer	Respondents	Percentage
Availability	80	27
Different type of products	70	23
More representatives	80	27
Less price	70	23
Total	300	100

Source: Primary data

Staff Responsiveness: Majority of the customers (58%) have responded that the employees' responsiveness is good, there are 30% of them responded as satisfactory, 7% of the customers responded that responsive of the employees is poor and only 5% of the customers opined as an excellent.

Table -5 Employees Responsiveness

Response of employees	Respondents	Percentage
Excellent	15	5
Good	175	58
Satisfactory	90	30
Poor	20	7
Total	300	100

Source: Primary data

Big Bazaar and Others: Majority of the customers (58%) have responded that Big Bazaar providing better services, 17% of the customers responded that **Spencer** providing better services, 15% of the customers responded that **Vishal** providing better services, only 10% of them opined that **More** is providing better services.

Table -6 Big Bazaar Services against others

Service Retailers	Respondents	Percentage
Big Bazaar	175	58
Spencer	50	17
Vishal	45	15
More	30	10
Total	300	100

Source: Primary data

Shopping Environment: Majority of the customers (40%) have responded that shopping environment is good at Big Bazaar, followed by 27% it is just fine. 23% of them said as better, only 10% of the customers have responded as poor.

Table -7 Shopping Environment at Big Bazaar

Environment	Respondents	Percentage
Good	120	40
Fine	80	27
Better	70	23
Poor	30	10
Total	300	100

Source: Primary data

Overall Satisfaction: More than half of the customers (58%) have satisfied with the services of Big Bazaar, 26% of them felt as neutral, 10% of the customers have responded as unhappy and only 6% of them said overall satisfaction is excellent in Big Bazaar.

Table -8 Overall Customer Satisfaction of services at Big Bazaar

Ratings	Respondents	Percentage
Excellent	20	6
Satisfied	175	58
Unhappy	35	10
Neutral	80	26
Total	300	100

Source: Primary data

Table-9 BB Services & Customer satisfaction (CROSS TABULATION)

Satisfied by customers / service	Availabili ty	Different types of products	More representative s	Less Price	Total
Quick service	30	50	35	35	150
	20	33	23	23	
Poor service	5	3	10	2	20
	25	15	50	10	
More service centers	30	7	15	18	70
	42	10	21	25	
Proper communication	15	10	20	15	60
	25	16	33	25	
Total	80	70	80	70	300

Table-10 BB Services Levels & Customer satisfaction (CROSS TABULATION)

Service / Level of satisfaction	Excellent	Good	Satisfied	Average	Total
Effective	5	110	97	30	242
	2	45	40	12	
Ineffective	15	20	13	10	58
	25	34	22	17	
Total	20	130	110	40	300

Services Levels & Customer satisfaction: Most of the customers (81%) have responded that the big bazaar services are effective, 19% of them felt as ineffective. Regarding customer satisfaction levels, it is observed that the majority of the customers (43%) have responded that level of satisfaction is good, 37% of them felt as just satisfied, 13% of the customers have responded as an average and only 7% of the customers said that level of satisfaction is excellent.

Table-11 BB Overall Services & Customer satisfaction (CROSS TABULATION)

Service / Satisfaction	Big Bazaar	Spencer	Vishal	More	Total
Big Bazaar	95	30	25	10	160
	59	18	15	6	
Spencer	20	5	8	7	40
	50	12	20	17	
Vishal	15	3	5	7	30
	50	10	16	23	
More	45	12	7	6	70
	64	17	10	8	
Total	175	50	45	30	300

Table-12 Image of BB & Customer satisfaction (CROSS TABULATION)

Famous / Satisfied	Service	Advertising	Less price	Availability of goods	Total
Yes	60	20	152	20	252
	23	7	60	7	
No	27	5	10	6	48
	56	10	20	12	
Total	87	25	162	26	300

Analysis of variance table for two – way ANOVA

Source of variation	Sum of squares (SS)	Degree of freedom (d.f.)	Mean square	F - ratio
Between columns treatment	$(T_j)/n_j - T^2/n$	$c - 1$	SS between columns/ $c-1$	MS between columns/MS
	$(T_i)/n_i - T^2/n$	$r - 1$	SS between rows/ $r-1$	MS between rows/MS residual
Residual or error	Total SS – (SS between columns + SS between rows)	$(c-1) * (r-1)$	SS residual/ $(c-1)*(r-1)$	
Total	$\sum X_{ij}^2 - T^2/n$	$c*r-1$		

Null Hypothesis: $H_0: \mu = \mu = \mu = \mu \dots \dots \dots = \mu$

If the ratio is less than tabulated value there is no significance difference between factors.

We accept the Null Hypothesis.

ANOVA TWO WAY CLASSIFICATION

H_0 = There is no significance kind of service is expected by customers to feel satisfy.

Satisfied by customer / service	Availability	Different types of products	More representatives	Less price	Ri Total	Ri ² /h	$\sum\sum X_{ij}^2$
Quick service	30	50	35	35	150	5625	5850
Poor service	5	3	10	2	20	100	138
More service centers	30	7	15	18	70	1225	1498
Proper communications	15	10	20	15	60	900	950
Total ci	80	70	80	70	300	7850	8436
Cj ² /K	1600	1225	1600	1225	5650		

ANOVA TABLE FOR TWO WAY

S.V.	D.F	SS	MSS	F/R
Rows	4-1 = 3	2225	741.6	Fr= 741.6/62.3 = 11.9
Columns	4-1 = 3	25	8.3	Fc=62.3/8.3=7.5
Error	(r-1)(c-1)=9	561	62.3	
Total	15N - 1	2811		

Table value at 5% L.O.S F [9, 3] = 8.813. The calculated value is less than table value of F (9, 3) at 5% L.O.S. Hence, we accept H_{OR} . There is no significance kind of service expected by customers to feel satisfy.

ANOVA TWO WAY CLASSIFICATION

H_0 = There is no significance difference between the rates of Big Bazaar service environment.

Service / Level of Satisfaction	Excellent	Good	Satisfaction	Average	Rj Total	Ri ² /h	$\sum\sum X_{ij}^2$
Effective	5	110	97	30	242	14641	22434
Ineffective	15	20	13	10	58	841	894
Total ci	20	130	110	40	300	15482	23328
Cj ² /K	200	8450	6050	800	15500		

ANOVA TABLE FOR TWO WAY

S.V.	D.F	SS	MSS	F/R
Rows	4-1 = 3	4232	1410	Fr= 1410/1198= 1.1 [3,3]
Columns	2-1 = 1	4250	4250	Fc=4250/1198=3.5 [1,3]
Error	(r-1)(c-1)=3	3596	1198	
Total	7N - 1	12078		

Table value at 5% L.O.S F [3, 3] = 9.28; Table value at 5% L.O.S F [1, 3] = 10.13

The calculated value is less than table value of F (3, 3) at 5% L.O.S. Hence, we accept H_{OR} . There is no significance difference between the rate of Big Bazaar service and environment.

ANOVA TWO WAY CLASSIFICATION

H_0 = There is no significance difference between company is giving better service and satisfaction.

Company providing / more Satisfaction	Big Bazaar	Spencer	Vishal	More	Total	Ri ² /h	$\sum\sum X_{ij}^2$
Big Bazaar	95	30	25	10	160	6400	10650
Spencer	20	5	8	7	40	400	538
Vishal	15	3	5	7	30	225	308
More	45	12	7	6	70	1225	2254
Cj ₂	175	50	45	30	300	8250	13750
Cj ₂ /K	7656	625	506	225	9012		

ANOVA TABLE FOR TWO WAY

S.V.	D.F	SS	MSS	F/R
Rows	4-1 = 3	2625	875	Fr = 875/234 = 3.7 [3,9]
Columns	4-1 = 3	3387	1129	Fc = 1129/234 = 4.8 [9,3]
Error	(r-1)(c-1)=9	2113	234	
Total	15N - 1	8125		

Table value at 5% L.O.S F [3, 9] = 6.8

Table value at 5% L.O.S F [9, 3] = 8.13

The calculated value is less than table value of F (3, 9) at 5% L.O.S. Hence, we accept H_{0R} . There is no significance difference between company is giving better service and satisfaction.

The calculated value is less than table value of F (1, 3) at 5% L.O.S. Hence, we accept H_{0C} . There is no significance difference between company is giving better service and satisfaction.

ANOVA TWO WAY CLASSIFICATION

(H_{0R}): There is no significance customer's feeling about the service provided in Big Bazaar.

(H_{0C}): There is no significance customer's feeling about the service provided in Big Bazaar.

Famous / Satisfied	Service	Advertising	Less price	Availability of goods	Total	Ri ² /h	$\sum\sum X_{ij}^2$
Yes	60	20	152	20	252	15876	27504
No	27	5	10	6	48	576	890
Total	87	25	162	26	300	16452	28394
Cj ₂ /K	3784.5	312.5	13122	338	17557		

ANOVA TABLE FOR TWO WAY

S.V.	D.F	SS	MSS	F/R
Rows	4-1 = 3	5202	1734	Fr = 1878/1734 = 1.0 [3,3]
Columns	2-1 = 1	6307	6307	Fc = 6307/1878 = 3.3 [1,3]
Error	(r-1)(c-1)=3	5635	1878	
Total	7N - 1	17144		

Table value at 5% L.O.S F [3, 3] = 9.28

Table value at 5% L.O.S F [1, 3] = 10.13

The calculated value is less than table value of F (3, 3) at 5% L.O.S. Hence, we accept H_{OR} . There is no significance customer's feeling about the service provided in Big Bazaar. Result for Column- The calculated value is less than table value of F (3, 3) at 5% L.O.S. Hence, we accept H_{OC} . There is no significance customer's feeling about the service provided in Big Bazaar.

SUGGESTIONS

- Big Bazaar's has to put more efforts in creating awareness and promotional strategies about its offers with various types of sales promotion techniques. Further, they should come up with many more innovative packages, to satisfy all types of present and potential customers.
- Every week new programs to be introduced and for that the company should increase the more billing counters in festival seasons to given the better service to customers.
- Employee responsiveness towards the customers should be enhanced further. Customers visiting Big Bazaar seeking quick services than existing. The sales persons should show hospitality to the customers. More suggestions box should be setup at store which helps to know the defects of the store and also helps to get suggestions from the customers.
- Overall Customer satisfaction level towards services of Big Bazaar should be improved from just satisfaction level by making available of products at reasonable price. For this purpose an employee training should be given so as to meet the customer expectations and quality improvement.

CONCLUSION

Big Bazaar as large scale retailing business, it giving the best level services to the customers when compared to its competitors in the study area. The Big Bazaar giving effective services to its customers to fulfil their satisfaction and it helps them to buy more products. From customer point

of view Big Bazaar is trying to increase the branches in Hyderabad. For attracting many more customers to its fold, multiple ranges of products should be made available without jeopardizing the fashions and trend. Further, it is necessary to give special treat to its loyal customers which give scope for long-lasting relationship i.e., customer relationship management is a successful modern marketing mantra.

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PRADHAN MANTRI SURAKSHA BIMA YOJANA SCHEME: A STUDY IN TELANGANA STATE

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ABSTRACT

In India, the Insurance sector has been prevailing since 1956 whereas it is a remarkable statement that only 20% of the Indian population has been engaged with different kinds of insurance like life, health, motor, marine, fire etc. Among all these insurances, health insurance is compulsory for every citizen due to the present environmental fluctuations. According to National Health Profile 2015, only 21.6 crore people are covered under health insurance schemes which are equal to one-fifth of India's population. In order to overcome the gap between common man and health insurance, the Indian government has introduced Pradhan Mantri Suraksha Bima Yojana (PMSBY) which is an accidental insurance scheme for the weaker section who doesn't have accidental insurance coverage. Under this scheme, people who come to the age of 18-70 years are eligible with an active bank account. People who opted the scheme have to pay only Rs. 12 per annum which is auto debited through bank account and if any risk occurred the policyholder would get Rs. 200000. In such a way the scheme will assure the common man health. The present study will be explained in detail the theoretical background of the scheme and its enrolment position in Telangana state. The study also highlights the policy holder's insight about the scheme to communicate policy makers for the advancement of the scheme.

Keywords: *Health Insurance, Pradhan Mantri Suraksha Bima Yojana, Central Government, Common man perception.*

INTRODUCTION

In India, the Insurance sector has been prevailing since 1956 whereas it is a remarkable statement that only 20% of the Indian population has been engaged with different kinds of insurance like life, health, motor, marine, fire etc. Among all these insurances, health insurance is compulsory for every citizen due to the present environmental fluctuations. According to National Health Profile 2015, only 21.6 crore people are covered under health insurance schemes which are equal to one-fifth of India's population. In order to overcome the gap between common man and health insurance, the Indian government has introduced Pradhan Mantri Suraksha Bima Yojana (PMSBY) which is an accidental insurance scheme for the weaker section who doesn't have accidental

insurance coverage. It was officially launched by Prime Minister Sri Narendra Modi on 9th May 2015 in Kolkata with the aim of assuring the health of the 'Aam Aadmi' against accident and disability. Under this scheme, people who come to the age of 18-70 years are eligible with an active bank account. People who opt the scheme have to pay only Rs. 12 per annum which is auto debited through bank account and if any risk occurred the policyholder would get Rs. 200000. In such a way the scheme will assure the health of common man.

REVIEW OF LITERATURE

Dr. Priti Bakhshi (2016)¹: The author concluded that the micro insurance is must for poor people and it is only a way to ensure overall growth in a country and Pradhan Mantri Suraksha Bima Yojana scheme is a step towards financial

inclusion. The study also highlighted that 939,65,348 people were enrolled in this scheme all over the country by the end of March 21, 2016. **Dr. P Baby M (2016)²**: The study concluded that PMSBY, PMBJY and APY were the social security measures aimed at three things namely compensation, renovation and anticipation and social security benefits were provided in India in two major ways namely social insurance and social assistance. The author also suggested that extending social security to unorganised sector, introducing unemployment insurance, making the workers contribute a small amount towards social security and bringing all these social security schemes under a common roof were steps to improve the lots of people in a capital hungry and labour surplus country like India. **Vidyashree DV& Pralhad Rathod (2015)³**: The study concluded that the beginning to provide social security benefit to a large number of unorganised people is really good, however, the implementation was not as fast as other schemes. The authors also suggest that the government and banks has to take more steps in reaching the scheme poor and uncovered population. The government and banks has to maintain still some transparency in informing how the money collected from this scheme will be utilized by the government or banks.

STATEMENT OF THE PROBLEM

According to National Health Profile-2015 report, only 21.6 crore people are covered under health insurance schemes which are equal to one-fifth of India's population. Pradhan Mantri Suraksha Bima Yojana (PMSBY) is a central government health insurance scheme which was introduced on 9th May 2015 with an aspiration of providing the assurance for the life of 'Aam Aadmi' against the accident and disability. In order to meet the scheme aim, the government of India has been initiating in all aspects such as creating awareness, educating the people, advertising by Amitabh Bachchan etc. Therefore there is a requirement to evaluate the scheme performance and the insight of the policyholders about the scheme.

OBJECTIVES OF THE STUDY

1. To study the theoretical background of the PMSBY scheme.
2. To evaluate the number of enrolments, claims received and claims settled under PMSBY scheme in Telangana state.
3. To examine the association between policy characteristics and policy holders interest.

HYPOTHESES

1. H_{01} : There is no significant association between less premium and enrolment of policy.
2. H_{02} : PMSBY Policy holders are not covered under any health insurance policy.
3. H_{03} : There is no significant relation between easy enrolment procedure and adoption of the policy.

SCOPE OF THE STUDY

The scope of the present study is restricted to Telangana state. It covers the enrolment and claim settlement position of Pradhan Mantri Suraksha Bima Yojana scheme in Telangana state. It also extended to identify the impact of PMSBY scheme on people along with their perception.

RESEARCH METHODOLOGY

The study is based on both primary and secondary data. The *secondary data* has collected from Telangana state level bankers committee reports, lead bank managers and published brochures whereas the *primary data* has collected directly from the people who enrolled with this scheme using structured questionnaire method. The sample size of the study is 100 respondents and 'simple random sampling' technique has adopted to select the samples. The primary data has collected from *State Bank of India*, Kollapur (Grama panchayat) branch in Telangana state during the month of May 2017. The primary data has tested using various statistical tools like mean, standard deviation, Chi-square to get the results in a scientific way.

I. PMSBY SCHEME

Pradhan Mantri Suraksha Bima Yojana (PMSBY) an accidental insurance scheme for the weaker section who doesn't have accidental insurance coverage. It was officially launched by Prime Minister Sri Narendra Modi on 9th May 2015 in Kolkata with the aim of assuring the health of the 'Aam Aadmi' against accident and disability. This policy would be renewed every year with a single year cover at a time.

i) Eligibility:

- Age limit- 18 to 70 years.
- Policy holder should have a saving bank account and has to give a consent letter for auto debit of premium.

ii) Premium and Mode of payment:

- Rs. 12 per year and this amount would be deducted from the policy holders saving bank account with an auto debit facility in the month of June every year. The tenure of the premium is June 1st to May 31st every year.

iii) Benefits:

- It provides the death benefit up to Rs. 2 lakhs.
- In case of irrecoverable and total loss of eyes/ legs/hands the insurance cover up to Rs. 2 lakhs.
- In case of lost of one leg, hand, foot, eye or sight the sum assured would be Rs.1 lakhs.

iv) Claim settlement procedure:

- Fill up the claim form and submit it along with death certificate, FIR or Post mortem report, discharge certificate and insurance certificate.
- The bank shall send all the documents to the nearest insurance office for scrutiny purpose. After scrutiny, the insurance company shall transfer claim amount to the bank and the bank can deliver the claim amount to the nominee.

II. PMSBY SCHEME IN TELANGANA

Table 1 shows the number of enrolments under Pradhan Mantri Suraksha Bima Yojan (PMSBY) scheme in Telangana state. As per the given data, it is identified that the public sector banks are in front to take the enrolments by people under PMSBY scheme followed by RRBs in Telangana state. It is also recognized that very low enrolments were registered with co-operative banks. Public and Private sector banks are increasing the policy enrolments by every month when compared to RRBs and Co-op. Banks.

As on 31st August 2015, total enrolled policyholders were around 33,09,040 whereas the same has increased to 37,97,005 as on 31st October 2015. It can also be understood that 23,22,226 policyholders enrolled with public sector banks at the end of August 2015 whereas the same registered as 26,64,603 at the end of October 2015. It is an interesting to observe that no growth rate registered in the scheme enrolment except public and private sector banks during this two months period.

Table 1

No. Of Enrolments under PMSBY scheme in Telangana state

BANK TYPE	As on 31/8/2015	As on 31/10/2015
Public Sector Banks	2322226	2664603
Regional Rural Banks	612689	612689
Private Banks	305520	451108
Co-op. Banks	68605	68605
Total	3309040	3797005

Source: State Level Bankers Committee report, Telangana

Table 2 narrates the district wise enrolments under PMSBY scheme in Telangana state as on 31st March 2016. As per the given data, it is identified that Karimnagar district is occupied top place in the list with 9,21,825 enrolments whereas the Nizamabad district placed in the least with 3,00,510 enrolments.

Table 2

District wise enrolments under PMSBY scheme

District Name	As on 31/04/2016
Adilabad	311207
Nizamabad	300510
Karimnagar	921825
Medak	370010
Hyderabad	779764
Rangareddy	676447
Mahabubnagar	463225
Nalgonda	382984
Warangal	393718
Khammam	358677
Total	4958367

Source: State Level Bankers Committee report, Telangana

Table 3

Claims received and settled under PMSBY scheme

District Name	Total claims as on 31/04/2016	Claims settled
Public Sector Banks	531	81
Regional Rural Banks	126	37
Private Banks	78	21
Co-op. Banks	19	7
Total	754	146

Source: State Level Bankers Committee Report, Telangana State

It is observed from table 3, 81% claim settled by PS Bank followed by 37% are RRBs, 21% on Private Bank are 7% are Co-operative Bank.

III. ANALYSIS OF THE DATA

Table 4 shows the demographic results of the selects respondents for the study. It is observed that 76% of male respondents and 24% of female respondents were covered under PMSBY scheme. It is also identified that majority of the policyholders under PMSBY comes in the age group of 28-37 (56%) followed by 38-47 age group (33%). Other details observed are mentioned below.

Table 4
Demographic Results

Variables	Characteristic	Frequency	Percentage (%)
Gender	Male	76	76 %
	Female	24	24 %
	Total	100	100
Age	18-27 years	02	2 %
	28-37 years	56	56%
	38-47 years	33	33%
	48-57 years	09	9%
	58-67 years	0	0%
	Total	100	100.0%
Educations	Un Educated	51	51%
	Below 10 th class	49	49%
	Intermediate	0	0%
	Graduation	0	0%
	Post Graduation	0	0%
	Total	100	100.0%
Occupation	Handcraft	27	27%
	Farmer	12	12%
	Daily labor	22	22%
	Agricultural labor	33	33%
	Private Job	6	6%
	Total	100	100.0%

Income	below Rs. 5000	53	53%
	Rs.5000- 10000	46	46%
	Rs.10000- 20000	0	0%
	Rs.20000-30000	0	0%
	Rs. 30000 more	1	1%
	Total	100	100.0%
Marital Status	Married	100	100%
	Un-married	0	0%
	Total	100	100.0%
Category	OBC	52	52%
	SC	25	25%
	ST	13	13%
	MINORITY	6	6%
	GENERAL	4	4%
	Total	100	100.0%
Family Size	up to 4 members	58	58%
	5-8 members	34	34%
	9-10 members	2	2%
	More than 10	6	6%
	Total	100	100%

Source: Primary Data

- The policy holder who comes under PMSBY were uneducated (51%) and studied below 10th standard.
- It is identified that 33% policy holders were Agriculture labour, 27% hand craft, 22% daily labours, 12% farmers and 6% private employees.
- It is observed that PSBY policy holders income is below Rs. 10000 pm.
- It is observed that no unmarried people were opted PMBSY insurance scheme.
- It is understood that majority of the policyholders were comes under the category of OBC (52%) followed by SC (25%), ST (13%) Minorities (6%) and General (4%).
- The study identified that majority of the policy holders family size is up to 4 members.

Testing of Hypothesis

Table 5 shows the statistical results of the study. The results are pertaining to identify the significant association between select characteristics of PMSBY and polic holders' interest. The summary of the results (used chi-square test through SPSS) is highlighted below.

Table 5
Statistical results

Hypothesis	Chi-Square	Df	Asymp. Sig.	Results
H₀₁ -There is no significant association between low premium and enrolment of policy.	67.240 ^a	1	.000	Rejected Null Hypothesis
H₀₂ -PMSBY Policy holders are already covered under various health insurance policies. (Alternative Hypothesis)	73.960 ^a	1	.000	Rejected Alternative Hypothesis
H₀₃ -There is no significant relation between easy enrolment procedure and adoption of the policy.	57.760 ^a	1	.000	Rejected Null Hypothesis
H₀₄ -There is no association between policy adoption and PSBY being as a government scheme.	40.960 ^a	1	.000	Rejected Null Hypothesis
H₀₅ -Various sources of communication like television, banker, etc. are not influencing the policy holders towards to buy the policy.	98.000 ^a	3	.000	Rejected Null Hypothesis
H₀₆ -People not considering the scheme as use full scheme.	92.160 ^a	1	.000	Rejected Null Hypothesis

Source: Primary Data

IV. SUMMARY

Finding	Conclusion	Suggestion
The study found that there is an association between low policy premium (Rs. 1/-) and people interest towards the policy (PMSBY).	According to the study, PMSBY Policy holders are un-educated and poor people who are earning below 10000 pm. So that, they attracted the PMSBY due to Rs. 1 pm premium.	Further, the government has to introduce various social insurance schemes with low policy premium to attract the rural and poor people in India. Then only the scheme objectives should achieve.
PMSBY is a bank linked insurance policy and the majority of respondents taken the policy through government banks.	It is observed that only government sector banks are established branches in rural areas. So that, people have taken the policy through available government banks.	It is suggested that the government has to take the initiative to the establishment of branches by various private sector banks in rural areas. It increases the policyholders.
The study identified that the policyholders who come under PMSBY are not covered under any health insurance policies by the government or private sector.	The government or private sector health insurance companies are not focusing in rural areas. Moreover, lack of proper awareness on health insurance scheme is also the main factor.	The public sector or private sector health insurance companies have to come out with varieties of health insurance policies which are suitable for rural or poor.
The study found that there is an association between easy enrolment procedure and people interest towards health insurance policies.	As we discussed, rural people are un-educated and they cannot undergo with heavy procedure.	It is suggested that the government or private sector health insurance companies have to make easy enrolment procedure.
It is found that majority of the respondents are using television and banker as a source of information about PMSBY.	Television is a major source to communicate with the mass audience about health insurance schemes.	It is suggested that the government has to use television, radios, social medias etc. to communicate the mass audience about social or rural insurance policies.

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FACTORS INFLUENCING BUYING DECISIONS OF POLICY HOLDERS - A COMPARATIVE STUDY

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ABSTRACT

Life insurance is a financial cover for a contingency linked with human life. India has a large working population with higher disposable income than in the past and therefore a great propensity to buy products to meet their growing aspirations. To succeed in this demanding environment insurer will need to come up with creative strategies to generate growth and adapt to domestic and global regulatory reforms. The present study is undertaken to compare the influencing factors on policy holders buying decisions. This study is descriptive in nature conducted with 672 LIC policy holders as sample size from Secunderabad LIC Division of Telangana state, adopting quota sampling method, collected primary data through questionnaire equally from rural and urban policy holders. Likerts scale was used. To analyze the data Kruskal Wallis test have been used. The study brought out various factors influencing on buying decisions of a policy holder, it also compares these factors across different selected demographic and socio-economic groups of respondents.

Key words: Contingency, Propensity, strategies, descriptive, Secunderabad LIC Division, Likerts Scale, Kruskal Wallis Test.

I. Introduction

Uncertainty of death is inherent in human life, a family is generally dependent on the income brought by the bread earner of the family, so long as he lives, that family is secure but death of the person may put the family in difficult situation, that situation gives rise the necessity for some form of protection against the financial arising from death. Life insurance substitutes to overcome those difficult situations providing financial security to surviving family member up on the death of the insured person.

II. Significance of the study

After insurance law (amendment) bill 2015 passed by parliament, provides for enhancement of the foreign investment cap in an Indian insurance

companies from 26% to an explicitly limit of 49% with the safeguard of Indian ownership and control, large number of private foreign companies were entering into the life insurance market. The new players offer a plethora of new and innovative products, mainly from the stables of their international partners customers have tremendous choice form large variety of product.

The companies must know its customer and their needs and it must create products that its customer base will purchase. Competition in insurance industry encourages product innovation, targeted advertising and marketing campaigns by the insurers. Consumers become the most important centre of the insurance sector. In the period of information technology, customers are fully aware

of their needs and requirements, expectations and information technology enabled services

Understanding the consumer's attitude towards insurance products is essential in facilitating the success of insurance companies consumers behaviour through demographic analysis can play an important role in predicting demand for insurance, it varies according to age, sex, income, culture ,social standard and also depends on the types of product, risk mitigation, services of the companies and agents behaviour. The study aims to find out the relationship of demographic characteristics of the respondents with four important factors influencing the purchase of life insurance products.

III. REVIEW LITERATURE

Athma & Kumar,(2007)in the research paper title “an explorative study of life insurance purchase decision making: influence of product and non-product factors”. The study was conducted with 200 sample policy holders comprising of rural and urban. They identified and analyzed various product and non-product related factors and their impact on life insurance purchase decision making. Based on the survey analysis urban market is more influenced with product based factors like risk coverage, tax benefits, return etc. whereas rural population is influenced with non-product related factors such as credibility of agent company's reputation, trust, customer services. Company goodwill and money back guarantee attracts many people for life insurance.

Khurana (2008) in his study he attempted to identified customer preferences regarding plans and company, their purpose of buying insurance policies, future plans for the new insurance policies and their satisfaction. The outcome of his study reveals that protection was the main purpose of buying an insurance policy. 50% of the respondents faced the claim settlement problem and the remaining 50% face the problem of collecting the relevant information from the insurance company. Out of the sample 28.1% of the respondents obtained the Money-Back policy, out of which more than 70% were taken from LIC

only, which means that the customers preferred public sector companies to private sector companies.

Kothari, Agarwal, & et.al, (2010) in their paper they attempted to identify determinants of Life insurance ownership in the country. The findings of their study provide the individual perception about the insurance policies, according their study the most important influential factor is service benefits which include prompt services, security and safety and extra added benefits.

Sabhaya & Panwala (2011) they analyzed the factors affecting buying decision of Life insurance policy in Surat city of Gujarat. They find that age, income education awareness about insurer, attitude towards life insurance, occupation gender etc. among all of them the most affecting factor to buying decision of Life insurance policy of Surat city was age, income levels, awareness about the insurer and type of Insurer. They also suggested that customer satisfaction and attitude towards Life insurance are significant factor in influencing the market share of life insurance players.

Yadav & Tiwari (2012) An explorativ and descriptive study was conducted at Jabalpur District Madhya Pradesh with a ample of 150 policy holers to analyse factors influence custsomr policy buying decisions of Life insurance products. Their study concluded that Demographic factors of the policy holders plays a vital role in deciding the purchase of Life insurance policies, further it concludes that consumer decision to purchase insurance product from different insurance can be affected by several factors life age, gender and income level.

IV. OBJECTIVE OF RESEARCH

The objective of this research is to find out

- 1) Factors affecting on life insurance policy holders buying decisions of a product
- 2) Comparative analysis of rural and urban policy holders buying decisions with respect to their Demographic and Socio-economic features.

In line with this objective and based on the discussion above, the following hypotheses were formulated for the purpose of empirical testing.

1. H_0 : There is no significant difference between the different factors influencing customer in favour of a life insurance products across different age categories of policy holders
2. H_0 : There is no significant difference between the different factors influencing customer in favour of a life insurance products across different levels of education of policy holders.
3. H_0 : There is no significant difference between the different factors influencing customer in favour of a life insurance products across different occupations of policy holders.
4. H_0 : There is no significant difference between the different factors influencing customer in favour of a life insurance products across different annual income of policy holders.
5. H_0 : There is no significant difference between the different factors influencing customer in favour of a life insurance products across rural and urban policy holders.

V. RESEARCH METHODOLOGY

The present study is descriptive in nature; two different sampling methods are adopted in two stages, in first stage simple random sampling and

in the second stage quota sampling. The population for the purpose of the study was all the policy holders of Life insurance Corporation in Secunderabad division consisting of 23 LIC branches from that 25% selected randomly selecting six branches, and in the second stage out of the selected branches a proportionate rate of rural and urban policy holders were selected by quota sampling each 336 policy holders with total 672 respondents. For this study Likerts five point rating scale was applied using numerical score ranging from 1 to 5 for questions. When using this technique it is important to use consistent scoring therefore the responses were framed from no influence to strongly influence. In this scale higher scale denotes high influence of the policy holders. Kruskal-Wallis and Chi-Square test used as statistical tools. The study was carried out for a period of five years from 2011 to 2016, and the primary data was collected from the policy holders in the year 2014-2015.

VI. DATA ANALYSIS AND INTERPRETATION

For this study the variables taken from different studies which are categorized into four factors they are (1) Product factor (2) Risk factor (3) Services factor (4) Agent factor.

To test the reliability Cronbach's Alpha test was conducted which was an acceptable range i.e. 0.928.

Table 1: Factors Influence on Policy Holders

STATEMENTS	FACTORS	NI	LI	UD	MI	HI	Total
Customisation of Insurance Plan	PRODUCTS	117	97	71	299	88	672
Premium/Cost of Coverage		82	63	109	270	148	672
Return from Policy		76	82	99	193	222	672
Variety and associated range of Products		105	95	175	193	104	672
Company Image		68	41	55	202	306	672
Product flexibility		102	100	131	182	157	672
Rider benefits		166	119	164	120	103	672
Tax benefits		225	95	140	112	100	672
Duration about Risk Coverage	RISK	81	72	112	265	142	672
Charges and Penalties		95	85	79	264	149	672
Risk Coverage after Maturity Period		218	50	129	140	135	672
Extra benefits		137	96	93	177	169	672
Family Protection		65	48	46	227	286	672

Application Form Process	SERVICES	196	151	96	162	67	672
Courtesy of Staff		141	147	144	184	56	672
Contract and terms in document		103	121	120	221	107	672
Grievance Settlements		185	158	114	159	56	672
Latest Technologies in Providing services		162	92	156	183	79	672
Comfort and promptness		80	100	120	217	155	672
Pre and post services		94	105	122	206	145	672
Persuasion of Agent	AGENT	35	112	91	193	241	672
Attitude of Agent towards phs		22	58	81	288	223	672
Attention focused on your priorities		36	50	76	273	237	672
Behavior of agent is good with phs		29	36	59	270	278	672

Source: Computed from Primary data

NI: No Influence, LI: Less Influence, UD: Undecided, MI: Moderately Influence, HI: High Influence.

Table 1 shows the influencing factors on policy holders buying decisions out of 672 policy holders. In product factor, company image shown highest influence where as tax benefits showing no influence, in risk factor family protection shown highest influence where as risk coverage after coverage period shown no influence, in services factor comfort and promptness shown highest

influence, grievance settlements shown no influence, in agent factor behaviour of agent shown highest influence, where as attention focused on your priorities by agent shown no influence. The above reveals that Company image, Family protection, Comfort and Promptness and Behaviour of Agent shown highest influence on policy holders buying decisions.

Table 2: Comparative Analysis of Rural and Urban Policy Holders

Descriptive Statistics						
Influencing Factors	Rural			Urban		
	Sum	Mean	Rank	Sum	Mean	Rank
Behavior of agent is good with policy holders	1376	4.10	1	1440	4.29	2
Company Image	1374	4.09	2	1347	4.01	8
Attention focused on your priorities	1354	4.03	3	1355	4.03	7
Attitude of Agent towards policy holders	1335	3.97	4	1381	4.11	4
Family Protection	1244	3.70	5	1461	4.35	1
Persuasion of Agent	1226	3.65	6	1339	3.99	9
Premium/Cost of Coverage	1113	3.31	7	1310	3.90	10
Customisation of Insurance Plan	1102	3.28	8	1126	3.35	19
Return from Policy	1098	3.27	9	1389	4.13	3
Product flexibility	1078	3.21	10	1198	3.57	16
Comfort and promptness	1064	3.17	11	1287	3.83	13
Charges and Penalties	1063	3.16	12	1308	3.89	11
Variety and associated range of Products	1028	3.06	13	1152	3.43	18
Duration about Risk Coverage	1023	3.04	14	1376	4.10	5
Risk Coverage after Maturity Period	1023	3.04	15	1375	4.09	6
Pre and post services	1005	2.99	16	1282	3.82	14
Contract and terms in document	977	2.91	17	1215	3.62	15
Extra benefits	921	2.74	18	1308	3.89	12
Courtesy of Staff	889	2.65	19	1062	3.16	23
Latest Technologies in Providing services	847	2.52	20	1162	3.46	17
Rider benefits	844	2.51	21	1115	3.32	20
Application Form Process	816	2.43	22	1021	3.04	24
Tax benefits	746	2.22	23	1105	3.29	21
Grievance Settlements	746	2.22	24	1081	3.22	22

Source: Computed from Primary data

The table 2 shows mean of the factor influencing on the rural and urban policy holders purchase making decision to buy life insurance products out of 336 rural respondents good behaviour of agent played highly influencing factor with highest mean (4.10) followed by company image (4.09). where as in urban the highest influential factor was family protection with highest mean (4.35) followed by agents behaviour with policy holder (4.29), the least influential rural factor variable was grievance settlements (2.22) where as in urban application

form process (3.04), from the analysis it reveals that in rural the most influential factor is good behaviour of the agent where as in urban the policy holders given most importance to family protection. It suggest that the insurance companies should train their agent to maintain cordial relations with the policy holders, it further suggest that the company image should be maintained and also suggests that the policies with family protection should be given due importance.

Table 3: Mean Rank of the Factors for Age and Level of Education

	Age	N	Mean Rank	Level of Education	N	Mean Rank
PRODUCT FACTORS	Below 19 Years	22	315.91	Illiterate	149	218.89
	19-28 Years	182	380.42	Up to SSC	177	311.34
	29-38 Years	174	299.57	Intermediate	117	346.93
	39-48 Years	135	330.98	Graduate	151	418.22
	49-58 Years	143	338.05	Professional	56	451.08
	69 and above	16	299.56	Others	22	427.48
	Total	672		Total	672	
RISK FACTORS	Below 19 Years	22	303.11	Illiterate	149	249.56
	19-28 Years	182	369.22	Up to SSC	177	318.53
	29-38 Years	174	315.93	Intermediate	117	361.41
	39-48 Years	135	332.26	Graduate	151	424.65
	49-58 Years	143	339.16	Professional	56	394.00
	69 and above	16	246.00	Others	22	318.30
	Total	672		Total	672	
SERVICES FACTORS	Below 19 Years	22	289.89	Illiterate	149	229.81
	19-28 Years	182	385.64	Up to SSC	177	301.28
	29-38 Years	174	295.92	Intermediate	117	346.97
	39-48 Years	135	325.61	Graduate	151	477.99
	49-58 Years	143	352.07	Professional	56	421.33
	69 and above	16	235.56	Others	22	344.32
	Total	672		Total	672	
AGENT FACTORS	Below 19 Years	22	367.09	Illiterate	149	387.73
	19-28 Years	182	332.72	Up to SSC	177	356.23
	29-38 Years	174	315.37	Intermediate	117	267.21
	39-48 Years	135	309.19	Graduate	151	339.61
	49-58 Years	143	391.09	Professional	56	300.94
	69 and above	16	309.75	Others	22	370.12
	Total	672		Total	672	

Table 4: Mean Rank of the Factors for Occupation and Annual Income

	Occupation	N	Mean Rank	Annual Income	N	Mean Rank
PRODUCT FACTORS	Agriculture	138	205.82	Less than 50000	160	277.39
	Government	96	412.25	50000-150000	233	301.31
	Public Sector	23	377.50	150000-250000	119	348.33
	Pvt Sector	147	381.63	250000-500000	109	428.10
	Business	117	388.47	500000-1000000	47	445.53
	Profession	10	473.20	1000000 and above	4	621.75
	House Wife	94	245.66			
	Others	47	427.46			
	Total	672		Total	672	
RISK FACTORS	Agriculture	138	186.67	Less than 50000	160	290.19
	Government	96	396.39	50000-150000	233	281.79
	Public Sector	23	389.76	150000-250000	119	382.09
	Pvt Sector	147	377.12	250000-500000	109	429.84
	Business	117	416.42	500000-1000000	47	413.83
	Profession	10	377.50	1000000 and above	4	567.00
	House Wife	94	289.84			
	Others	47	386.64			
	Total	672		Total	672	
SERVICES FACTORS	Agriculture	138	201.01	Less than 50000	160	271.92
	Government	96	433.10	50000-150000	233	296.58
	Public Sector	23	359.57	150000-250000	119	365.51
	Pvt Sector	147	366.74	250000-500000	109	449.24
	Business	117	391.43	500000-1000000	47	413.79
	Profession	10	410.00	1000000 and above	4	401.75
	House Wife	94	274.47			
	Others	47	402.82			
	Total	672		Total	672	
AGENT FACTORS	Agriculture	138	315.82	Less than 50000	160	356.85
	Government	96	317.30	50000-150000	233	332.63
	Public Sector	23	320.96	150000-250000	119	340.68
	Pvt Sector	147	307.39	250000-500000	109	342.52
	Business	117	382.27	500000-1000000	47	261.72
	Profession	10	243.80	1000000 and above	4	338.25
	House Wife	94	387.03			
	Others	47	339.79			
	Total	672		Total	672	

Source: Computed from Primary data

Hypothesis-1

The policy holder's data of influencing factors were analyzed by exercising Kruskal-Wallis test with the following null hypothesis

H_0 : There is no significant difference between the different factors influencing customer in favour of a life insurance products across different age categories of policy holders

Table 5: Kruskal Wallis Test

		PRODUCT FACTORS	RISK FACTORS	SERVICES FACTORS	AGENT FACTORS
AGE	Chi-Square	16.604	11.409	26.255	17.205
	df	5	5	5	5
	Asymp. Sig.	.005	.044	.000	.004

The table 5 shows the output of Kruskal-Wallis test among influencing factors of policy holders and their Age Category ,Product factor ,Services factor, and Agent factor were significant at alpha level 0.01 are (0.005),(0.00),(0.004), whereas Risk factor is in significant at alpha level 0.01 is (0.044). The highest mean ranks from the table 3 in Product factor, Risk factor and Service factors are at the age Categories of 19 to 28 years with (380.42)(369.22)(385.64), where as in agent factor the highest mean rank at the age Category 49 to 58 years with (391.09). From the data it reveals

that product, services and agent factors are different with age, where as there is no difference with risk factors.

Hypothesis-2

The policy holder's data of influencing factors were analyzed by exercising Kruskal-Wallis test with the following null hypothesis

H_0 : There is no significant difference between the different factors influencing customer in favour of a life insurance products across different levels of education of policy holders.

Table 6: Kruskal Wallis Test

		PRODUCT FACTORS	RISK FACTORS	SERVICES FACTORS	AGENT FACTORS
Level of Education	Chi-Square	109.393	58.654	110.002	25.008
	df	5	5	5	5
	Asymp. Sig.	.000	.000	.000	.000

The table 6 shows the output of Kruskal-Wallis test among influencing factors of policy holders and their Level of education Category ,Product factor ,Risk factor, Services factor, and Agent factor were significant at alpha level 0.01 are (0.000),(0.00),(0.000),(0.00). The highest mean ranks from the table 3 in Product factor are Professional (451.08), Risk and Service factors are Graduates (424.65)(477.99), whereas in agent factor the highest mean rank are from illiterates with (387.73). From the data it reveals that Product, Risk, Services and Agent factors are different with their level of education.

Hypothesis-3

The policy holder's data of influencing factors were analyzed by exercising Kruskal-Wallis test with the following null hypothesis

H_0 : There is no significant difference between the different factors influencing customer in favour of a life insurance products across different occupations of policy holders.

Table 7: Kruskal Wallis Test

		PRODUCT FACTORS	RISK FACTORS	SERVICES FACTORS	AGENT FACTORS
Occupation	Chi-Square	130.709	129.101	121.001	21.425
	df	7	7	7	7
	Asymp. Sig.	.000	.000	.000	.003

The table 7 shows the output of Kruskal-Wallis test among influencing factors of policy holders and their Occupation Category ,Product factor ,Risk factor, Services factor, and Agent factor were significant at alpha level 0.01 are (0.000),(0.00),(0.000),(0.03). The highest mean ranks from the table 4 in Product factor are Profession (473.20), Risk factor are Business (416.42), Service factors are Government employees (433.10), whereas in agent factor the highest mean rank are from House wife with (387.03). From the data it reveals that Product,

Risk, Services and Agent factors are different with their Occupation.

Hypothesis-4

The policy holder's data of influencing factors were analyzed by exercising Kruskal-Wallis test with the following null hypothesis

H_0 : There is no significant difference between the different factors influencing customer in favour of a life insurance products across different annual income of policy holders.

Table 8: Kruskal Wallis Test

		PRODUCT FACTORS	RISK FACTORS	SERVICES FACTORS	AGENT FACTORS
Annual Income	Chi-Square	70.851	72.889	75.029	9.114
	df	5	5	5	5
	Asymp. Sig.	.000	.000	.000	.105

Source: Computed from Primary data

a. Kruskal Wallis Test

b. Grouping Variable

The table 8 shows the output of Kruskal-Wallis test among influencing factors of policy holders and their Annual income Category ,Product factor ,Risk, and Services factor, were significant at alpha level 0.01 are (0.000),(0.00),(0.000), whereas Agent factor is in significant at alpha level 0.01 is (0.105). The highest mean ranks from the table 4 in Product and Risk factors are 10Lakshs and above with (621.75)(567.00), Agent factor are at the Income Categories of Less than 50000 with (356.85) where as in Service factor the highest mean rank at the annual income Category 250000 to 500000 with (449.24). From the data it reveals

that product, Risk, and services factors are different with their annual income, where as there is no difference with Agent factor.

Hypothesis-5

The policy holder's data of influencing factors were analyzed by exercising Chi-Square test with the following null hypothesis.

H_0 : There is no significant difference between the different factors influencing customer in favour of a life insurance products across rural and urban policy holders.

Table 9: Chi – Square Tests

VARIABLES	FACTORS	Chi-Square Test - RURAL			Chi-Square Test - URBAN		
		Value	df	Asymp. Sig. (2-sided)	Value	df	Asymp. Sig. (2-sided)
AGE	PRODUCT	351.647 ^a	120	.000	202.448 ^b	135	.000
	RISK	255.438 ^a	90	.000	137.981 ^b	85	.000
	SERVICES	322.820 ^a	135	.000	201.111 ^b	115	.000
	AGENT	202.362 ^a	60	.000	118.961 ^b	65	.000
LEVEL OF EDUCATION	PRODUCT	339.867 ^a	120	.000	278.575 ^b	135	.000
	RISK	350.883 ^a	90	.000	188.723 ^b	85	.000
	SERVICES	346.440 ^a	135	.000	256.332 ^b	115	.000
	AGENT	141.105 ^a	60	.000	168.486 ^b	65	.000
OCCUPATION	PRODUCT	297.329 ^a	120	.000	326.974 ^b	162	.000
	RISK	308.562 ^a	90	.000	206.610 ^b	102	.000
	SERVICES	388.253 ^a	135	.000	232.701 ^b	138	.000
	AGENT	164.701 ^a	60	.000	224.755 ^b	78	.000
ANNUAL INCOME	PRODUCT	231.276 ^a	96	.000	253.731 ^b	135	.000
	RISK	200.358 ^a	72	.000	162.807 ^b	85	.000
	SERVICES	249.047 ^a	108	.000	228.535 ^b	115	.000
	AGENT	67.091 ^a	48	.036	185.506 ^b	65	.000

Source: Computed from Primary data

Table 9 shows the output of Chi-Square test among influencing factors of Rural and Urban policy holders and their Demographic and Socio-economic factors, all factors are significant at alpha level 0.01 except in rural annual income and agent factor with (0.036). From the data it reveals that there is a difference between rural and urban policy holders among all factors except in rural annual income with agent there is no significant difference.

VII. FINDINGS

1. The most influencing factors on policy holders buying decisions are company image, family protection, comfort and promptness and behaviour of agent.
2. In rural the most influential factor is good behaviour of the agent where as in urban the policy holders given most importance to family protection.
3. Product factor, services factor and agent factors are different with age, where as there is no difference with risk factors.
4. Product, Risk, Services and Agent factors are different with their level of education and their Occupation
5. Product, Risk, and services factors are different with their annual income, where as there is no difference with Agent factor.
6. There is a difference between rural and urban policy holders among all factors except in rural

annual income with agent there is no significant difference.

VIII. SUGGESTIONS

The study suggests that LIC should adopt step by step approach to build value for customer technology and analytics help to understand exactly what customer wants, thereby creating long term value for customers and earning their loyalty.

It suggest that the insurance companies should train their agent to maintain cordial relations with the policy holders, it further suggest that the company image should be maintained and also suggests that the policies with family protection should be given due importance.

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92 PAISE RAILWAY TRAVEL INSURANCE- A RELIEF TO PASSENGER AT AFFORDABLE COST

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ABSTRACT

The changing scenario of domestic travel insurance can be seen with Railways aiming to cover the bottom of the pyramid travellers with its changed strategy of “92 paise insurance”. This scheme is in continuation to present government’s policy of affordable insurance schemes like Pradhan MantriJeevanBimaYojana and SurakshaBimaYojana bringing security to citizens of India at the lowest premium of Rs.330 and Rs.12 with coverage of Rs.2 Lakh. There are large numbers of deaths and injuries in railways which made to think for relief to these passengers in cost effective way. IRTC (Indian Railways Catering and Tourism Corporation) came forward with innovate way of allowing optional insurance feature for those who opt at the time of online booking. The cost of insurance has arrived through competitive bidding for a period of one year. This article discusses holistically how railways are facing the challenges of meeting passenger safety and how 92 paise railway travel insurance has been accepted by the passengers and its challenges in getting while implementing.

1. BACKGROUND

Since 1994, the railways had been paying an annual premium to insurers, through which those on a valid ticket in the passenger train, as also platform ticket holders, were insured. The Railway Claims Tribunal was in charge of administering the scheme. However, the scheme was then put to an end in September 2008. The reason that was given for discontinuation was that premiums charged were too high. The Railway Accident and Untoward Incidents (Compensation) Rules of 1990 were responsible for deciding the compensation amount. The last insurer for this scheme was ICICI Lombard, which operated for the period 20th September 2007 and 19th September 2008. As per this scheme, any passenger who carried a valid ticket or a valid pass or even a valid platform ticket was eligible for insurance. The maximum coverage that was provided under this Railway Passenger Insurance Scheme was INR 4 lakhs.

On one hand finance minister has turned down 1.19 lakhs for dedicated safety funds and on other operating ratio expected to be around 94 to 92 percent (i.e. Every 94 paise need to be spent for

every Rs.1/- it earns) railways need to take additional burden for insurance of passenger additionally which is costing huge. In this scenario bring service provider through competitive bidding bringing premium cost low and allow passengers to optional opt which will not only give relief to passengers but also removes additional burden to railways.

2. INTRODUCTION:

Indian insurance sector is changing for both Life and General Insurance by aiming to tap the huge bottom line population bringing down the cost of insurance and giving security. The government initiatives of 8 insurance schemes targeting individuals for benefitting bottom of the pyramid population covered for the personal life in cost effective way. On other hand Modi government has launched optional travel insurance scheme on pilot basis w.e.f 01.09.2016 for railway passengers who book tickets from IRTC at 92 paise standard price. This is a game-changing strategy for railways as it is not only lowest premium per person for travel insurance policy as per global market standards and it also made railways saves

huge cost of payment for accidents to the passengers. To promote cashless economy FM allowed Railway Travel Insurance to be free for all persons booking through cashless mode at the time of demonetization.

According to the data provided by Railways around 20,763,353 passengers have opted for the insurance cover till October 30, 2016. Railways has promoted this scheme as Diwali bonanza by reducing the cover price from 92 paise to just one paisa from October 7th till 31st October 2016 offered for long-distance confirmed tickets and Finance Minister all free for all passengers booking through cashless mode.

As per the fine print, claim intimation should be immediate but not later than four months after the event has taken place. Train accident will be defined as per definition under Section 123 read with Sections 124 and 124A of the Railways Act, 1989.

3. CONDITIONS OF 92 PAISE DOMESTIC RAILWAY TRAVEL INSURANCE

- This insurance is available only and only to Indian Citizens booked through the website only. Foreign nationals traveling in through Indian Railways are not eligible to get this insurance.
- This insurance can be availed only and only if tickets are booked through the official website of IRCTC. In case one is not opting for e-ticket, this insurance plan is not available currently.
- This insurance scheme is optional which needs to be opted at the time booking the ticket in online mode only.
- The premium to be paid is Rs.0.92 (=Rs.0.80+ cess & service tax) including all taxes which includes all costs without any additional charges applicable for the insurance.
- No refund of premium will be entertained for the ticket is cancelled.
- If there are multiple people traveling together and they are opting for this insurance, they need to book tickets under the same PNR.
- A single premium of Rs.0.92/- for insurance scheme irrespective of travel class and confirmation status (i.e. RAC, Waiting list & Confirmed ticket) of the ticket.
- The age of eligibility for insurance is above 5 years. For children, the insurance will not be available under this scheme.
- If a passenger is opting for the travel insurance, in the case of a mishap, the insured person or his / her family needs to deal directly with the insurance provider. IRCTC will not work as a mediator.
- In the case of accident and passenger dies their legal heirs can claim the settlement. But in case he is survived with injuries, the insured may himself or herself ask for claim provided he or she is capable of going for the claim. In case the passenger is not in position then his/ her legal heirs can claim on behalf of insured person.
- Nomination details need to be filled at respective insurance company site after booking the ticket. If nomination details are not filled then the settlement shall be made with legal heirs if the claim arises.

92 PAISE DOMESTIC TRAVEL RAILWAY INSURANCE COVERAGE				
Death	Permanent Total Disability	Permanent Partial Disability	Hospitalization Expenses	Mortal Remains Transportation
10,00,000	10,00,000	7,50,000	2,00,000	10,000

Source: <http://contents.irctc.co.in/en/InsuranceTermCondition.pdf>

One of the three companies selected to provide the cover informed to media that “Around 13.4 lakh tickets are booked online every day, out of which 67 per cent is for sleeper class, 20 percent is for AC and chair car, 12 percent is for AC-II, while the remaining one percent is for AC Tier-1. These numbers increase during the festival season”.

4. COMPARISION OF DOMESTIC TRAVEL INSURANCE BETWEEN 92 PAISE RAILWAY INSURANCE AND TATA AIG'S DOMESTIC TRAVEL PROTECTION POLICY:

“There is no data available to suggest this is the cheapest in the world. However, it is sure that this premium is way below the global market standards. Though travel insurance compensation for flights is higher, ranging about Rs 75 lakh, the premium is also on the higher side, Rs.2,000-3,000,” said V Ramakrishna, founder of India Insure, a Hyderabad-based insurance broking house. In comparison to the proposed railway insurance which comes at 9.5p per Rs.1 lakh cover, airlines insurance comes to Rs.26 for low-end premium. Below is an example of the comparison of railway scheme with Tata AIG's domestic travel protection policy offered for domestic air travel.

Comparative Domestic Travel Insurance Policy		
Description	92 Paise Railway Insurance	Tata AIG's Domestic Travel Protection Policy, specially designed for Yatra Passengers:(www.yatra.com)
Accidental Death And Dismemberment	Rs.10,00,000	Rs. 750,000
Emergency Accident Medical Reimbursement/Hospitalization Expenses	Rs.200,000	Rs. 100,000
Trip Cancellation	NA	Up to original cost of flight
Train/Flight Delay	NA	Rs 1,500 per 6-hr delay period, up to Rs. 10,500
Common Carrier Delay	NA	Rs. 1,500 per 6-hr delay period, up to Rs.10,500
Trip Interruption	NA	Up to original cost of flight
Emergency Medical Evacuation And Repatriation O Mortal Remains	Rs.10,000	Rs. 500,000
Baggage Loss (Common Carrier)	NA	Rs. 7,500
24-Hr Assistance Services	NA	Included
Premium per trip	92 Paise	Rs. 129

5. OBJECTIVE OF THE STUDY

The study focuses on impact of 92 paise railway insurance accident protection scheme for passengers traveling through railways and the challenges it is facing for penetrating in covering all segments of passengers traveling railways for untoward incidents. It also suggests see how to increase the impact of this scheme towards social security for passengers traveling through railways.

6. RESEARCH METHODOLOGY

The study is based on secondary data collected from various sources especially from articles, journals media and IRDA reports. Various websites have also been studied to conduct the study.

7. NEED FOR RAILWAY INSURANCE POLICY

7.1. INCREASING IMPORTANCE OF PASSENGER SAFETY:

Of late Finance Minister in his first combined budget 2017-18 speech has emphasized passenger safety as one of the four major areas(capital and development works, cleanliness and finance and accounting reforms) which railways are going to focus next 5 years. For passenger safety, a “Rashtriya Rail SanrakshaKosh” corpus fund of Rs.1 lakh crores over a period of 5 years, to be funded by seed capital from the Government, Railways own revenues and other sources.

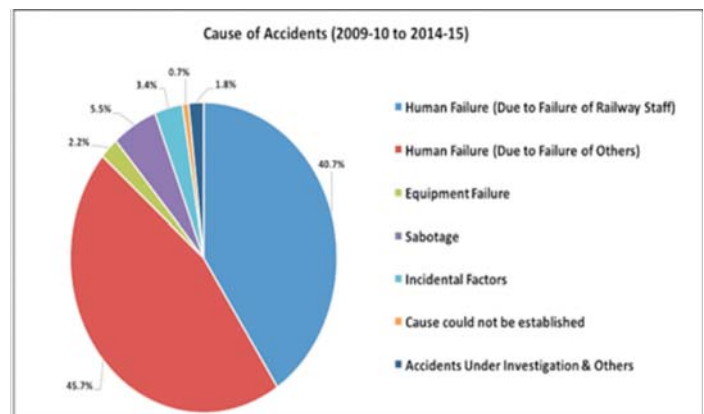
7.2 TYPE OF RAILWAY ACCIDENTS AND ITS IMPACT:

As per Indian Railways, Life of the Nation, February 2015 white paper 40% of Indian Railways 1219 line sections are utilized beyond 100% or above line capacity. Technically a section using above 90% capacity utilization is considered saturated. In six years period from 2009-2014, there were around 803 accidents in Indian railways killing 620 people and injuring 1855 people. Most of these accidents happen due to derailments and accidents at level crossing due to fatigue of railway tracks and human error. It has become a challenge for taking up maintenance activity which is generally taken up by re-jigging Schedules when goods trains are scheduled to pass. In spite of an

increase in the use of modern technology, railways are facing the problem of shortage of time to work on tracks. For example. One of the busiest routes of Delhi Kanpur segment in busiest rail traffic hours from midnight to 7 am railway staff got just 13 minutes to check the tracks. In the rest of the day, it would increase to 19 minutes. Level crossing accidents is another common type of mishaps which is continuing to pose risk till date as they are not fully phased out at least on the broad gauge. As per railway budget decision 2016-17 around 15% of the 9,340 level crossings have been targeted for elimination in the year 2017.

In the 6-year period between 2009-10 and 2014-15, human failure has caused more than 86% of total accidents. Out of this 41% because of congestion of tracks.

CAUSE OF ACCIDENTS



Source: <https://factly.in/indian-railway-accidents-statistics-review-last-5-years/>

This is growing every year with the announcement of new trains and no parallel promise of track expansion. Apart from this existing infrastructure maintenance and up keeping the tracks has become a challenge to railways in spite of using better technology which speeds up work of maintenance accidents caused due to railway staff failure and remaining due to others. Equipment failure caused only 2.2% of the accidents. One of the important parameter to understand the occurrence of train accidents per million kilometers run and its progress over the years. It is found that there has been a continuous decrease from 2009-10 to 2013-14 rail accidents and then sudden increase in the

year 2014-15. There has been continuous improvement in performance railways with reduction of over 40% in accidents from 2009-10 i.e. 0.17 to 0.10 but again increased to 0.11 in 2014-15.

TRAIN ACCIDENTS PER MILLION KILOMETERS RUN



8.1. SNAPSHOT - 92 PAISE RAILWAY TRAVEL INSURANCE 1ST INCIDENT

PERFORMANCE OF 92 PAISE RAILWAY INSURANCE SCHEME	
Average yearly deaths caused by accidents and other mishaps	15000
Number of rail accidents in 2014	28360
Number of death in rail accidents in 2014 (National Crime Records Bureau)	25006
Number of injured people in rail accidents in 2014 (National Crime Records Bureau)	3882
Percentage of railway tickets booked online through IRCTC website	59%
Number of average daily logins on IRCTC website	3.2 million
Average number of tickets booked everyday	550000
Number of people opted for new travel insurance scheme since its launch	15 million to 20 million
Based on the number of people opted for the scheme, average number of daily logins	3.2 million
Based on the number of people opted for the scheme, average number of daily ticket bookings	700000
Percentage of people opting for new travel insurance	30% of total number of tickets booked opted for this travel insurance

Source: <http://www.pradhanmantrijojana.co.in/railway-travel-insurance-free-cashless-online-booking/>

The new Railway Travel Insurance has already been put to test after its launch. On 20 November 2016, Indore-Rajendra Nagar Express met with an untoward incident. 14 coaches of the train number 19321 were derailed. This accident claimed the lives of 150 people. In addition to the deaths, 260 people were injured. The location of the accident

was Pukhrayan, which is a location 60 kilometers away from Kanpur. After this train accident, the ministry of railways is thinking of making travel insurance mandatory. This means that if you are traveling long distances by train, you will have to buy a travel insurance. There will be no other option for you.

Cause of accident:	Possibility of accident - rail fracture
Time of accident	3.10AM
Number of people dead: at least	150
Number of people injured: over	200
Total number of passengers on board:	695
Type of seats:	Reserved seats
Number of tickets purchased with insurance:	128
Number of people with travel insurance aboard during accident:	78

Source:<http://www.pradhanmantriyojana.co.in/railway-travel-insurance-free-cashless-online-booking/>

Amount of insurance money paid to passengers	
Particulars	Lakhs
Payment from Railways & PMO	5.5
Payment from UP Government	5
Payment from MP Government	2
Government Railway Travel Insurance	10
Total (amount quoted by media 26.5 Lakhs)	22.5

Source:<http://www.pradhanmantriyojana.co.in/railway-travel-insurance-free-cashless-online-booking/>

9. CHALLENGES OF 92 PAISE RAILWAY INSURANCE:

9.1. INSURANCE IS NOT COMPREHENSIVE COVERING ALL UNTOWARD INCIDENTS

This insurance is covering accident defined under section 123 read with sections 124 and 124A of the Railway Act, 1989. But for railways the accident happens numerous ways such as crossing the railway tracks, terror attack or accident on the railway station, accident due to a breach of law with criminal intent nor will you will be

compensated if you board the train without a confirmed ticket. The coverage will start with the departure of the train from the originating station to its arrival at the destination station, including the process of entraining and detraining the train.

9.2. NOT COVERING UNRESERVED & TICKETLESS TRAVELLERS:

Only customers who are booking online are allowed to have this optional insurance as on date. Currently, on an average 59% tickets are getting booked IRCTC website and average 30% have opted for insurance even though premium was only

92 paisa. This shows that only 17.7% (i.e. 0.59 * 0.3) passengers have been covered with insurance which is defeating the purpose of relief to accidental passengers.

9.3 SHIFTING THE RESPONSIBILITY ON PASSENGERS TO OPTING INSURANCE

IR has shifted this burden of travel insurance on the passenger by making it optional as it was a huge burden and the viability will depend upon a number of major accidents in a year. In fact, the contractual obligations under the scheme are between passengers and insurers and Railway's plays as a role of facilitation by seeing the compliance is met and disbursement is done as per agreed terms.

Awareness of Passengers: Even though the scheme is eight months old, it is yet to achieve maturity level whereby passengers know the advantages of the policy and apply it. In spite of growth and penetration of internet, we still have large population still depends on agent booking.

As per rules of retail service providers registered with the IRCTC requires them to provide their correct address, mobile number, email address and PAN number on the registration form which gets scrutinized when insurance claims arise. To avoid these issues the agent deliberately declines the option of insurance taking the advantage of their client's lack of awareness.

9.4. CHILDREN UP TO 5 YEARS NEED TO OPT SEPARATELY

For including insurance coverage children up to 5 years need to be opted separately while booking the ticket and accordingly the travel insurance premium will be added to the total premium payable. This process gets discouraging especially during tatkal ticket booking where time is too short for getting confirmed tickets.

9.5. NON-INCLUSION FOR FOREIGN CITIZENS UNDER 92 PAISE SCHEME

Foreign tourist has touched 6.8% growth with 8.44 lakh arrivals in January 2016 compared to 7.91 lakhs during the same month last year. Railways have started INDRAIL PASSES to these foreign

tourists/NRI. Even though the percentage for foreign travellers is low these category of passengers is excluded from this scheme. Generally these passengers travelling abroad take their personal travel insurance covering whole foreign trip.

9.5. CONTINUATION OF PRIVATE INSURANCE COMPANIES SUPPORTING THE SCHEME IS QUESTIONABLE

Railways has shifted the burden of insuring the passengers by giving them optional 92 paise insurance scheme. The bidding for this scheme done by insurance company for a short period of 1 year after which both the parties can analyse the performance and viability for continuation. One of the contentions of private insurance company with regard to viability of product is "Since the duration is short, the probability of a high number of accidents is low. We don't expect to make losses". Currently this scheme is launched after going through competitive bidding process for selecting company which provide the coverage.

Around 19 companies participated out of which 17 were eligible and the lowest quote bidder in this process was Shriram General Insurance with 92 paisa which is been accepted as benchmark price and given to 3 companies (Royal Sundaram General Insurance & ICICI Lombard General Insurance) including Shriram General Insurance for Railways Insurance. This contract will be valid for 1 year after which renewal is subject to performance of these companies. Generally Viability to private insurance with this 92 paisa is questionable for long period.

9.6. TATKAL SCHEME BOOKING PROCESS NOT CONDUCTIVE FOR 92 PAISE SCHEME

At the time of booking Tatkal scheme tickets time taken place will be of very important. In this scenario passengers are concerned about booking tickets rather than availing insurance. However in case of cancellation of Tatkal ticket refund of premium will be done after deducting administrative charges to the same account which is used to book tickets.

10. CONCLUSION

The scheme launched as pilot basis currently with the contract of one year with shortlisted 3 insurance companies. Even though it positioned at lucrative price of 92 paise this policy is not comprehensive as it covers from entrain to de-train period for only train accidents and untoward incident, including terrorist attack, decoity, rioting, shootout or arson, occurs. Government acceptance that investments in safety have been insufficient is a good sign but it has also claims that India's accidents per million train kilometers, a safety index, compares favorably with Europe's. In India, this index has more or less declined over the last decade, reducing from 0.23 in 2006-07 to 0.10 in 2015-16. However this figure cannot be compared are with other advanced railway networks as the trains there are running at 250Km per hour speed and safety standards are higher than that of Indian railways. Accidents per million train kilometers depends on the number of trains, which is huge in India vis-a-vis developed nations. It also depends on speed, another measure of infrastructure usage, prevailing law and order conditions, and temperature variation.

All said and done train accidents cannot be predicted and insurance is taken for providing relief against the unexpected incident. They can be because of technical errors or human errors and keep happening over and again and thousands of keep dying untimely deaths as around lakhs of people are travelling through trains. This insurance can give financial relief for those who are leave behind with 10 Lakhs against 92 paisa premium for death case which itself is huge sum of money which can help the dependents of the deceased people to live a financially stable life especially for bottom of pyramid segment.

This scheme also brought transparency in the system at allowing private companies to participate in making safe travel in through railways by competitive bidding for selecting insurance service provider and dividing the business between 3 companies equally to reduce the risk of default by a service provider. But the

challenge for railways is still to fix the gray areas such as optional insurance coverage, lost baggage, non-inclusion passengers, ticketless travelers etc where relief is yet to be covered through railway's insurance scheme. However initial steps have been taken towards right direction by IRTC approaching the government to make insurance mandatory so that no one is denied due to the clause of "optional". Apart from it is necessary to increase the gamut of insurance scope by making in comprehensive as it is needed to cover untoward incident which is need of the day to make train travel safe for millions of Indians.

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INSURER'S PROFITABILITY - A STUDY OF TANZANIA INSURANCE INDUSTRY

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ABSTRACT

Insurance is an instrument of security, savings and peace of mind. There is remarkable prospective for growth in the insurance industry because of diversity and depth of the market. Profitability of insurance companies were further eroded due to losses on investments in volatile capital markets and higher cost of guarantees as well as lower revenues from administration fees. General insurance business in Tanzania experienced a growth of 11.76% in gross premium income from Tsh.410.7bn/- to Tsh. 459bn/ during the nine month period in 2015 and 2016 respectively. The insurer's investment portfolio was in favour of term deposits and government securities to shares in the equity market and remained by profitable supported by underwriting income. Total investments increased by 10.61%, the largest share of insurer's investment assets comprised of bank deposits(49.16%), followed by government securities (18.79%), real estate(16.42%), shares (9.2%), and other monetary investments (0.96%). Insurance sector remained profitable supported by underwriting income. Return on income for general insurers were 8.3%.

Key words: Insurance, life insurance, non life insurance, Profitability.

1. Introduction

Economic growth trends are strong in East Africa. Although Tanzania economy is improving there are still challenges in terms of widespread poverty and limited average household income rates. The main objective of the Insurance sector is to provide financial stability to individuals, organizations and businesses. The Insurance sector is closely linked with macro economic factors, regulation and supervision, and the achievement of national development objectives, as well as the International trade regime. The Tanzanian Insurance industry was liberalized in 1996 with six private insurance firms. Insurance firms were required to meet share capital solvency and margin requirements and must also hold a certain percentage of their assets in specified investment notes (Gumbo 2007). According to Patrick (1966) there are two possibly coexisting, relationship between financial sector and economic growth. Developing countries have supply leading patterns

of causality of development and have considered locally incorporated insurance institutions or state owned monopolies an essential element of economic development. With only 10% market share, life insurance in Tanzania is at the early stage of development. Market penetration (0.1%) and density (USD0.6) are particularly low in life segment. (BMI Report- 2016). Tanzania's non life insurance segment is considerable larger and developed. Insurers are seizing up the rapid growth in mobile network by partnering with raising telecom players to provide low cost basis cover policies.

2. Review of literature.

Anoop Rai (1996) studies Cost efficiency of International Insurance companies in eleven different countries and found that insurance firms in Finland and France have the lowest inefficiency while the firms in UK have the highest on average, small insurance firms are more cost efficient than large firms worldwide.

Hao (2007) in his article Efficiency test on Taiwan life insurance industry using X efficiency Approach investigated the cost efficiency of 26 life insurance firms in Taiwan and reveal that larger market share reduced inefficiency, hence increased profitability. It is proved that there is a relationship between efficiency and profitability of life insurance holding in the market.

Hifza Malik (2011) found that there is no relationship between the profitability and age of the insurance companies and a positive relationship between size of the company and profitability.

Jeng & Lai (2005) investigated on Ownership structure; agency cost specialization and efficiency in Japan and found that Non specilised independent firms to be less successful than non life insurance industry firms.

K liumpes (2004) in his paper Performance benchmarking in financial services evidence from the UK life insurance industry investigated 40 life insurance companies and the results indicate that no evidence that mutual form has higher cost inefficiencies than stock firms.

Hwang and Gao (2003) investigated the determinants of the demand for Life Insurance in an Emerging Economy with a Case of China. They found that certain cultures led to lower uptake of life insurance whereas urbanization which leads to diffusion of cultures was related to more uptake of insurance.

Park, Lemaire and Chua (2010) studied challenges insurance penetration in Arab countries and found that Moslem religion led to lower uptake of insurance.

Chui and Kwok (2009) studied culture and its effect on insurance consumption. They found that culture has an effect on insurance consumption.

2.1. Objective of study

To analyze the profitability of insurance companies in Tanzania.

3. Methodology

The present study is conceptual in nature. It aims at providing an insight at the prospects of economic growth of the leading insurance companies.

Data collection: Secondary data has been used for the purpose of the study that includes various journals, websites, and articles.

Analysis: Percentage method used for data analysis.

4. Discussion

4. 1ALLIANCE INSURANCE CORPORATION

Alliance Insurance Corporation Ltd was incorporated on 24th of January, 1996 under the Companies Ordinance act (Cap 212). The company was granted a certificate of registration as an insurer on the 23rd of July, 1998 and began trading in the month of November, 1998. The company also obtained a certificate of incentives in accordance with the provisions of section 17 of the Tanzania Investment act 1997 operative 1st of July, 1999.

FINANCIALS – Strong net worth of TZS 36.79 billion as at 31.12.2015 and delivering uninterrupted profits year after year.

RATING –Rated ‘AA-(TZS)’ by Global Rating Company for sound financials & claims paying ability.

COMPOSITE INSURER – Offering the complete range of Life &non-Life products under one roof.

Profitability ratios are a class of financial metrics that are used to assess a business ability to generate earnings compared to its expenses and other relevant cost incurred during a specific period of time. For the most of these ratios, having a higher value relative to a competitor’s ratio or relative to the same ratio from a previous period indicates the company is doing well.

Ratio calculation on Alliance Insurance company limited through return on equity(RO)E, return on asset (ROA), Debt to Equity ratio, Gross profit, Net Profit Margin, Operating return on Total asset, Asset turnover;

Table 1: Ratio's of Alliance Insurance Company.

Financial Ratio	2012	2013	2014	2015	2016
ROA	9.7%	9.7%	9.65%	9.6%	(29%)
ROE	11.9%	12.70%	12.86%	13.51%	(36.6%)
Debt to equity	36.05%	38.1%	37%	37.1%	40%
Current Ratio	1.68	1.70	1.71	1.65	1.68
Net profit Ratio	11.6%	11.8%	12%	12.5%	(37%)

Source: Data from Financial statements (2017)

4.2. MO ASSURANCE COMPANY

MO Assurance Company (MOA) which started its journey as Golden Crescent Assurance is the first step into the Financial Services sector by the promoters of METL (Mohammed Enterprises Tanzania Limited) Group of Companies. METL is a household name in Tanzania, whose products are popular in every Tanzanian home and which contributes to nearly 3% of GDP of the country.

The Company started Operations on 1st March 2007 and has established itself as a stable and growing non-life insurer in the market with a healthy portfolio mix and notable presence in the micro insurance segment. MOA has pioneered the foray into mobile insurance scene with unique micro life and micro health insurance schemes. **Presently under MOA's micro insurance umbrella more than 600,000 people are covered.** We had also ventured in to Agriculture Insurance

through weather index insurance schemes for farmers. The focus of the Company is to provide affordable insurance coverage to maximum number of people. MOA's aim is to position itself as **"People's Insurance Company"**.

Mo Assurance deals in over 20 types of general insurance products. Mo Assurance provides grassroots micro insurance developed and introduced in Tanzania with the support of partners, including Micro Ensure. Micro Ensure is the distribution wing of the ILO's previous Micro Insurance Agency. Mo Assurance offers micro life and micro health insurance schemes, as well as agriculture insurance through weather index insurance schemes for farmers.

JUBILEE INSURANCE. : Is one of the insurance companies listed in DAR-ES-SALAAM stock of exchange?

Table 2: Financial ratios of Jubilee Insurance.

Financial Ratio	2012	2013	2014	2015	2016
ROA	12.56%	32.6%	40%	80%	27.2%
ROE	34%	12.70%	70%	41%	32%
Debt to equity	36.05%	39.2%	30%	4%	40%
Current Ratio	1.68%	1.70%	1.50%	1.65	1.68%
Net profit Ratio	21.43%	12.45%	15%	15%	65%

Source: Financial Statements of Jubilee Insurance Company (2017)

4.3. BUMACO INSURANCE COMPANY LTD

In early 1980 the shareholders of BUMACO, a private firm of Business Management Consultants, conceived an idea of providing Insurance services to its clients as an added value to its core. Bumaco Insurance agency was established. In 1999 the agency was transformed to a broker. In 2008, Bumaco Insurance Brokers gave way to a fully-fledged Insurance Company, a fast moving Insurance provider of all the time.

With over 30 years' experience in Insurance, Bumaco Insurance Company Ltd is duly

registered, with 100% of its equity in Tanzania. The company exists to provide non-life insurance services with certainty. The company deals with the following companies.

Motor Third Party, Bonds (Financial Guarantee), Fidelity Guarantee, Money Insurance, All Risks, Employers Liability, Electronic Equipment, Theft/Burglary

Third Party Fire & Theft, Professional Indemnity, Ziada Auto, Ziada Personal Accident,, Ziada Domestic Package, Personal Accident

Table 3: Ratio's of Bumaco Insurance.

Financial Ratio	2012	2013	2014	2015	2016
ROA	6.32%	7.6%	7.56%	8.1%	6.3%
ROE	23.45%	22.70%	20%	20.8%	17.45%
Debt to equity	12.05%	49.2%	40%	51%	37.40%
Current Ratio	18%	12.10%	16.0%	1.65	16.58%
Net profit Ratio	21.43%	22.5%	23%	25.1%	20%

Source: Financial statements of Bumaco Insurance (2017).

4.4. RELIANCE INSURANCE COMPANY LIMITED

Reliance Insurance Company (T) Limited was promoted in 1998 in the light of the opportunities offered by the privatization of the insurance industry. Local businessmen of repute joined hands with Pan Africa Insurance Company Limited of Nairobi, Kenya to infuse the envisaged initial paid - up capital of T.Shs.600 million. **APA Insurance Limited** acquired the shares consequent to merger of Pan African Insurance and Apollo Insurance. The company was among the first few companies licensed in 1998 and started operation October 1998. The company has been making steady progress and has built a strong financial base and reputation for strong customer oriented culture. The shareholding in the company is as under:

APA Insurance Limited: 34.00%

Tanzanians: 33.33%

Other foreign investors: 32.67%

One of the leading private non-life insurers in Tanzania offering wide range of products to cover all kinds of property and liability risk exposures like Fire, General Crime and Accident, Motor Vehicles, Cargo etc. Committed to excellence in customer service and Corporate Good Governance.

Return on Equity (ROE) is the amount the net income returned as a percentage of shareholder equity. Return on equity measures a corporation's profitability by revealing how much profit a company generates with the money shareholders have invested. From the above financial analysis ROE has high value in year 2009 compare to year 2010. Increase in ROE may be due to increase in idle cash or lower taxes and etc.

Return on Asset (ROA) is an indicator of how profitable a company is relative to its total asset. It gives an ideal as to how efficient management

is at using its Asset to generate the earning. The Asset of the company comprised of both debt and equity. The ROA figure gives the investors an idea of how effectively the company is converting the money it has to invest into net income. The higher the ROA number, the better, because the company is earning more money on less investment. From our financial Analysis year 2009 has high ROA figure than year 2010.

Debt to equity it shows the proportion of equity and debt a firm is using to finance its asset and the extent to which shareholder equity can fulfill obligation to creditor in the event of business decline. Lower debt to equity ratio indicates lower risk since the debt holders have fewer claims on the company's asset. From the above financial analysis year 2009 has high debt to equity ratio compare to year 2010.

4.5. ZANZIBAR INSUARANCE COOPERATION

Zanzibar insurance cooperation was established on the 20 June 1969 under the public enterprises Decree of 1966 legal notice no; 11 of 1969.the cooperation is a parastatal organization owned by

the revolution government of Zanzibar through the minister of finance and economic affairs. Zanzibar insurance cooperation is a composite insurance company that always provide fair and equitable service which is reasonable to all policy holders .the cooperation operates its business through its head office in Zanzibar and its branches of chackechacke in Pemba and dare s salaam, Mwanza, Arusha, Mbeya and Dodoma I Tanzania mainland

The company posted an underwriting profit of TZs 3,754.9 million in 2015 compared to a profit of TZS 2,115.6 million during the previous year. After taking into account investment income and other income, the result was a pretax profit of TZS 6,068.5 million compared to a pretax profit of TZS5, 239.5 million in previous year. Meanwhile the insurers' net assets increased to TZS 47803.9 million at the end of 2015 compared to TZS 41588.2 million at the previous year end.

The management has good control over the expenses since the percentage change of expenses has decrease from 96% in 2014 to 93% in the year 2015

Table Four: Insurer's Profitability: Market Top Performers.

<i>Particulars</i>	<i>Amount (TZS)(bn/-)</i>
Underwriting Profits	3.44
NIC	3.28
Alliance Insurance	2.6
Jubilee Insurance	1.95
Insurance Group	1.47
Underwriting losses	--
Metropolitan Tanzania	4.47
Britam Insurance	2.13
AAR Insurance	1.18
Net Income	--
Alliance Insurance	4.95
Reliance Insurance	4.28
NIC	3.62
Jubilee Insurance	2.72
Strategies Insurance	1.82
AAR Insurance	1.78

Source: The Banker – Financial Guide April 2017.

5. Conclusion

TIRA figures show that total volume of business, in terms of gross premium written for both general and life insurance businesses increased by 12.03% from about 460.9bn/- at the end of the third quarter in 2015 to about 516.4bn/-. At the end of September 2016. Insurance sector remained profitable.

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A STUDY OF CONSUMERS' PREFERENCES AND PERCEPTIONS ON LIFE AND MEDICAL INSURANCE

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ABSTRACT

Life and medical insurance are very important investments in securing the financial security and safety of the family. The figures of insurance penetration and density are pathetically low in India compared to developed countries which prompted to take up the study to understand type of life Insurance policies preferred, amount spent on life and medical Insurance, reasons for buying the cover and perceptions of customers towards service levels offered by insurance companies. The sample mostly comprised members of teaching and training profession and feedback was obtained in Hyderabad using a structured questionnaire having sample size of 105. The study showed that the respondents had low cover with preference for money back policies. The investment was seen as a protection of the family interests and to reduce financial burden. Correlation and influence was observed in terms of qualification and Income with the amount spent on insurance indicating insignificant influence of other variables.

Key Words: Financial Security, Hospitalisation, Insurance, Policies, Preferences.

1. INTRODUCTION

The *raison d'être* of buying life insurance is to have security of the family in the unlikely event of the death of the family head/ bread winner. It also serves as an avenue for savings coupled with insurance during one's life span. For elderly persons it acts as a financial support after retirement. On the other hand, medical insurance, for the purpose of this paper refers to insurance against bodily injury, disablement or death by accident or expenditure resulting from sickness,

The insurance industry is a financial behemoth worldwide. However, in India the insurance share is a meager 1.5% of total global insurance premium received. According to National Sample Survey (NSS) around 86 per cent of the rural population and 82 per cent of the urban population are not covered under any health scheme support (The Hindu, 2016). Further, government spending on health sector is a mere 4.1 per cent of the GDP (Srivastava, 2016). In terms of business, the share of life insurance is at around 79% and that of non-life insurance is at around 21% and in monetary terms, in 2015-16, life insurance and health

insurance industry collected a premium income of 3,66,943 Cr and Rs 27,457Cr respectively (IRDA, 2016).

The Indian industry is growing very fast due to entry of private players. At the end of 2016, there are 54 insurers out of which 24 are life insurers, 24 are general insurers and 5 are health insurers. Sector-wise, eight are in the public sector and the remaining forty six are in the private sector comprising 23 life insurers, 18 general insurers and 5 standalone health insurers.

As regards development of insurance sector in any country it is calculated by two parameters, namely, insurance penetration and density. Insurance penetration is measured as percentage of insurance premium to gross domestic product (GDP) which is at 3.44% in India against highest figure of 18% for Taiwan and insurance density is calculated as the ratio of premium to population, also known as per capita premium which is at US\$ 54.7 as against US\$7500 for Switzerland as of 2015 indicating high level of under-penetration in India (IRDA, 2016)

Keeping the above background in perspective, an attempt was made to study the correlation and influence of demographic parameters of gender, age, educational background (qualification), family size (number of members in the family) and family income on buying insurance cover. Further, efforts were made to investigate the reasons, perceptions and preferences of the insurance buyers to gain insights for the low penetration and density.

2. LITERATURE SURVEY

A number of research studies have been undertaken in India and other developing and developed countries by many researchers, governments and world organizations on various demographic, behavioral and economic aspects of consumers to understand demand for life and health insurance. These earlier research findings provide a window to the various factors and determinants that drive the demand for life and medical insurance.

Hammond et al (1967) devised the first model of life insurance demand focused on demographic and social factors such as order of birth, age, level of education and number of dependants.

Manits and Farmer (1968) found through simple correlation analysis that relative personal income, population and employment had effect on insurance demand.

The principal findings of Truett & Truett(1990) revealed that age, education, and level of income affect the demand for life insurance in Mexico and USA.

According to Outreville (1996), an analysis of data of 48 developing countries showed that life insurance development is significantly related to personal disposable income and to the country's level of financial development .Further, they, found education increases risk aversion and encourages people to go for life insurance.

Beck and Webb(2002) analyzed the determinants of life insurance consumption in a cross-country sample of 63 countries including India between 1980-96 and the findings revealed that Life

insurance penetration and density increase with the income level and education. Again in 2003, the duo using data of 68 economies pertaining to 1961-2000 found that income per capita, as one of the most robust predictor for life insurance demand, whereas, education did not have similar association.

The findings by Long (2003) suggest that that low income people are not in a position to take health insurance. Thomas et al (2005) findings show that different age group customers have a different motivation which makes them purchase different insurance products.

The study by Li (2008) supported the hypotheses that demographic factors (age, education etc), assets factors and psychographic factors significantly affect the probability of owning life insurance.

The study of Sen (2008) of the cross-country analysis of 12 Asian economies over 11 years (1994-2004) confirmed that in India income and urbanisation explain insurance consumption.

Feyen et al(2011) from the study of a panel of 90 developed and developing countries during the period 2000-08 found income as an important driver of life and non-life insurance, whereas, schooling was not seen to be so.

Munir et al (2012) found proof that all the macroeconomic factors including income level and demographic variables like old age are linked to life insurance demand.

Curack et al (2013) found age and education having statistically significant impact on life insurance demand of households in Croatia. Other factors, like gender and number of family members were found to have no influence on the life insurance consumption.

Sliwinski et al (2013) findings in Poland revealed that variables such as education had insignificant influence on the demand for life insurance

Dragos(2014) findings show that income positively influences the demand for insurance in

Central and Eastern European Countries (CEE) countries but it is not significant for the Asian emerging countries. Also, it was seen that education positively influences the demand for Insurance and was significant.

The study by Cantiello et al (2015) has shown that gender did not play an important role in an individual's decision to purchase health insurance and that young and old adults took purchase decisions based on socio-economic status.

Luciano et al (2015) findings in Italy revealed that the demand for insurance is highly correlated with age, income and family structure.

Ondruska et al (2016) research shows that age and education are some the most robust predictors of the life insurance consumption.

Kicinger and Robin Hanson (2008) study of employees, based on the National Medical

Expenditure Survey (NMES) of 1987, identified age as one of the predictor of higher health insurance coverage. On the other hand, gender was a factor for lower quantity of health insurance.

The study by Yellaiah and Ramakrishna (2012) revealed that one of the determinants of demand for health insurance in Hyderabad is income. The variables such as age and education were statistically not significant though they had expected signs.

Sudhir et al (2015) from their study in South India found that some of the main determinants of being insured were gender, nuclear family and higher education status.

Tables: 1&2 provide the snapshot of the demographic factors which affect/influence non-life and life insurance demand/ buying preference.

Table:1 SELECTED VARIABLES AND THEIR IMPACT ON THE DEMAND OF NON-LIFE INSURANCE

Author	Demographic Effect
Sherden (1984)	Income(+)
Beenstock, Dickinson and Khajuria(1988)	Income(+)
Outreville,(1990)	Income(+)
Browne, Chung and Frees (2000),	Income(+)
Esho, Kirievsky, Ward and Zurbruegg (2004)	Income(+)
Treerattanapun (2011)	Income(+)
Park and Lemaire (2011a)	Income(+)
Yellaiah and Ramakrishna (2012)	Income(+)
Browne, Chung and Frees (2000)	Level of education(+)
Esho, Kirievsky, Ward and Zurbruegg (2004)	Level of education(+)
Outreville,(1990)	Level of education(+)
Park and Lemaire (2011a)	Level of education(+)
Curak, Dzaja and Pepur(2013)	Level of education(+)
Treerattanapun (2011)	Level of education(NS)
Sudhir et al (2015)	Education(+)
Source: Simona Laura Dragos,Life and non-life insurance demand: the different effects of influence factors in emerging countries from Europe and Asia,2014. Table compiled by author. NS= Non significant.	

Table: 2 DEMOGRAPHICS ASSOCIATED WITH DEMAND FOR LIFE INSURANCE

Authors	Context/country	Variables
Hammond et al. (1967)	US household survey, 1952 and 1961	Age (NS), Education (+) , Marital status (-), Family size (-), Race (NS), Self-employed(+)
Duker (1969)	Survey of consumer finance,1959	Age (NS), Income(+), Family size (NS), Occupation
Burnett and Palmer (1984)	Consumer surveys, early,1980s	Age (NS), Education (+) , Family size (+), Religion (-)
Truett and Truett (1990)	Economic surveys, US and Mexico	Age (+), Education (+), Income(+)
Auerbach and Kotlikoff (1989) ,(1991)	Survey of financial decisions,1980	Age (-), Education (-) ,Income(+) Family size (-), Occupation
Showers and Shotick (1994)	Consumer expenditure survey, 1987	Age (+), Family size (+)
Gandolfi and Miners (1996)	LIMRA survey, 1984	Age (NS), Gender (+), Education (+) , Family size (NS),Income(+)
Hau (2000)	Survey of Consumer Finance,1989	Age (NS), Gender (NS), Education(NS) , Family size (NS)
Lin and Grace (2007)	Survey of Consumer Finance,1992 to 2001	Age (-), Education (+) , Financial vulnerability (+)
Lee et al. (2010)	Consumer survey data, Rep.of Korea, 2005	Age (+), Education (+) ,
Millo and Carmeci (2012)	Panel regional data, Italy,1996/2001	Age (-), Education (-) , Family size (+)
Outreville (1996),	Life Insurance Markets in Developing Countries,1996	Income(+)
Anderson and Nevin (1975),	Determinants of young marrieds' life insurance purchasing behavior: An empirical investigation.	Income(+)
Beck and Webb (2003)	World Bank Economic Review,2003	Income(+)
Fortune (1973)	A theory of optimal life insurance: Development and test,1973	Income(+)
Campbell (1980)	The demand for life insurance: An application of the economics of uncertainty,1980	Income(+)
Lewis (1989)	Dependents and the demand for life insurance. American Economic Review,1989.	Income(+)
Browne and Kim (1993)	An international analysis of life insurance demand,1993	Income(+)
Feyen, Lester and Rocha (2011)	What drives the development of the insurance sector? An empirical analysis based on a panel of developed and developing Countries	Income(+)
Source: 1.Outreville, J. Francois, Risk Aversion, Risk Behavior and Demand for Insurance: A Survey (December 28, 2013). ICER Working Paper Series 11/2013 2. Simona Laura Dragos, "Life and non-life insurance demand: the different effects of influence factors in emerging countries from Europe and Asia,(2014). NS=Not Significant. Table compiled by author		

1. OBJECTIVE OF THE STUDY:

To study the preferences and perceptions of life and medical insurance customers and also to find the demographic factors which influence the amount to be invested in buying insurance cover.

4. METHODOLOGY

-Data Collection: The data was primary and collected through a structured questionnaire both on-line (through Google Form) and by serving questionnaire to potential respondents.

- **Sampling:** The sample consisted of 105 respondents randomly selected who are in teaching and training profession comprising mostly faculty of engineering institutions.
- **Period of Study:** The study was conducted between April-May'17.
- **Tools and Techniques of Study:** The data collected was classified, tabulated and analysed with the help of SPSS-20. Frequency and cross tabulated tables were worked out to know the preferences and perceptions of customers towards life and medical insurance. The correlations and the influence of independent variables (predictors) on the amount spent on life and medical Insurance (dependent variable) was studied using linear regression analysis.
- **Significance of the Study:** Life and medical insurance is an important requirement and pre-requisite in the current competitive and technology driven society which in its wake has brought in demographic and psychographic changes with higher cost of living, onset of unheard of ailments, premature death at a younger age and increase in medical treatment due to corporatization of health services.

- **Research Hypotheses:** Demographics factors of gender, age, qualification, family size and family income influence the amount of life and medical insurance bought.

The empirical model for testing the hypotheses can be written in the following form:

$Y = a + b_1 * X_1 + b_2 * X_2 + b_3 * X_3 + b_4 * X_4 + b_5 * X_5$, wherein a = slope of the regression curve, b_1, b_2, b_3, b_4 and b_5 coefficients and X_1, X_2, X_3, X_4 and X_5 are variables corresponding to gender, age, qualification, family size and family income. The same equation is used for both life and medical insurance.

- **Scope of the Study:** The study is confined to Hyderabad and Secunderabad region and the results are based on the primary data.
- **Limitations of the Study:** The study is mostly limited to teaching and training faculty of engineering institutions hailing from twin cities of Hyderabad and Secunderabad with a sample size of 105. The results are based on the analysis of the feedback received from this sample.

5. FINDINGS AND DISCUSSIONS

I. Descriptives

The descriptive analyses of the findings are enumerated below pertaining to demographic characteristics to relate to the statistical analysis in a broader perspective. The parameters discussed are gender, age, qualification, family size and family income. Also, the preferences and perceptions of the respondents are looked at to get insight into the overall population.

The sample represented 76% male and 24% female respondents as in table: 3

Table:3

GENDER

	Frequenc y	Percent	Valid Percent	Cumulative Percent
Female	25	23.8	23.8	23.8
Male	80	76.2	76.2	100.0
Total	105	100.0	100.0	

In terms of age the highest category of respondents of 40% hailed from above 46 years followed by 36-40 years with 20% and 41-45 years with 19%. Please see table: 4 for details.

Table:4 AGE

	Frequency	Percent	Valid Percent	Cumulative Percent
20-30 Yrs	5	4.8	4.8	4.8
31-35 Yrs	17	16.2	16.2	21.0
36-40 Yrs	21	20.0	20.0	41.0
41-45 Yrs	20	19.0	19.0	60.0
Above 46 Yrs	42	40.0	40.0	100.0
Total	105	100.0	100.0	

As regards qualification, around 42% of the respondents were post- graduates followed by doctorates with 32% and graduates with around 18%. Please see table: 5 for details.

Table: 5 QUALIFICATION

	Frequency	Percent	Valid Percent	Cumulative Percent
Diploma	8	7.6	7.6	7.6
Graduation/B.E/B.Tech	19	18.1	18.1	25.7
P.G/M.E/M.Tech	44	41.9	41.9	67.6
PhD	34	32.4	32.4	100.0
Total	105	100.0	100.0	

In terms of family size, around 93% had 2-5 members in their family and around 7% had 6-10 members.

Table: 6 FAMILY SIZE

	Frequency	Percent	Valid Percent	Cumulative Percent
2-5 members	98	93.3	93.3	93.3
6-10 members	7	6.7	6.7	100.0
Total	105	100.0	100.0	

As regards family income, around 25% were in the Rs 6.1-9.0Lakhs bracket followed by around 24% in the Rs 3.1-6.0Lakhs and around 23 % in above Rs 12Lakhs bracket. Please see table: 7 for the details.

Table: 7 FAMILY INCOME

	Frequency	Percent	Valid Percent	Cumulative Percent
Rs 1.0- 3.0Lakhs	14	13.3	13.3	13.3
Rs 3.1- 6.0Lakhs	25	23.8	23.8	37.1
Rs 6.1- 9.0Lakhs	26	24.8	24.8	61.9
Rs 9.1-12.0Lakhs	16	15.2	15.2	77.1
Above Rs 12Lakhs	24	22.9	22.9	100.0
Total	105	100.0	100.0	

The amount of life Insurance cover taken shows that around 46 % had taken less than Rs 5Lakhs, around 30% had between Rs 6-10Lakhs and 9% had taken cover above 21Lakhs. Please see table: 8 for details.

Table: 8 AMOUNT OF LI POLICY

	Frequency	Percent	Valid Percent	Cumulative Percent
Less than Rs 5Lakhs	48	45.7	45.7	45.7
Rs 6-10Lakhs	32	30.5	30.5	76.2
Rs 11-15Lakhs	8	7.6	7.6	83.8
Rs 16-20Lakhs	8	7.6	7.6	91.4
Above Rs 21Lakhs	9	8.6	8.6	100.0
Total	105	100.0	100.0	

In contrast, the medical Insurance covers taken by respondent's show that around 43% had cover between Rs 1.0-2.0Lakhs, around 26% between Rs 4.1-6.0Lakhs followed by around 24% with cover between Rs 2.1-4.0Lakhs. Please see table: 9 for details.

Table:9 AMOUNT OF MEDICAL INSURANCEI COVER

	Frequency	Percent	Valid Percent	Cumulative Percent
Rs 1.0-2.0Lakhs	45	42.9	42.9	42.9
Rs 2.1-4.0Lakhs	25	23.8	23.8	66.7
Rs 4.1-6.0Lakhs	27	25.7	25.7	92.4
Rs 6.1-8.0Lakhs	3	2.9	2.9	95.2
Above Rs 8Lakhs	5	4.8	4.8	100.0
Total	105	100.0	100.0	

As regards the preferences for the type of policies, it is seen that around 32% preferred Money back policies, around 26 % each had Term Policy and Endowment Policy and around 12 % had taken Whole Life Policy. For details see table: 10.

Table: 10 TYPES OF COVER

		Responses		Percent of Cases
		N	Percent	
Types of Insurance cover	Term Policy	45	26.3%	44.1%
	Endowment Policy	45	26.3%	44.1%
	Whole Life Policy	20	11.7%	19.6%
	Money Back Policy	55	32.2%	53.9%
	Other Policy	6	3.5%	5.9%
Total		171	100.0%	167.6%

On the important question of the purpose of buying life and medical Insurance cover, around 38 % preferred to financially protect their family in case of unforeseen event and 27% wanted to reduce financial burden due to hospitalization followed by around 22% whose aim was to save income tax. Please see details in table: 11

Table: 11

PURPOSE OF INSURANCE

		Responses		Percent of Cases
		N	Percent	
Purpose of buying insurance ^a	Short /Long term savings	19	10.9%	18.6%
	To reduce income tax	39	22.3%	38.2%
	To financially protect family in case of unforeseen event	66	37.7%	64.7%
	To reduce financial burden due to hospitalisation	47	26.9%	46.1%
	Other reason, if any	4	2.3%	3.9%
Total		175	100.0%	171.6%

For the question pertaining to reasons for not going in for higher insurance coverage, around 34% perceived that the premium rates were high, around 23% informed that they prefer to invest in other asset classes and around 16% said that the returns on buying insurance are poor. Please see table: 12 for details.

Table: 12

REASONS FOR LOW COVER

		Responses		Percent of Cases
		N	Percent	
Reasons for Low Cover ^a	Premium rates are high	31	34.4%	38.3%
	I am financially strong and do not require higher value	3	3.3%	3.7%
	I invest in other asset classes	21	23.3%	25.9%
	Returns are Poor	14	15.6%	17.3%
	Other reason if any	21	23.3%	25.9%
Total		90	100.0%	111.1%

In terms of preference for insurance companies the details are as in pie diagrams figures:1 & 2. Around 63% respondents preferred LIC of India while preference for other private players were in single digit . Please see pie-diagram in figure :1.(NR=No response)

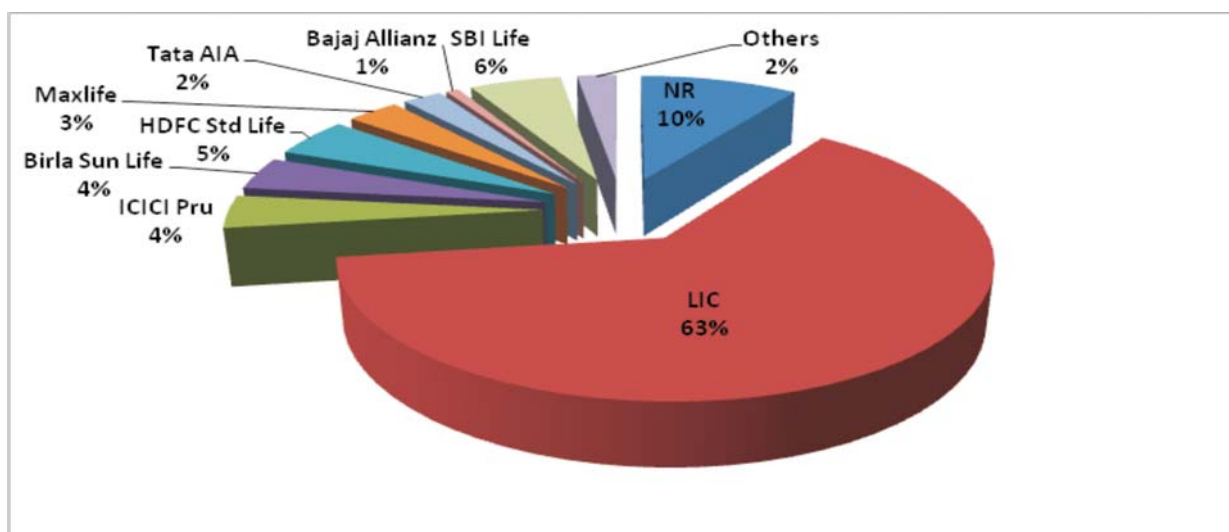


Figure: 1 LIFE INSURANCE COMPANIES PREFERRED BY RESPONDENTS

In case of medical insurance, again the government sector seem to be the preferred sector with United India and New India Assurance having 29% and 18% share respectively. In the private sector Star Health is preferred by 13%. (NR=No response). Please see figure: 2 for details.

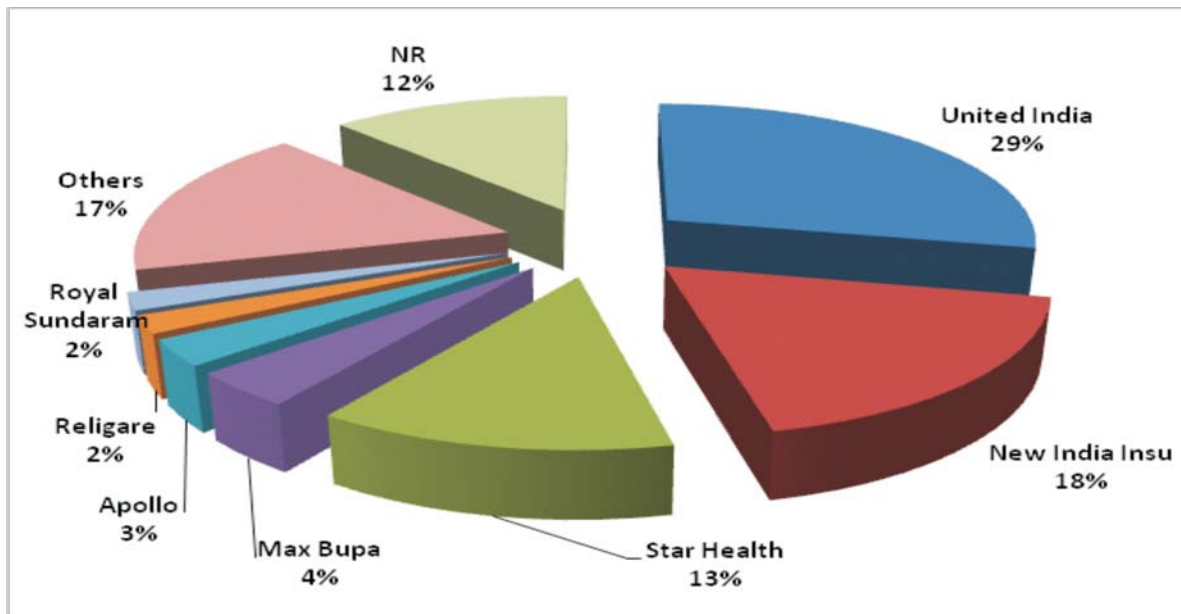


Figure: 2 MEDICAL INSURANCE COMPANIES PREFERRED BY RESPONDENTS

I. STATISTICAL TESTS RESULTS AND DISCUSSIONS

A simple linear regression was undertaken to predict the amount of life and medical insurance cover based on the predictor variables gender, age, qualification, family size and family income.

Preliminary analysis was done to ensure there was no violation of the assumptions of normality, linearity and multicollinearity for regression analysis. The correlations were found to be significant but weak in most cases. Collinearity statistics of Tolerance and Variance Inflation Factor (VIF) were each at 1.0 well within the limits of >0.1 and <10 respectively. The residuals were found to be uncorrelated with Durbin-Watson figure at around 2 in both the cases.

A. IMPACT OF DEMOGRAPHIC FACTORS ON LIFE INSURANCE COVER

Qualification was found to be significant with $p=0.002$. A regression equation was found $[F(1,103)=10.239, \hat{\alpha}=0.05]$ with an R^2 of 0.090 indicating that the 9% of the variation in life insurance cover amount is explained by the predictor-qualification. Please see table: 15

The value of adjusted R^2 is 0.082 showing the total variability in amount of life insurance is explained by 'Qualification' to the extent of 8.2%. The Anova test is found to be significant at .002 indicating that the model has explanatory power, that is, the predictor help predict the amount of life insurance that could be bought. Please see table:15 &16

In case of the other predictors, the standardised coefficients and p values were found as follows:- Gender(-.051/.595), Age(-.012/.902), Family Income(.093/.395) and Family size(.006/.905) indicating insignificant impact of these variables on life insurance cover. Please see table: 18

Predicted amount of life insurance is equal to $a+b_3 \cdot X_3(\text{qualification})$ which is $0.337+0.424 \cdot (\text{qualification})$. It means that the amount of life insurance could increase by Rs 0.42 lakhs for each increase in qualification level. The values for qualification considered are Diploma=2, Graduation=3, Post Graduation=4 and PhD=5. The other predictors' -gender, age, family size and family income were found insignificant.

The results accept the hypothesis that qualification influences the amount of life insurance cover taken and not others. This finding confirms is in line with

the conclusion of other researchers as depicted and highlighted in the table: 2

		Amount of LI Policy	Age	Qualification	Family Size	Family Income	Gender
Pearson Correlation	Amount of Life Insurance Policy	1.000	-.025	.301	-.006	.220	-.111
	Age	-.025	1.000	-.044	-.034	.244	.218
	Qualification	.301	-.044	1.000	-.040	.502	-.205
	Family Size	-.006	-.034	-.040	1.000	.121	-.030
	Family Income	.220	.244	.502	.121	1.000	-.155
	Gender	-.111	.218	-.205	-.030	-.155	1.000
	Amount of Life Insurance Policy	.	.400	.001	.476	.012	.130
Sig. (1-tailed)	Age	.400	.	.328	.365	.006	.013
	Qualification	.001	.328	.	.344	.000	.018
	Family Size	.476	.365	.344	.	.110	.381
	Family Income	.012	.006	.000	.110	.	.057
	Gender	.130	.013	.018	.381	.057	.

Table: 14 VARIABLES ENTERED/REMOVED

Model	Variables Entered	Variables Removed	Method
1	Qualification	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

Table: 15 MODEL SUMMARY

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.301	.090	.082	1.221	.090	10.239	1	103	.002	2.072

Table: 16

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15.273	1	15.273	10.239	.002 ^b
	Residual	153.641	103	1.492		
	Total	168.914	104			

Table: 17

COEFFICIENTS

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	.337	.542		.622	.535		
Qualification	.424	.132	.301	3.200	.002	1.000	1.000

Table: 18

EXCLUDED VARIABLES

Model	Beta In	t	Sig.	Partial Correlation	Collinearity Statistics		
					Tolerance	VIF	Minimum Tolerance
Age	-.012 ^b	.124	.902	-.012	.998	1.002	.998
Family Size	.006 ^b	.062	.950	.006	.998	1.002	.998
Family Income	.093 ^b	.854	.395	.084	.748	1.337	.748
Gender	-.051 ^b	.534	.595	-.053	.958	1.044	.958

B. IMPACT OF DEMOGRAPHIC FACTORS ON MEDICAL INSURANCE COVER

As regards medical insurance, family income was found to be significant at $p=0.005$. A significant regression equation was found with $F(1,103)=8.192, p=.005$ with R^2 of 0.074 indicating that the 7.4% of the variation in the amount of medical insurance is explained by family income. Please see table:21

The value of adjusted R^2 is 0.065 showing that 6.5% total variability in amount of medical

insurance is explained by this independent variable. The Anova test is found to be significant at $p=0.005$ indicating that the model has explanatory power, that is, the predictors help predict the amount of dependent variable namely medical insurance bought. Please tables: 21 and 22 for details.

The standardised coefficients and p values for other variables were found to have figures as depicted in the brackets- Gender (-.107/.265), age (-.050/.609), qualification (.010/.929), family size (-.135/

.160) which indicates that these variables are insignificant to impact medical insurance cover. Pl see table: 24.

The predicted amount of medical insurance is equal to $a+b_5 \cdot X_5$ (Family Income), which is $1.388+0.222(\text{family Income})$. It means that the amount of medical insurance could increase by 0.22 Lakhs for increase in one Lakh of family

income. The other predictors comprising gender, age, qualification and family size were found to be insignificant. Please table: 23.

Based on the results, the hypothesis that only family income influences the amount of medical insurance cover taken is accepted. This findings confirms the conclusions of other researchers as shown and highlighted in table: 1

Table: 19 AMOUNT		CORRELATIONS WITH RESPECT TO MEDICAL INSURANCE					
		Amount of MI cover	Age	Qualificati on	Family Size	Family Income	Gender
Pearson Correlati on	Amount of MI cover	1.000	.019	.144	.165	.271	-.147
	Age	.019	1.000	-.044	-.034	.244	.218
	Qualification	.144	-.044	1.000	-.040	.502	-.205
	Family Size	.165	-.034	-.040	1.000	.121	-.030
	Family Income	.271	.244	.502	.121	1.000	-.155
	Gender	-.147	.218	-.205	-.030	-.155	1.000
Sig. (1-tailed)	Amount of MI cover	.	.424	.072	.046	.003	.067
	Age	.424	.	.328	.365	.006	.013
	Qualification	.072	.328	.	.344	.000	.018
	Family Size	.046	.365	.344	.	.110	.381
	Family Income	.003	.006	.000	.110	.	.057
	Gender	.067	.013	.018	.381	.057	.

Table: 20 VARIABLES ENTERED/REMOVED^a

Model	Variables Entered	Variables Removed	Method
1	Family Income	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

a. Dependent Variable: Amount of Medical Insurance cover

Table: 21 MODEL SUMMARY

Mo del	R	R Squar e	Adjusted R Square	Std. Error of the Estima te	Change Statistics					Durbi n- Wats on
					R Square Change	F Change	df1	df2	Sig. F Chang e	
1	.271	.074	.065	1.077	.074	8.192	1	103	.005	2.330

Table: 22

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.497	1	9.497	8.192	.005
	Residual	119.417	103	1.159		
	Total	128.914	104			

Table: 23

COEFFICIENTS

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
	B	Std. Error				Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	1.338	.263	5.082	.000					
	Family Income	.222	.078	2.862	.005	.271	.271	.271	1.000	1.000

TABLE: 24

EXCLUDED VARIABLES

Model	Beta In	t	Sig.	Partial Correlation	Collinearity Statistics			
					Tolerance	VIF	Minimum Tolerance	
1	Age	.050 ^b	.513	.609	-.051	.940	1.063	.940
	Qualification	.010 ^b	.089	.929	.009	.748	1.337	.748
	Family Size	.135 ^b	1.416	.160	.139	.985	1.015	.985
	Gender	.107 ^b	1.121	.265	-.110	.976	1.025	.976

6. CONCLUSIONS

The purpose of the study was to find the preferences and perceptions of consumers' on life and medical insurance and in turn to find the correlation and influence of demographic parameters influencing insurance cover to gain insights for the low penetration and density.

The sample had highly educated respondents with small family size. The life and medical coverage were pathetically low as per the current necessities. The number of male was thrice that of female members approximately. Types of policy preferred spread over money back, endowment and term. Majority felt that the purpose of buying life insurance was to protect family in case of unforeseen event and in case of medical insurance

to reduce financial burden due to hospitalization, but the amount of cover they have taken is found to be way below their perceptions. Also another reason offered was to save income tax. When it came to reasons for low insurance cover, it was seen that premium rates were found to be high and returns low leading to investments in other asset classes. Government insurance companies were preferred over private companies. These findings are to some extent in line with the ICICI Lombard survey of 1,400 young people which found that the tax deduction on health insurance premium was the main driver and was seen as wasting money due to poor returns (Deoras,ET,2015)..

It was statistically found that qualification of the customer had weak but significant influence on life insurance cover. There was a reasonable and significant correlation of educational levels with family income ($R=.502, p=.000$). This supports the observation of Outreville (1996) that individuals with higher education have higher income. Other predictors like gender, age, family size and family income had no significant correlation and insignificant influence. In case of medical Insurance, family income was seen to have significant though weak influence on buying the cover. Other variables like gender, age, family size and qualification had no significant impact on the purchase of medical insurance.

It can be inferred from the analysis that there are other factors other than demographics which may have strong and positive influence on buying insurance related to economic, financial, psychographic or complex social factors but have eluded this study requiring further research into the segment considered. In this context, it is relevant to quote Zeitz(2003) who observed that “given the changes in technology, demographic factors and the economic environment, many of the significant findings from studies conducted in previous decades may likely be considered obsolete”. The statement gains importance in the light of this study and calls for taking up comprehensive research to capture relevant influencing factors from different perspectives.

7. RECOMMENDATIONS

The amount of cover taken by the respondents on life and medical insurance is found very low under the present conditions of high cost of living and galloping medical expenses. This is pitiable as teaching faculty who are highly educated is found under-insured. An awareness programme should be taken by Insurance companies with policies suitably tailored to target this market. Further, Ministry of Higher Education (MHRD) should launch a scheme for the faculty through managements of respective institutions to provide adequate cover under group insurance. Also, in general, due to low insurance penetration, it is suggested that government should make insurance coverage mandatory akin to provident fund by making managements responsible for deducting suitable amount towards life and medical insurance based on the demographics of an employee. This should provide lifetime cover for the member which could increase enrolment substantially bringing the premium rates down, creating a win-win situation for all the stakeholders- customers, insurance companies, corporate hospitals and government.

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MARKET STRUCTURE, EFFICIENCY AND PERFORMANCE OF NEPALESE LIFE VERSUS NON LIFE INSURANCE COMPANIES

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ABSTRACT

The main objective of this study is to examine the market structure, efficiency and performance of Nepalese insurance Companies. The study also aims to test whether Nepalese insurance companies are earning profitability because of market structure or due to efficiency of a firm. Efficiency score has been calculated using three input variables as investment, commission and technical reserve and two outputs gross premium and investment incomes using non parametric approach using the software DEA 2.1. Independent variable under consideration are technical efficiency, market share, concentration ratio as measured by large three firms (CR3) and Herfindahl-/Hirshman index (HHI) on the basis of premium collection. Firm age and size in terms of asset value also added as control variables to see any effect in determining profitability. The performance in terms of profitability has been measured by Return on Assets (ROA) and Return on equity (ROE). The study employed population survey method as a sampling technique. The study used secondary data collected from insurance board and annual reports of respective company. Eight years' data from 2007/08 to 2014/15 of 8 life and 16 non life insurance companies are considered leading to 192 firm's year observations. The study adopted descriptive cum causal relational research design.

The study shows that efficiency level of life insurance companies is better than that of non-life insurance companies. The study revealed that efficiency and concentration ratios have positive and significant impact on performance of life insurance companies which strongly support to the hybrid efficiency hypothesis. In case of non life insurance companies, the results show that market share along with concentration ratio have significant effect on performance supporting the structure conduct performance hypothesis. Therefore, this study concludes that Nepalese life insurance companies are generating their profit through efficiency and enabling them to increase monopoly power whereas efficiency is not the major contributor in profits for non life insurance companies.

Key words: Market Structure, Technical Efficiency, Concentration, Profitability, Data Envelopment Analysis (DEA)

1. INTRODUCTION

Efficiency measurement is becoming a very vital component in the contemporary business environment. Companies are becoming cautious to their productivity and thus consciously putting emphasis on evaluating their performance levels. A company is deemed to be efficient if it optimally

utilizes its resources i.e. inputs in producing the output and inefficient if vice versa. Insurance segment has been regarded as one of the flourishing sectors in the financial services in Nepal. A consistent growth in terms of business size and premium has been registered by this sector over a decade. Many companies have roped into this industry which has germinated intense

competition in the sector. Due to the high risky nature of this industry, need to analyze the performance of the insurer is immensely critical. Thus efficiency measurement is viewed as a coherent aspect of the business performance analyses.

The history of Nepalese insurance market is not so long. Until the establishment of the Nepal Insurance and Transport Company (later renamed as the Nepal Insurance Company) in 1947 Nepalese insurance needs were mostly met by Indian insurance companies. The real expansion of the insurance industry in Nepal took place during the 1990 s following the financial sector reform and liberalization of the economy by the government. The new policy gave emphasis to the involvement and growth of insurance business in the private sector. As a result, many companies came into the scene in the private sector including foreign company. The scope of insurance industry is gradually increasing as demand for insurance product has been increasing day by day at alarming rate. The growth of insurance industry can be seen as number of new branches are in opening in rapid speed, competent human resources are enrolling along with number of new insurance companies are getting approval for starting their insurance business will make intense competition and competitive insurance market in days to come.

The first Insurance Act, 1968 and Insurance Rules 1969 was repealed by Insurance Act, 1992 and Insurance Regulation 1993 respectively. Prior to the enactment of Insurance Act, 1968 there was no regulatory body to supervise insurance business in the country. Under the Insurance Act, 1968, Beema Samiti (Insurance Board) was formulated as a sole authority to regulate the insurance activities within Nepal to systematize, regularize, develop and regulate the Insurance business. Insurance has evolved as a process of safeguarding the interest of people from loss and uncertainty. It may be described as a social device to reduce or eliminate risk of loss to life and property. Insurance contributes a lot to the general economic growth of the society by providing stability to the functioning of process. The

insurance industries develop financial institutions and reduce uncertainties by improving financial resources. In context of Nepal, Nepalese insurance industry contributes only 2.01 percent in GDP with market coverage of around 7.21 percent (Beema samiti 2016). Therefore, efficiency and productivity of the insurance industry are also important requirement for the development of financial sector.

On the other hand globalization has changed the way of competition in insurance industry. As insurance business is based on universally accepted principle so there is a dire need of firms being efficient and effective. Attaining efficiency is possible only when the inputs resources are use at its optimal level. In recent past, analyzing the efficiency of insurance companies have been a keen interest of the researchers in neighboring countries as insurance plays important role in the economy. Efficiency helps to identify how the insurance companies are responding to the changing environment and enable to identify the company that are likely to liquidate in occurrence of the adverse event (Berger & Humphert, 1997). Knowing the efficiency of insurance companies is important as it provides the financial security as well as financial intermediation to both individuals and business in the economy.

Being a regulated industry, every company has to strictly comply with the guidelines and provision as laid down by the regulator (IBeema Samiti) for conducting their business operations. Thus eliciting the need for more monitoring and assessing 'how' efficiently they can manage their customers, company along with meeting the regulators defined provisions. On this background, it became significant to examine the relative efficiency of each individual insurer. So to plumb deeply into the areas which an insurers need to improve for their efficiency levels were explored. Also search for reasons, whether the inefficiency is due to managerial underperformance or due to inappropriate scale size were cross examined. The current study in specific terms would measure the technical, pure technical and scale efficiency of individual insurers using two stage data analysis

model. In the first stage, methodological framework, technical, pure technical and scale efficiencies will be obtained by employing the two well known models developed by Charnes, Cooper and Rhodes (CCR) (1985) and Banker, Charnes and Cooper (BCC) (1984) under Data envelopment analysis (DEA). In the second stage the overall technical efficiency obtained in the first stage will be regressed on the exogenous factors. These exogenous factors will depict the direction and influence these factors have on the efficiency level of the insurers. Many studies using DEA of financial institution especially banking and insurance has been found in developed and developing country. However, none of the previous Nepalese studies has carried out comparing the efficiency on performance so this research tends to contribute in the field. In this regard, studying the efficiency of the Nepalese insurance company is highly important and interest of the researchers using Data Envelopment Analysis (DEA) and also testing the purposed hypothesis in life and non life insurance companies.

The main objective of this paper is to examine the insurance market structure and efficiency on the performance of Nepalese insurance companies using structure conduct performance. More specifically, the study tries to find out how Nepalese insurance companies produce their performance? Whether they generate through efficiency or through collusive behavior? Is there similarity in performance of life and non life insurance company? This paper is organized as follows. The next section presents a brief of literature review related with market structure and insurance efficiency giving special reference to insurance industry. The third section contains the methodology adopted for the study. Section four reflects empirical findings while last section concludes this study along with policy implications.

2. LITERATURE REVIEW

Structure performance relationship has been extensively used in developed economy in both banking and insurance sector however, low economy

countries like Nepal very few studies has been carried out. The implication of such studies is enormous so studies like as such are very much important in Nepalese context. Theoretically, structure performance relationship has shown firm earn profitability either through efficiency or through market power. The two popular hypothesis, structure conduct hypothesis and efficient hypothesis explain the behavior of the industry. Among the two, structural conduct hypothesis is a traditional one which postulates that only those firms earn higher profit that have a high concentration in the market meaning oligopolistic behavior however, Goldberg, and Rai (1996) argued with this findings. On the other hand efficient structure hypothesis proposed by Demsetz (1973) and Peltzman (1977) recommend only those firms earn profits that are effective and efficient.

Structure performance (SCP) and efficient structure (EFS) are the two main hypotheses that describe the efficiency of the firm (Park and Weber, 2006). The main difference between these two competing hypothesis is the 'structure' that links concentration with profitability. In 1939 Mason had introduced structure performance (SCP) hypothesis for the first time to analyze the markets and. SCP hypothesis states that market concentration nurtures collusion among large firms in the industry which subsequently leads to higher profit so market concentration has a positive impact on firm performance (Goldberg et. al., 1996) and (Berger and Hannan, 1998). SCP hypothesis is a traditional one that states there exists strong positive relationship between concentration and profitability on the other hand EFS hypotheses states only those firm earn high profit that are efficient as a results market becomes more concentrated (Maudos, 1998). SCP hypothesis take concentration as exogenous and allows for noncompetitive behavior that results in less favorable prices to the consumers and maintains higher profits to firms. Studies by Goldberg and Rai (1996), Al-Muharrami and Matthews (2009) revealed that SCP hypotheses support in explaining the profitability of a firm. The relative market shares hypothesis is an

extended version of SCP states that firms that have a large market share along with differentiated product lines are able to use market power to gain superior profit on non competitive price setting behavior (Berger, Allan N.,1995). Shepherd share

The other hypothesis efficient hypothesis (EFS) take into account of firm specific efficiencies as exogenous and keeps these efficiencies result in both more concentrated markets and earn profitability (Berger and Handan,1989). Maudos (1988), Seelanatha (2010) have found that there is a significant affect of EFS hypotheses on firm profitability. Berger (1995), Park and Weber (2006), Mensi and Zouari (2011) are in line with the efficient structure hypothesis. The basic difference lies between the two hypotheses consisted mainly in ways of interpretation and relationship. On the other hand, studies by Golderg and Rai (1996) found evidence in support for efficient structure hypothesis and no evidence in favor of structure conduct hypothesis.

Smirlock (1985) examined the relationship between market concentration and profitability and found that there exists the positive relationship and concluded that efficient hypothesis is in effect. However, Shepherd (1986) argued that market concentration is not a proxy for efficiency rather market power. To overcome the problem Berger (1995) and Berger and Hannan (1998) used efficiency (X-efficiency and scale efficiency). With less agreement among the various hypotheses, this study is motivated to test the structure performance relationship in Nepalese insurance industry. More specifically, this study test both the traditional structure conduct hypothesis performance (SCP) and efficient structure hypothesis(EFS) in Nepalese insurance industry.

Barros et al.,(2005) studied Portuguese insurance between 1995 and 2003; by means of a stochastic cost frontier method the study concludes that a public policy to encourage the adoption of disincentives to principal-agent relationships and the collective-action problem would yield increased efficiency. Furthermore, an incentive for the implementation of governance best-practices and higher transparency would increase the efficiency.

Oscar Akotey, Joseph, et al., (2013) studied the determinants of profitability in the life insurance industry of Ghana. The study also examines the relationship among the three measures of insurers' profitability, which are investment income, underwriting profit and the overall (total) net profit. The study used secondary data of ten life insurance companies covering a period of eleven years (2000 to 2010) analyzed through panel regression. The findings indicate gross written premiums have a positive relationship with insurers' sales profitability, its relationship with investment income is a negative one. Also, the results showed that life insurers have been incurring large underwriting losses due to overtrading and price undercutting. The results further revealed a setting-off rather than a complementary relationship between underwriting profit and investment income towards the enhancement of the overall profitability of life insurers.

Huang et. al., (2010) carried out research on the topic technically efficiency and productivity changes of Tiwan's life insurance industry using DEA. The study employed data from 2005-2009. The results showed that the average technical efficiency of Tiwan's life insurance industry was relatively low and most life insurance companies should further enhance and improve efficiency in the respect of productivity, most life insurance company should further enhance and improve efficiency: in the respect of productivity, most life insurance companies continuously grow in productivity while a small number of companies slightly decline. The average productivity of various life insurance companies grew in 2008-2009 by 4.1 % with technical advancement as the major sources of productivity changes.

Javed et al., (2010) applied non-parametric Data Envelopment Analysis (DEA) to estimate the efficiency of insurance companies in Pakistan over the period 2003 to 2007. The study used gross premiums and investment incomes as outputs whereas, labor, business services, equity capital and debt capital were used as input variables. Technical efficiency, allocative efficiency and cost

efficiency of the insurance companies were estimated to determine the real contributors of efficiency in the insurance industry of Pakistan. The study found that 92.7 percent of insurance companies were technical efficient, 81.12 percent allocative efficient and 75.44 percent cost efficient. Moreover, the study has also found that allocative and cost efficiencies are improved from 2003 to 2005 but significantly decreased in 2006 whereas; technical efficiency is increased over the study period.

Mathur&Paul (2014)studied the efficiency of non life insurance companies operating in India. For this purpose 20 non life insurance companies were selected for the financial year period 2012-13. Data envelopment analysis (DEA) technique was applied to assess the efficiency scores of the insurers. OLS regression methodwas used in conjunction with financial ratios to ascertain the exposure they have on the overall technical efficiency (OTE) of the insurers. The results showed directional impact the ratios have on the technical efficiency of the insurers.

Jaiyeoba et. al., (2015) investigated the performance of Nigerian general insurance companies using Data Envelopment Analysis (DEA). The study used ten companies for the period of five years from 2008 to 2012. The input employed were commission expenses and management expenses, while premium and investment income were used as the output. DEA was the main methodology used in analyzing the data of this study while ratio analysis (liquid asset to total asset, total equity to total asset and return on asset) was also used in addition to the DEA. The overall result of the Total Factor Productivity (TFP) shows that Nigerian insurance industry is less efficient and this is caused by low level of Technical efficiency (EF) change including Technological change (TECH); this is also confirmed by the result of Latent Growth Curve Modeling (LGCM) which reveals that their efficiency over the period was declining.

Wasseja et. a., (2015) examined the efficiency of the life insurance sector in Kenya because an efficient life insurance industry is critical to propel

management of risk, promote long-term savings and serve as a conduit to channel funds from policyholders to investment opportunities. The study considered variable like size, the age of the insurance company. The efficiency over time has been declining for the period of this study. The average level of efficiency has declined from 0.582 in 2004 to 0.499 in 2009. The results from the Mann-Whitney test indicate that this decline is statistically significant. The life insurance sector's efficiency has thus deteriorated over the study period. The regression analysis of the external factors on efficiency scores using the bootstrapping procedure sheds some light on the possible drivers of efficiency in the life insurance sector. The size of the insurer and stock exchange listing positively and significantly influence the technical efficiency of life insurance firms. Specialization in life insurance and not offering composite insurance negatively affects the insurer efficiency.

Ertugrul, Irfan, et al(2016) analyzed underwriting performance of 12 non- life insurance company operating in Turkey Efficiency analysis were made by using models of CCR and BCC with utilizing EMS program. Thus, according to both efficient and inefficient companies were determined. In addition scale efficiencies of insurance companies which were evaluated were also examined. Two variables written premiums and the number of policies were taken as inputs, whereas losses paid and insurance technical provisions were taken as outputs. 5 years (2010-2014) data was collected from financial reports of companies. The study reveals that number of efficient insurance companies increased over the period.

Ghimire (2016) carried out the study on efficiency of 8 Nepalese life insurance companies for the period of 2009-2014 using DEA. The study used assets, claim expenses and other expenses as input variables while gross premium, investment income and other income as outputs. The efficiency has been measured by both CCR and BCC output oriented models. The study revealed that average technical efficiency score was 99.77 % indicating insurance companies were more efficient. The number of efficient insurance companies and the average efficiency for the insurance sector is higher

in BBC model than in the CCR. This indicates that the main source of inefficiency is due to scale inefficiencies.

3. METHODOLOGY

The study employed descriptive cum causal correlation research design. Population survey technique has been employed as a sampling technique. Out of 17 non life insurance companies, 16 companies were selected while in case of life out of 9 life insurance company, 8 have been selected for the study. One company Rastriya Beema company (non life) and Rastirya Beema Sansthan (life) has not been included due to unaudited financial data during the period. The study used 8 years panel data, 64 firm years observation for life and 128 firm year observations for non life from 2007/08 to 2014/15 leading to 192 firm years' observations. Efficiency has been calculated using non-parametric approach DEA while Starta 12 has been used to see the causal relationship of independent variables to dependent variable under the study.

3.1 Model specifications

The study follows the model use by Maudos (1998) to test the efficient structure hypotheses versus collusion hypothesis. The model is applied for both life and non life insurance companies.

$$\pi_{it} = \beta_0 + \beta_1 MS_{it} + \beta_2 CON_{it} + \beta_3 EFF_{it} + \sum \alpha_{it} x_{it} + \epsilon_{it} \dots\dots 1 \text{ (i)}$$

π is the measure of insurance's performance Return on Assets (ROA) and Return on equity (ROE). Return on assets as measured by net income to total assets. EFF is the direct efficiency (i.e. technical efficiency) measures using DEA technique¹. MS is the market share measured in terms of gross premium collection (MS), CON is the concentration measured in terms of three largest firms' total market share (CR3) and Herfindahl-/Hirshman index (HHI) on the basis of premium collection. Two control variables size as measured by log of total assets and firm's age is considered for the analysis.

The equation (1) can be tested using the different explanatory hypotheses of the performance.

Pure collusion Hypothesis (2)

$$\frac{\partial \pi}{\partial CON} > 0, \frac{\partial \pi}{\partial MS} = 0, \frac{\partial \pi}{\partial EFF} = 0$$

Structure conduct performance hypothesis (3)

$$\frac{\partial \pi}{\partial CON} > 0, \frac{\partial \pi}{\partial MS} > 0, \frac{\partial \pi}{\partial EFF} = 0$$

Efficient structure hypothesis (4)

$$\frac{\partial \pi}{\partial CON} = 0, \frac{\partial \pi}{\partial MS} = 0, \frac{\partial \pi}{\partial EFF} > 0$$

Modified efficient structure hypothesis (5)

$$\frac{\partial \pi}{\partial CON} = 0, \frac{\partial \pi}{\partial MS} > 0, \frac{\partial \pi}{\partial EFF} > 0$$

Hybrid collusion/efficiency hypothesis (6)

$$\frac{\partial \pi}{\partial CON} > 0, \frac{\partial \pi}{\partial MS} = 0, \frac{\partial \pi}{\partial EFF} > 0$$

Equation (2) is pure collusion hypothesis which states that firms earn profit due to monopoly but not because of efficiency on the other hand efficient structure hypothesis equation (3) contradict with pure collusion hypothesis. Equation (4) is the efficient structure hypothesis assume only those firm earn profit that are efficient while modified efficient structure (5) assume that discrepancy in performance is explained by both the efficiency of the firm and market power in terms of product differentiations (Maudos, 1998). The last equation (6) is the hybrid collusion/efficiency hypothesis assumes that concentration affects profitability as a result of market power. This hypothesis affirms that most efficient firms are more profitable with the residual effect of market share being held negligible (Maudos, 1998).

3.2 Measurement of Variables

In order to measure the profitability return on assets and return on equity have been used (Molyneux, 1992). Nsambu (2015) net income to total assets for ROA while Ali (2011) used the net income over total common stock equity to measure return on equity (ROE) as the proxy measure of profitability. ROE is not only determines the profitability but also reflects the extent of effectiveness of the management

use of shareholders' investments (Ramadan, Kilani and Kaddumi, 2011).

Goldberg & Rai (1996), Park & Weber (2006), Seelanatha (2010) are some of the literature used in measuring bank's efficiency and same has been applied in insurance sector efficiency in Nepalese insurance sector. Efficiency has been calculated with three variable investment, agent commission and technical reserve as inputs while two variables investment income and gross premium as outputs using DEA 2.1. Three efficiency score, technical efficiency which is output oriented (constant return to scale), pure technical efficiency based on input oriented (Variable return to scale) and scale efficiency are considered for efficiency analysis while only technical efficiency has been considered for causal relationship using Starta 11.

Control variables firm age and size also included as the explanatory variables to see the influence. These explanatory variables are included to see the effects in profits. Majumdar (1997) investigates the impacts that size and age of firms have on firm-level productivity and profitability in India and found that older firms are found to be more productive and less profitable, whereas the larger firms are, conversely, found to be more profitable and less productive.

4. RESULTS AND DISCUSSION

This section presents the findings of the empirical analysis. First, it describes descriptive statistics

followed by correlation coefficients of variables used in the study and the section presents regression results.

4.1 Descriptive statistics

Table 1 presents the descriptive statistics of the variables used in the study. Profitability has been measured by ROA and ROE. For the measurement of the efficiency three variables investment, commission and technical reserve are considered while gross premium and investment income are considered as outputs. Efficiency has been calculated using DEA 2.1 software. Mean score of efficiency (technical, pure technical and scale) along with market share and market concentration as measure by HHI and CR3 on the basis of premium collected along with two controls variable size and firm's mean age and standard deviation has been listed below. The standard deviation shows the variable of the data. Small standard deviation indicate less variation while large standard deviation recorded highly variable.

The results depicts that average return of assets is 2.32 percent, ROE 16.022 percent, MSS 12.5 percent, HHI 20.1 percent. Average technical, pure and scale efficiency seems to have satisfactory explaining more than 96 percent. Concentration ratios of large three firm ranges from 60.9 percent to 72.0 percent leading to 67.1 percent indicating majority of market has been occupied by large three firms.

Table 1 (A) : Descriptive Statistics (Life)

This table shows the minimum, maximum, mean and standard deviation of the selected life insurance variables under study

	Minimum	Maximum	Mean	Std. Deviation
ROA	-0.730	12.926	2.322	2.590
ROE	-17.100	119.926	16.022	23.246
MSS	0.000	0.351	0.125	0.099
HHI	0.178	0.259	0.201	0.025
CR3	0.609	0.721	0.671	0.040
EFF1 (CRS)	0.402	1.000	0.964	0.090
EFF2 (VRS)	0.870	1.000	0.987	0.031
Scale	0.411	1.000	0.976	0.084
LTA	19.350	24.502	21.845	1.358
AGE	1.000	28.000	9.250	6.850
Valid N (listwise) 64				

In terms of non life average return of assets and return on equity is 4.92 percent and 22.11 respectively. Average market share is 35.1 percent. Average technical efficiency is 84.1 percent while 96 percent. Pure and scale efficiency is more than

90 percent. Concentration ratio ranges from minimum 27.2 percent to 30.2 percent leading to 31.3 percent on an average. The result is presented in table 1 (B)

Table 1 (B) : Descriptive Statistics (Non life)

This table shows the minimum, maximum, mean and standard deviation of the selected non life insurance variables under study

	Minimum	Maximum	Mean	Std. Deviation
ROA	-20.217	12.888	4.923	4.339
ROE	-39.612	122.812	22.106	19.942
MSS	0.000	0.118	0.064	0.025
HHI	0.071	0.084	0.075	0.005
CR3	0.272	0.313	0.302	0.013
EFF1 (CRS)	0.459	1.000	0.841	0.157
EFF2 (VRS)	0.581	1.000	0.923	0.116
SCALE	0.459	1.000	0.911	0.121
LTA	8.128	9.667	8.836	0.323
Age	2.000	68.000	18.630	15.154
Valid N (listwise)	128			

From the above discussion, market share and concentration of Life Insurance Company is more than a double than that of non life insurance company. The mean efficiency score of Life Insurance Company is also relatively higher indicating Nepalese non life insurance companies are less efficient in terms of utilization of resources.

4.2 Correlation Analysis

Correlation coefficient shows the relationship between two variables. In case of life insurance

company independent variables like MSS, CR3 and efficiency has been found to be positive in ROA where as HHI, assets and firm age is found to be negatively correlated with ROA. In terms of ROE only HHI is found to be negative while all others a variable is found to be positively related. The highest correlation is observed between MSS and CR3 which is 0.791 and less than 0.80 so there is no problem of multicollinearity.

Table 2 (A) Correlations Analysis (Life)

This table reflects correlation coefficient of the of life insurance companies Profitability is measure in terms of ROA and ROE while efficiency score has been calculated using DEA software with inputs and outputs variables. Market share and concentration ratio has been measured by HHI and CR3, large three firms based on gross premium receive. Firm's age and size (log of assets) have been also used as control variables.

	ROA	ROE	MSS	CR3	HHI	EFF1	LTA	AGE
ROA	1							
ROE	.444**	1						
MSS	.213*	.277**	1					
CR3	0.043	.183*	0.024	1				
HHI	-.281**	-.276**	-0.045	.429**	1			
EFF1	0.086	0.133	0.101	-0.113	0.002	1		
LTA	-.188*	.281**	.585**	.276**	-0.034	0.077	1	.791**
AGE	-.239**	.226**	.492**	.250**	-0.013	0.078	.791**	1

**, Correlation is significant at the 0.01 level (2-tailed).*

Correlation is significant at the 0.05 level (2-tailed).

In case of non life insurance company all independent variables MSS, HHI, CR3, EFF1, and Assets are found to be positive with ROA while all other independent variables except

concentration ratios be negatively related with ROE. The high correlation (0.694) is observed between ROA and ROE which is less 0.80 indicating there is no problems of multicollinearity.

Table 2 (B) Correlations Analysis (Non life)

This table reflects correlation coefficient of the of non life insurance companies Profitability is measure in terms of ROA and ROE while efficiency has been calculated using DEA software with inputs and outputs variables. Market share and concentration ratio has been measured in terms HHI and CR3, large three firms are calculated based on gross premium receive. Firm's age and size (log of assets) have been also used as control variables.

	ROA	ROE	MSS	HHI	CR3	EFF	LTA	Age
ROA	1							
ROE	.694**	1						
MSS	.309**	.400**	1					
HHI	0.131	0.169	0.088	1				
CR3	0.167	-0.027	0.014	0.088	1			
EFF!	0.115	0.036	0.107	0.037	.306**	1		
LTA	.176*	.496**	.443**	.303**	-.484**	-0.079	1	.368**
Age	-0.081	0.17	0.092	0.088	-0.062	-0.03	.368**	1

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

4.3 Firm-wise Average Technical Efficiency score on CCR and BCC models

The relative mean efficiency score of eight life insurance company indicates that Met life is most efficient life insurance company over the period in-terms of CCR model results followed by Nepal life and National life while Nepal life insurance and Met life and Surya life insurance companies are found to be most efficient under BCC model as their efficiency score is 1. Similarly, Met life,

Nepal life and National life are the top three companies that are found to be efficient under scale efficiency. The over all efficiency indicates Met life is the most efficient insurance company while prime life is least efficient one. The average efficiency is 96.4 percent in terms of technical efficiency, 98.7 percent in pure technical and 97.6 percent in scale efficiency. The result is presented in table below 3 (A).

Table 3(A): Firm wise Average Technical Efficiency Score on CCR and BCC model for 2007.08 -2014.15(life)

SN	Insurance Company	TE (CRS) CCR	Pure TE (VRS) BCC	Scale Efficiency Score	Rank
1	National Life Insurance Company Ltd.,	0.982	0.991	0.990	3
2	Nepal Life Insurance Company Ltd.,	0.992	1.000	0.992	2
3	Life Insurance Company (Nepal)	0.954	0.966	0.986	6
4	Met Life	1.000	1.000	1.000	1
5	Asian Life Insurance Company Ltd.,	0.954	0.968	0.986	5

6	Surya Life Insurance Company Ltd.,	0.965	1.000	0.965	4
7	Gurans Life Insurance Company Ltd.,	0.940	0.976	0.964	7
8	Prime Life Insurance Company Ltd.,	0.925	0.997	0.926	8
	Average	0.964	0.987	0.976	
	Std. dev	0.065	0.015	0.072	

The relative mean efficiency score of sixteen non life insurance company indicates that Shikhar insurance company is most efficient over the period in-terms of CCR model followed by Himalayan General Insurance and Prabhvu insurance. In terms of BCC model Shikhar Insurance, NB insurance and Oreitnal are found to be most efficient. Similarly Shikhar Insurance, Himalayan general insurance and Prabhvu

insurance again found to be top three companies that are efficient under scale efficiency. The over all efficiency indicates Shikhar insurance is the most efficient insurance company while Lumbini General Insurance is least efficient one. The average efficiency is 84.1 percent in terms of technical efficiency, 92.3 percent in pure technical and 91.1 percent in scale efficiency.

Table 3(B): Firm wise average Technical Efficiency Score on CCR and BCC model for 2007.08-2014.15(Non life)

Insurance Company	Technical Efficiency (CTS) CCR	Pure Technical Efficiency (VRS) BCC	Scale Efficiency	Rank
Nepal Insurance	0.785	0.808	0.958	13
Oriental Insurance	0.877	1.000	0.877	7
National Insurance	0.723	0.845	0.861	15
Himalayan General Insurance	0.956	0.964	0.993	2
United Insurance	0.839	0.885	0.941	9
Premier Insurance	0.881	0.972	0.903	6
Everest Insurance	0.882	0.949	0.931	5
Neco Insurance	0.821	0.920	0.893	11
Sagarmatha Insurance	0.739	0.833	0.900	14
Prabhu Insurance	0.945	0.973	0.984	3
NB Insurance	0.918	1.000	0.918	4
Prudential Insurance	0.826	0.954	0.868	10
Shikhar Insurance	1.000	1.000	1.000	1
Lumbini General Insurance	0.598	0.753	0.801	16
NLG Insurance	0.857	0.940	0.914	8
Siddhartha Insurance	0.809	0.972	0.836	12
Average	0.841	0.923	0.911	

4.4 Year-wise Average Technical Efficiency score on CCR and BCC models over the periods

In case of life insurance Company, the average efficiency score of CCR and BCC model over the period of 8 years (2007.08-2014.15). Technical efficiency and scale efficiency score indicates that efficiency of the firms has been gradually increased

over the period. Nepalese insurance companies were most efficient in the year 2010.11. In terms of technical efficiency firms were found to be consistency over the period. In terms of technical efficiency 96.4 percent firm were efficient, 98.7 percent in pure technical and 97.6 percent in scale efficiency.

Table 4(A): Basic statistics for the efficiency measures (Life)

Year	Technical Efficiency (CRS) CCR	Pure Technical Efficiency (VRS) BCC	Scale Efficiency Score
2007.08	0.925	0.997	0.926
2008.09	0.916	0.985	0.930
2009.10	0.966	0.979	0.987
2010.11	0.991	0.998	0.994
2011.12	0.983	0.988	0.995
2012.13	0.978	0.987	0.991
2013.14	0.967	0.978	0.989
2014.15	0.985	0.987	0.998
Average	0.964	0.987	0.976

In case of non life insurance company, the average efficiency score of CCR and BCC model over the period of 8 years (2007.08-2014.15). Technical efficiency and scale efficiency score indicates that there is no consistency in efficiency of the firms over the period. Nepalese insurance companies

were most efficient (96.2 percent) in the year 2010.11. The average technical efficiency over the period is found to be 0.714 percent firm were efficient, 81.0 percent in pure technical and 80.1 percent in scale efficiency.

Table 4(B): Basic statistics for the efficiency measures (Non Life)

Year	Technical Efficiency(CRS) CCR	Pure Technical Efficiency(VRS) BCC	Scale Efficiency	Rank
2007/08	0.737	0.858	0.864	7
2008/09	0.046	0.054	0.054	8
2009/10	0.865	0.912	0.887	5
2010/11	0.925	0.959	0.962	1
2011/12	0.889	0.968	0.920	2
2012/13	0.865	0.902	0.954	3
2013/14	0.851	0.907	0.943	4
2014/15	0.753	0.924	0.821	6
Average	0.741	0.810	0.801	

4.5 Empirical Results

Multicollinearity test and heteroscedasticity test has been performed to ensure absence of multicollinearity and no heteroscedasticity problem before running of Ordinary least square (OLS) equation. As correlation table indicating high

correlation is found to be 0.694 and 0.791 which is less than 0.80 and Breusch-Pagan / Cook-Weisberg test for heteroskedasticity test Chi square value for both models in ROA 13.990(0.000), 11.100(0.001) and in ROE 17.760(0.000), 14.1810 (0.000) in case of life, ROA 8.274 (0.004),

6.320(0.012) and in ROE 14.500(0.001), 11.470(0.001) in case of non life are found to be significant indicating problem of heteroscedasticity. Presence of heteroscedasticity, the variance of OLS estimator's produces unbiased results (Gujarati, 2004). Thus the inbuilt Problem of heteroscedasticity test in Starta 12 (Breusch-Pagan/ Cook-Weisberg test) has been presented corrected t values are presented Table 5(A) and 5(B).

Estimated relationship between market structure and efficient structure on firm performance of Nepalese life insurance companies

The ordinary least square (OLS) regression equation (1) is run to test the the the market structure or efficiency explains the profitability of Nepalese non life insurance companies. The results are presented in table below.

Table 5(A) : OLS estimates for structure performance relation (Life)

This table presents the OLS regression result of structure performance relationship for the 8 sample life insurance company from 2007.08 to 2014.15 with 64 firm year's observation to test the structure versus efficiency in Nepalese life Insurance.

$$\pi_{it} = \beta_0 + \beta_1 MS_{it} + \beta_2 Con_{it} + \beta_3 EFF_{it} + \sum \alpha_{it} x_{it} + e_{it} \dots\dots (i)$$

Where, π_{it} is the dependent variable as measured by ROA. And ROE. Efficiency score has been calculated by using three inputs variable as investment, commission and technical reserve while gross premium and investment income are considered as outputs using DEA 2.1. MS is the market share and concentration ratio has been calculated in terms of HHI and CR3 of three largest firms in respective year based on gross premium receive. Firm's total assets (log of assets) and age are considered as control variables. Figures in the parenthesis are *heteroskedasticity corrected t-values*

Independent Variables	Dependent Variable			
	ROA		ROE	
	Model 1	Model 2	Model 3	Model 4
(MS)	0.0288*** (0.01)	1.3517 (0.24)	36.6199 (0.78)	24.876 (0.43)
HHI	-40.6222*** (4.59)		-263.13*** (3.07)	
CR3		20.0917* (1.68)		44.4512 (0.58)
EFF1	6.0598** (2.1)	8.6206*** (2.65)	6.569 (0.33)	19.229 (1.28)
Size	-0.7369** (2.10)	-0.9427 (1.54)	2.4901 (0.74)	3.497 (0.7)
Age	-0.0372 (0.93)	-0.0299 (0.61)	0.0287 (0.07)	-0.0093 (0.02)
Intercepts	21.1031* (2.84)	1.2409 (0.17)	3.46203 (0.05)	-111.75 (1.44)
F-ratios R ²	6.96 0.3135	2.72 0.2472	3.09 0.1838	2.68 11.83

The estimated coefficient of market share is found to be positive and statistically difference from zero in model 1 indicating market share have significance in explaining earning however it is not found to be significant in all other models. HHI is found to be negative and significant, which is not as per priori hypothesis. Market concentration in terms of large three firms and efficiency variables is found to be positive and significant at 10 percent level in ROA but not found significant with ROE. Thus the result strongly indicates the acceptance of hybrid collusion/efficiency hypothesis in determining profitability in terms of ROA. This further affirms that most efficient firms are more profitable, with the residual effect of market share being held negligible (Maudos, 1998). This indicates that firm with high efficiency, thus, enables them to increase monopoly in the market and reap higher level of earnings. In the case of control variable, size is found to be negative and significant at 5 percent level in model one only. From the above discussion, it can be concluded that there is a significant affect of EFS hypotheses on firm profitability among Nepalese life insurance companies. This result is consistent with previous studies Berger and Handan (1989) Park and Weber (2006), Seelanatha (2010) and Mensi and Zouari (2011).

Estimated relationship between market structure and efficient structure on firm performance of Nepalese Non life insurance companies

The ordinary least square (OLS) regression equation (1) is run to test the the the market structure or efficiency explains the profitability of Nepalese non life insurance companies. Model 1 is run with the consideration of HHI where as model 2 with CR3 on ROA. The beta coefficient of market share is found to be positive and significant. HHI is found to be positive but not significant. Concentration ratio of large three firms is found to be positive and significant as it's beta coefficient is statistically zero indicating higher the concentration higher would be firm performance. This provides the evidence in support

with structure conduct performance hypothesis. The result is consistent with previous study Goldberg et. al., (1996) and Berger and Hannan, (1998). Regarding, the control variables size has a positive influence where as age of the firm has a negative influence on the, performance of the firm. It indicates that larger sized younger firms have higher concentration and market share and earning higher profit in terms of ROA. Efficiency variable found to be positive which is as per the prior sing but not significant indicating rejection of efficient hypothesis. Control variables size has a positive and significant influence. It indicates that larger sized firms have higher concentration and market share and earning higher profit in terms of ROA. Therefore, the positive impact of market share along with concentration is in favor of structure conduct performance hypothesis. This indicates that market power is the major reason that Nepalese non life insurance companies are earning their profits in terms of ROA. The result is presented in table below.

Table 5(B) : OLS estimates for structure performance relation (Non Life)

This table presents the OLS regression result of structure performance relationship for the 8 sample non life insurance company from 2007.08 to 2014.15 with 128 firm year's observation to test the structure versus efficiency in Nepalese life Insurance companies. The equation is given by

$$\pi_{it} = \beta_0 + \beta_1 MS_{it} + \beta_2 Con_{it} + \beta_3 EFF_{it} + \sum a_{it} x_{it} + e_{it} \dots\dots (i)$$

Where, π_{it} is the dependent variable as measured by ROA. And ROE .Efficiency score has been calculated by using three inputs variable as investment, commission and technical reserve while gross premium and investment income are considered as outputs using DEA 2.1. MS is the market share and concentration ratio has been calculated in terms of HHI and CR3 of three largest firms in respective year based on gross premium receive. Firm's total assets (log of assets) and age are considered as control variables. Figures in the parenthesis are *heteroskedasticity corrected t-values*

Independent Variables	Dependent Variable			
	ROA		ROE	
	Model 1	Model 2	Model 3	Model 4
(MS)	45.2566** (2.84)	31.1524* (1.94)	171.9806*** (2.88)	121.6481* (1.88)
HHI	79.0411 (1.06)		119.7808 (0.38)	
CR3		96.2921*** (4.45)		360.48*** (3.25)
EFF1	2.382 (1.02)	0.6464 (0.28)	5.4707 (0.50)	-1.4194 (0.14)
Size	2.382 (1.02)	0.6464 (0.28)	5.4707 (0.50)	-1.4194 (0.14)
Age	2.382 (1.02)	0.6464 (0.28)	5.4707 (0.50)	-1.4194 (0.14)
Intercepts	2.382 (1.02)	0.6464 (0.28)	5.4707 (0.50)	-1.4194 (0.14)
F-ratios R ²	2.382 (1.02)	0.6464 (0.28)	5.4707 (0.50)	-1.4194 (0.14)

5. SUMMARY AND CONCLUSION

This paper has examined the structural and performance of Nepalese insurance companies. The study purposed five hypotheses as pure collusion, efficient to be tested used by Berger and Hannan (1997). The study employed descriptive cum causal relation research design to test the hypothesis. Eight life insurance and sixteen non life insurance companies have been taken as a sample using population survey technique. The study used secondary data for 8 years (2007.08-20014.15) with 64 life's firm year observation and 128 non life's firm year's observation leading to 192 firm year observations. Three variables investment, technical reserve and commission are considered as inputs variables while investment income and gross premium considered as outputs. Descriptive cum casual correlational and regression analysis method are used for the analysis. Data envelopment analysis (DEA) 2.1 is used to calculate efficiency score and Starta 12 for casual relationship.

Market share and concentration ratio of life insurance company is double than that of non life insurance company. The mean efficiency score of Nepalese Life Insurance Company is also relatively higher indicating Nepalese life insurance companies are quite efficient in terms of utilization

of resources than non life. Market concentration and efficiency variables are found to be positive indicating that life insurance companies are generating profitability through effective utilization of resources which enabling them to increase monopoly power. Thus, results strongly support the hybrid efficiency hypothesis. The study also concludes firm with low assets have the high. In case of non life, positive impact of market share along with concentration is in favor of structure conduct performance hypothesis. Further, control variables total assets has a positive significant impact in determining earning however efficiency is not found to be significant indicating Nepalese non life insurance companies are not efficient in terms of generating their profit. Thus, the study concludes Nepalese life insurance companies are more efficient and has high market concentration as compare to non life insurance companies.

5.1 Policy Implications of findings

The study addressed the contemporary issue on insurance market efficiency and concentration. The study basically aims to test the market structure versus efficient structure in Nepalese insurance companies. The result showed found Nepalese life insurance firms are efficient and have high concentration in the market which helps them to earn profit this is due to reduction in unnecessary

overhead cost and at the same time increase monopoly in the market. Monopoly in the free market economy at present market is not acceptable so one way is to overcome is policy reformation. The policy maker need to strongly supervise and vigilance to those low concentrating firms and find out the causes. Further, low investment income, high surrender value, low retention, low persistence level may also result into low market coverage even though there is a growth in premium. The other way is to allowing entry of new well equipped technically and finally sound life insurance companies that will provide strong competition in the market.

In case of non life insurance companies efficiency variable is not found to be determining variable in profitability. The reason behind might be high commission expenses, high technical reserve and traditional investment schemes. The other reason may be increase in management expenses and management inefficiency (CEO's and staffs), direct interference from board, independent director or bot. So the policy maker should identify the exact causes behind and reform the policy so as to enhance the efficiency of non life insurance companies.

Future scope

The study is limited with only three input variable as investment, agent commission, technical reserve and two outputs investment income and premium so further research can be carried out other with other variables like management expenses, number of policies, reinsurance premium, claim, labor expenses, total income, total expenses number of branches, The study can explore with other variable as earning per share, net income as dependent variables.

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Annex

Variables and their Measurement

Variables		Symbol	Descriptions
Inputs	Investment	It	Total of long and short term
	Technical reserve	CFt	sum of provisions for unexpired risk, outstanding claims, life fund and reserve and surplus
	Commission	C	Agent commission
Outputs	Gross premium	GP	Sum of first year premium, renewal premium and single premium written during the year
	Investment Income	II	the income from policy loan, other income and direct income
Efficiency	Technical Efficiency	EFF1	Constant return to scale (Input based)
	Pure Technical Efficiency	EFF2	Variable return to scale (Output based)
	Scale Efficiency	SE	Combined of both
Market share		MS	Market share of each firm based on gross premium
Concentration Ratio		CR3	Concentration of large three firm based on premium
		HHI	Sum of the square of market share individual firms
Control Variable	Age	Age	the number of years that the firm
	Total Assets	LA	net fixed assets and current assets (log of assets)
Profitability	Return on Assets	ROA	Net Income / Total Assets
	ROE		Net Income / Equity

ICT BASED INNOVATIVE PUBLIC HEALTH SERVICE DELIVERY MANAGEMENT THROUGH SOCIAL ENTREPRENEURSHIP AND ITS CHALLENGES

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ABSTRACT

India is one of the developing nations of Asian region which has got a large number of healthcare institutions and home grown social entrepreneurs. Advanced information and communication technologies are expanded all over the country considerably. Most of the public and private health service providers have introduced ICTs and improved the delivery system over a period of time in India.

The role of ICT in India has been a subject of debate, discussion and research. The role of ICT in the management of healthcare sector in India has not been adequately and systematically evaluated by the researchers. There is growing social entrepreneurs who are looking at health services as a challenge and its service delivery system. There are many numbers of services and technologies being used in this sector with the help of ICT. In this context the present study examines the awareness, perceptions, effectiveness, challenges and innovative methodologies in health services delivery system.

INTRODUCTION

Information and Communication Technology has seen a remarkable growth in the past decade across the globe. The integration of ICT in everyday life has been fuelled by technological advances, economic investment, social and cultural changes. As information and communication technology evolves in the health care industry, the scope of information sharing is expanding beyond the walls of individual institutions. Based on the most recent research and international observations, a new paradigm has been identified including various new concepts, frameworks and theories for reengineering education.

ICT can bring huge benefits to healthcare delivery by improving access, bringing efficiency, widening reach and reducing cost. While governments worldwide are spending huge financial resources on improving public health systems, some researchers argue that the mere application of funding will not solve many of the problems in e-government services and more particularly in public health. Instead, suggested is a model of co-

creation of services targeted to meet the specific needs of local communities which will require service designers to innovate and work with multiple stakeholders including the local communities themselves. This requires giving patients and local communities the voice to participate in service design by suitably equipping them with the skills and tools necessary for effective participation.

Review of Literature

Bhattacharya *et. al* (2010)¹, states that the innovative health service delivery models have been developed with the novel approaches from social enterprises to increase the quality of healthcare services, affordability and availability.

As per recommendations from the Institute of Medicine, in 21st century, healthcare services will see significant improvements and new approaches to environmental health. Tang *et. al* (2005)² provided the context in its 1986 Ottawa Charter for Health Promotion, the World Health Organization directed policy makers in all sectors to “be aware of the health consequences of their

decisions and to accept their responsibilities for health”.

Ashoka, (Drayton, 2006)³ the Innovators for the Public started bringing the ideas of change in the public issues and those termed as “social entrepreneurs” globally.

Arlington analyzed the opportunity of business impact, corporate and community leaders in meeting their social goals and commitment to the society. Public service delivery is the main component of social well-being and stimulates economic development in rural areas.

The proceedings of OECD rural policy conference (2008)⁵, mentioned about effective “one size fits all” approaches doesn’t exist. The lessons learnt on what works and what doesn’t from service delivery mechanisms is shared internationally. Much of the attention concerning the provision of health care to the poor has centered on the public sector. It is taken as understood that health care is a basic service, essential in the fight against poverty. The poor are the most vulnerable to further impoverishment if faced with high costs from illness or family death. being, human capital development and rural economic growth stimulation. The economic growth and health services can be improved and streamlined through social entrepreneurial venture. There is always a constant flow of information needed in public health innovation. Technology intervention is required to improve in information generation and analysis of collected information. The synthesized information is collected for optimal benefits. There is a shift in focus from disease prevention to health promotion in public health. There is always a bigger challenge in public health with lot of political intervention and differing environments among the different stakeholders.

Need for the Study

ICT is no longer being used simply as a means for automating processes in modern healthcare services. Instead ICT is being used as a revolutionary means of delivering services to people. The adoption of ICT in the healthcare

sector has brought about several benefits namely, greater productivity, profitability, efficiency, faster service, customer satisfaction, customer convenience, operational flexibility, 24x7 operations, space and cost savings. Many innovative application of ICT in healthcare sector has bridged the communication gap between the patients, doctors and various stakeholders. This can be achieved through by creating a wealth opportunities with the help of social entrepreneurs.

Statement of the Problem

In the present times, most of the developing countries have realized the importance of ICT in health services and have started the shifting from traditional methods into modern usage of IT gadgets in delivery of healthcare services. Consequently, most of these countries have achieved remarkable success in the application of ICT and improving the delivery system. Public access to the health services through ICT has increased the end consumers over a period of time. The big challenge for public health is to bring together all appropriate information and to apply it appropriately. In this context the present study examines the awareness, perceptions, effectiveness, challenges and innovative methodologies in health services delivery system.

There are some questions by which the present investigation will pursue a way to answer them. For example:

1. Is the scale of ICT acceptability differing in public health centers? If yes, what is the best way to increase the scale of ICT acceptability?
 - a. Challenges in acceptance of ICT based applications in health centers
2. Does it matter the need and awareness of two important items in the application of ICT in health institutions?
 - a. Challenges in creating the need and building the awareness of ICT among healthcare professionals

3. Are there any difference in perceptions of health services, ICT acceptance and efficiency in the public sector and private sector of healthcare industry?
4. How to leverage innovative social entrepreneurial approaches in delivering public healthcare services?
 - a. Challenges in adopting the entrepreneurial approaches in delivering healthcare services.
5. Can we say that the use of the latest tools of ICT causes the improvement of healthcare service delivery system?
 - a. Challenges in usage of ICT based tools in the improvement of healthcare service delivery system.
6. There are many government schemes and policies exist, are they being leveraged properly across the state?
 - a. Challenges in implementation of government schemes and policies.
7. What's the level of awareness of public health service delivery among IT professionals?
 - a. Challenges in building the awareness of public health service delivery among IT professionals.

Objectives of the Study

The objectives of this study are framed on the extensive literature survey on ICT acceptability, efficiency, effectiveness and need of the technologies conducted by the experts in the field of healthcare sector in general and public health in particular as well as healthcare professionals. The particular objectives of this study are as follows:

1. To examine the acceptance, efficiency and effective usage of ICT applications in public healthcare service delivery systems.
2. To understand the level of appreciation about technologies amongst healthcare professionals.

3. To find out the IT awareness of the healthcare professionals in the public healthcare delivery system.

Hypotheses of the Study

Based on the extensive literature survey from international and Indian journals, articles, books on public health service delivery relating to the world and India, in depth review with healthcare and IT professionals, the following hypotheses were formulated and put to test in order to achieve the objectives of the study. The hypotheses framed for the study are the following:

H1: “There is a positive relationship between Effectiveness and level of Acceptability in Healthcare Service Delivery”.

H2: “There is a low level of Awareness about Technologies amongst Healthcare Professionals on ICT based applications

H3: “There is a positive relationship between ICT application and Effectiveness in Healthcare Services”

Scope of the Study

An attempt has been made to study the role of ICT in the management of healthcare sector in India. There is growing social entrepreneurs who are looking at health services as a challenge and its service delivery system. The present study will approach the problem through a systematic survey method which is very popular in the fields of commerce and management. A structured and pre-tested interview schedule will be administered to the different stakeholders of health services. This study focuses on the opinion of respondent's awareness, acceptability, efficiency and effectiveness of the ICT based systems in health services. The study also attempts to analyze the role of different stakeholders and make a suggestion for the improvement of health service delivery.

Research Methodology

The study examines the awareness and usefulness of ICT based application in healthcare service delivery. The study relies upon both primary and secondary data. The primary data was collected

through structured questionnaire, discussions and interviews with the stakeholders. The opinion of respondents from both healthcare and IT professionals were used to empirically test the awareness and usefulness of ICT based application in healthcare sector. The secondary data which is used to explore the theoretical aspects is based on the books, journals, internet sources and articles on public health in ICT and its challenges.

Questionnaire: Considering the objectives and hypothesis of the study a questionnaire was prepared on a five point Likert scale. The perceptions of responses were measured on the basis of the need and awareness of the ICT based applications in health service delivery. The items were drawn on the basis of literature survey. In order to gather the current information personal interview with the field health workers were conducted.

Sample size: Sampling techniques provides various methods that enable us to reduce the amount of data by considering only those data from a sub group rather than all possible cases or elements.

The stakeholders sample has been divided under the following two categories

- Healthcare professionals
- IT professionals

A sample size is 60, IT professionals' respondents has been taken from the public health service delivery sector. The respondents are spread across the various health centers such as Sub Centers (SC), Public Health Centers (PHC), Community Health Centers (CHC), Taluka Health Office (THO), District Health Office (DHO), Mobile Health Clinic (MHC), Public Health Institute (PHI), Public Private Partnership (PPP) model, Private Clinics (PC) and also through social entrepreneurs who are providing public health service delivery in Karnataka. The healthcare professional's respondents are admin, Auxiliary Nurse and Midwife (ANM), Health worker, Lab technician, Nursing staff, Pharmacist and Physician.

The IT professional's respondents who are working on healthcare products are being considered across the IT companies. The IT professional's respondents are developer, manager, marketer, researcher, reviewer and tester.

Survey Instrument:

Two sets of questionnaires were prepared. One is used for recording the views of healthcare professionals. The second questionnaire was administered on IT professionals. The survey was conducted over a period of ten months in 2016-17. To facilitate the analysis and to strengthen the arguments the secondary data has been used. The secondary data sources include annual reports, circulars, journal papers, and other publications of health industry. The websites of private companies and government agencies are also consulted. Books and periodicals on service delivery, and national and international reports on ICT and public health services were also referred wherever needed.

Statistical tools and techniques:

The data collected are put into different statistical tools such as percentages, mean, median, standard deviation and standard error to arrive at conclusion. Descriptive statistical tools were used to determine the significance. Regression analysis and Karl Pearson's correlation coefficient have been used to establish the relationship between the variables chosen. Advance analysis like SEM is employed. The researcher has used Statistical Package for Social Sciences (SPSS) and Analysis of Moments of Structures (AMOS) to analyze and interpret the data.

There was an in-depth analysis on service delivery in public health services based on the opinions of the healthcare professionals. However, this chapter deals with the results of different experiments conducted to investigate the effect of IT professional's *viz.*, Demographics of IT professionals, descriptive statistics, reliability test (statistics). The IT professional acceptance, reliability and efficiency were presented by different statistical test models.

Descriptive statistics

Descriptive Statistics of Need of different parameters pertaining to IT Professionals:

The Table 1 shows that the need of the different IT professionals pertaining to different parameters. The security achieved the highest mean score of 3.93. This is followed by 'Easily accessible' and

'Understand healthcare technologies' which achieved mean scores of 3.52 and 3.47, respectively. While 'Develop health management systems' and 'Develop algorithms for diagnosis' achieved mean scores of 3.40 and 3.17, respectively, the same achieved by 'Easier information retrieval' was 3.15.

TABLE 1
DESCRIPTIVE STATISTICS OF NEED OF DIFFERENT PARAMETERS
PERTAINING TO IT PROFESSIONALS

Description	N	Minimum	Maximum	Mean	Std. Deviation
Develop algorithms for diagnosis	60	1.00	5.00	3.1667	1.83346
Easier information retrieval	60	2.00	5.00	3.1500	1.36326
Easily accessible	60	2.00	5.00	3.5167	1.38383
Develop health management systems	60	1.00	5.00	3.4000	1.59661
Understand healthcare Technologies	60	1.00	5.00	3.4667	1.34626
Security	60	2.00	5.00	3.9333	1.28705
Need	60	1.67	4.67	3.4389	0.74154

Source: Survey data

Reliability test

Reliability Statistics of different parameters pertaining to IT Professionals:

Cronbach's alpha is a coefficient of reliability. It is commonly used as a measure of the internal

consistency or reliability of a psychometric test score. An analysis of the reliability test of need, awareness, acceptability, efficiency and effectiveness are given in Table 2

TABLE 2
RELIABILITY STATISTICS OF DIFFERENT PARAMETERS PERTAINING
TO IT PROFESSIONALS

Description	Reliability statistics for need	
	Cronbach's Alpha	No of Items
Need	0.700	6
Awareness	0.603	6

Source: Survey data

1 Need: Need parameters have excellent internal consistency (considering the thumb rule of $\alpha \geq 0.9$ for excellent level of consistency).

2 Awareness: Awareness parameters have good internal consistency (considering the thumb rule of $0.7 \leq \alpha < 0.9$ for good level of consistency).

An analysis of the table 3 brings out that:

3 Develop algorithms for diagnosis: With ‘Evaluate diagnostic reports’, it has positive and significant (at 1% correlation). With ‘Review healthcare products’, it has negative and significant (at 1% level) correlation.

4 Easier information retrieval: With ‘Test lab products’, and ‘Evaluate diagnostic reports’, it has positive and significant (at 1% level) correlations. With ‘Compare market analysis’, it has positive and significant (at 5% level) correlation. With ‘Coding done in scripting/

web based applications’, it has negative and significant (at 1% level) correlation.

5 Easily accessible: With ‘Build online applications’, it has positive and significant (at 5% level). With ‘Review healthcare products’, it has negative and significant (at 1% level).

Correlations

Effect of Correlation Analysis for Need and Awareness:

The table 3 shows the correlation analysis for need and awareness.

Need: With ‘Evaluate diagnostic reports’, it has positive and significant (at 1% level). With ‘Review healthcare products’, it has negative and significant (at 1% level) correlation while with ‘Coding done in scripting/web based applications’, it has negative and significant (at 5% level) correlation.

TABLE 3

EFFECT OF CORRELATION ANALYSIS FOR NEED AND AWARENESS

		Test lab products	Review healthcare products	Coding done in scripting / web based application	Compare market analysis	Evaluate diagnostic reports	Build online applications	Awareness
Develop algorithms for diagnosis	Pearson correlation	0.185	-0.547**	-0.144	-0.091	0.516**	-0.108	0.006
	Sig. (2-tailed)	0.158	0.000	0.271	0.491	0.000	0.416	0.963
	N	60	60	60	60	60	59	60
Easier information retrieval	Pearson correlation	0.308*	-0.116	-0.330**	0.322*	0.357**	-0.182	0.236
	Sig. (2-tailed)	0.017	0.375	0.010	0.012	0.005	0.167	0.069
	N	60	60	60	60	60	59	60
Easily accessible	Pearson correlation	0.371**	-0.371**	0.043	-0.023	0.306*	0.264*	0.245
	Sig. (2-tailed)	0.003	0.003	0.744	0.863	0.017	0.043	0.060
	N	60	60	60	60	60	59	60
Develop health management systems	Pearson correlation	-0.319*	-0.172	-0.312*	-0.163	0.199	-0.076	-0.309*
	Sig. (2-tailed)	0.013	0.190	0.015	0.215	0.128	0.567	0.016
	N	60	60	60	60	60	59	60

Understand healthcare technologies	Pearson correlation	-0.157	-0.176	-0.138	-0.166	0.164	0.286*	-0.100
	Sig. (2-tailed)	0.230	0.179	0.293	0.205	0.211	0.028	0.446
	N	60	60	60	60	60	59	60
Security	Pearson correlation	0.276*	-0.242	-0.058	0.273*	0.280*	0.221*	0.308*
	Sig. (2-tailed)	0.033	0.063	0.658	0.035	0.030	0.092	0.017
	N	60	60	60	60	60	59	60
Need	Pearson Correlation	0.204	-0.561**	-0.318*	0.024	0.619**	0.108	0.099
	Sig. (2-tailed)	0.119	0.000	0.013	0.853	0.000	0.416	0.454
	N	60	60	60	60	60	59	60

Source: Survey data

- 1. Develop health management systems:** With 'Coding done in scripting/web based applications' and 'Awareness', it has negative and significant (at 5% level). With 'Test lab products', it has positive and significant (at 5% level).
- 2. Understand healthcare technologies:** With 'Build online applications', it has positive and significant (at 5% level) correlation.

Conclusion

In recent years the healthcare sector in India is undergoing drastic changes. On account of severe competition from the private sector, the public sector is under severe stress and strain to perform better. The only way out to fight this change is to improve the service delivery. This will go a long way not only in developing the business but also in customer retention and checking the erosion market share of public sector healthcare provider. In this context, this study spells out the public health service delivery research has opened up lot of opportunities in improving the service delivery management system. Efficiency and effectiveness are the other two dimensions of ICT have been analyzed through this study and healthcare professional's perceptions were strong in accepting this. IT professionals are trying very hard to build awareness and analyze the data being leveraged in public health service delivery. Social entrepreneurial ventures being setup based on public health service delivery management. Among the various ICT service delivery dimensions in public healthcare sector,

acceptability, efficiency and effectiveness play crucial roles, but awareness of technologies get least priority.

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GLOBALISATION AND ITS IMPACT ON LIFE INSURANCE CORPORATION OF INDIA

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ABSTRACT

Insurance sector in India is one of the booming sectors of the economy and growing at a very speedy rate. The insurance is primarily a social device adopted by civilized society for mitigating the incidence of loss of income to families by unforeseen contingencies. The impact of privatization in life insurance business in India has showed tremendous transformation from monopoly business to a vibrant sector with mushrooming companies promoting wide range of policies and increasing customer penetration rate. Creative practices in marketing and innovative policies have changed the entire dimensions of the life insurance sector. It is time for a quick introspection. The global insurance industry is growing in unison. Most of the countries insurance industries are undergoing globalization at a rapid pace. Mergers and acquisitions are an everyday feature in the industry. India is poised to experience major changes in its insurance markets. Insurers will operate in an increasingly deregulated and liberalized environment. The growth in the life insurance sector has showed new heights and the executions of the private companies have given tough competition to the Life Insurance Corporation of India (LIC). The entire sector has started to show significant changes right from increasing insurance penetration to changing the customer mindset about the life insurance. However, in spite of the liberalization, LIC will continue to maintain their dominant position in the market, at least in the foreseeable future.

The present study is an attempt to bring out the evolution and advancement of private sector in life insurance business, challenges and competition ahead for future scenario of life insurance sector.

Key words: *Life Insurance, Globalization, Privatization, Liberalization, GATT, GST.*

INTRODUCTION

Insurance sector in India is one of the booming sectors of the economy and growing at a very speedy rate. The global insurance industry is facing myriad challenges. Coming to the Indian Scenario the benefits of liberalization and a competitive environment are at last hitting the market. While the leaders in the respective classes continued to lead by a wide margin, the battle lines are being redrawn.

The Indian life Insurance Industry has its own origin and history. Since its inception, it has passed through many obstacles, hindrances to attain its present status. The income earning capacity of an individual citizen of a nation and eagerness and

awareness of the general public are the two determinants of the growth of any insurance Industry. Unless the strengths of insurance are fully understood in their right perspective, it would be naïve to believe that we have made any headway in the development of insurance sector in India. The success of Life Insurance Companies in this milieu is crucial in stabilizing and catalyzing growth in the economy.

The insurance is primarily a social device adopted by civilized society for mitigating the incidence of loss of income to families by unforeseen contingencies. The impact of privatization in life insurance business in India has showed tremendous transformation from monopoly

business to a vibrant sector with mushrooming companies promoting wide range of policies and increasing customer penetration rate. Creative practices in marketing and innovative policies have changed the entire dimensions of the life insurance sector. It is time for a quick introspection. The global insurance industry is growing in unison. Most of the countries insurance industries are undergoing globalization at a rapid pace. Mergers and acquisitions are an everyday feature in the industry. India is poised to experience major changes in its insurance markets. Insurers will operate in an increasingly deregulated and liberalized environment.

The present study is an attempt to bring out the evolution and advancement of private sector in life insurance business, challenges and competition ahead for future scenario of life insurance sector.

I. OBJECTIVES:

1. To study the overall performance of Life Insurance Corporation of India pre and post LPG era.
2. To analyze the current status of global Insurance Markets, Indian insurance in global scenario.
3. To examine the current status, volume of competition and challenges faced by LIC of India.
4. To provide suggestions to improve the performance of life insurance business in India.

Research Methodology:

The research design has been formed for this research article is descriptive research design. The nature of data which is collected and used for this research article is secondary. The relevant data are collected from secondary sources as books, journals, Annual Reports of LIC and IRDA publications.

Review of Literature:

While earlier studies on Life insurance sector mainly focused upon LIC, it was only after reforms in this sector that certain studies covering private

players have taken place. Among early studies important are:

Arora (2002) highlighted that LIC was likely to face tough competition from private insurers having large establishment network and their trained intermediaries throughout India. *Verma* (2003) analyzed the various types of products offered by public sector giant and the new global players in private sector. *Kumar and Taneja* (2004) highlighted the opportunities and challenges before the insurance industry in India due to liberalization, globalization and privatization. *Jain* (2004) revealed “Waves of liberalization have done wonders to raise the Insurance occupation to the status of a career with a bright future. The average mindset, particularly of younger generation in India is very amenable to these changes in insurance, which is as an avenue where exhilarating opportunities are opened up in changed environment.”

GLOBAL INSURANCE MARKETS:

As per the World Insurance Report, published by the reinsurance major, “Swiss Re”, the global life insurance premium in real term grew by 2.3 per cent in 2012 to USD 2621 billion after a contraction of 3.3 percent in 2011, mainly driven by the emerging markets. As per the Report, growth in life insurance will remain sluggish in 2013 due to weak economic growth in advanced countries. But the Advanced Asian countries will perform better and there would be steady growth, in life insurance in these economies. Emerging market premium growth is expected to accelerate in 2013 supported by India and China. The Report also mentioned the global shifts taking place in the insurance market. Over the last fifty years share of premium shifted away from Europe and Anglo Saxon market to Asian Markets. Over the next ten years, this shift is likely to continue and by 2023 China is expected to become the second largest insurance market after USA.

Insurance Penetration and Density:

The potential and performance of the insurance sector is universally assessed with reference to two parameters. Viz. insurance penetration and

insurance density. These two are often used to determine the level of development of the Insurance sector in a country. Insurance penetration is defined as the ratio of premium underwritten in a given year to the Gross Domestic Product (GDP). The insurance penetration in India, which is surged consistently till 2009-10, has slipped since 2010-11 on account of slowdown in life insurance premium as compared o the growth rate of the Indian economy. Life insurance penetration had consistently gone up from 2.15% in 2001 to 4.60 in 2009, before slipping to 4.40 %

in 2012, 3.40% in 2011and further slipping to 3.17 in 2012. However there was slight increase in 2015 reaching 3.44 percent compared to 3.3 percent in 2014. A similar trend in the level of density which reached the maximum of USD 64.4 in the year 2010 from the level of USD 11.5 in 2005, the insurance density was USD 54.7.

Insurance density is defined as the ratio of premium underwritten in a given year to the total population. India has reported consistent increase in insurance density every

Fig.1:Insurance Penetration in selected countries 2015

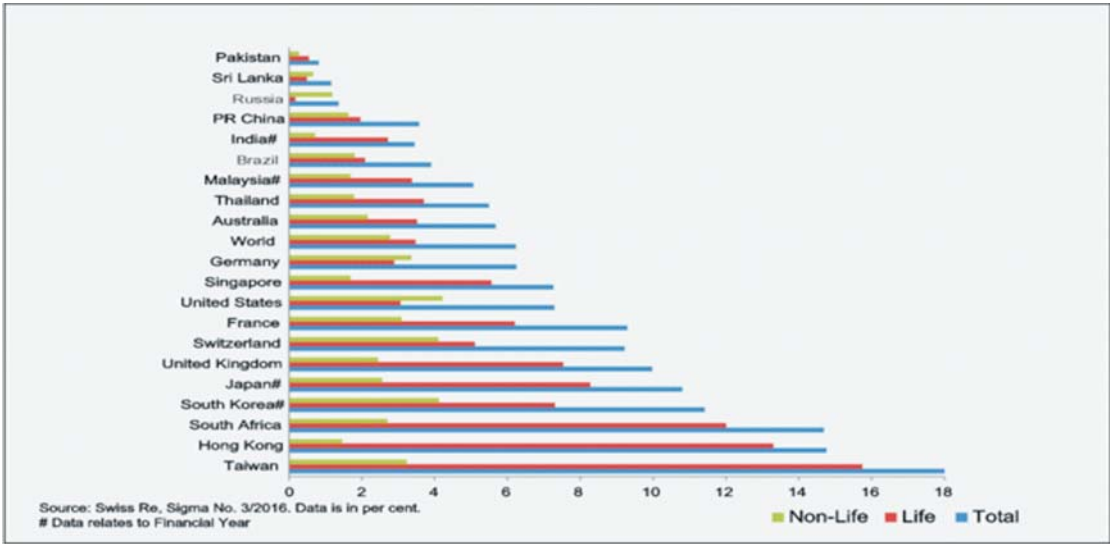
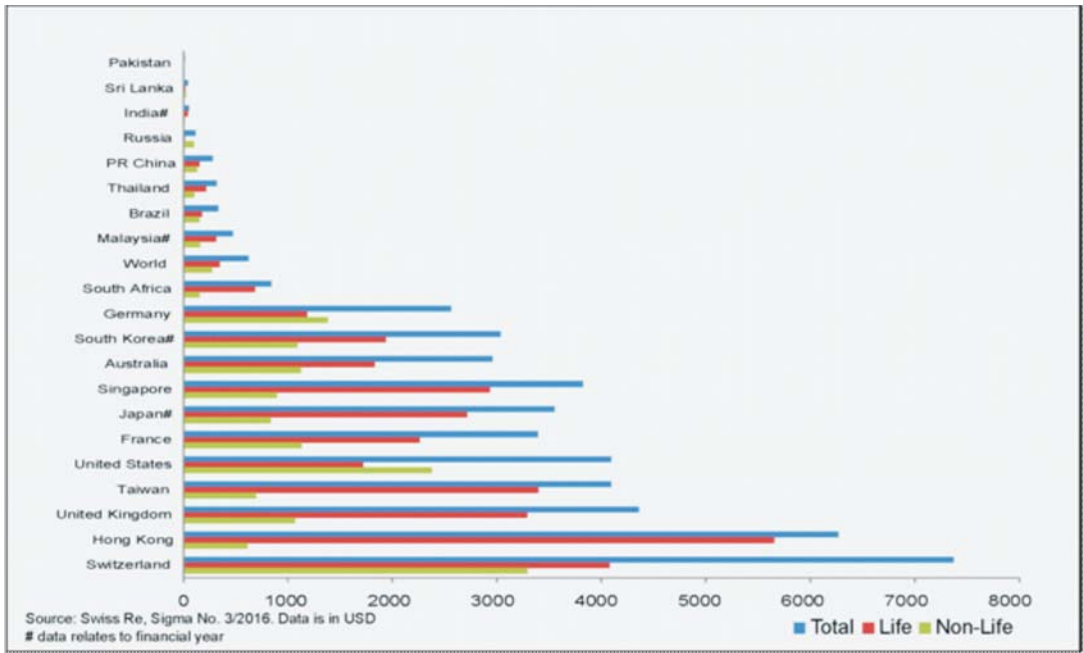


Fig.2: Insurance Density in selected countries 2015



year since the sector was opened up for the first time in 2001; there was a fall in insurance density. During 2015, the level of life insurance penetration surged from 2.15 percent in 2001 to 4.60 percent in 2009. Since then, it has exhibited a declining trend. However, there was a slight increase reaching 2.72 percent in 2015 when compared to 2.6% in 2014.

I. STATUS AND POSITION OF INDIAN LIFE INSURANCE INDUSTRY IN THE PRE LPG ERA:

Insurance in modern form originated in the Mediterranean during the 13th century. The earliest references to insurance have been found in Babylonia, the Greeks and the Romans. Marine insurance is the oldest form of insurance followed by life insurance and fire insurance. Life insurance in its modern form came to India from England in 1818 with the formation of Oriental Life Insurance Company (OLIC) in Calcutta mainly by Europeans to help widows of their kin.

Pioneering efforts of reformers and social workers like Raja Ram Mohan Ray, Dwarkanath Tagore, Ramatam Lahiri, Rustomji Cowasji and others led to entry of Indians in Insurance business. First Indian insurance company under the name “Bombay Life Insurance society” started its operation in 1870, and started covering Indian lives at standard rates. Later, Oriental Government Security Life Insurance Company was established in 1874, with Sir Phirozshah Mehta as one of its founder directors. It later emerged as a leading Indian Insurance company under the name, Bombay Life Assurance Society, which started its operations in 1870.

Important milestones in the Life Insurance business in India:

1912: The Indian Life Assurance Companies Act enacted as the first statute to regulate the Life insurance business.

1928: The Indian Insurance Companies Act enacted to enable the government to collect statistical information about both life and non-life insurance businesses.

1938: Earlier legislation consolidated and amended to by the Insurance Act with the objective of protecting the interests of the insuring public.

1956: The nation under the leadership of Pundit Jawarlal Nehru was moving towards socialistic pattern of society with the main aim of spreading life insurance to rural areas and to channelize huge funds accumulated by life insurance companies to nation building activities. 245 Indian and foreign insurers and provident societies taken over by the Central government and nationalized. LIC formed by an Act of Parliament- LIC Act 1956 with a capital contribution of Rs.5 crore from the Government of India and started functioning from 1st September 1956.

The insurance sector in India has become a full circle from being an open competitive market to nationalization and back to a liberalized market again. Tracing the developments in the Indian insurance sector reveals the 360 degree turn witnessed over a period of almost two centuries. Insurance is federal subject in India. There are two legislations that govern the sector- The Insurance Act-1938 and the IRDA Act 1999.

Globalization of Insurance sector:

Inspite of the phenomenal progress of LIC of India, especially in the 1980's, the government and public at large were not quite satisfied with it. A committee under the chairmanship of Late R.N.Malhotra was appointed by the government to look into all the aspects of insurance industry in India. The committee too opined that in its about 40 years of existence LIC had been able to insure only 22% of the insurable population; A moot reason may be the lack of competition. Further monopoly has resulted in lack of sensitivity to the policy holders and there is a greater scope for product innovation and service improvement. The committee recommended a number of measures to revamp LIC of India. After a great deal of discussion, finally Lok Sabha has enacted the Insurance Regulatory Development Authority (IRDA) Act 1999. In terms of the Act, the IRDA is being set-up to regulate and develop the insurance industry by opening it up to the private

sector. Foreign insurance companies can enter into the insurance sector in India only with an Indian partner, as a joint venture, with a capital contribution upto a maximum of 25% of the capital in the joint venture. With the expected increase in per capita income 6% for the next 10 years and with the improvement in the awareness levels the demand for insurance is expected to grow. The introduction of private players in the industry has added colors to the dull industry. The initiatives taken by the private players are very competitive

and have given immense competition to the on time monopoly of the market LIC. The new players have improved the service quality of the insurance. The market share was distributed among the private players. Though LIC still holds 73.90% of the insurance sectors the upcoming nature of these players are enough to give more competition to LIC in the near future.

II. IMPACT OF GLOBALISATION:

Growth of Life Insurance Companies operating in India.

Table – 1. Life Insurance Companies operating in India as on 31.12.2016

SI No.	Regd. No.	Market Share	Date of Regd.	Name of the Company
1	101	1.36	23.10.2000	HDFC Standard Life Insurance Company Ltd
2	104	0.90	15.11.2000	Max New York Life Insurance Company Ltd
3	105	5.63	24.11.2000	ICICI Prudential Life Insurance Company Ltd
4	107	0.51	10.01.2001	Om Kotak Mahindra Insurance Company Ltd
5	109	2.56	31.01.2001	Birla Sunlife Insurance Company Ltd
6	110	1.29	12.02.2001	Tata AIG Insurance Company Ltd
7	111	1.80	30.03.2001	SBI Life Insurance Company Ltd
8	114	0.37	02.08.2001	ING Vysya Insurance Company Ltd
9	116	2.03	03.08.2001	Allianz Bajaj Insurance Company Ltd
10	117	0.21	06.08.2001	Metlife Insurance Company Ltd
11	121	0.26	03.01.2002	AMP Sanmar Insurance Company Ltd(Reliance)
12	122	0.79	14.05.2002	Aviva Insurance Company Ltd
13	127	N.A.	06.02.2004	Sahara India Insurance Company Ltd
14	128	N.A.	17.11.2005	Shriram Life Insurance Company Ltd
15	130	N.A.	14.07.2006	Bharati AXA Life Insurance Company Ltd
16	133	N.A.	04.09.2007	Future General India Life Insurance Company Ltd
17	135	N.A.	19.12.2007	IDBI Fortis Life Insurance Company Ltd
18	136	N.A.	16.01.2011	Canara HSBC Oriental Bank of Commerce Life Insurance Company Ltd
19	138	N.A.	27.06.2008	Aegon Religare Life Insurance Company Ltd
20	140	N.A.	27.06.2008	DLF Pramerica Life Insurance Company Ltd
21	512	82.3	Completed its 50 years	Life Insurance Corporation of India (LIC)
22	142	N.A.	09.07.2010	Star Union Dai-chi Life Insurance Company Ltd
23	143	N.A.	05.11.2009	India First Life Insurance Company Ltd
24	147	N.A.	10.05.2011	Edelweiss Tokyo Life Insurance Company Ltd

It is evident that life insurance industry expanded tremendously from 2000 onwards in terms of number of offices, number of agents, new business policies, premium income etc. The life insurance

industry recorded a premium income of Rs.2,87,202 crore during 2012-13 as against Rs.2,87,072 crore in the previous financial year, registering a growth of 0.05 per cent. While private

sector insurers posted 7.38 per cent decline (4.52 percent decline in previous year) in their premium income. LIC a state owned insurance company recorded 2.91 growths (0.29 percent decline in previous year) in the total premium underwritten.

Indian Insurance in the Global Scenario:

As per the World Insurance Report, the prospect for growth in life insurance business will remain sluggish in 2013 in the advanced markets. While in emerging Asia, growth is expected to resume in

China and India. In life Insurance business, India is ranked 10th among the 88 countries, for which data are published by Swiss Re. India's share in global life insurance market was 2.24 per cent during 2015, as against 2.08 per cent in 2014. However during 2015 the life insurance premium in India (inflation adjusted) increased by 7.8% when global life insurance premium increased by 4%. For India, the share of life insurance business in total insurance business was very high at 78.96 percent.

2.TOTAL REAL PREMIUM GROWTH RATE IN 2015 (In per cent)

Regions/Countries	Life	Non-Life	Total
Advanced countries	2.5	2.6	2.5
Emerging markets	12	7.8	9.8
Asia	7.8	9.2	8.2
India	7.8	8.1	7.9
World	04	3.6	3.8

Source: Swiss Re, Sigma No.3/2016

Table 3.REGION WISE LIFE AND NON LIFE INSURANCE PREMIUM (Premium in USD Billions)

Regions/Countries	Life	Non-Life	Total
Advanced countries	2089.77 (56.41)	1614.30 (43.59)	3704.07 (100)
Emerging markets	444.05 (52.26)	405.67 (47.74)	849.72 (100)
Asia	904.57 (66.96)	446.41 (33.04)	1350.97 (100)
India	56.08 (78.96)	15.10 (21.04)	71.78 (100)
World	2533.82 (55.64)	2019.97 (44.36)	4553.79 (100)

Source: Swiss Re, Sigma No.3/2016
cent

Figures in brackets indicate market share in per cent

MARKET SHARE:

The market share of private insurers in first year premium was 29.50 in 2015-16 (30.73 per cent in 2014-15). The same for LIC was 70.50 percent (69.27 percent in 2014-15). Similarly, in renewal

premium, LIC continued to have a higher share at 73.90 percent (75.04 percent in 2014-15) when compared to 26.10 percent (24.96 percent in 2014-15) share of private insurers.

Table 4. MARKET SHARE: LIFE INSURERS

LIC	73.05	72.61
Private Sector	26.95	27.39
Total	100.00	100.00

NEW POLICIES:

During 2015-16 life insurers issued 267.39 lakh new policies, out of which LIC issued 205.47 lakh policies (76.84 per cent of total policies issued) and the private life insurers issued 61.92 lakh policies (23.16 per cent of total new policies issued). The private sector registered a growth of 7.92 percent with a good improvement against a decline of 9.79 percent in 2014-15 in the number

of new policies issued against the previous year. While LIC registered a slight growth of 1.86 per cent with a significant improvement (against a decline of 41.55 percent in 2014-15) in the number of new policies issued. Over all the industry witnessed a 3.20 per cent growth (against the decline of 36.61 per cent in 2014-15) in the number of new policies issued.

TABLE 5. NEW POLICIES ISSUED: LIFE INSURERS (In lakh)

Insurer	2014-15	2015-16
LIC	201.71 (-41.55)	205.47 (1.86)
Private Sector	57.37 (-9.79)	61.92 (-7.92)
Total	259.08 (-36.61)	267.39 (3.20)

Figures in brackets indicate growth (in per cent) over previous year.

EXPANSION OF OFFICES:

The decreasing trend of number of insurance offices which had continued until 2012-13) had

reverted from 2013-14 and there is an increase in 2015-16 at 11071 from 11033 in the previous year.

Table 6. NUMBER OF LIFE INSURANCE OFFICES (As on 31st March)

Insurer	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Private	3072	6391	8785	8768	8175	7712	6759	6193	6156	6179
LIC	2301	2522	3030	3250	3371	3455	3526	4839	4877	4892
Industry	5373	8913	11815	12018	11546	11167	10285	11032	11033	11071

All the above data prove that the LPG is incorporating a positive influence on LIC of India and its performance.

I. OPPORTUNITIES OF LIC:

Liberalization is beneficial to LIC or not? Its impact on LIC has been studied under opportunities and challenges.

- a) *Untapped Market:* Only 22 per cent of Life Insurance market is covered. Rural and health care insurance, which presently is untapped, will contribute significantly to the growth of insurance business.
- b) *Trusted by Customer Credibility/ Brand Equity :* LIC has an edge over private players in terms of trust and brand equity, since it is the India's trusted service brand as per annual brand survey 2003 conducted by the Economic Times and ORG Marg. This can be taken as advantage by the company.
- c) *Wider Agency Net work:* True, LIC has a wide network of branches and agents.
- d) *Deep Rural Reach:* LIC of India can reach rural areas by making use of available wider agency network.
- e) *Spread of Risk:* LIC has the advantage of spreading the risk over its policies, since it is the market leader with sale of more policies. It can therefore absorb any loss.
- f) *Strong Infrastructure:* Internet based business has great potential in life insurance business in coming years due to its convenience but it will depend on the development of the basic infrastructure.
- g) *Economies of scale:* LIC of India has the benefit of economies of scale when compared to private players.
- h) *Emerging Indian Middle Class:* India shining. With development of economy majority of the low class people are entering into the middle class with surplus funds. These surpluses may motivate them to go for life insurance policies.

Hence, LIC has to take this as opportunity to maintain market leader position or to increase the market share.

II. CHALLENGES OF LIC:

Because of the challenges in the entire environment caused by globalization and liberalization the industry is facing the following challenges:

- a) The existing insurer, LIC have created large group of dissatisfied customers due to the poor quality of service. Hence there will be shift of large number of customers from LIC to the private insurers.
- b) Impact of GST on Insurance sector is to be seen.
- c) The corporate clients under group schemes and salary saving schemes may shift their loyalty from LIC to the private players.
- d) There is a likelihood of exit of young dynamic managers from LIC to the private insurer, as they will get higher package of remuneration.
- e) LIC has overstaffing. The operating costs of LIC will not be reduced. This will be a disadvantage in the competitive market, as the new insurers will operate with lean office and high technology to reduce the operating costs.
- f) Reaching the consumer expectations on par with foreign companies such as better yield and much improved quality of service particularly in the area of settlement of claims, issue of new policies, transfer of the policies and revival of policies in the liberalized market is very difficult to LIC.
- g) Intense competition from new insurers in winning the consumers by multi distribution channels, which will include agents, brokers, corporate intermediaries, bank branches, affinity groups and direct marketing through telesales and interest.
- h) Major challenges in canalizing the growth of insurance sector are product innovation,

distribution network, investment management, customer service and education.

III. RECOMMENDATIONS AND SUGGESTIONS

Indian insurance industry needs the following to meet the global challenges:

- a) Understanding the customer better will enable insurance companies to design appropriate products, determine price correctly and increase profitability.
- b) For the development of the life insurance sector, improvement in the insurance density and insurance penetration is a must. Hence, efforts need to be instituted for such improvement.
- c) The life insurers should conduct more extensive market research before introducing insurance products targeted at specific segments of the population so that insurance can become more meaningful and affordable.
- d) Consumer awareness campaign should be encouraged to improve financial literacy/ insurance literacy levels by conducting workshops, distributing leaflets, distributing literature etc, in both urban and rural areas.
- e) An efficient CRM system, which would eventually create sustainable competitive advantage and build a long lasting relationship.
- f) Insurers must follow best investment practices and must have a strong asset management company to maximize returns.
- g) Insurers should increase the customer base in semi urban and rural areas, which offer a huge potential.
- h) Promoting health insurance and using e-broking to increase the business.
- i) Promoting products Tele marketing and Internet based marketing of insurance need to be encouraged.

- j) The liberalization of the Indian insurance sector has both pros and cons. The ill effects of liberalization on insurance industry can be lessen by promoting healthy competition among the life insurers and keeping the interest of common people above profit motive of the insurers.

IV. CONCLUSION:

India is poised to experience main changer in its insurance markets insurer will operate in an increasingly deregulator and liberalized environment. However in spite of the liberalization LIC will continue to maintain their dominant position in the market at least in the for seeable future. However given the enormous potential of Indian market, it is the for the LIC to utilize IT, Develop Human Resource, maintain strong relationships with intermediaries, redefine marketing strategies, go to new innovative capital market solutions, likes Bonds, Equities, Funds, Derivatives etc., come out with new products better packaging and improved customer service. The challenges have to be converted in to opportunities for maintaining its market leader position.

In the present environment where change is the order of the day it is not enough if we change with change, but we have to change before the change.

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STOCK MARKET REACTION TO OPERATIONAL RISK EVENTS: AN EMPIRICAL ANALYSIS OF THE J&K BANK LIMITED.

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ABSTRACT

Over the past three decades, Operational risk has evolved as a disastrous risk threatening the survival of financial industry globally. There is now a shift in treatment of this risk from being considered merely an idiosyncratic type to a systemic risk category. These changes have triggered a movement for determining explicit capital allocation in banks to cover their unexpected losses arising out of such a risk category. However, such a pursuit of achieving more safety has exposed banks to severe challenges in the form of development of both operational risk events database and robust risk measurement systems. Aftermath these challenges, banks have heavily invested in information technology so that adequate proprietary data bases of historical Operational risk events and sophisticated measurement models are developed. At the same time, maturity and the level of disclosures about operational risk events by the financial industry in the mature economies of the world have increased tremendously, however, such disclosures of Operational risk events by the financial industry in India though continues to be at a nascent stage. Due to this problem, the subject of Operational risk has caught less attention of the researches in India. Given the difficulties of paucity of data about operational risk events, the present study using alternate means has related print and electronic media reported operational risk events with the performance of a select banking firm to find out if such events cause adverse effects on its market performance. For this purpose, a sample comprising of wide ranging operational risk events of the select banking firm have been collected for the period 2010 -2015. The study uses OLS regression analysis by employing single factor and two factor methodology to investigate the effect of operational risk events on the market performance of the selected banking firm.

Introduction

Over last three decades, financial industry across the world has witnessed increased emphasis on the management of operational risk. Unlike credit and market risk that arise due to financial exposures, operational risk comes from the operations of a business. Operational risk is not a new issue facing financial industry, however, it is the first risk that banks must manage, even before they disburse their first loan or execute their first trade. It has always been important for banks to prevent frauds, maintain integrity of internal controls, and reduce errors in transaction processing, and so on. Today, Operational risk has

assumed second major risk position next to credit risk because of the fact that most of the large and disastrous losses in financial industry during this time were due to it.

Over recent past, Operational risk in financial industry has increased tremendously due to many reasons. First, during early nineties, a movement with emphasis on transformation of manual processes into automotive operations by shifting to sophisticated and latest information technology started in the Indian financial industry. With these interventions, efficient modes of banking provided by ATM's, POS terminals, e-banking, internet banking, and mobile banking were introduced.

These revolutionary inventions giving an impetus to the volume and scale of business transactions led to a tremendous increase in operational risk exposure of the overall financial industry. Second, at the same time financial industry went through new trends in the form of globalization and deregulation of financial markets. Due to these measures, financial industry got liberty to design and offer products that resulted in mushrooming of new products in the markets. Increase in the number of products offered by financial institutions increased the nature and complexity of such products and thereby increase in their associated operational risk.

Consequent to deregulation and globalization of financial services coupled with the growing sophistication of financial technology, activities of banks and their profiles have become more complex and complicated. First, highly automated technology and its greater use if not controlled properly, has the potential to transform risks from natural processing errors to systems failure risks, as greater reliance is placed on integrated systems. Second, emergence of e-commerce has brought with it potential risks (e.g. internal and external fraud and system security issues). Third, banks acting as very large volume services providers create the need for consistent maintenance of high-grade internal controls and back-up systems. Fourth, growing dependence on outsourcing arrangements by banks and their participation in clearing and settlements systems though mitigates some risks but can give rise to new kinds of risks to banks. Fifth, large-scale acquisitions, mergers, de-mergers and consolidations test the viability of new or newly integrated systems and finally, banks engage in risk mitigation techniques (e.g. collateral, derivative, netting arrangements and asset securitization) to optimise their exposure to market and credit risk, which in turn may produce other forms of risk (e.g. legal risk).

Due to all these developments, operational risk exposure in the banking industry has increased substantially kick starting a global regulatory movement which stressed for introduction of revised management framework to handle

operational risk exposures followed by explicit capital charge towards operational risk. Despite global regulatory intervention to encourage financial institutions for undertaking Operational risk management in a scientific manner, much progress has not been achieved by the industry in India. A little headway has been made in the area of Operational risk management by banks in India which include maintenance of explicit capital charge for Operational risk using gross income based Basic Indicator Approach. The banks in India have recently begun to invest in information technology so that adequate proprietary data bases of historical Operational risk events are developed. The disclosure of Operational risk continues to be at a nascent stage. Due to inadequate development of operational risk thought in the banking industry and reluctance of banks to report publicly their operational risk events, this subject has caught less attention of the researches in India. The lack of sufficient data has been a stumbling block in the path of development of sufficient research literature in this area. Considering these difficulties, the present study attempts to relate the print and electronic media reported operational risk events with the market performance of the select banking firm. Various cross checks have been used to ensure the authenticity of the observed operational risk events. These cross checks include validation of publicly observed operational loss events from the concerned bank authorities as well as local government vigilance agencies. After following these procedures, a total of 12 operational risk events mostly in the form of external fraud and cheating have been included in the study. The study uses least square regression analysis by employing single factor methodology and two factor methodology to investigate the effect of operational risk loss event announcements on the market performance of the bank. In the first section, the study introduces the banking firm, the second section covers review of literature followed by third and fourth section which sets the objectives, statement of hypothesis. The fifth section is about data and methodology and sixth section covers results and discussion and finally whole study is summarised in the conclusion.

Overview of the Bank under study

The organisation under study known as Jammu and Kashmir Bank (J&K Bank) is a commercial Bank that was incorporated on October 1, 1938. J&K Bank is the only state-government-owned scheduled commercial bank in India. As per its annual report for the year 2016-17, the total number of its branches and ATM's stood at 865 and 1097 respectively on 31-03-2017. Moreover, bank registered a total of 10022 permanent employees on its rolls as on March 31, 2017. The bank recognises operational risk exposure in terms of capital allocation as the second important regulatory risk along with three other main risk categories that includes credit and market risk. Operational risk has been defined by the bank as a risk that arises from processing errors, frauds, system disruptions, or any unanticipated event, which can hamper the institutions ability to deliver the promised services. Frauds and embezzlements being considered as major operational risks, an explicit provision to safeguard the interest of the bank against these has been set out with a balance of 1.39 crores as on 31-03-2017. Operation risk is a pure risk category that generally leads to near misses or financial or non-financial losses to the incurring bank. In India, banks unlike their counterparts in US and other developed countries do not follow market disclosure practice of operational risk loss events. This is due to two reasons mainly. First, high severity operational loss incurring bank is reluctant to disclosures apprehending that such a move could lead to a severe detrimental effect to its market reputation. Second, market disclosure by the banking industry in India has not matured over time due to the lack of regulatory interest. The degree of market efficiency and level of information disclosures by the firms is generally understood to be a integral process. Given the non-availability of sufficient information about operational risk loss events faced by the banks in India, an empirical study to evaluate the market response of announcements of operational risk events like, frauds and robberies etc seems almost impossible. Alternatively, the present study attempts to obtain accidentally disclosed operational risk events like robberies,

frauds and financial irregularities reported by print and electronic media to assess the impact of such events on the market value of the loss incurring banking firm.

Review of literature

Empirical studies on operational risk have shown that a firm can suffer a market value decline in the days surrounding the announcement of a large loss that is significantly larger than the loss itself. One of the earliest studies dealing with this issue is that of Commins et al. (2005) which revealed that there is a significantly negative bank stock market response to operational loss announcements. Further the study reveals that the market value of the stocks of banking firms with better growth prospects have larger response to operational risk announcements. Perry and Fontneuve (2005) conducted an empirical study to assess the market reaction to operational loss announcements and found that the market value of stocks fall one for one with operational losses caused by the external events, but falls by over twice the operational loss in cases involving internal frauds. Karpoff and Lott (1993) analysed the reputational losses that firms experience when they face criminal fraud charges. By using events of this sort that occurred over the period 1978-1987, they found that alleged or actual corporate fraud announcements produce statistically significant losses in the underlying firm's market value. Moosa and Silvapulle (2012) argue that there is an adverse effect on stock price and market value of the announcing bank by the announcement of operational losses. The study also revealed that there is no systematic relation between losses and bank characteristics such as size and leverage. The decline in market value relative to the loss amount is found to be independent of the type of the underline loss event. Gillet et al. (2010) conducted a study on the operational risk and reputation in the financial industry. The results of their study show that there is a significant negative abnormal return at the announcement date of the operational loss. Also, when the operational loss is caused by internal fraud, the loss in the market value is greater than the operational loss amount announced. Karpoff

et al. (1993) conducted a study on the reputational penalty firms bear by committing criminal fraud. They concluded that on an average, alleged or actual corporate fraud announcements of stakeholders or government correspond to an economically and statistically significant loss in the accused firm's common stock market value. Sturn (2013) conducted a study on the operational and reputational risk in the European banking industry. The results of their study revealed that the stock market prices react negatively to the settlement announcement as losses are confirmed and the loss amount is known. The cumulative abnormal returns are negative following the date of the initial news article and the settlement date indicating damages to the reputation of the firm suffering the operational loss. Lamb (1998) argues that stock returns were adversely affected by the Hurricane Andrew, an external operational loss event. The author further argues that a natural disaster may have two opposing effects in the value of stock prices. A negative effect is hypothesised due to the payment claims and a positive effect may be due to expectations of higher future prices.

Objectives of the Study

The present study has been undertaken to achieve following objectives:

1. To identify and validate operational risk events of the bank under study reported in the print media.
2. To investigate whether operational loss event announcements have any impact on the market value of the Bank.

Hypothesis:

In line with the objectives, the study proposes to test the following hypotheses:

$H_{0(1)}$: Announcement of occurrence of operational loss events do not have any significant negative impact on the stock price of the financial institution incurring the loss.

$H_{1(1)}$: Announcement of occurrence of operational loss events have a significant negative impact on the stock price of the financial institution incurring the loss.

$H_{0(2)}$: The impact on stock price due to operational loss events does not differ depending on the event type of the loss event.

$H_{1(2)}$: The impact on stock price due to operational loss events does not differ depending on the event type of the loss event.

Data and methodology:

A total of twelve operational risk events identified from various secondary sources (electronic and print media) which were reported during the period April 2009 to March 2015 have been considered to investigate the effect of operational risk events on the market value of the bank. These include wide ranging events like, fraud, robbery, fake currency dispensation and regulatory penalty (See Table 1). Most of these events have occurred within the geography of Jammu & Kashmir state which is the domicile of the bank under study. Due to unavailability of sufficient operational risk events, the study doesn't use any threshold level for the loss amount of operational risk events. All the events irrespective of whether reported loss amount is significant or not have been used in the study. Further, our objective is to investigate market value loss of the bank due to operational failures by linking the impact of event announcements with the changes in market value of its equity, we believe size of the loss is immaterial to the consequent market value loss.

Table: 1 Classification of Operational Risk Events of J&K Bank by type and amount

S. No	Nature of Operational Risk Event	Amount of Loss (Rs.)	Date on which reported
1.	Cash Robbery	25,000	04-04-2011
2.	ATM cash robbery	11,00,000	31-08-2011
3.	Internal Fraud	4,60,000	18-10-2012
4.	Regulatory Penalty	2,50,00,000	16-06-2013
5.	Dispensation of Fake currency	500	03-08-2013
6.	Internal Fraud	40,000	13-09-2013
7.	Looting of cash	2,80,000	03-11-2013
8.	Internal Fraud	22,00,00,000	15-03-2014
9.	Dispensation of Fake currency	500	22-08-2014
10.	External Fraud	1,50,00,00,000	16-12-2014
11.	Dispensation of Fake currency	1,000	10-03-2015
12.	Internal Fraud	4,00,00,000	12-02-2015

source: local electronic and print media

To investigate the impact of sample operational risk event announcements on the value of the given banking firm, the study has used event study analysis. Event study is a popular analysis method used to assess the impact of an event on the performance of a firm. For example, the announcement of a merger (a takeover), change in management or an issue of dividend payment. All of such events can be analysed to see how they affect the firm's performance and how company's share price reacts to such events so that financial analysts can refer to this experience to make better prediction in the future about whether a similar event will have a positive or negative influence.

In order to investigate impact of operational risk events on the market value of the banking firm, multiple samples of stock returns around different events are used first to estimate expected returns, abnormal returns and cumulative abnormal returns and then to test the significance of impact. The study uses two methods, a single factor market model and two factor model that includes an additional industry specific factor apart from the market factor for analysis. Under the single factor model, expected return of the given banking firm is estimated as:

$$er_{i,t} = \alpha_0 + \beta_1 r_{mk,t} + \varepsilon_{i,t}$$

Where β_1 is the expected stock rate of return of the J&K bank stock on day t; $r_{mk,t}$ is the actual rate of return on S&P500 (benchmark) on day t. α_0 and β_1 are the two parameter estimates and are determined using least square regression from a sample of daily returns of 250 trading days prior to the date of event window set around a given operational risk event. An event window is the time frame used to investigate the impact of operational risk event on the market value of the equity of the firm. We have chosen this event window as -5 and +5 days around the date on which a certain operational risk event has occurred/ reported. Next, we estimate abnormal return over various event windows using following equation:

Where $acr_{i,t}$ stands for the abnormal returns of event i on the day t and is the difference between daily actual returns and daily expected returns in the test period. $acr_{i,t}$ is the actual return of event i on day t and $er_{i,t}$ is the expected return on that day.

The single factor model is in fact an over simplification. It assumes that stocks move together only because of co-movement with the market. Many researchers have found that there are influences other than the market that cause stocks to move together. Two factor-model attempts to identify and incorporate these non market or extra market factors that cause securities to move together. The extra market factors are a set of economic factors that account for common movement in stock prices that are unaccounted for by the market index itself. We measured the expected returns over various windows using two-factor model as:

$$er_{i,t} = \alpha_0 + \beta_1 r_{mk,t} + \beta_2 r_{ind,t} + \varepsilon_{i,t}$$

Where $r_{i,t}$ is the stock rate of return of the J&K bank of event i on day t ; α is the intercept of the regression line and stands for risk free rate; β_1 is the sensitivity of the daily returns on the stock of the banking firm on the market index, β_2 is the sensitivity of the returns on the stock of the banking firm on the industry index. The abnormal return over various windows is calculated using following equation.

Where $acr_{i,t}$ stands for the abnormal returns of event i on the day t and is the difference between daily actual returns and daily expected returns in the test period. $acr_{i,t}$ is the actual return of event i on day t and $er_{i,t}$ is the expected return on that day.

Results and Discussion

In the following segment, we conduct event-wise analysis of abnormal returns on the stock of the banking firm under study both for pre and post event window period to study the impact of operational risk loss announcements on the value of the firm. To have a robust analysis, both single factor and two factor models are used to investigate the effect of operational risk events and to test the hypothesis. In the end, results of all the events are summarised to assess the overall impact of operational risk loss events on the market value of the firm.

Event 1 A gang of thieves breaks into business unit Chanderkote Ramban on 04/04/2011.

Loss amount: Rs. 25,000

$$acr_{i,t} = acr_{i,t} - er_{i,t}$$

Table 2 Abnormal and Cumulative Abnormal Returns of event 1

		One factor model						Two factor model				
Date	Window	ACR	ER	AR	CAR	T-Static	Sig.	ER	AR	CAR	T-test	Sig.
28-Mar-11	-5	0.6%	0.47%	0.13%	0.13%	0.07076	NO	0.7%	-0.10%	-0.10%	-0.055	NO
29-Mar-11	-4	3.8%	0.61%	3.23%	3.36%	1.804844	NO	0.17%	3.66%	3.57%	2.076	YES
30-Mar-11	-3	8.0%	0.92%	7.13%	10.49%	3.98148	YES	1.0%	7.02%	10.59%	3.977	YES
31-Mar-11	-2	-0.6%	0.48%	-1.04%	9.45%	-0.57799	NO	-0.2%	-0.36%	10.22%	-0.206	NO
1-Apr-11	-1	-0.6%	0.34%	-0.93%	8.53%	-0.51693	NO	-0.3%	-0.29%	9.93%	-0.166	NO
4-Apr-11	0	1.1%	1.21%	-0.13%	8.40%	-0.0747	NO	1.2%	-0.08%	9.85%	-0.045	NO
5-Apr-11	+1	0.0%	0.30%	-0.34%	8.05%	-0.19118	NO	0.0%	-0.08%	9.77%	-0.043	NO
6-Apr-11	+2	0.4%	0.00%	0.45%	8.50%	0.249544	NO	-0.2%	0.64%	10.42%	0.364	NO
7-Apr-11	+3	0.3%	0.19%	0.07%	8.57%	0.041476	NO	0.2%	0.09%	10.50%	0.049	NO
8-Apr-11	+4	-2.6%	-0.67%	-1.89%	6.69%	-1.05453	NO	-0.5%	-2.09%	8.42%	-1.182	NO
11-Apr-11	+5	-0.3%	-0.68%	0.33%	7.02%	0.186534	NO	-0.5%	0.17%	8.58%	0.094	NO

Post event, there is immediately a positive change in the returns of the stock, however, it is found to be statistically insignificant.

Event 2 Burglars decamp with ATM, cash from business unit Parray Pora on 31/08/2011.

Loss amount: Rs.11,00,000

Table 3 Abnormal and Cumulative Abnormal Returns of event 2

		One factor model						Two factor model				
Date	Window	ACR	ER	AR	CAR	T-Static	Sig.	ER	AR	CAR	T-test	Sig.
24-Aug-11	-5	0.3%	-0.7%	1.0%	1.0%	0.6	NO	-0.9%	1.2%	1.19%	0.73	NO
25-Aug-11	-4	-1.4%	-0.6%	-0.8%	0.2%	-0.5	NO	-0.8%	-0.6%	0.59%	-0.37	NO
26-Aug-11	-3	0.7%	-1.5%	2.3%	2.5%	1.4	NO	-1.5%	2.2%	2.81%	1.35	NO
29-Aug-11	-2	-1.5%	2.3%	-3.9%	-1.4%	-2.3	YES	2.4%	-3.9%	-1.10%	-2.38	YES
30-Aug-11	-1	2.2%	1.1%	1.1%	-0.2%	0.7	NO	1.3%	1.0%	-0.15%	0.58	NO
2-Sep-11	0	1.5%	0.6%	0.9%	0.7%	0.6	NO	0.3%	1.2%	1.08%	0.74	NO
5-Sep-11	+1	0.3%	-0.1%	0.5%	1.1%	0.3	NO	0.2%	0.2%	1.25%	0.10	NO
6-Sep-11	+2	0.3%	0.5%	-0.2%	1.0%	-0.1	NO	0.3%	0.0%	1.25%	0.00	NO
7-Sep-11	+3	0.1%	1.0%	-0.9%	0.1%	-0.5	NO	1.2%	-1.1%	0.17%	-0.66	NO
8-Sep-11	+4	-0.8%	0.3%	-1.2%	-1.1%	-0.7	NO	0.4%	-1.3%	-1.09%	-0.77	NO
9-Sep-11	+5	4.4%	-1.2%	5.6%	4.5%	3.3	YES	-1.4%	5.8%	4.69%	3.51	YES

Again, results in the Table 3 reveal that there is negative though statistically insignificant impact during +2,+3,+4 and+5 period as per one factor model and +3, +4 day as per two factor model.

Event 3 Bank officials fraudulently withdrew money from four savings accounts in Kishtwar branch without the authority of the account holders on 18/10/2012.

Loss amount: Rs 4,60,000

Table 4 Abnormal and Cumulative Abnormal Returns of event 3

		One factor model						Two factor model				
Date	Window	ACR	ER	AR	CAR	T-Static	Sig.	ER	AR	CAR	T-test	Sig.
11-Oct-12	-5	2.9%	0.7%	2.2%	-2.6%	1.44	NO	0.7%	2.2%	2.2%	1.44	NO
12-Oct-12	-4	4.6%	-0.1%	4.7%	-5.7%	3.09	YES	-0.1%	4.7%	6.9%	3.08	YES
15-Oct-12	-3	2.1%	0.2%	2.0%	-6.4%	1.29	NO	0.2%	2.0%	8.9%	1.29	NO
16-Oct-12	-2	0.3%	-0.3%	0.7%	-6.2%	0.45	NO	-0.3%	0.7%	9.5%	0.45	NO
17-Oct-12	-1	0.4%	0.2%	0.2%	-3.9%	0.14	NO	0.2%	0.2%	9.8%	0.14	NO
18-Oct-12	0	-0.3%	0.7%	-1.0%	-3.6%	-0.66	NO	0.7%	-1.0%	8.8%	-0.65	NO
19-Oct-12	+1	-0.8%	-0.3%	-0.5%	-5.3%	-0.33	NO	-0.3%	-0.5%	8.3%	-0.33	NO
22-Oct-12	+2	-1.7%	0.3%	-2.0%	-4.1%	-1.33	NO	0.3%	-2.0%	6.3%	-1.32	NO
23-Oct-12	+3	2.3%	-0.2%	2.5%	-3.4%	1.62	NO	-0.2%	2.5%	8.7%	1.62	NO
25-Oct-12	+4	0.4%	0.2%	0.2%	-3.6%	0.15	NO	0.2%	0.2%	9.0%	0.15	NO
26-Oct-12	+5	-1.6%	-0.4%	-1.1%	-1.4%	-0.74	NO	-0.4%	-1.1%	7.8%	-0.73	NO

Table 4 results reveal that single factor model shows negative abnormal returns for a couple of days post event, however, two factor model shows positive abnormal return post event day.

Event 4 Regulatory penalty imposed on the bank for violating know your customer/Anti money laundering guidelines on 16/06/2013.

Loss amount: Rs 2,50,00,000

Table 5 Abnormal and Cumulative Abnormal Returns of event 4

		One factor model						Two factor model				
Date	window	ACR	ER	AR	CAR	T-Static	Sig.	ER	AR	CAR	T-test	Sig.
10-Jun-13	-5	0.4%	-0.2%	0.7%	0.7%	0.4	NO	-0.3%	0.8%	0.75%	0.47	NO
11-Jun-13	-4	-0.8%	-1.2%	0.4%	1.1%	0.2	NO	-1.2%	0.4%	1.15%	0.25	NO
12-Jun-13	-3	-1.1%	-0.4%	-0.7%	0.4%	-0.4	NO	-0.3%	-0.8%	0.36%	-0.49	NO
13-Jun-13	-2	-3.4%	-1.0%	-2.4%	-2.0%	-1.5	NO	-0.9%	-2.5%	-2.15%	-1.57	NO
14-Jun-13	-1	-0.2%	1.5%	-1.6%	-3.6%	-1.0	NO	1.4%	-1.6%	-3.70%	-0.97	NO
17-Jun-13	0	0.0%	0.6%	-0.6%	-4.3%	-0.4	NO	0.6%	-0.5%	-4.24%	-0.34	NO
18-Jun-13	+1	0.0%	-0.2%	0.2%	-4.1%	0.1	NO	-0.3%	0.3%	-3.96%	0.18	NO
19-Jun-13	+2	-0.1%	0.3%	-0.4%	-4.5%	-0.3	NO	0.3%	-0.4%	-4.37%	-0.26	NO
20-Jun-13	+3	-1.1%	-2.1%	1.0%	-3.5%	0.6	NO	-2.1%	1.0%	-3.36%	0.63	NO
21-Jun-13	+4	-1.9%	0.0%	-1.9%	-5.4%	-1.2	NO	-0.1%	-1.8%	-5.20%	-1.15	NO
24-Jun-13	+5	-4.1%	-1.3%	-2.8%	-8.2%	-1.7	NO	-1.2%	-2.9%	-8.11%	-1.81	NO

Results given in the Table 5 above reveal that there is negative impact on the equity value of the banking firm in the second day after the happening of the given operational risk event. Again, impact

due to operational risk event is found to be statistically insignificant.

Event 5Dispensation of counterfeit currency by ATM located at Wathoor a on 03/08/2013.

Loss amount: Rs 500

Table 6 Abnormal and Cumulative Abnormal Returns of event 5

		One factor model						Two factor model				
Date	Window	ACR	ER	AR	CAR	T-Static	Sig.	ER	AR	CAR	T-test	Sig.
29-Jul-13	-5	-2%	-0.9%	-0.7%	-0.66%	-0.40	NO	-0.9%	-0.7%	-0.71%	-0.43	NO
30-Jul-13	-4	-1%	-1.5%	0.6%	-0.06%	0.37	NO	-1.3%	0.4%	-0.28%	0.26	NO
31-Jul-13	-3	2%	-0.2%	2.0%	1.98%	1.25	NO	-0.4%	2.3%	2.04%	1.42	NO
1-Aug-13	-2	-2%	-0.6%	-1.2%	0.78%	-0.74	NO	-0.2%	-1.6%	0.44%	-0.98	NO
2-Aug-13	-1	0%	-0.8%	0.6%	1.36%	0.35	NO	-0.8%	0.6%	1.03%	0.36	NO
5-Aug-13	0	2%	0.3%	1.7%	3.05%	1.04	NO	0.4%	1.6%	2.61%	0.96	NO
6-Aug-13	+1	-5%	-2.5%	-2.9%	0.18%	-1.76	NO	-2.5%	-2.8%	-0.21%	-1.73	NO
7-Aug-13	+2	-2%	0.1%	-2.4%	-2.27%	-1.50	NO	0.2%	-2.5%	-2.75%	-1.56	NO
8-Aug-13	+3	-2%	0.9%	-3.3%	-5.62%	-2.05	YES	0.8%	-3.2%	-6.00%	-1.98	YES
12-Aug-13	+4	5%	1.0%	3.9%	-1.74%	2.37	YES	0.6%	4.3%	-1.67%	2.65	YES
13-Aug-13	+5	-1%	1.6%	-2.9%	-4.66%	-1.79	NO	1.7%	-3.1%	-4.74%	-1.88	NO

The analysis of the event 5 reveals that both single and two factor model provide evidence about the negative impact on market value of equity of the banking firm due the give operational risk event during the +3 day post event period, however, this impact is not found to be statistically significant during the first two days. The impact

on the market value of the firm is found to be statistically significant only on the third day.

Event 6Internal Fraud committed at business unit Bakshi Nagar Jammu and Government Medical Collage Srinagar by withdrawing unauthorisedly from the accounts of a customer 13/09/2013.

Loss amount: Rs 40,000

Table 7 Abnormal and Cumulative Abnormal Returns of event 6

		One factor model						Two factor model				
Date	Window	ACR	ER	AR	CAR	T-Static	Sig.	ER	AR	CAR	T-test	Sig.
5-Sep-13	-5	6.5%	2.1%	4.5%	4.5%	2.47	YES	3.1%	3.4%	3.43%	1.90	NO
6-Sep-13	-4	2.3%	1.2%	1.1%	5.6%	0.64	NO	1.4%	1.0%	4.39%	0.53	NO
10-Sep-13	-3	5.0%	2.8%	2.2%	7.8%	1.23	NO	2.5%	2.5%	6.93%	1.41	NO
11-Sep-13	-2	-2.0%	0.6%	-2.6%	5.2%	-1.43	NO	0.7%	-2.7%	4.19%	-1.52	NO
12-Sep-13	-1	-0.4%	-0.8%	0.4%	5.7%	0.24	NO	-0.9%	0.5%	4.69%	0.28	NO
13-Sep-13	0	-2.2%	0.1%	-2.3%	3.4%	-1.29	NO	0.2%	-2.3%	2.37%	-1.29	NO
16-Sep-13	+1	-2.2%	-0.1%	-2.1%	1.3%	-1.14	NO	0.2%	-2.4%	-0.06%	-1.34	NO
17-Sep-13	+2	0.0%	0.2%	-0.1%	1.2%	-0.07	NO	0.0%	0.0%	-0.04%	0.01	NO
18-Sep-13	+3	0.8%	0.7%	0.1%	1.2%	0.04	NO	0.8%	0.0%	-0.07%	-0.01	NO
19-Sep-13	+4	3.9%	2.9%	1.0%	2.2%	0.55	NO	3.3%	0.6%	0.54%	0.34	NO
20-Sep-13	+5	-2.6%	-1.2%	-1.4%	0.9%	-0.76	NO	-1.6%	-1.0%	-0.48%	-0.56	NO

The results in the Table 7 above reveal statistically insignificant impact on the market value of equity of the firm due to the operational risk event in +1 time period post event.

Event 7 Robbers loot cash from business unit Rahmoo Pulwama on 03/11/2013.

Loss amount: Rs 2,80,000

In case of the event 7 listed below, we observe that there is statistically insignificant impact on +1, and +5 days post event date given by both the models.

Table 8 Abnormal and Cumulative Abnormal Returns of event 7

		One factor model						Two factor model				
Date	Window	ACR	ER	AR	CAR	T-Static	Sig.	ER	AR	CAR	T-test	Sig.
28-Oct-13	-5	-2.4%	-0.7%	-1.7%	-1.7%	-1.0	NO	-0.7%	-1.7%	-1.69%	-0.96	NO
29-Oct-13	-4	1.6%	1.8%	-0.1%	-1.8%	-0.1	NO	2.2%	-0.6%	-2.24%	-0.31	NO
30-Oct-13	-3	-0.4%	0.4%	-0.8%	-2.7%	-0.5	NO	0.3%	-0.7%	-2.94%	-0.40	NO
31-Oct-13	-2	6.3%	0.8%	5.5%	2.8%	3.1	YES	1.0%	5.3%	2.34%	3.00	YES
1-Nov-13	-1	-0.6%	0.5%	-1.1%	1.7%	-0.6	NO	0.6%	-1.3%	1.06%	-0.73	NO
3-Nov-13	0	0.3%	0.4%	-0.1%	1.6%	0.0	NO	0.3%	0.1%	1.15%	0.05	NO
5-Nov-13	+1	-0.8%	-0.7%	-0.2%	1.5%	-0.1	NO	-0.6%	-0.2%	0.95%	-0.11	NO
6-Nov-13	+2	0.2%	-0.4%	0.6%	2.1%	0.4	NO	-0.7%	0.9%	1.87%	0.52	NO
7-Nov-13	+3	-1.0%	-0.7%	-0.2%	1.9%	-0.1	NO	-1.0%	0.0%	1.87%	0.00	NO
8-Nov-13	+4	1.4%	-0.5%	1.9%	3.7%	1.0	NO	-0.6%	2.0%	3.83%	1.11	NO
11-Nov-13	+5	-2.1%	-0.9%	-1.2%	2.6%	-0.7	NO	-0.9%	-1.2%	2.67%	-0.66	NO

Event 8 Land compensation scam surfaces at Lethpora pulwama business unit on 15/03/2014

Loss amount: Rs 220,000,000

Table 9 Abnormal and Cumulative Abnormal Returns of event 8

		One factor model						Two factor model				
Date	Window	ACR	ER	AR	CAR	T-Static	Sig.	ER	AR	CAR	T-test	Sig.
10-Mar-14	-5	4.1%	0.3%	3.8%	3.8%	2.11	YES	0.6%	3.5%	3.54%	1.95	NO
11-Mar-14	-4	4.5%	-0.4%	4.9%	8.7%	2.68	YES	-0.4%	4.9%	8.39%	2.67	YES
12-Mar-14	-3	-1.2%	0.1%	-1.3%	7.4%	-0.71	NO	0.0%	-1.2%	7.16%	-0.68	NO
13-Mar-14	-2	-2.6%	-0.4%	-2.3%	5.2%	-1.25	NO	-0.1%	-2.6%	4.56%	-1.43	NO
14-Mar-14	-1	-0.3%	0.1%	-0.4%	4.8%	-0.22	NO	-0.1%	-0.3%	4.31%	-0.14	NO
18-Mar-14	0	0.8%	0.5%	0.4%	5.1%	0.21	NO	0.4%	0.4%	4.72%	0.22	NO
19-Mar-14	+1	1.3%	0.2%	1.2%	6.3%	0.63	NO	0.3%	1.1%	5.79%	0.59	NO
20-Mar-14	+2	-0.5%	-0.5%	0.0%	6.3%	0.00	NO	-0.6%	0.1%	5.90%	0.06	NO
21-Mar-14	+3	1.1%	0.3%	0.8%	7.2%	0.47	NO	0.3%	0.8%	6.70%	0.44	NO
22-Mar-14	+4	-0.5%	0.2%	-0.7%	6.5%	-0.38	NO	0.1%	-0.6%	6.06%	-0.36	NO
24-Mar-14	+5	-0.2%	1.0%	-1.2%	5.3%	-0.65	NO	1.2%	-1.4%	4.63%	-0.79	NO

The results given in the Table 9, reveal insignificant positive reaction to the operational risk event 8 by the stock market.

Event 9 Counterfeit currency dispensation by ATM at Dhobi Ghat Batamalo on 22/08/2014

Loss amount: Rs 500

Table 10 Abnormal and Cumulative Abnormal Returns of event 9

		One factor model						Two factor model				
Date	Window	ACR	ER	AR	CAR	T-Static	Sig.	ER	AR	CAR	T-test	Sig.
14-Aug-14	-5	-1.8%	0.8%	-2.6%	-2.6%	-1.17	NO	0.7%	-2.5%	-2.54%	-1.15	NO
18-Aug-14	-4	-1.8%	1.3%	-3.1%	-5.7%	-1.38	NO	1.4%	-3.2%	-5.78%	-1.47	NO
19-Aug-14	-3	-0.1%	0.5%	-0.6%	-6.4%	-0.29	NO	0.4%	-0.5%	-6.30%	-0.24	NO
20-Aug-14	-2	0.1%	-0.1%	0.1%	-6.2%	0.06	NO	-0.1%	0.2%	-6.11%	0.09	NO
21-Aug-14	-1	2.5%	0.2%	2.3%	-3.9%	1.02	NO	0.6%	1.9%	-4.16%	0.88	NO
22-Aug-14	0	0.5%	0.2%	0.3%	-3.6%	0.15	NO	0.5%	0.0%	-4.14%	0.01	NO
25-Aug-14	+1	-2.0%	-0.3%	-1.7%	-5.3%	-0.75	NO	-0.5%	-1.5%	-5.66%	-0.69	NO
26-Aug-14	+2	1.1%	-0.1%	1.2%	-4.1%	0.53	NO	-0.1%	1.2%	-4.43%	0.55	NO
27-Aug-14	+3	1.1%	0.4%	0.7%	-3.4%	0.33	NO	0.4%	0.8%	-3.65%	0.35	NO
28-Aug-14	+4	-0.2%	0.1%	-0.3%	-3.6%	-0.12	NO	0.1%	-0.3%	-3.90%	-0.11	NO
1-Sep-14	+5	3.4%	1.2%	2.3%	-1.4%	1.01	NO	1.1%	2.3%	-1.60%	1.04	NO

The analysis of event 9 reveals statistically insignificant negative impact during +1 and +4 time period post operational risk event announcement.

Event 10 External fraud involving purchase of fake letters of credit surfaces at business unit Ghaziabad on 16/12/2014.

Loss amount: Rs 1,500,000,000

Table 11 Abnormal and Cumulative Abnormal Returns of event 10

		One factor model						Two factor model				
Date	Window	ACR	ER	AR	CAR	T-Static	Sig.	ER	AR	CAR	T-test	Sig.
9-Dec-14	-5	-1.3%	0.4%	-1.7%	-1.7%	-2.3	YES	-0.5%	-0.8%	-0.77%	-1.74	NO
10-Dec-14	-4	0.4%	0.4%	0.0%	-1.7%	0.0	NO	0.6%	-0.1%	-0.90%	-0.30	NO
11-Dec-14	-3	-0.8%	0.1%	-0.8%	-2.5%	-1.1	NO	-0.1%	-0.6%	-1.53%	-1.44	NO
12-Dec-14	-2	-0.9%	0.1%	-1.0%	-3.6%	-1.4	NO	-0.2%	-0.7%	-2.25%	-1.64	NO
15-Dec-14	-1	-0.2%	0.0%	-0.3%	-3.9%	-0.4	NO	0.2%	-0.4%	-2.69%	-0.99	NO
16-Dec-14	0	-2.2%	-0.1%	-2.1%	-5.9%	-2.8	YES	-1.4%	-0.8%	-3.46%	-1.75	NO
17-Dec-14	+1	-0.5%	0.3%	-0.8%	-6.7%	-1.0	NO	0.2%	-0.7%	-4.12%	-1.49	NO
18-Dec-14	+2	2.0%	0.4%	1.6%	-5.2%	2.1	YES	1.3%	0.7%	-3.40%	1.63	NO
19-Dec-14	+3	0.6%	0.2%	0.4%	-4.7%	0.6	NO	0.4%	0.2%	-3.19%	0.49	NO
22-Dec-14	+4	1.1%	0.1%	1.0%	-3.8%	1.3	NO	0.7%	0.3%	-2.85%	0.75	NO
23-Dec-14	+5	-0.6%	0.2%	-0.8%	-4.6%	-1.1	NO	-0.3%	-0.3%	-3.17%	-0.71	NO

The analysis of event 10 shows that there is statistically significant negative impact on the event day and day following and statistically insignificant impact during the remaining post event window of 3 days on the market value of the banking firm due to happening of the fraud involving purchase of fake letters of credit.

Event 11 Small ponzi type internal fraud involving illegal transfer of money from one account to other accounts exposes on 12/02/2015.

Loss amount: Rs 40,000,000

Table 12 Abnormal and Cumulative Abnormal Returns of event 11

		One factor model						Two factor model				
Date	Window	ACR	ER	AR	CAR	T-Static	Sig.	ER	AR	CAR	T-test	Sig.
5-Feb-15	-5	-0.4%	-0.2%	-0.26%	-0.26%	-0.33	NO	-0.2%	-0.2%	-0.20%	-0.45	NO
6-Feb-15	-4	-0.7%	-0.6%	-0.08%	-0.34%	-0.11	NO	-0.7%	0.0%	-0.20%	0.01	NO
9-Feb-15	-3	-1.5%	-2.4%	0.90%	0.56%	1.16	NO	-1.2%	-0.3%	-0.50%	-0.67	NO
10-Feb-15	-2	0.5%	0.2%	0.27%	0.82%	0.35	NO	1.0%	-0.4%	-0.94%	-0.97	NO
11-Feb-15	-1	1.0%	-0.2%	1.19%	2.01%	1.54	NO	0.6%	0.5%	-0.48%	1.02	NO
12-Feb-15	0	1.1%	0.1%	0.99%	3.00%	1.28	NO	0.5%	0.5%	0.05%	1.17	NO
13-Feb-15	+1	0.9%	0.3%	0.57%	3.57%	0.74	NO	0.7%	0.2%	0.24%	0.41	NO
16-Feb-15	+2	0.0%	0.3%	-0.27%	3.30%	-0.35	NO	-0.4%	0.4%	0.67%	0.94	NO
18-Feb-15	+3	0.7%	-0.1%	0.84%	4.13%	1.08	NO	0.3%	0.4%	1.09%	0.94	NO
19-Feb-15	+4	0.2%	-0.3%	0.54%	4.67%	0.70	NO	-0.3%	0.5%	1.62%	1.17	NO
20-Feb-15	+5	-0.5%	0.1%	-0.57%	4.10%	-0.74	NO	-0.2%	-0.2%	1.38%	-0.53	NO

The results of analysis of event 11 given in the Table 12 reveal statistically insignificant positive impact on the value of the banking firm.

Event 12 Payment of counterfeit currency notes by business unit Keeri on 10/03/2015.

Loss amount: Rs 1000

Table 13 Abnormal and Cumulative Abnormal Returns of event 12

		One factor model						Two factor model				
Date	Window	ACR	ER	AR	CAR	T-Static	Sig.	ER	AR	CAR	T-test	Sig.
2-Mar-15	-5	2.5%	0.1%	2.4%	2.4%	0.167	NO	1.2%	1.3%	1.3%	0.54	NO
3-Mar-15	-4	-1.4%	-0.2%	-1.3%	1.1%	-0.087	NO	-0.4%	-1.1%	0.2%	-0.45	NO
4-Mar-15	-3	-4.3%	-2.7%	-1.6%	-0.5%	-0.113	NO	-1.8%	-2.5%	-2.3%	-1.05	NO
5-Mar-15	-2	-1.9%	-0.7%	-1.2%	-1.7%	-0.085	NO	0.2%	-2.1%	-4.4%	-0.87	NO
9-Mar-15	-1	1.6%	-4.4%	6.0%	4.3%	0.416	NO	-2.9%	4.5%	0.1%	1.89	NO
10-Mar-15	0	-1.5%	-1.9%	0.4%	4.7%	0.030	NO	-0.7%	-0.7%	-0.6%	-0.31	NO
11-Mar-15	+1	-1.1%	-1.7%	0.5%	5.2%	0.038	NO	-0.4%	-0.7%	-1.3%	-0.31	NO
12-Mar-15	+2	0.4%	0.5%	-0.1%	5.2%	-0.004	NO	0.3%	0.1%	-1.2%	0.06	NO
13-Mar-15	+3	-0.4%	-3.8%	3.3%	8.5%	0.233	NO	-2.0%	1.6%	0.4%	0.67	NO
16-Mar-15	+4	-0.4%	-1.7%	1.3%	9.8%	0.091	NO	-0.2%	-0.2%	0.2%	-0.09	NO
17-Mar-15	+5	-0.2%	0.5%	-0.7%	9.1%	-0.049	NO	0.8%	-1.0%	-0.8%	-0.42	NO

The results of the event 12 reveal that there was a statistically insignificant mixed reaction to operational risk event by the market equity of the banking firm.

The table 14 below comprises of six panels of N (Which indicates the number of operational loss events), event window (which indicates the test period), CARs (the mean value of cumulative abnormal returns), mean of actual returns, mean of expected returns and the T-static over different event windows. The test (events) period consists of three parts. First part is the positive test period, which means for how long this event will affect the company's share price after it happens and we denote it as 't + 5'. Second part is the period is the event date on which the announcement has been

made and we denote it as t0. Lastly the negative test period means for how many days this event will affect the company's share price before the occurrence of this event, say, a rumor. We denote it as 't - 5'. The CAR is measured by aggregating the abnormal returns over the time period for different event windows. The mean CAR is at its highest (-1.31881%) for the t(-2, +2) indicating most of the reaction takes place following the event day. The t-value varies over event windows between -0.1962 to 0.070814. The mean abnormal returns become positive at window t+4 and remain positive. The mean CAR at the event date is -0.2242% which is statistically insignificant at 5% significance level.

Table 14 Summary of the overall Event Analysis.

N	Window	Mean Actual return	Mean expected return	Mean AR	CAR (mean)	t-value(mean)
12	t(0,0)	0.1068%	0.3310%	-0.2242%	-0.22419%	-0.1962
12	t(-1,+1)	-0.1020%	0.0016%	-0.1036%	-0.31083%	-0.09024
12	t(-2,+2)	-0.1887%	0.0749%	-0.2636%	-1.318110%	-0.16549
12	t(-3,+3)	-0.0090%	0.0266%	-0.0355%	-0.248702%	-0.01378
12	t(-4,+4)	0.1389%	0.0584%	0.0805%	0.7247%	0.070814
12	t(-5,+5)	0.1446%	0.0625%	0.0822%	0.903818%	0.04620

Conclusion

The main purpose of this study is to test whether the operational loss event announcements affect the performance of the subject bank. The test was conducted on the total of 12 operational loss events which occurred during April 2009 to March 2015 and were publicly reported in the difference sources of electronic and print media. These events mainly included frauds and robberies. The event study methodology was applied to test how the operational loss event announcements affect the performance of the chosen banking company. After identifying the announcement dates, test period and the estimation period, the actual calculations were conducted. The expected returns were calculated from the market portfolio, which in present study was S&P 500 in case of one-factor model and in case of two-factor model S&P 500 (market factor) and BANKEX (non market factor) were employed. Next, cumulative abnormal returns were estimated. Finally, the hypothesis of the study were tested. The primary hypothesis of the study is that the operational loss event announcements don not have any statistically significant effect on the performance of the bank on the event day and days following. According to results of the study, it can be concluded that there is statistically insignificant impact of the operational loss announcements on the performance of the bank on the announcement date and days following. Most of the market reaction in case of various operational risk events occurs in the event window (-2, +2) though statistically insignificant. We propose four possible reasons for the statistically insignificant impact of operational risk events: (1) The major portion of the stake of the bank is held by the government (51%) and FIIs (21.23%) where as only 10% of the total stake of the bank is held by the retail residents investors. (2) Most of the events included in the study have occurred within the geographical boundaries of the J&K bank and have not been announced as a corporate announcement by the firm. (3) The operational risk management in the bank is not much developed and the bank resists disclosing significant information that could have potential to adversely effect the performance of the bank.

(4) The size of operational loss of most of the events included in ours study happened to be insignificant, a good number of high severity events otherwise could have helped to investigate how such events affect the performance of the bank. For example, the operational loss of Rs 4,60,000 suffered by bank, when the bank officials did a fraud at Kishtiwari Branch does not have statistically significant affect (-0.39) on the performance of the bank. While the operational loss of Rs 150 crores suffered by the bank (fake letters of credit) has statistically significant effect (-2.8) on the performance of the bank. The secondary hypothesis of the study was to test that impact on stock price due to operational loss events is independent of the event type of the loss. This has been established as in all the case there is insignificant impact on the market value of the banking firm except the case of event of fake letters of credit where only a significant negative market reaction has been observed. In the end, as a future research gap, similar type of research can be undertaken on a sample of banking firms to extend the empirical evidence in the area of impact of operational risk loss announcement on the value of the banking firms. Further, research can also be pursued to investigate whether market value reaction of smaller size and growing firm differs from such reaction occurring in large size and mature firms due to announcement of operational risk event with severe loss implications.

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DETERMINANTS OF PROFITABILITY OF LIFE INSURANCE COMPANIES PERFORMANCE IN INDIA

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ABSTRACT

Life insurance is an important form of social security. Insurance does play the role of risk bearer in case of uncertainty of life. It helps the people in hedging their risk for the lives. Insurance sector in India have grown tremendously in the last decade and is taking a giant shape after privatization of insurance industry. Dynamic financial analysis has become an important tool for modeling operations of insurance companies. This analysis is used, among others, in revealing the main factors determining the financial performance of insurers. This paper identifies the determinants of the performance of life insurance companies in India using a panel data regression consisting of the firm's specific internal factors over the period of 10 years from 2006-07 to 2015-16. Five financial performance measures are used to capture different aspects of the insurance operations. Study found that there is a significant negative impact of Tangibility and Leverage. Size has positively related but Revenue Growth and Liquidity have insignificant negative impact on profitability of life insurance companies in India.

Key words: Profitability, Performance, Return on Assets, Tangibility, panel data regression.

Introduction

Insurance is contract between people where one person agrees to share the risk of loss of the other for the payment of premium. The role of financial institutions in the economy of a country in general and insurance companies in particular and it means their efficient and effective financial system through savings mobilization, risk transfer and intermediation. Therefore, financial institutions, channel funds and transfers risks from one economic unit to another economic unit so as to facilitate trade and resources arrangement. Recent research, as surveyed by Naveed et al (2011), shows that the efficiency of financial intermediation and transfer of risk can affect economic growth while at the same time institutional insolvencies can result in systemic crises which have unfavorable consequences for the economy as a whole. Hence, the important role that financial institutions such as insurance companies remain in financing and insuring economic activity and contribute to the stability

of the financial system in particular and the stability of the economy of the concerned country, in general, is part of immune and repair system of the economy. Therefore it requires empirical investigation so as to sort out what are the important factors affecting the profitability of insurance companies and this will help concerned bodies to focus on the relevant factors. Hence the efficient performance of the institutions has become important and investigations by different researchers focus on what factors determine the performance especially the financial performance of the sector.

Literature Review

Ahemed et al.(2010) shows that the size is significantly and positively related to financial performance of insurance companies while tangibility of assets and liquidity have also a positive relation to performance of insurance companies but they are statistically insignificant.

Joy Chakraborty (2016) in his paper “financial efficiency of the public-sector general insurance firms in India” in this study regard, the ratio based on CAMELS framework has been used in line with the financial soundness indicators for the general insurance companies in India. Study found that the United India general insurance company as the best performer among the public sector general insurance companies in India.

Nikhil Bhusan Day et al.(2015) in their work Factors determining financial performance of life insurance companies of India- an empirical study. Found that there is a significant positive relationship between underwriting risk, size and return on equity. Study also found that there is a significant negative impact between leverage and return on equity. Finally study found that there is insignificant impact between tangibility, liquidity and return on equity.

Yuvaraj Sambashivam and Abate Gashaw Ayele (2013) in their paper “A Study on the performance of insurance companies in Ethiopia” found that growth, leverage, volume of capital, size, and liquidity were identified as most important determinant factor of profitability. The growth, size and volume of capital were positively significant impact on profitability. The leverage and liquidity ratios have significant negative impact on profitability. The age of the companies and tangibility of assets were not statistically significant impact on profitability.

Research Gap

Literature review identified that there are only a few studies on determinants of profitability of insurance companies. These studies focused only on general insurance companies. They did not look in to the determinants of profitability of life insurance companies’ in India. Hence, to fill the research gap, an attempt is made in the present study to examine the determinants of profitability of life insurance companies’ in India.

Objective of the study

To identify the factors determining the profitability life insurance companies.

Hypothesis of the study

H_0 : the select variables do not influence of the profitability of a company.

H_1 : the select variables influence the profitability of a company.

Scope of the study

The present study covers secondary data of select Indian life insurances companies for the period of the study. For the present study, only internal factors are analyzed viz. Profitability, Tangibility, Debt/Equity Ratio, Revenue Growth, Size and Liquidity.

Research methodology

The research methodology adopted for this study is presented as follows.

Source of the Data

The present study has been conducted using secondary data of life insurance companies in India. The required variables have been collected from IRDA annual report.

Sample Selection

The universe of the study is all life insurance companies in India. Ten life insurance companies nine private life insurance companies viz. Bajaj Allianz, Birla Sunlife, HDFC Standard, ICICI Prudential, Kotak Mahindra, Reliance, Punjab Metlife, SBI Life, TATA AIA and LIC has been identified.

Period of the study: The data for a period of 10 years from 2006-07 to 2015-16 was collected from IRDA hand book.

Analytical Framework of the Study

Descriptive Statistics

The Profile of the Variables used in the study is analyzed by using Descriptive Statistics. Descriptive statistics used in the analysis include mean, median, mode, standard deviation, coefficient of variation, skewness, and kurtosis. The variables used in the study include Return on Assets, Debt/Equity Ratio, Tangibility, Growth, Size and Liquidity influencing the profitability of Life insurance companies in India.

Analysis of the Impact of Select Variables on the profitability

Analysis of the impact of select variables on the profitability of life insurance companies' panel data regression analysis has been used. The following regression equations have been used for the analysis of the impact of select determinants of the profitability.

$$ROA = \alpha_0 + \beta_1 TA + \beta_2 D/E + \beta_3 RGR + \beta_4 SIZ + \beta_5 LQ + \varepsilon$$

ROA is Return on Assets, α_0 is constant, TA is Tangibility and β_1 is its coefficient, D/E is Debt Equity Ratio and β_2 is its coefficient, RGR is Revenue Growth and β_3 is its coefficient, SIZ is Log value Total Assets and β_4 is its coefficient, LQ is Liquidity and β_5 is its coefficient, ε is error term.

Dependent Variable: Our dependent variable is *the Profitability* (PR): The Profitability Ratio measures the company's overall performance and efficiency. Here we use Return on Assets (ROA) as our proxy for profitability. ROA is a profitability ratio that measures the company's efficiency to manage its assets and utilize them to generate profit. It measures profits relative to the firm's total assets. It is calculated as:

$$ROA = \text{Net Income} / \text{Total Assets}$$

Independent Variables: We have five independent variables: (1) Tangibility of Assets, (2) Debt/Equity Ratio, (3) Revenue Growth, (4) Firm Size, and (5) Liquidity. Now we cover each one of them:

1) Tangibility of Assets (TA): it is a ratio that measures the share of Fixed Assets from Total Assets. A high ratio indicates a lot of fixed assets and relatively little working capital, which could reduce the enterprise's ability to maintain inventory and carry accounts receivable. This could potentially limit the company's ability to respond to bigger demand for their products or services. However, the company could more easily borrow by mortgaging those fixed assets. The formula for the ratio is:

$$TA = \text{Fixed Assets} / \text{Total Assets}.$$

2) Leverage (Debt / Equity Ratio) it is a financial ratio that indicates the percentage of a firm's assets that are financed with debt. It is commonly interpreted as a measure of leverage. In our model, it is used to explain the amount of debt (leverage) used by a company. We use Total Debt, consisting of both Policy Liabilities and Funds for Future Appropriations the same as total liabilities. Shareholders' funds are taken as total equity. A high debt/equity ratio indicates that the company is largely dependent on debt to finance its activity. The consequences of higher Debt Equity Ratio are that the company might be in a riskier position that is more likely to lead to financial distress, default, bankruptcy, or liquidation. The Debt Equity Ratio is measured by the following simple formula:

$$\text{Debt Equity Ratio} = \text{Total Liabilities} / \text{Total Equity}.$$

3) Firm Size (Size): Size can be justified as a potential descriptive variable of cross-sectional difference in debt. Debt is likely to increase with size, because larger firms will have better risk diversification, more stable profits, and overall better creditworthiness. Therefore, larger firms have lower chance of financial distress and lower bankruptcy costs due to lower probability of default. As a result, lenders are more willing to lend to larger firms at more favorable terms, inducing them to opt for larger amount of debt relative to smaller firms. In this study, we use Total Assets as a proxy for Firm Size.

$$\text{Size} = \text{Log value of Total Assets}$$

4) Revenue Growth (RGR): Our proxy for Revenue Growth is the percentage increase in Gross Premiums (GP). The equation is expressed as follows:

$$RGR = (GP(t+1) - GP(t)) / GP(t)$$

5) Liquidity (LQ): Liquidity ratio measures the ability of managers in insurance and reinsurance companies to fulfill their immediate commitment to policyholders and other creditors. In other words this ratio measures the firms' ability to use its nearer cash or quick assets to retire its liabilities.

Liquidity ratio in this study is taken as current assets to current liabilities (Adam and Buckle, 2000). However there are other liquidity ratios that have been taken by other researchers as independent variables for the study. In this study,

current assets to current liabilities have been taken as independent variable. Thus, our version of the Liquidity Ratio is as follows:

$$\text{Quick Ratio} = \text{Current Assets} / \text{Current Liabilities.}$$

Operationalisation of Variables

Return On Assets (ROA)	Net Income / Total Assets
Leverage (Debt / Equity Ratio)	Total Liabilities / Total Equity
Firm Size (Size)	Log value of Total Assets
Revenue Growth (RGR)	$(GP(t+1) - GP(t)) / GP(t)$
Liquidity (Quick Ratio)	Current Assets / Current Liabilities

Table 1: Descriptive statistics of life insurance companies

Statistics	Return on Assets	Tangibility	Leverage	Liquidity	Revenue Growth	Firm Size
Mean	0.010	0.007	250.281	2.388	23.193	14.774
Median	0.412	0.005	2.026	0.817	11.076	14.461
Mode	-10.284	0.0004	0.125	-102.545	-26.415	11.445
Std. Deviation	2.324	0.007	762.974	18.983	40.587	1.628
Skewness	-2.073	2.454	2.928	3.595	2.260	1.043
Kurtosis	5.157	7.349	7.234	51.181	6.875	1.285
Minimum	-10.283	.0004	.1245	-102.545	-26.415	11.446
Maximum	3.225	.0390	3428.554	154.478	221.048	19.206

Source: computed from compiled data

Table 1 summarizes the descriptive statistics for the dependent variable and various explanatory variables. This shows the average indicators of variables computed from IRDA annual reports. The mean value of all the variables ranges from minimum of 0.007 for tangibility to a maximum of 250.281 for leverage. The average profitability as measured by ROA for Indian insurance companies during the study period is about to 0.01 and the value of median is 0.412 the standard deviation value is 2.324 which indicate that the presence of high variations among the value of profitability across the life insurance companies.

The skewness of the distribution is negative (-2.073) for insurance companies during the study period. The kurtosis value is 5.157 this is greater than three. Hence, it is called leptokurtic.

The mean value of tangibility is 0.007 and the value of standard deviation is 0.007 which indicates there is a variation among the value of the tangibility. The skewness of distribution is positive 2.454 this indicates longer tail of the distribution and the kurtosis value is 7.349 which is greater than three for the study period. Hence, it is called leptokurtic. The mean value of leverage is 250.281 and the

value of standard deviation is 762.974 which indicate that there is a high variation among the value of leverage. The skewness of the distribution is 2.928 positive which indicate the longer tails of the distribution and the kurtosis value 7.234 is greater than three for the for the study period. Hence, it is called as leptokurtic.

The mean value of liquidity is 2.388 with a standard deviation of 18.983 which indicates there is a high variation among the variables. The skewness of the distribution is 3.595 positive which indicates the longer tails of the distribution and the kurtosis value is 51.181 greater than three for the study period. Hence, it is called as leptokurtic. The mean value of revenue growth is

23.193 with a value of standard deviation is 40.587 which indicates there is a high variation among the variables. The skewness of the distribution is 2.260 positive which indicates the longer tails of the distribution. The kurtosis value is 6.875 is greater than three for the study period. Hence, it is called leptokurtic.

The mean value of firm size is 14.774 with a standard deviation of 1.628 which indicates there is variation among the variables. The skewness of the distribution is 1.043 positive which indicates the longer tails of the distribution. The kurtosis value is 1.285 is less than three for the study period. Hence, it is called platykurtic.

Table: 2 Analysis of Regression result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Constant	-5.697579	4.150020	-1.372904	0.1731
Tangibility	-163.5342	44.82285	-3.648457	0.0004
Leverage	-0.001091	0.000499	-2.186356	0.0313
Firm Size	0.479850	0.006334	1.742852	0.0847
Revenue Growth	-0.002026	0.010625	-0.319918	0.7497
Liquidity	-0.000607	4.150020	-0.057082	0.9546
Model summary				
R-squared	0.332429	F- statistic	9.262202	
Adj. R-squared	0.296538	Prob. (F-Statistic)	0.000000	

Source: computed from compiled data

Table 2 presents the results of Panel Least Squares method and it is estimated to analyze the impact of select variables on profitability. Tangibility and Leverage have (-163.5342, -0.001091) negative impact on profitability and the value of 'p' (0.0004 and 0.0313) is statistically significant. Firm Size has positive (0.479850) impact on profitability and the value of 'p' (0.0847) is statistically insignificant. Revenue growth and Liquidity have negative impact on profitability and 'p' value is statistically insignificant. R-squared value is 0.332429 which indicates that 33 percent of

variation is captured by the regression model and remaining 77 percent could not be captured by the regression model. F-statistic value is statistically significant by value of 'p'.

Conclusion

The objective of this study is to identify the internal factor affecting profitability of life insurance companies as measured by return on assets. The result of the multiple regression analysis reveals that tangibility, leverage, and firm size are important determinant of profitability of life

insurance companies where as return on assets has statistically insignificant relationship with revenue growth and liquidity.

Tangibility has significant negative impact which indicates that companies with higher tangible assets are having lesser working capital in their day to day business activities. But the companies which have more tangible assets, those companies can mortgage their assets and easily get more debt from the market.

It is implied that highly profitable insurance companies are more likely to rely on internally generated funds and equity capital rather than on debt capital as source of financing.

The positive relationship between firm size and return on assets implies that size of the company helps in deriving economies of scale in transactions and enjoying a higher level of profits.

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GENERAL INSURANCE MARKET IN INDIA WITH GLOBAL COMPARISON

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ABSTRACT

India is the second most populated country in the world and insurance is one of the financial instruments which act as a backbone whenever any uncertainty occurs. Apart from banking; insurance is also considered as a critical component in bringing about financial inclusion. The Indian insurance sector has seen a tremendous rise in the past decade both in life and non-life segment. There is a huge scope of expansion of insurance business in this country. The insurance penetration is around 3.44 % which sets the possibility of rapid growth in this sector.¹The Government of India decision to increase Foreign Direct Investment (FDI) in insurance sector from 26% to 49% will possibly have a positive impact as this will allow more and more companies coming in the insurance business. Of all the insurance business, life insurance has a share of about 79% whereas General insurance comprises of 21%.²

This research paper gives an overview of the general insurance market in India with comparison to the global scenario. It showcases the relation between general insurance business and economic growth. The paper also discusses the current and emerging trends in insurance in brief. It specifically addresses the motor insurance sector and health insurance sector. It addresses the few challenges prevailing in these two sectors like high net incurred claim ratio, how to convert uninsured vehicles to insured one and how health insurance should be expanded in India. It proposes Long Term Care Insurance (LTCI) and National health Insurance (NHI) for health insurance expansion with specific references to some countries where these have been implemented.

Keywords: Insurance, general insurance, motor insurance, health insurance, foreign direct investment, insurance penetration, net incurred claim ratio, insurance expansion, economic growth, financial inclusion, National Health Insurance, Long Term Care Insurance, challenges, solutions

1. INTRODUCTION

General insurance covers all forms of insurance except life. The various forms of general insurance include motor, health, fire, marine etc. General insurance premium pricing was decided by the norms set by the Tariff Advisory Committee (TAC) till 2006. The IRDAI decision to de-tariff the general insurance business is considered as a reform step in this sector. With detariffing, the general insurance providers were allowed to decide the premium to be charged which was earlier decided by TAC. Detariffing was implemented in three phases. The first phase started from January 1, 2007, where the insurers were permitted to increase or reduce the premium by 20% on both

sides from their then existing prices. The terms and conditions couldn't be revised during this phase. The second phase came into effect from March 2008 where complete freedom on pricing had been granted including product customisation according to each individual. The last phase allowed the insurers to vary coverage terms and conditions, policy wordings. This phase allowed flexibility in terms of breadth of coverage. The premium amount can be loaded and discounted based on several risk factors which were not the case previously. Now the pricing has become market based which varies from region to region. There is no uniform pricing today.

Presently the general insurers include both the government and private companies. There are total 30 general insurance companies, both public and private presently operating in India. The public sector companies are NIACL, UIIC, OIIC and NICL. The specialised insurers include ECGC, AIC, and GIC. GIC is the national reinsurer. The private sector companies include Royal Sundaram, Bajaj Allianz, ICICI Lombard, HDFC Ergo, Chalamandalam MS etc.

The general insurance penetration has increased to 0.71 in 2015-16 from 0.60 in 2006-07.¹ The Gross Direct Premium Income (GDPI) has increased from Rs. 26,110 Crores in 2006-07 to Rs.96,379 Crores in 2015-16. Also, there has been a tremendous increase in insurance density from Rs.238 in 2006-07 to Rs.724 in 2015-16.² These all figures show that the general insurance sector is growing at a rapid pace as compared to 10 years back. Of all the general insurance business, motor insurance business (comprising of both Own damage and Third party covers) has the highest share of 44.1% of GDPI followed by health and accident insurance at 27.8%.³

The figures reflect that motor insurance has the highest market share in the non-life insurance business. As a person gets employed, he will definitely purchase a vehicle after some months of his employment. So the growth of motor insurance is possible to continue. It is mandatory to have third party motor insurance in India as per the law. But GIC latest report figures that 60% of the vehicles in India are uninsured. The majority of uninsured vehicles are two wheelers (motorcycles and scooters). The general insurance sector is increasing but at the same time, it is facing challenges which need to be addressed in order to increase its market share.

2. OVERVIEW OF GENERAL INSURANCE

According to Swiss Re Sigma, World Insurance Report, the insurance industry witnessed a moderate growth in 2015. The global non-life premium increased to 3.4% in 2015 as compared to 2.4% in 2014.

This section gives an overview of general insurance in India. It gives insights of various segments of general insurance like motor, health, fire and marine. The following table illustrates the premium underwritten by various segments.

Table 2.1: Premium underwritten by Non-Life insurers (2015-16)

Segment	Premium underwritten (in %)
Motor	44
Health	29
Fire	9
Marine	3
Others	15

Source: IRDAI Annual Report 2015-16

From the above table, it can be inferred that motor insurance has the largest premium underwritten in 2015-16 which was 44% followed by health insurance which was 29%. Marine insurance has the least figure which was 3% of the total general insurance premium underwritten.

Now let us look at the incurred claim ratio for the year 2015-16 of various segments of general insurance which is illustrated in the following table.

Table 2.2: Incurred claim ratio for 2015-16

Segment	Incurred claim ratio (in %)
Fire	74.47
Marine	72.05
Motor	81.18
Health*	98.43
Others	75.94

*Source: IRDAI Annual Report 2015-16*Note: Health insurance includes personal accidents and travel insurance*

Of all the segments, health insurance has the highest incurred claim ratio of 98.43% followed by motor insurance. Whereas, marine insurance has the least incurred claim ratio of 72.05%.

While comparing to the global scenario, India share a tiny spot in the global non-life industry.¹ From 2004 to 2014, the non-life premium has increased significantly but it is far behind the advanced countries and the world as a whole. The following table illustrates this fact.

Table 2.3: Non-life premium volume in USD (bn)

Country/Region	2004	2014
Advanced Economies	1247	1707
Emerging Markets	148	417
Asia	181	425
India	4	15
World	1395	2124

Source: Swiss Re Sigma, World Insurance Report

From the above table, it can be inferred that the Indian non-life insurance sector has grown in terms of premium from 4 bn USD in 2004 to 15 bn USD in 2014. But, it still remains far behind from emerging markets, advanced countries and in Asia.

There are around 30 general insurance companies operating in India comprising of public, private and standalone health insurers. The general insurance business has expanded and the companies are opening their branches in different locations in the country. This can be illustrated in the following table which depicts the total number of non-life insurance offices.

Table 2.4: Total no of offices of non-life insurers

Insurer	No of offices as of 31 st March 2015	No of offices as of 31 st March 2016
Public sector	8120	8331
Private	1742	1869
Standalone Health	458	520
Specialised insurer	87	83

Source: IRDAI Annual Report 2015-16

The number of offices of public, private and standalone health insurers has increased. Public sector companies have the highest number of offices which was 8331 in 2016. Also, the number of private insurer's offices has increased to 1869 in 2016 from 1742 in 2015. There has been a slight reduction in case of specialised insurers.

Specialised insurers include the Export Credit Guarantee Corporation of India Ltd (ECGC), Agriculture Insurance Company of India Limited (AIC) and General Insurance Corporation of India (GIC). These three are discussed in brief.

- **ECGC:** Export Credit Guarantee Corporation of India Ltd (ECGC) underwrites business in export credit insurance and also offers guarantees to banks and financial institutions. ECGC is headquartered at Mumbai, Maharashtra. ECGC underwrote a gross direct premium of INR 1321 Crores in 2015-16.
- **AIC:** Agriculture Insurance Company of India Limited (AIC) headquartered at New Delhi offers crop insurance across the country. During the financial year 2015-16, it wrote a gross direct premium of INR 3521 Crores.
- **GIC:** General Insurance Corporation of India (GIC) which is headquartered at Mumbai, Maharashtra is the national reinsurer and provides reinsurance to the direct general insurance companies in India. During 2015-16, the net premium written by GIC was INR 16375 Crores.

3. CURRENT AND EMERGING TRENDS

Title insurance, predominantly used in the USA insures from financial losses from defects in title or of real property and from the invalidity of mortgage loans. It defends against the lawsuit attacking the title or reimburses the insured for the actual monetary loss incurred. The countries where title insurance is used include New Zealand, United Kingdom, Canada, Australia etc. The concept of title insurance has not been implemented in the Indian context and can be kept open for future implementation.

Apart from the title insurance which India still needs to implement, the Indian insurance industry has witnessed a good sign of expansion through **bancassurance** which allows the banks to sell insurance policies. With IRDAI open architecture framework which was introduced in 2015, allowed banks to tie up with nine insurers- three from each segment (life, general and standalone health). This will allow banks to sell insurance policies of more than one company and is expected to play a vital role in the expansion of insurance business. As of March 2013, the total number of offices of scheduled commercial banks in India was 1,02,343.¹ The following table illustrates the distribution of offices of scheduled commercial banks.

Table 3.1: No of offices of scheduled commercial banks in India (As of March, 2013)

Area	No of offices
Rural	37,953
Semi Urban	27,219
Urban	19,327
Metropolitan	17,844
Total	1,02,343

Source: Department of Financial Services, Ministry of Finance, GOI, <http://financialservices.gov.in/banking/overviewofefforts.pdf>

The above table illustrates that banks have good presence both in urban and rural areas. As the number of offices is more than 1 lakh, banks can play a vital role as a distribution channel for selling insurance products.

Similarly **Postal Insurance** can play quite a big role in distributing insurance policies. As on March 31st 2014, India has around 1, 54,882 Post offices of which 89.86% are in the rural areas, making India as the largest Postal Network in the world. With such a large network post offices can play a vital role in expansion of insurance business. At present, Post offices sell Postal Life Insurance (PLI) policies and Rural Postal Life Insurance (RPLI) policies. Started in February 1st, 1884, at present PLI covers employees of Central and State Governments, defence services, Government aided educational institutions, Reserve Bank of India, Nationalized banks, Autonomous bodies etc. People residing in rural areas can take RPLI policy. Post offices are not offering any general insurance policies. But they can be used as a medium for selling general insurance policies. Since post offices are more in number than banks, it can act as a good tool for selling general insurance policies. Also postal insurance can act as premium mechanism for selling health insurance policies. Allowing post offices to sell general insurance products can serve as a way to increase people's participation in having insurance.

4. OBJECTIVES OF THE RESEARCH

This research has been carried with keeping the following objectives.

- To understand the present general insurance market in India.
- To highlight the current and emerging trends in insurance sector.
- To understand the relation between insurance and economic growth in comparison with global general insurance market and trends.
- To address the challenges prevailing in motor and health insurance industry.
- To recommend the possible solutions for the challenges.

5. RESEARCH METHODOLOGY

This is a secondary research which is being carried out by collecting data from various sources like IRDAI Annual report, GIC yearbook, National Health Profile (NHP), Swiss Re Sigma, OECD Insurance statistics etc. to name a few.

6. RELATIONSHIP BETWEEN INSURANCE AND ECONOMIC GROWTH

This section addresses the relationship between insurance and economic growth. As the economy rises in terms of per capita income and financial savings of household, what impact this can have in the insurance sector. Whether the increase in per capita income and financial savings of household can lead to increase in insurance density and insurance penetration? This has been discussed in the subsequent subsections.

6.1 Financial Savings

Insurance is a kind of security which supports the customer at the time of some incident. People in India still need to be convinced about the insurance benefits. The household's savings in India has increased in the recent years which in turn had increased financial savings. Household saving means the total income saved by the households during a certain period of time. Financial saving includes savings and investments in banks, post offices, stock market etc. The financial saving has increased which is depicted in the following table. The table depicts the financial savings in percent of Gross National Disposable Income (GNDI).

Table 6.1: Financial Saving of Household sector

Year	Financial Savings in percent of GNDI
2011-12	7.2
2012-13	7.2
2013-14	7.4
2014-15	7.5
2015-16	7.7

Source: CSO as published in RBI Annual Report 2015-16 Table II.1

The data reflects that the net financial savings were constant for the year 2011-12 and 2012-13 which was 7.2%. There has been an increase in the financial saving of the household. For the year 2015-16, it is highest i.e. 7.7%. The increase in financial savings of the household is a good sign.

6.2 Per Capita Income

The per capita income is also known as average income measures the average income earned per person in a given area (city, state, country etc.) in a given year. The following data shows the per capita income of India for the year 2011-12 to 2015-16.

Table 6.2: Per capita income in INR

Year	Per Capita Income (in INR)
2011-12	64,316
2012-13	71,593
2013-14	80,388
2014-15	88,533
2015-16	93,231

Source: Central Statistics Office (CSO)

The above table shows that there has been increasing in per capita income from 2011-12 to 2015-16. The per capita income increased from INR 64,316 in 2011-12 to INR 93,231 in 2015-16. The increase is consistent with no fluctuation. According to CSO estimates, the per capita income will cross 1 Lakh for the coming financial year which will be for the first time that Indian per capita income will be in six digits.

6.3 Insurance Penetration

Insurance penetration is calculated as the ratio of total premium to gross domestic product of a country. Insurance penetration is used as an indicator of insurance sector development within a country. This section gives the insurance penetration of selected countries and then focuses on Indian non-life insurance penetration. Let us look at the non-life insurance penetration of selected countries which is given below.

Table 6.3: Non Life Insurance penetration of selected countries				
Countries	2011	2012	2013	2014
USA	6.0	6.0	6.1	6.4
UK	3.1	3.1	3.1	2.8
France	3.1	3.2	3.2	3.2
Germany	N.A	3.6	3.6	3.5
Switzerland	4.1	4.1	4.1	4.1
Australia	2.0	2.1	2.2	2.2
Canada	3.2	3.3	3.2	N.A
Netherlands	3.1	3.2	3.0	2.8
New Zealand	N.A	2.6	2.7	2.7
Greece	1.3	1.3	1.3	1.1
Denmark	3.1	3.1	3.0	3.4
<i>Source: OECD Insurance Statistics, 2015</i>				
<i>Note: N.A means Not Available</i>				

As can be inferred from the above table, USA has the highest non-life insurance penetration of 6.4% in 2014. It has grown from 6.0% in 2011 to 6.4% in 2014. UK non-life insurance penetration was constant from 2011 to 2013 which was 3.1% but declined to 2.8% in 2014. All the above countries have non-life insurance penetration more than 1%.

The Indian general insurance penetration has increased in the past 10 years which is shown in the following table.

Table 6.4: General Insurance Penetration

YEAR	PREMIUM/GDP (%)
2006-07	0.63%
2007-08	0.61%
2008-09	0.60%
2009-10	0.61%
2010-11	0.62%
2011-12	0.66%
2012-13	0.70%
2013-14	0.68%
2014-15	0.68%
2015-16	0.71%

Source: GIC Yearbook 2015-16

The data shows that the general insurance penetration in India has risen from 0.63% in 2006-07 to 0.71% in 2015-16. There has been a rise of 0.08% in these 10 years. The rise is also not steady. The general insurance penetration was 0.70% in 2012-13 but it dropped to 0.68% in 2013-14. From 2006-07 to 2015-16, the lowest penetration was recorded in the financial year 2008-09 where it was 0.60%. The contribution of general insurance is very less (less than 1%). There are millions of people who are still not insured to various general insurance products. Also despite having 30 companies involved in general insurance business the contribution to GDP requires improvements.

6.4 Insurance Density

Insurance density is calculated as the total premium collected to the total population. The increase in general insurance density is an indication that people are investing money in buying general insurance products.

The general insurance density has also increased from INR 238 in 2006-07 to INR 724 in 2015-16.

Table 6.5: General Insurance Density (in INR)

Year	General Insurance Density (in INR)
2006-07	238
2007-08	263
2008-09	286
2009-10	329
2010-11	398
2011-12	488
2012-13	572
2013-14	614
2014-15	657
2015-16	724

Source: GIC Yearbook 2015-16

The non-life insurance density has shown a positive trend in the past 10 years which is a good sign as people are spending the money in buying general insurance products which were not the case a few decades ago. The insurance density has increased from Rs. 238 in 2006-07 to Rs. 724 in 2015-16. Also in the past 10 years, there has not been any decline in the insurance density. It is growing year by year. It has grown three times from 2006-07 to 2015-16 which is remarkable.

Comparing non-life insurance density gives a picture of where India stands globally in general insurance market. The following table illustrates the non-life insurance density of selected countries.

Table 6.6: Non Life Insurance density in US \$ of selected Countries				
Countries	2011	2012	2013	2014
USA	2978	3111	3212	3492
UK	1285	1283	1323	1338
France	1419	1338	1405	1418
Germany	N.A	1585	1666	1674
Switzerland	3581	3458	3522	3546
Australia	1397	1485	1463	1376
Canada	1652	1732	1690	N.A
Netherlands	1679	1564	1553	1458
New Zealand	N.A	1027	1149	1180
Greece	341	286	268	219
Denmark	1923	1815	1839	2110
Source: OECD Insurance Statistics, 2015				
Note: N.A means Not Available				

The above illustrates that India is far behind the advanced economies (USA, UK etc.). Among the above mentioned countries, Switzerland has the highest non-life insurance density of 3546 USD which is far ahead of UK, France, and Australia etc.

From the above discussion on financial savings, per capita income, non-life insurance penetration and non-life insurance density indicate that with

an increase in per capita income increases the financial savings of household increases leading to increasing in general insurance density. As people income rises, saving increases which in turn enables them to spent money in buying general insurance products. The relationship between economic growth and insurance can be established in the sense that increase in per capita income leads to increase in household savings which in turn

increases insurance density. However, this may not be the case always. This can be said by looking at the life insurance scenario. The life insurance penetration was 4.1% in 2006 whereas it declined to 2.72% in 2015 despite of rise in per capita income and financial savings of households.¹ While comparing globally, India's general insurance industry is far behind rest of the world in terms of non-life insurance density and non-life insurance penetration.

6 MOTOR INSURANCE

Motor insurance primary objective is to provide protection against the physical damage resulting from traffic collisions, accidents and against liability. Motor insurance consists of Own Damage (OD) and Third Party (TP) Liability. Motor insurance is also known as vehicle or auto insurance is the insurance purchased for cars, two-wheelers, trucks and other vehicles. The motor insurance is governed by the Motor Vehicles Act, 1988. According to this act, the insurance of third party liability arising out of the use of motor vehicles in public places is made compulsory. No motor vehicles can run in public places without insurance. Third party liability cover is a statutory requirement under Motor Vehicles Act.

The number of vehicles in India is increasing year by year. The following table depicts this fact. The table gives the total number of vehicles registered from 2004 to 2012.

Table 7.1: Total No of registered vehicles

Year	Total No of Registered vehicles (in millions)
2004	72.7
2005	81.5
2006	89.6
2007	96.7
2008	105.4
2009	115.0
2010	127.7
2011	141.9
2012	159.5

Source: Road Transport Yearbook 2011-12

The above figures reflect that the number of vehicles in India has increased tremendously from 72.7 million in 2004 to 159.5 million in 2012. The increase in vehicles also increases the possibility of having accidents. In India, road accident is a serious issue. The following table illustrates the road accidents in 2014 and 2015. The total number of accidents had increased from 4, 89,400 in 2014 to 5, 01,423 in 2015, an increase of 2.5%. The number of persons who lost their lives has also increased by 4.6%. The data also reflects that a huge number of people got injured in road accidents in 2015 which was 5, 00,279.

Table 7.2: Road Accidents parameters – 2014 and 2015

Parameter	Year – 2014	Year – 2015	% Change over previous year
Total accidents in country	4,89,400	5,01,423	2.5
Total no. Of persons killed	1,39,671	1,46,133	4.6
Total no. Of persons injured	4,93,474	5,00,279	1.4
Accident Severity	28.5	29.1	2.1

Source: Transport Research wing, Ministry of Road Transport & Highways, GOI

Accident severity which is measured as the number of persons killed per 100 accidents has also increased from 28.5 in 2014 to 29.1 in 2015.

Motor insurance market share is 44.1%, the highest among non-life insurance market.¹ One of the reasons for this market share is the compulsion to have motor insurance as per the Motor Vehicles Act. The compulsion to have third party insurance has increased the GDPI of this segment tremendously from INR 3,341 Crores in 2006-07 to INR 21,036 Crores in 2015-16. This is illustrated in the following table.

Table 7.3: GDPI- Motor (Third Party)

Year	GDPI (INR in Crores)
2006-07	3,341
2007-08	4,644
2008-09	5,065
2009-10	5,573
2010-11	6,355
2011-12	9,679
2012-13	12,460
2013-14	15,237
2014-15	17,615
2015-16	21,036

Source: GIC Yearbook 2015-16

From the above table, it can be inferred that the GDPI of Third Party has shown a tremendous increase in the last decade. From 2006-07 to 2015-16 GDPI has increased to 6.3 times. The increase in GDPI is a positive signal of expansion of motor insurance industry.

The motor insurance third party Net incurred claim ratio was over 100 % for many years. This means that insurance companies were paying more in claims as earned by the premiums. The high Net incurred claim ratio is also one of the reasons for the insurance companies suffering losses.

Table 7.4: Net Incurred claim ratio – Motor (Third Party)

Year	Net Incurred claim ratio (in %)
2006-07	159.7
2007-08	165.2
2008-09	132.1
2009-10	123.6
2010-11	172.8
2011-12	153.6
2012-13	135.1
2013-14	110.4
2014-15	96.8
2015-16	93.0

Source: GIC Yearbook 2015-16

The above table shows that Net Income claim ratio is not consistent. It was over 100% till 2013-14. The highest ratio was recorded in 2010-11 which was 172.8%. After 2010-11 the Net Incurred claim ratio is decreasing. It was 93% in 2015-16. The high net incurred claim ratio is an indication that the insurer is paying more than what it earns by premium collection. The trend has changed since 2014-15 where the incurred claim ratio came down to 100% which was above 100% earlier.

The motor own damage policy is not mandatory. The own damage comes with a comprehensive package along with the third party. The own damage insurance GDPI has increased from 2006-07 to 2015-16 which is illustrated in the following table.

Table 7.5: Motor own damage GDPI

Year	GDPI (in Crores)
2006-07	7739
2007-08	8419
2008-09	8756
2009-10	10013
2010-11	12408
2011-12	15295
2012-13	18090
2013-14	19572
2014-15	20730
2015-16	22714

Source: GIC Yearbook 2015-16

The GDPI for own damage insurance has increased from INR 7,739 Crores in 2006-07 to INR 22,714 Crores in 2015-16. As can be inferred from the above table the GDPI is increasing year by year.

Let us look at the Net incurred claim ratio for own damage insurance. The following table gives the net incurred claim ratio for own damage.

Table 7.6: Net Incurred Claim Ratio – Motor (Own Damage)

Year	Net Incurred claim ratio (in %)
2006-07	53.2
2007-08	58.4
2008-09	65.2
2009-10	64.0
2010-11	64.7
2011-12	60.6
2012-13	57.2
2013-14	56.6
2014-15	60.8
2015-16	70.3

Source: GIC Yearbook 2015-16

The net incurred claim ratio for own damage insurance is not more than 100% in these 10 years. The highest incurred claim ratio was reported in 2015-16 which was 70.3%. In 2015-16 the claim ratio increased by 10% from the previous year. Since the incurred claim ratio has not reached over 100% this indicates that the insurers are able to earn good amount of profit from own damage insurance policy.

7.1: Motor Insurance – Challenges

The motor insurance industry in India is facing some challenges. First, there is a lack of available data in the industry. There is no way to access data before issuing the policy. There is no centralized database for the motor insurance industry. This lack of data is not a problem for motor insurance but it is one of the biggest problems faced by the entire general insurance market in India.

Second, the motor insurance policy is issued on the parameter of the vehicles such as car etc. but not on the person who owns it. The vehicle is not going to run on its own, it needs a person to operate. The vehicle is not going to hit anyone on its own. So the parameter to issue the policy should be changed.

Third, third party premium is being administered by IRDAI which gives less chance to the insurance companies in deciding premium pricing. The companies are left only to price premium for own damage.

Fourth, high Net Incurred claim ratio in the third party is a big challenge as this ultimately lands insurance companies into a loss.

Fifth, as per the latest GIC report, 60% of the vehicles in India are uninsured. This means out of 10 vehicles only 4 vehicles are insured. The majority of the uninsured vehicles are two wheelers (motorcycles and scooters). This is an alarming situation and is a big challenge prevailing in the motor insurance industry.

7.2: Motor Insurance – Recommended Solutions

The problem of non-availability of data can be resolved by having a centralized database which can be accessed by the insurance companies. There

is a need for having general insurance data for making various decisions like issuing a policy. At present, it takes the time to verify the past history. Countries like UK, USA, and other western countries had already implemented the same. For Example, in the USA the SSN (Social Security Number) is used to track the past record. The Same model can be adopted by India as well. Aadhar card can be used for this purpose. This will also reduce time in investigating before issuing policy and also during the claims. Any person if responsible for the accident, then his past history should be updated by using his Aadhar number which will serve as a base for future reference for the companies from which that person may take insurance policy if any. Having a common database containing information of the policyholders and his past history will also ensure transparency in business from both sides: customer as well as the insurance companies.

India should adopt a **differential pricing/Non Risk Pricing** system in the motor insurance sector. As mentioned in the challenges above that it is not the vehicle but the person driving vehicle is responsible for the accidents or damages. So the parameter should be taken for the person and not for the vehicle. This means that policy should be issued on the basis of the person who will be operating it. The pricing should vary for teenagers, senior citizens, professional drivers etc. At present India is using risk based pricing model which considers various risk factors related to vehicles, excluding the non-risk factors. Cases have shown that adopting Non Risk Price system have proved profit improvements of 2–4 per cent of gross premiums.¹ In fact, more than half of the UK motor insurance market is using this differential/non risk pricing model. At the present UK, the USA and many European countries are using this model. In India this model can be implemented by two ways: First by fully adopting this non-risk model and excluding the present risk based pricing. Second a combination of both risk and non-risk factors in determining the premium price. This has been discussed below:

Adopting fully non-risk model excluding the present risk related factors is little difficult due to lack of availability of data. However, this can be achieved if unique identification like Aadhar Card can be used and the past history of the policyholders should be stored properly and the insurers have the access to retrieve the data before issuing a policy. For example, if a person wishes to take a policy, he has to submit various details including Aadhar card no. Suppose the person has not been responsible for any accident and the insurer issue the policy to him. In the meantime, he met with an accident while driving his vehicle. Now he has been responsible for an accident. This detail should be entered to his account linked to his Aadhar no which can be used for future reference. This account should be updated subsequently in case he encounters accidents in future. Now if the person wishes to take insurance policy then his past data can be used for pricing the premium rates. If he has encountered with accidents in past then price will be high as compared to a person who has not met with any accident or less no of accidents. Also, age should be taken into account. Classification can be made according to age and the past history in deciding the premium price. This way the non-risk pricing model should work.

The second approach which is a combination of risk and non-risk should take both risk and non-risk factors into consideration. Factors like vehicle weight, Insured Declared Value (IDV), of which the premium is calculated at present and factors like person past history which is the differential model should be taken into account. If the price of the vehicle is high and the individual has the past record of meeting with an accident then he should be charged high. At present, if two people having the same vehicle and one person are free of any accident and the other one has met with an accident in the past even then also both will be charged the same amount. But, in differential pricing system the person having accident history will have to pay more premium. This is where differential pricing comes into the picture.

At present IRDAI is responsible for the pricing of premium when it comes to third party liability. Either the insurance companies should have the liberty to fix the premium price or IRDAI should price the premium in accordance so that the companies should not suffer loss.

The number of uninsured vehicles in India is 60% as per the report compiled by GIC. The majority of uninsured vehicles are two wheelers comprising of motorcycles and scooters. This is a big challenge to convert uninsured vehicles to insured one. This problem has arisen due to lack of proper tracking mechanism in India. This can be checked by having a proper tracking of the vehicles with the help of technology. The proposed solution to this problem is that there should be a portal of vehicle insurance containing the data of insured and uninsured vehicle. Suppose if a person purchases a vehicle and met with an accident and if caught by the police, policemen should take the picture of the vehicle containing the vehicle number and send it to the data repository for investigating whether the vehicle is insured or not. If the vehicle is uninsured, the penalty should be imposed on the owner of the vehicle. This can be done by having a mobile application specifically for motor insurance and that should be available with the police and the traffic police. If this can be implemented properly it can convert uninsured vehicle to insured vehicle and will reduce the number of uninsured vehicles in the country.

6 HEALTH INSURANCE

Health insurance is a type of insurance which covers insured's medical and surgical expenses. The coverage can be provided in two ways: first, the insured pays the medical/surgical expenses and the insurer reimburses, second the insurer makes payments directly. There are various types of health insurance available in the market. Few are discussed below:

- **Pradhanmantri Suraksha Bima Yojana (PMSBY):** PMSBY was launched on 9th May 2015. This is a kind of accident insurance and focuses mainly on people below poverty line and to those who cannot afford to have

insurance. This scheme is available for people between 18 to 70 years of age with a premium of INR 12 per annum. It covers death benefits up to INR 2 lakhs. In the case of loss of one leg, hand, foot, eye or sight the sum assured is INR 1 lakh.² This scheme will also be linked with the JanDhan account.

- **Mediclaim Policy:** This is a hospitalization benefit offered by the insurance companies. The mediclaim policy takes care of the post hospitalization expenses owing to illness or injury, whether the hospitalization is domiciliary or otherwise. It was first offered in 1986 by General Insurance Corporation of India (GIC). This is available as individual or family floater scheme.
- **Employee's State Insurance Scheme (ESIS):** ESIS is a social insurance scheme that protects the interests of workers in case of contingencies like sickness, maternity, death due to employment, injury, disablement etc. ESIS is implemented under The Employee's State Insurance Act, 1948. ESIS is being implemented in all states except Sikkim, Manipur, Arunachal Pradesh and Mizoram. The following table gives the coverage under ESIS.

Table 8.1: Coverage under ESIS (As of March 31st, 2014)

Number of insured person family units	1.95 Crores
Number of employees	1.74 Crores
Total Number of beneficiaries	7.58 Crores
Number of insured women	0.29 Crores
Number of Employers etc.	6.69 Lacs

Source: <http://esic.nic.in/coverage.php>

- **Central Government Health Scheme (CGHS):** CGHS is a health scheme for serving/retired central government employees and their families. The beneficiary also

includes pensioners, Member of Parliament (past and present) and freedom fighters. The total number of beneficiaries under CGHS is 36, 67,795 of which 26, 59,980 are serving. The total expenditure on CGHS in 2013-14 was INR 1839 Crores whereas the Per Capita Expenditure was INR 4970.¹

Rashtriya Swasthya Bima Yojana (RSBY): RSBY was launched in 2008 by Government of India to provide health insurance to Below Poverty Line (BPL) families with the objectives to reduce OOP expenditure on health and increase access to health care. It is a health insurance for unorganized workers. The beneficiary includes domestic workers, Street vendors, mine workers, rickshaw pullers etc. The beneficiaries under RSBY are entitled to hospitalization coverage up to Rs. 30,000/- per annum on family floater basis, for most of the diseases that require hospitalization.² The benefit will be available under the defined diseases in the package list. RSBY is a cashless scheme and the beneficiaries only need to carry their smart cards. As of March 31st, 2016 the number of active smart cards was 41,331,073 and total hospitalization cases were 11,841,283.

Apart from the above mentioned health insurance, there are other central and state run health schemes. Family floater scheme is one of the most popular health insurance in India. It is a single policy which takes care of the hospitalization expenses of the entire family. There are many companies including public and private providing health insurance in India including standalone health insurers. At present, there are five standalone health insurers — Star Health, Max Bupa, Apollo Munich, Religare Health Insurance and Cigna TTK.

The rise in health insurance sector can be seen by the increase in GDPI. The premium collected in health insurance has increased from INR 22,636 Crores in 2014-15 to INR 27,457 Crores in 2015-16 registering a growth of 21.30%. The market share of health insurance is 28.49% making it the second largest sector after motor insurance.⁴ There

has been a consistent increase in the premium collected over the past 10 years. It has risen from INR 3,331 Crores in 2006-07 to INR 24,901 Crores in 2015-16. The following table illustrates the GDPI of health insurance for the past 10 years.

Table 8.2: GDPI – Health Insurance

Year	GDPI (INR in Crores)
2006-07	3,331
2007-08	5,045
2008-09	6,623
2009-10	8,389
2010-11	11,462
2011-12	13,417
2012-13	15,621
2013-14	17,799
2014-15	20,509
2015-16	24,901

Source: GIC Yearbook, 2015-16

The above table illustrates that the GDPI has been increasing from 2006-07 to 2015-16. GDPI has not decreased in these 10 years. The increase in GDPI indicates that the sector is growing and people are investing money in buying health insurance products which are a good sign.

At the same time, there is a high Net Incurred Claim ratio for the same. The incurred claim ratio is the ratio of net incurred claims to net earned premium. If the incurred claim ratio is 90% this means if the insurance company is earning Rs. 100 then Rs.90 is spent on settling the claims. The remaining Rs. 10 is the profit earned by the insurer. The incurred claim ratio has two implications, both from customer and company point of view. Higher the incurred claim ratio means it is good for the customer as it is a good sign that the companies are able to settle the claims efficiently. If the ratio is over 100%, this means the insurance company is paying more on the claim as earned by collecting

premiums which are a situation of loss for the insurer. Indian health insurance industry has a huge net incurred claim ratio. For many years this was above 100%. The following table illustrates this.

Table 8.3: Net Incurred Claim Ratio – eHealth Insurance

Year	Net Incurred Claim Ratio (in %)
2006-07	132.4
2007-08	100.6
2008-09	103.6
2009-10	106.1
2010-11	95.6
2011-12	89.6
2012-13	90.3
2013-14	93.9
2014-15	97.0
2015-16	99.9

Source: GIC Yearbook, 2015-16

The Net Incurred Claim Ratio was above 100% from 2006-07 to 2009-10. In 2010-11 it came below 100%. It reduced to 89.6% in 2011-12 but again started to increase from 2012-13. The Net Incurred Claim Ratio in FY 2015-16 was 99.9%. It may rise above 100% if this trend continues. The Net Incurred Claim Ratio has been steadily increasing which reflects that a high number of claims are being reported in health insurance business. This implies that people are becoming more aware of the benefits of having health insurance.

Let us look at the total expenditure on health as a percentage of GDP which is very less in India. Only 1.3% of GDP was spent on health in 2015-16.¹ The next table illustrates the expenditure on health as a percentage of GDP for the past few years.

Table 8.4: Total Expenditure on health as a percentage of GDP

Year	Expenditure on health as % of GDP
2009-10	1.12
2010-11	1.07
2011-12	1.09
2012-13	1.08
2013-14	1.16
2014-15	1.26
2015-16	1.3

Source: National Health Accounts Cell, MOHFW, GOI

If comparing with various countries this is very less. In fact in SEARO (South East Asian Regional Office) which refers to a WHO region consisting of the following 10 countries: Bhutan, Bangladesh, Democratic People's Republic of Korea, India, Maldives, Myanmar, Nepal, Sri Lanka, Thailand, and Timor-Leste. The next table illustrates the contribution on health as a percentage of GDP for SEARO countries.

Table 8.5: Expenditure on health as a % of GDP for SEARO- 2013

Country	Expenditure on health as a % of GDP
Maldives	6.2
Thailand	3.7
Bhutan	2.7
Nepal	2.6
Sri Lanka	1.4
Bangladesh	1.5
Indonesia	1.2
Timor-Leste	1.2

India	1.1
Myanmar	0.5

Source: Global Health Observatory, WHO Database

From the above table, it can be inferred that for the year 2013 India spent 1.1% of GDP on health which is only above than Myanmar. In fact, we are lagging behind countries like Bhutan, Nepal, Sri Lanka and Bangladesh when it comes to spending on the health sector. According to World Health statistics Report, India's spending on health is one of the lowest in the world. This is ironical that India being the second most populated country in the world is spending little on the health sector.

In fact, it is very less as compared to India's per capita government expenditure on health in 2012 was \$60 which is very less than the USA which was \$4,153.¹ The following table gives the expenditure on health as a percentage of GDP of OECD countries.

Table 8.6: Total Expenditure on health as a percentage contribution to GDP

Country	% of GDP
USA	17.1
France	11.6

Germany	11.2
Denmark	11.1
Canada	10.7
Japan	10.2
Australia	9.4
United Kingdom	8.8

Source: OECD Health Statistics, 2015

The above table illustrates that these countries spend a huge portion of GDP on health whereas India remains one of the lowest contributors in the world; in health care segment. Only 1.3% of GDP was spent on health as per the Economic Survey, 2015-16.

The Indian health insurance sector has the immense scope of expansion. Only 21.6 Crores of the total population is covered under health insurance.¹ This means less than one-fifth i.e. Less than 20% of the population is insured. India is also facing high Out of Pocket (OOP) an expense which refers to the cost that individual pays for medical expenses from their own cash reserves. Let us look at the OOP medical expenses for 2011-12 in urban and rural areas which are given in the following table.

Table 8.7: Monthly OOP Medical Expenditure, 2011-12 (in INR)			
	Medical-Institutional	Medical-Non Institutional	Total Medical Expenditure
Rural	30.81	64.37	95.8
Urban	51.44	94.27	145.7

Source: Household consumption of various goods and services in India, 2011-12. NSS 68th Round Report No. 558

High OOP medical expenses is not a good symbol as it means people are willing to pay from their own pocket rather than in having health insurance policy. This is a big challenge prevailing in the

country. Let us compare the OOP expenditure on health with some countries which are illustrated in the following table.

Table 8.8: OOP Expenditure of selected countries

Country	OOP Expenditure as a percentage of private expenditure on health
Russia	87.9
India	86
China	78.8
Brazil	57.8
UK	53.1
USA	20.9
South Africa	13.8

Source: World Health Organization (WHO), 2011

Indians spent 86% of expenditure on health as an OOP which is very high. This means that only 14% of expenditure is not an Out of Pocket expense. Among the above countries, South Africa has the least OOP expenditure on health which is only 13.8%.

8.1. Health Insurance – Challenges

First, more than 80% of the population in India is uninsured. Increasing the number of people to have health insurance is a big challenge.

Second, high OOP medical expense is a big challenge prevailing in the country. People are willing to pay from their pockets rather than to have a health insurance policy. The reason behind high OOP medical expenses is the lack of awareness about insurance among the citizens.

Third, High incurred claim ratio in health insurance industry. The Net incurred claim ratio is 99.9% at present which may cross over 100%. This means the company will start suffering losses. There should be a balance between the claims and the premium earned.

8.2. Health Insurance - Recommended Solutions

This section recommends two solutions which can be used to combat the challenges to some extent.

It discusses the Long Term Care Insurance and National Health Insurance and how these can be implemented in India. This has been discussed in detail in the following sections.

8.2.1. The Concept of Long Term care (LTC) - Proposal

There is a need for India to adopt Long Term Care Insurance (LTCI) policy which is very helpful when the person is not able to perform daily activities. Long term care insurance is conceptually focused on providing a source of income through insurance coverage to those who cannot perform their day to day activities which are essential to lead a normal life. Long term care is mainly accompanied by people who have reached the stage in which they are dependent on others for their need. At present where more than 80% of the population is uninsured, long term care can significantly change the scenario. The following reasons can be cited for adopting LTCI:

- The increase in per capita income can facilitate to buy insurance policies.
- There has been a rise in nuclear families in India tremendously. This means that Indian society is shifting towards independency. In fact, the number of nuclear families in absolute terms increased from 135 million in 2001 to 172 million in 2011.
- The increase in the elderly population is also a big reason behind LTC in India. As per the Help age India report, “By 2021, the elderly in the country will number 143 million, the report said.

The LTCI is being practiced in many countries across the globe and this has been successfully implemented in those countries. The drawback of LTC is the high premium price which is being charged by the insurers. Let us look at the few countries where LTC has been implemented successfully:

• Germany

In Germany long term care insurance is mandatory and it was started in 1995. According to German law, children are required to support their parents

in old age to the degree that their own resources are sufficient. German insurance is a pay as you go system. In this risks are pooled and benefits are independent of earlier contribution. After 5 years the policy holder is qualified for availing benefits and these benefits are independent of the income level of the individual.

· **United States**

The United States had a social welfare programme for elderly people around the turn of the 20th century. In the USA the finance for the LTC was pooled from both public and private sources. Based on the programmes like Medicaid and Medicare the low income people can be covered and avail the benefits of both hospital care and home care. Benefits are paid for a limited time.

· **United Kingdom**

In the United Kingdom, the concept of LTC insurance was evolved during the post-war era. The main sources of funding are local authorities and the NHS. The first private insurance policy for LTC costs was introduced in 1991. The two types of offers which are in great demand in the market are pre-funded plans and immediate needs. Maximum benefits are limited. Most of the time home care is provided to the individual under LTC insurance. The market is growing now a day. Pre funded plans are those which are purchased by healthy people to protect them against future costs of LTC. Immediate plans are purchased by people that are already disabled to insure the risk of uncertain survival duration.

8.2.2. National Health Insurance (NHI) – Proposal

National health insurance (NHI), also called statutory health insurance (SHI) is a legally enforced scheme of health insurance that insures a national population against the costs of health care. It may be administered in the public sector, the private sector, or a combination of both. NHI is being established by national legislation. Germany was the first country to adopt NHI. United Kingdom adopted the National Health Insurance under National Health Service (NHS)

after the Second World War. Australia too has an NHI called Medicare. Other countries having a National Health Insurance are United States, Canada, Netherlands, France, Belgium, Switzerland etc.

NHI can be adopted in India in various phases. Initially, it should be adopted on a pilot basis, covering only the primary health care excluding the hospitalization and surgical expenses. There should be a limit which can be incurred for the medical expenses say INR 1000 or INR 2000. This can reduce the OOP medical expenses as most of the OOP expenses are incurred on primary health. If successful, NHI may cover additional benefits. NHI will have the advantage of increasing people's participation in having health insurance. Models from the above mentioned countries can be used for references when it comes to implementation. Having a security for primary health may attract people to have other health insurance policy which in turn will increase the health insurance market and contribute to increasing in insurance density and insurance penetration.

The National Health Insurance of countries like Australia, Netherlands etc should be studied and can be used as a reference for implementing in India.

9. CONCLUSION

Indian general insurance business has seen great expansion and there is a lot of scope for improvement. The third party motor insurance still faces the challenge of high net incurred claim ratio which can be reduced by having an upper bound on third party liability which was proposed in Motor Vehicle Amendment 2016 which has been passed by the Lok Sabha on 10th April which is a good move. Aadhar card can be used as a weapon to track the past history with the help of technology. Also, differential pricing system which has proven to be successful in various countries can be subsequently implemented in India.

There is a need for a National Health Insurance which should at least cover the primary medical expenses thus reducing the Out of Pocket expenses

to much extent. Also, the concept of Long Term care can be used with studying the various models being adopted by some countries. Both Long Term care and National Health Insurance can be implemented which may reduce the out of pocket medical expenditure and thus can create awareness among the people towards the benefit of having health insurance. As less than 20% of the Indian population is uninsured these two can insure a large population at one go.

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TRIBAL FARMERS PERCEPTION ON CROP INSURANCE: A STUDY OF MANCHERIAL DISTRICT OF TELANGANA STATE

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ABSTRACT

This paper discusses the findings of the study in the area of crop insurance. Firstly it measures the awareness level and source of awareness, secondly examines the farmers' perception, finally identify the farmers willingness in paying for crop insurance. The study was conducted in Mancherial District, in Telangana. 150 convenient respondents were chosen and been carried out in May and June, 2017. From the analysis farmers awareness level about crop insurance was low. Most of the farmers were not willing to pay for crop insurance because of instable income, premium rate, no or low compensation, problems with distribution channel and lack of financial knowledge.

Key words: *Crop Insurance, awareness, perception, premium rate.*

I. Introduction:

Agriculture production and farm incomes in India are frequently affected by natural disasters such as droughts, floods, cyclones, storms, landslides and earthquakes. Susceptibility of agriculture to these disasters is compounded by the outbreak of epidemics and man-made disasters such as fire, sale of spurious seeds, fertilizers and pesticides, price crashes etc. All these events severely affect farmers through loss in production and farm income, and they are beyond the control of the farmers. With the growing commercialization of agriculture, the magnitude of loss due to unfavorable eventualities is increasing. The question is how to protect farmers by minimizing such losses. For a section of farming community, the minimum support prices for certain crops provide a measure of income stability. But most of the crops and in most of the states MSP* is not implemented. In recent times, mechanisms like contract farming and future's trading have been established which are expected to provide some insurance against price fluctuations directly or

indirectly. But, agricultural insurance is considered an important mechanism to effectively address the risk to output and income resulting from various natural and manmade events. Crop Insurance is a means of protecting the agriculturist against financial losses due to uncertainties that may arise agricultural losses arising from named or all unforeseen perils beyond their control. Unfortunately, crop insurance in the country has not made much headway even though the need to protect Indian farmers from agriculture variability has been a continuing concern of agriculture policy. According to the National Agriculture Policy 2000, "Despite technological and economic advancements, the condition of farmers continues to be unstable due to natural calamities and price fluctuations". In some extreme cases, these unfavorable events become one of the factors leading to farmers suicides which are now assuming serious proportions.

Crop insurance is one method by which farmers can stabilize farm income and investment and guard against disastrous effect of losses due to

natural hazards or low market prices. Crop insurance not only stabilizes the farm income but also helps the farmers to initiate production activity after a bad agricultural year. It cushions the shock of crop losses by providing farmers with a minimum amount of protection. It spreads the crop losses over space and time and helps farmers make more investments in agriculture

There are two major categories of crop insurance: single and multi-peril coverage. Single peril coverage offers protection from single hazard while multiple perils provide protection from several hazards. In India, multi-peril crop insurance programme is being implemented, considering the overwhelming impact of nature on agricultural output and its disastrous consequences on the society, in general, and farmers, in particular.

The present study looks at the genesis of crop insurance in Telangana, examines various crop insurance schemes launched from time to time and the coverage provided by them. Major issues and problems faced in implementing crop insurance were discussed in detail.

II. Review of Crop Insurance Literature

Walker and Jodha 1986 in the absence of formal risk sharing / diffusion mechanisms, farmers rely on traditional modes and methods to deal with production risk in agriculture. Many cropping strategies and farming practices have been adopted in the absence of crop insurance for stabilizing crop revenue. Availability and effectiveness of these risk management strategies or insurance surrogates depend on public policies and demand for crop insurance.

A study by **Horowitz and Lichtenberg (1993)** find that in the US Midwest, crop insurance exerts considerable influence on maize farmers' chemical use decisions. Those purchasing insurance applies significantly more nitrogen per acre (19 %), spend more on pesticides (21 %), and treats more acreage with both herbicides and insecticides (7 % and 63 %) than those not purchasing insurance. These results suggest that both fertilizer and pesticides may be risk-increasing inputs.

Some of the studies confirm the conventional view that moral hazard incentive lead insured farmers to use fewer chemical inputs (**Smith and Goodwin 1996**). **Babcock and Hennessy (1996)**, find that at reasonable levels of risk aversion, nitrogen fertilizer and insurance are substitutes, suggesting that those who purchase insurance are likely to decrease nitrogen fertilizer applications.

Bhende 2002 Crop insurance protects farmers' investment in crop production and thus improves their risk bearing capacity. Crop insurance facilitates adoption of improved technologies, encourages higher investment resulting in higher agricultural production. A properly designed and implemented crop insurance programme will protect the numerous vulnerable small and marginal farmers from hardship, bring in stability in the farm incomes and increase the farm production

Bhende (2005) found that income of the farm households from semi-arid tropics engaged predominantly in rain-fed farming was positively associated with the level of risk. Hence, the availability of formal instrument for diffusion of risk like crop insurance will facilitate farmers to adopt risky but remunerative technology and farm activities, resulting in increased income.

III. Profile of the study area

Mancherial district is a new district in Telangana state. It was a part of the Adilabad district prior to the re-organisation of districts in the state. Telangana State gets 31 districts to spruce up administration District Administration – Formation/ Reorganization of District, Revenue Divisions and Mandals in Adilabad District – Final Notification - Orders – Issued. TS Revenue (DA-CMRF) Department GO. Ms. No. 221 Date: 11-10.2016

Mancherial district covers an area of 3,943 square kilometers and has a population of 8, 07,037 as per 2011 Census. Tribal population 56,968 comprises of 7.06% in the total population and Mancherial district under ITDA project. Godavari and Pranahita rivers flow through this district.

Singareni coal mines are present in this district. There are many cement factories in this district. There is electricity generation center with a capacity of 1200 megawatts in Jaipur mandal of this district. There is Ellampally (Sripadsagar) reservoir built on Godavari river provides drinking and irrigation water, which also provides drinking water for Hyderabad city.

IV. OBJECTIVES OF THE STUDY

- ♦ To study the measurable awareness level on crop insurance of farmers in Mancherial
- ♦ To suggest effective agriculture insurance policies in tribal areas

V. Methodology

The data has been collected from the farmers of insured and not insured are covered in Mancherial district of Telangana, This study is based on an analysis of primary and secondary data. Required data on production from publications of Central government and state of Telangana. Detailed information about crop insurance at the national level was collected from the Agriculture Insurance Company of India Limited New Delhi and Report of XII Plan Working Group on Risk Management in Agriculture, Planning Commission, and Government of India.

By administering the self-structured questionnaire to them, the samples consist of marginal, small and large farmers. 150 convenient respondents were chosen by the following criteria. The village consists of nearly 300-400 households. The

average households have been 350. Normally 35 to 45% of households in villages belong to farming community. From 350 households 40% of farm households i.e. 150 were chose as sample size in this study among the 60 are insured and 90 are non-insured. The study has been carried in May and June, 2017. The analysis of data collected has been carried out using percentage analysis and t test were using for the test.

Risk associated with agriculture and various crops was estimated by using instability index as an indicator of risk as below:

Instability index = Standard deviation of natural logarithm (Y_{t+1}/Y_t). Where, Y_t is the crop area / production / yield / farm harvest prices / gross returns in the current year and, Y_{t+1} represent the same in the next year. This index is unit free and very robust and it measures deviations from the underlying trend (log linear in this case). When there are no deviations from trend, the ratio Y_{t+1}/Y_t is constant, and thus standard deviation in it is zero. As the series fluctuates more, the ratio of Y_{t+1}/Y_t also fluctuates more, and standard deviation increases. Slightly different variant of this index has been used in the literature before to examine instability and impact of drought on it

VI. ANALYSIS OF THE DATA

Socio-economic characteristics of insured and non-insured farmers are presented in Table 1

Table 1: Socio-economic characteristics of sample households

Parameter	Insured n = 60		Non-insured n = 90		Mean differene	t	Signific ance
	Mean	S.D	Mean	S.D			
Farm size (Acres)	4.82	3.42	3.47	2.35	1.35	2.87	***
Family size (Numbers)	4.90	1.53	4.99	1.13	-0.09	-0.41	NS
Education (Years)	7.78	4.12	7.66	3.62	0.12	0.19	NS
Livestock (Numbers)	1.54	3.02	1.68	2.66	-0.14	-0.30	NS

Household Income(Rs.)	13396	36356	7800	1957	5596	1.22	NS
Crop (Rs.)	8916	23386	661	7644	8255	3.11	***
Livestock (Rs.)	1263	2826	1011	2949	252	0.52	NS
Others (Rs.)	3217	10150	6128	8934	-2911	-1.85	*

Note:

*** Significant at 1 per cent level

* Significant at 10 per cent level

NS Not significant

Average size of family among insured and non-insured was 5 and most of them have education up to middle level. Level of education, family size and livestock ownership did not show any significant difference insured and non-insured. However, farm size and crop income, which generally corresponds to farm size, were significantly higher for insured household as compared to non-insured. Income from other sources was higher at non-insured households.

Though average income of insured household was much higher than the average household income of non-insured but the difference was not statistically significant up to 10 per cent level

RESPONSE OF INSURED FARMERS

Views of sample farmers were solicited on various dimensions of insurance. These include motivation and experience with crop insurance, opinion on premium rate, and suggestions for improving the crop insurance scheme etc.

Table2: Motivation and experience of insured farmers

Perception	Response	Percent
Motivation for going for insurance	Due to banks compulsion	5.00
	Financial security	76.67
	Heard of good experience from others	1.67
	Above all combinations	16.67
Experience with Agricultural Insurance	Satisfactory	96.67
	Not Satisfactory	3.33

More than three fourth of the insurance beneficiaries mentioned that financial security was the motivation for going for insurance. Five percent of the respondents considered bank compulsion as the reason for going for insurance.

One respondent out of 60 described good experience of others as the motivation. Except two insured beneficiaries all other expressed satisfaction with agriculture insurance mechanism (Table3).

Table3: insured' perception on premium rate

Perception	Response	Percent
Paying Premium rate	High	61.67
	Low	3.33
	Reasonable	31.67
	Can't say	3.33
Premium rate willing to pay	Up to 2 %	95.00
	2-3 %	5.00

More than 60 per cent of borrowers insured farmers felt that the existing premium rate was high while 32 per cent felt it was reasonable. 95 per cent of the respondents would like to pay premium at the rate of 2 per cent while 5 per cent were willing for a range of 2-3 per cent (Table.3).

Respondents made several suggestions for improving the existing scheme for crop insurance. A majority of the farmers want quick settlement of claims. Around one-fifth of the

beneficiaries favour that Crop Cutting Experiments used to serve as the basis for determining indemnity should be carried in the presence of affected farmers. Some respondents also propose reduction in premium rate and extension in insurance cover to more crops to improve the scheme. Respondents were of the view that parameters to be considered for payment of insurance claims should be rainfall, crop condition and revenue reports

Table 4: Suggestions made by insured farmers for improving insurance

Perception	Response	Percent
Suggestions for improving insurance	Cover more crops	3.33
	Reduce premium rate	6.67
	Quick settlement of claims	56.67
	Gram Panchayat as a unit of loss assessment	1.67
	Insurance service at doorstep	1.67
	CCE's in presence of villagers	21.67
	Above all combinations	8.33
Ad hoc payment of claims	Rainfall	13.33
	Crop condition report	31.67
	Revenue report	13.33
	All above combinations	41.67
Media prefer to know about insurance	KisanSabhas	10.00
	Village melas	35.00
	Television	21.67
	News paper	1.67
	Film show in the village	3.33
	Road shows	1.67
	More than one opinion	26.67
Service provider for availing insurance	Rural agent at door step	13.33
	Rural agent at village level	58.33
	Co-operative bank	8.33
	Post office	3.33
	More than one opinion	16.67

Beneficiaries were asked to indicate their preference for the media through which awareness on insurance should be created. Village mela was the most preferred choice followed by television. More than 26 per cent of the beneficiaries indicate preference for more than one source (Table.4).

At present service for insurance to farmers is provided by the concerned institution like cooperative society or commercial bank. Close to 60 per cent borrower respondents suggested that

rural agent at village level should facilitate insurance services. Some respondents want insurance service at their doorstep and some want it through cooperatives and post office.

RESPONSE OF NON INSURED FARMERS

Those farmers in the same locality who were not currently covered by crop insurance were also interviewed to know their views on various aspects of agricultural insurance

Table 5: Non- insured farmers' perception on agricultural insurance in Mancherial district

Perception	Response	Per cent
Awareness of insurance	Don't know	47.78
	Banks	30.00
	Fellow farmers	22.22
Having insurance any time	No	82.22
	Yes	17.78
Reason for not availing the insurance	No awareness	22.22
	No need	2.22
	Lack of premium paying capacity	1.11
	Not aware of the facilities available	5.56
	Inadequate publicity	3.33
	complex documentation	2.22
	Lack of co-operation from the bank	1.11
	Difficulties in opening bank account	3.33
	Non-institutional source of loan	7.78
	More than one opinion	51.11

Majority of non-insured farmers or who was not availing crop insurance were aware about the scheme. Only 48 per cent of non-borrower respondents said that they were not aware about the scheme (Table .6). The source of awareness for those who know about the scheme was either bank or fellow farmers. About 82 per cent of non-insured mentioned that they never had availed

insurance before while 18 per cent said they had earlier benefited from insurance. Several reasons were cited for not-availing the insurance facility. Majority of farmers gave more than one reason for this. Lack of awareness about the scheme was the single most important reason for not availing insurance.

Table 6: Non- insured farmers' perception

Perception	Response	percent
Preference of agencies in case of losses	Sale of fixed assets	3.33
	Sale of livestock	1.11
	Borrowing from friends and relatives	17.78
	Bank loan	3.33
	Borrowing from money lender	21.11
	Government relief	2.22
	Hypothecation of house / jewellery / assets	51.11

These respondents were further asked what source they would tap if they suffer loss due to crop failure or other reason. Over 50 percent respondents mentioned that they will go for hypothecation of house or jewellery or any other asset. About one

fifth of the respondents said they will take records to borrowing from money lenders and 18 per cent look for borrowing from friends and relatives. Sale of fixed assets and bank loan were mentioned by a few respondents (Table 6).

Table.7.Non-insured farmers perception on preference for insurance agency in Mancherial district.

Perception	Response	Per cent
Service provider for availing insurance	Rural agent at door step	15.56
	Rural agent at village level	38.89
	Commercial bank	3.33
	Co-operative bank	5.56
	Self Help Group's	2.22
	Post office	6.67
	More than one opinion	27.78

The preference revealed by non-insured respondents about insurance service is presented in Table.7. Like non insured farmers, rural agents at village level were the most preferred agency preferred by for non-insured farmers. About 16 percent respondents want rural agent at door step and about 28 per cent expressed choice for more than one agency

CONCLUSION

Despite various schemes launched from time to time in the country agriculture insurance has served very limited purpose. The coverage in terms of area, number of farmers and value of agricultural output is very small, payment of indemnity based on area approach miss affected farmers outside the compensated area, and most of the schemes are

not viable. Expanding the coverage of crop insurance would therefore increase government costs considerably. Unless the programme is restructured carefully to make it viable, the prospects of its future expansion to include and impact more farmers is remote. This requires renewed efforts by Government in terms of designing appropriate mechanisms and providing financial support for crop insurance.

Providing similar help to private sector insurers would help in increasing insurance coverage and in improving viability of the insurance schemes over time. With the improved integration of rural countryside and communication network, the Unit area of insurance could be brought down to a village panchayat level. Insurance products for the

rural areas should be simple in design and presentation so that they are easily understood. There is lot of interest in private sector to invest in general insurance business. This opportunity can be used to allot some target to various general insurance companies to cover agriculture. To begin with, this target could be equal to the share of agriculture in national income. Good governance is as important for various developmental programmes as for successful operation of an agriculture insurance scheme. Poor governance adversely affects development activities. With the improvement in governance, it is feasible to effectively operate and improve upon the performance of various programmes including agriculture insurance.

POLICY SUGGESTIONS

Crop insurance program works as collateral security, therefore also benefit banks. When claims are paid, banks first adjust the claim against their outstanding dues, and balance if any is credited to the farmers. Therefore, the Crop Insurance Scheme also benefits the banks. In Philippines, banks are made to share a part of the premium burden. For rice where the premium is 10.81 per cent, borrowing farmer pays only 2.91 percent while the government pays is 5.90 percent and the lending institution, 2.00 per cent. A similar arrangement can be recommended for participating banks in India. Such arrangement would also bring non-insured farmers into the fold of banking network, thus institutional lending of crop loans.

Remote sensing is the emerging technology with potential to offer plenty of supplementary, complimentary and value added functions for agricultural insurance. The present technology available shall not only provide the insurers with tools like crop health condition, area-sown confirmation, yield modeling which are very important, but also strengthen the position of insurer's vis-à-vis re-insurance market.

Some of the possible applications of for agricultural insurance could be as follows:

1. Estimating actual acreage – sown at insurance unit level to check the discrepancy of over-insurance (area insured being more than area sown).
2. Monitoring crop health through the crop season, and investigation on ground for advance intimation of yield reduction.
3. To check adequacy and reliability of CCE data.
4. Developing satellite based crop productivity models for cereals and other crops.

There is a need to promote private sector participation in agriculture insurance. First license for the private sector was issued in October 2000. As of today, there are ten private sector insurers in the general insurance business: Reliance, Tata-AIG, Royal Sundaram, IFFCO-Tokio, Bajaj-Allianze, ICICI-Lombard, HDFC- Chubb, Cholamandalam, ECGC and Star Health. The latter two, are limited to only a few lines of general insurance. The fact remains that these insurers have not yet undertaken agricultural insurance to a significant extent. Only two companies in the private sector have initiated crop insurance, albeit on a small scale. ICICI-Lombard was the first company to experiment with rainfall insurance in 2003. The concept is further extended to weather insurance since 2004. IFFCO-Tokio General Insurance (ITGI), the second company in private sector, started piloting rainfall insurance, since 2004. The Insurance Regulatory and Development Authority (IRDA) has stipulated that every new insurer undertaking general insurance business, has to underwrite business in the rural sector to the extent of at least 2 per cent of the gross premium during the first financial year, which is to be increased to 5 percent during the third financial year of its operation. Crop insurance is included in the rural sector insurance for this purpose. The business targets stipulated in rural insurance apparently are very small. Those who do not meet even these small targets are getting away by paying penalties of nominal amounts. If private insurers are to be spurred to enter the rural insurance market in a significant manner, the

business targets have to be raised substantially by IRDA.

In order to promote public – private participation in agriculture insurance GOI should follow the USA model to work out premium rate through an exclusive technical agency, and offer the product to all insurers. Insurers can implement the product, enjoying the same level of support and subsidy. As a variation from the USA method, the government would not provide reinsurance support and reimbursement of administrative and operating expenses, as these costs would be loaded in the actuarial rates. The government can decide whether or not different insurers compete in the same area, or allocate specific crops and areas to a particular insurer (Planning Commission, 2007).

With increased commercialization of agriculture price fluctuations have become highly significant in affecting farmers income. Accordingly, market risk is now quite important in affecting farmers income. We feel that implementation of market insurance to cover price risk is much easier than yield insurance. This can be done by requiring interested farmers to register their marketable surplus with insurance agency or market committee at the time of sowing of crop. The insurance agency should offer insurance cover to include price guarantee which could be minimum support price in some cases or market based price from the past. Farmers should pay premium for this kind of price insurance and initially government should share some burden of the premium.

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IMPACT OF LIBERALIZATION ON LIFE INSURANCE SECTOR IN INDIA: A STUDY

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ABSTRACT:

Liberalization, privatization and globalizations have their impact on all most all sector. Even its role is not negligible on insurance sector, especially on life insurance. Liberalization has its direct impact on life insurance. It is one of the powerful service sector in the world economy. Privatization of insurance sector strengthened the economy. Prior to the introduction of new economic policy, only few players were operated in the insurance sector, especially in life insurance. Post introduction of liberalization and privatization, many developments have been taken place and the result of which many companies are now providing life insurance services. In this paper an attempt is made to analyze the impact of liberalization on life insurance.

Key words: *Life Insurance, Insurance sector, Liberalization, Privatization, World economy.*

I. INTRODUCTION

India's economic development made it a most lucrative Insurance market in the world. Before the year 1991, there was monopoly state run Life Insurance Corporation of India (LIC) The competition from these companies were threatening to the existence of LIC. Since the liberalization of the industry the insurance industry has never looked back and today stand as the one of the most competitive and exploring industry in India.

Life Insurance is a professional service which is characterized by high involvement of the consumers. Due to the importance of tailoring specific need, the variability of the products available. The complexity involved in the policies and processes and ultimately the need to involve the consumer in every aspect of the transaction. Life insurance is known as Life Assurance has in recent times ceased to be only a Protection or 'Legacy' for the family and has turned into an important investment outlet. When compared with

the developed foreign countries, the Indian life insurance industry has achieved only a little because of the followings: lack of quality strategies adopted by the LIC, lack of standard education and awareness about savings, low capital per income and lack of employment opportunities. Life Insurance Corporation of India (LIC) started in the year 1956 as a wholly-owned corporation of the Government of India. The following are the main objectives of LIC:

- Ø Spreading life insurance much more widely and in particular to the rural areas and to the socially and economically backward classes, to providing them with adequate financial coverage against death at a reasonable cost.
- Ø Increasing the people's savings by making insurance linked savings adequately attractive.

Investing funds to the best advantage of the investors as well as the community as a whole. Meeting the various life insurance needs of the community that would arise in the changing social

and economic environment through its family schemes and group insurance schemes.

II. REVIEW OF LITERATURE

Peter Drucker (1999) admitted that by “providing financial protection against the major eighteenth and nineteenth century risk of dying too soon, life insurance became the biggest financial industry of that century. Providing financial protection against the new risk of not dying soon enough may well become that next century’s major and most profitable financial industry”.

TS Rama Krishna Rao (2000) opined, “1999-2000 were landmark years in the history of Indian insurance industry. The year 2007 is going to be another watershed for the industry. First January 2007 will totally change the complexion of the non-life industry. The insurance industry will have to play a vital role by providing health insurance and other insurance products for the poor”.

Jain (2004) revealed, “Waves of liberalization have done wonders to raise the insurance occupation to the status of a career with a bright future. The average mindset, particularly of younger generation in India is very amenable to these changes in insurance, which is as an avenue where exhilarating opportunities are opened up in changed environment”.

Sinha (2005) in his paper highlights the phenomenal growth experienced recently in connection with improvements in economic fundamentals. With comparison in growth, penetration, density and other insurance variables it can be said that still India is an underdeveloped insurance market with huge catch-up potential.

Rao (2007) reported, “Insurance is a vital economic activity and there is an excellent scope for its growth in the emerging markets. The opening up of the insurance sector has raised high hopes among people both in India and abroad.

Sabera (2007) indicated, “The Government of India liberalized the insurance sector in March 2000, which lifted the entry restrictions for private insurance players, allowing foreign players to enter

into the market and start their operations in India. The entry of private players helps in spreading and keeping the operation in the Indian insurance sector which in turn results in restructuring and revitalizing of public sector companies”.

Chandrasekhar (2009) in his article “Learning Nothing, Forgetting Everything” observes that the Government has been pushing ahead with privatization despite there being no evidence of the nationalized insurance industry failing to meet its obligation to insurers or to the Government.

Krishna swami (2009) in his book “Principles and Practice of Life Insurance” explains clearly the history of insurance, advantages of insurance and the role of insurance in the economy and also in the society. The life insurance products, the concepts of premium, investment management and solvency margin are also discussed at length in the book.

Kannan (2010) viewed that India, being rich in population and most of the area is untapped, has tremendous scope for growth in insurance sector. Today insurance business is growing at the rate of 15-20% annually. Together with banking services, it adds about 7% to the country’s GDP. In spite of all this growth the statistics of the penetration of the insurance in the country is very poor.

Imam (2011) analysed Customer behaviours in Life Insurance Industry. Researcher opined that the sale of life insurance policies in India is less than many Western and Asian countries. With their world market experience and network, these companies have offered many good schemes to lure all type of Indian consumers, but unfortunately failed to get the major share of market. Still the LIC is the biggest player in the life insurance market with approx. 65% market share.

Selvakumar & Piyan (2012) analysed the performance of public and private life insurance companies in India. Researcher opined that today’s market is customer centric and customer is supposed to be king of market. To satisfy customers innovations are taking place with distinct features to attract the customers. **Tiwari**

& Yadav (2012) conducted an Analytical study on Indian Life Insurance Industry in Post liberalization. Researchers concluded that Indian market is untapped market and found good opportunity.

III. OBJECTIVES

- ✓ To examine the structure and review of life insurance industry in India.
- ✓ To know the performance of Indian Life Insurance Corporation of India between pre- and post- LPG era.
- ✓ To examine the current status, volume of competitions and challenges faced by the Life Insurance Corporation of India.

IV. STRUCTURE OF LIFE INSURANCE INDUSTRY

The LIC had monopoly till the late 90s when the Insurance sector was reopened to the private sector. Before that, the industry consisted of only two state insurers: Life Insurers (Life Insurance Corporation of India, LIC) and General Insurers (General Insurance Corporation of India, GIC). GIC had four subsidiary companies. Oriental Insurance Company Limited, New India Assurance Company Limited, National Insurance Company Limited and United India Insurance Company Limited. Some of the well-known insurers 'logo in India is given below:



Today there are 28 general insurance companies including the ECGC and Agriculture Insurance Corporation of India and 24 life insurance companies operating in the country. The insurance sector is growing at a speedy rate of 15-20%

together with banking services, insurance services add about 7% to the country's GDP. A well-developed and evolved insurance sector is a boon for economic development.

FIG:1 INDIAN INSURANCE INDUSTRY STRUCTURE.

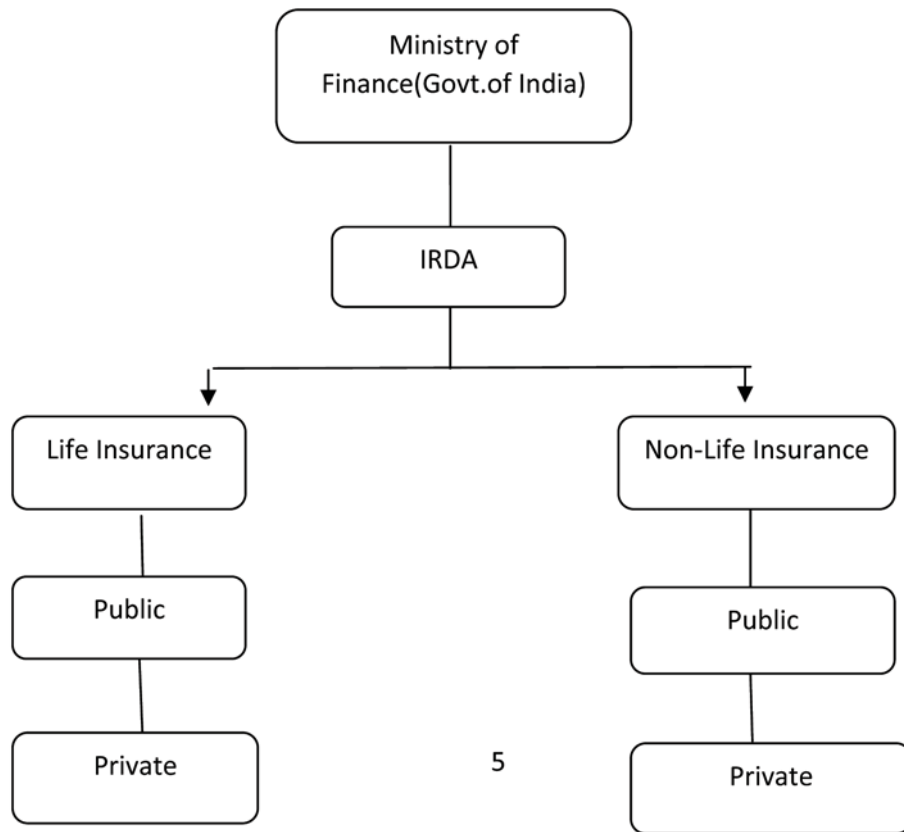


TABLE 1:REGISTERED INSURER IN INDIA(AS ON 30TH SEPTEMBER, 2012)

Type of Insurer	Public Sector	Private Sector	Total
Life Insurance	01	23	24
General Insurance	06	18	24
Reinsurance	01	00	01
Total	08	41	49

After the reforms, the number of players has increased in life insurance and non-life insurance at end-September 2012, there are forty-nine insurance companies operating in India; of which

twenty four are in the life insurance business and another twenty four are in general insurance business. In addition, GIC is the sole national re-insurer.

TABLE 2: MARKET SHARE OF LIFE INSURERS (IN PER CENT)

Insurer	2014-15	2015-16
Regular Premium		
LIC	49.16	46.74
Private Sector	50.84	53.24
Total	100.00	100.00
Single Premium		
LIC	83.53	84.74
Private Sector	16.47	15.73
Total	100.00	100.00
Renewal Premium		
LIC	75.04	73.90
Private Sector	24.96	26.10
Total	100.00	100.00

Source: IRDA Annual Report.

TABLE 3: MARKET SHARE OF INSURERS OF PUBLIC AND PRIVATE

Financial Year	Public (LIC)	Private Insurers	Total
2001-02	99.44	0.56	100.00
2002-03	97.19	2.01	100.00
2003-04	95.29	4.71	100.00
2004-05	90.67	9.33	100.00
2005-06	85.75	14.25	100.00
2006-07	81.90	18.10	100.00
2007-08	74.39	25.61	100.00
2008-09	70.92	29.08	100.00
2009-10	70.10	29.90	100.00
2010-11	69.77	30.23	100.00
2011-12	70.68	29.32	100.00
2012-13	72.70	27.30	100.00
2013-14	75.39	24.61	100.00
2014-15	73.05	26.95	100.00
2015-16	72.16	27.39	100.00
Average	79.96	19.95	100.00

Source: IRDA Annual Report.

V.INDIA LIFE INSURANCE INDUSTRY IN THE PRE LPG ERA

Life insurance in its modern form came to India from England in 1818 with the formation of Oriental Life Insurance Company (OLIC) in Calcutta mainly by Europeans to help widows of their kin. Later, due to persuasion by one of its directors (Shri Babu Muttyal Seal), Indians were also covered by the company. By 1868, 285

companies were doing business of insurance in India. Earlier, these companies were governed by Indian Company act 1866 and by 1870, 174 companies ceased to exist, when British parliament enacted insurance Act 1870. These companies were however, insuring European lives. Those Indians who were offered insurance cover were treated as substandard. Lives and were accepted with an extra premium of 15 -20%.

TABLE 4. GROWTH OF LIC BETWEEN 1957 AND 1999.

S.N.	Particulars	1957	1999
1	Annual Businesses		
	Sum Assured	336.3 Crores	75606 Crores
	Policies	8,00,000	1,48,57000
	First Year Premium	14 cores	4171 cores
2	Business in Force		
	Sum Assured	1477 Crores	459201 Crores
	Policies	56,86,000	9.17.26,000
	Renewal Premium	74 Crores	16136 Crores
3	Group Business in Force		
	Sum Assured	529 Crores	69,558 Crores
	No. Of Lives	-	2,16,71,000
4	Life Fund	41040 Crores	127389.06 Crores

Source: Secondary Data – Annual Reports of LIC.

VI. CHALLENGES OF LIFE INSURANCE INDUSTRY IN INDIA.

- Main challenges of the insurance industry are product innovation, distribution, customer service, and investments.
- Unit-linked personal insurance products not find greater acceptability with rising

customer awareness about customized, personalized and flexible products.

- Flexible products and new technology will play a crucial role in reducing the cost and, therefore, the price of insurance products is most important.

- Finding niche markets, having the right product mix through add-on benefits and riders, effective branding of products and services need of the hour
- Product differentiation is main challenge faced by new companies.
- Increased awareness and importance of insurance among public especially in urban areas big challenge .
- Fixing products pricing as per the needs of the customers is another challenge
- Customer expectations have significantly increased in recent years, particularly in terms of better and speedy service. such as better yield and much improved quality of service particularly in the area of settlement of claims, issue of new policies, transfer of the policies and revival of policies in the liberalized market is very difficult.

VII.FINDINGS:

- As per data's available it is found that total Life Insurance companies in India have increased and after economic slowdown new companies are taking less interest in India Life Insurance Market.
- When we compare real growth of premium with world insurance market Indian Life market declining very sharply.
- If we see the total number of new policies issued by LIC and private insurance companies, we find that there is a huge gap between them. New Policy issuance growth rate is also on declining trend consecutively from last two years.
- Market share if we compare LIC with private life insurers ,LIC is quiet dominating with regard to first year and total premium it seems that people having more trust on LIC.

- It is observed that due to economic slowdown in last year's many life insurance offices closed down and the since two years close down of offices increases so again here in this area we observed a significant impact on life insurance business in India.

VIII.SUGGESTIONS

- Development of insurance products including special group policies to cater to different categories should be a priority, in general and especially in rural areas.
- The more extensive market research before introducing insurance products so that insurance can become more meaningful and affordable.
- Insurance companies to design appropriate products, determine price correctly and increase profitability.
- Awareness campaign should be encouraged to improve insurance literacy levels by conducting workshops, distributing leaflets, distributing literature.
- Insurance companies should practice fair trade and transparent disclosure while addressing the policyholders.
- The liberalization of the Indian insurance sector has both positive and negative effect. The negative-effects of liberalization on insurance industry can be lessen by promoting healthy competition among the life insurers and keeping the interest of common people.
- To create trust among policy holders, insurance companies should train their sales force to be ethical, understand customer needs and sell appropriate products
- Insurance is basically risk coverage instruments have been marketed as tax saving as well as wealth maximization instruments. Keeping this in mind,

insurance companies should develop such policies which provide effective risk coverage rather than focusing on the tax benefits and also encourages them for long term investment in insurance.

IX.CONCLUSIONS:

India is the emerging insurance markets in the world. Competition has brought more product innovation and better customer servicing and bring positive influence on the life insurance business. insurance is a several national and international players competing and growing at rapid rates. The overall business of life insurance has been significantly increased after post liberalisation. The saving rate has come down and insurance has been impacted. (In India, insurance is looked upon as a form of savings.) And IRDA's consumer-centric orientation has been adding to the troubles, with so many speed bumps on the path, insurance in India still attractive and fastest-growing financial services markets in the world.

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AN EVALUATION OF CROP INSURANCE SCHEMES AND CLAIMS SETTLEMENTS IN INDIA

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ABSTRACT

Agriculture is backbone of the country with nearly 2/3rds of its one billion population depend on agriculture for their livelihood. India is a land of many climates and variety of soils affording scope for diversity of agriculture. Climate is the most important single factor in crop production and determines the appropriate timing for important agricultural operations like sowing, transplanting, irrigation, fertilizer application and use of pesticides. It is often called “gamble with monsoon”. Certain varieties of soils are suited best for certain crops and hence knowledge of soil variety is important in identifying crops, which can produce good yields.

Agriculture is treated equal with risk and uncertainty. Agriculture contributes to 26% of the GDP and any change has a multiplier effect on the economy as a whole. Economic growth and agricultural growth are inextricably linked to each other. Crop insurance helps in stabilization of farm production and income of the farming community. It helps in optimal allocation of resources in the production process.

Indian Government has been concerned about the risk and uncertainty prevalent in agriculture. In his article, an attempt is made to study “An Evaluation of crop insurance scheme and claim settlements”.

The various schemes that are available for the crop Insurance are

1. Pilot crop Insurance Scheme (PCIS)-1979 implemented till 1984-85
2. Comprehensive Crop Insurance scheme (CCIS) implemented till 1997
3. Experimental crop Insurance scheme -1997-98
4. National Agricultural Insurance scheme-1999-2000 (Replaced by CCIS)
5. Weather based crop Insurance schemes – 2003

Hence an attempt is made to “An Evaluation of crop insurance scheme and claim settlements”.

Key words: Agriculture Insurance, crop Insurance, claim settlements, crop schemes

Introduction:

Agriculture is backbone of the country with nearly 2/3rds of its one billion population depend on agriculture for their livelihood. India is a land of many climates and variety of soils affording scope for diversity of agriculture. Agriculture is treated equal with risk and uncertainty. Agriculture contributes to 26% of the GDP and any change

has a multiplier effect on the economy as a whole.

Indian Government has been concerned about the risk and uncertainty prevalent in agriculture

Economic growth and agricultural growth are inextricably linked to each other. Crop insurance helps in stabilization of farm production and income of the farming community. It helps in

optimal allocation of resources in the production process.

A number of crops and crop varieties are grown in the country. The following are considered as major crops:

Food crops	Paddy, Wheat, Jowar, Bajra, Maize, Gram, Redgram, Peas etc.
Oilseeds	Groundnut, Mustard, Soyabean, Sunflower etc.
Cash crops	Cotton, Sugarcane, Tobacco etc.
Vegetable crops	Onion, Potato, Tomato etc.
Plantation crops	Coffee, Tea, Rubber etc.
Fruit crops	Citrus, Banana, Apple, Mango etc.

In 1965, the Government introduced a Crop Insurance Bill and a model scheme of crop insurance on compulsory basis, which was spread to constituent State governments of the Indian Federation.

The bill provided for the Central Government framing a reinsurance scheme to cover indemnity obligations of the States. None of the States were in favour of the scheme because of very high financial obligations.

The Committee's recommendations were:

"In the context of the paucity of resources, the country cannot afford the huge recurring expenditure on the administration of crop insurance together with the subsidies that may become unavoidable. Such funds could be more advantageously utilized for raising agricultural productivity and reducing crop variability. Since insurance represents the assumption of risks by the insurance agency through consideration of a large number of individual risks, it is to be preferred only if the cost of such assumption is lower than the cost of prevention of risks. under the proposed crop insurance scheme the farmers

are expected to get back by way of indemnities what they pay by way of premium, the underlying purpose could be served better and at less cost to the government and the farmers could be encouraged to save on a recurring basis in the form of deposits in the banks and are provided credit on liberal terms, especially in times of crop failure.

Different experiments on crop insurance on a limited, ad-hoc and scattered scale started from 1972-73. In 1972-73, the General Insurance Department of Life Insurance Corporation of India introduced a Crop Insurance Scheme on H-4 cotton. . This Scheme was based on "individual Approach" and later included Groundnut, Wheat and Potato and implemented in the states of Gujarat, Maharashtra, Tamil Nadu, Andhra Pradesh, Karnataka and West Bengal. It continued up to 1978 and covered only 3110 farmers for a premium of Rs.4.54 lakhs against claims of Rs.37.88 lakhs.

But these schemes were discontinued due to the following reasons:

1. Need contact with individual farmers for collection of premiums and /or for determination of yields and hence required very large machinery for implementation, which the insurance company could not afford with the premium charged.
2. Involved controlled conditions of cultivation and hence were unsuitable for large scale implementation.
3. Did not provide for optimum spread of risks between different agro-climatic regions and hence had to face heavy incidence claims.
4. Did not go hand-in-hand with Extension projects launched by the government, and hence could not derive the advantage of the measures introduced in such areas for ensuring improved productivity and loss minimization.
5. Care was not taken to avoid high-risk areas. There were no arrangements to coordinate

the working of the schemes in the interest of the insurance company.

6. Complete dependence on the Fertilizer Companies for all field services, including yield assessment service, placed insurance company at a disadvantage, when the interests of the two parties are differed.

Methodology:

Need of the study:

Indian Government has been concerned about the risk and uncertainty prevalent in agriculture the unfortunate deaths of farmers in Andhrapradesh, Maharashtra who got caught in a debt trap and the devastating effect it had on their families. In this article, an attempt is made to study an evaluation the crop insurance scheme and claim settlements in India

Objectives of the study:

1. To know the types of crop insurance schemes in India
2. The problems of crop insurance
3. The benefits of crop insurance
4. To know the claims settlements and compensation paid to farmers

Data collection method:

For the purpose of the study secondary data is collected through web site like ministry of Agriculture, statistical data is collected from Indiastat.com (accessed from Pondicherry University library on 29th June ,2017), Journals and Magazines , Agricultural Insurance – IC 71 (III book) , IRDA

Types of Agricultural Insurance:

Increasing commercialization and globalization, the scope and relevance of agricultural insurance are not widely understood in India. Crop insurance, which is generally restricted to field crops, is generally considered synonymous with agricultural insurance. However, agricultural insurance covers a wide spectrum of activities like

horticulture, plantation, poultry, aquaculture, sericulture, etc. Further, it extends to the entire production process including post-harvest storages, processing and transportation of produce to the final markets.

Some of the Agriculture Insurance Schemes presently available in the country are:

- i) Crop insurance
- ii) Horticulture/Plantation insurance
- iii) Cattle insurance
- iv) Sheep/Goat insurance
- v) Pig insurance
- vi) Poultry insurance
- vii) Sericulture insurance
- viii) Apiculture insurance
- ix) Fresh water fish insurance
- x) Aquaculture insurance
- xi) Farmer's Package insurance
- xii) Agricultural Pump-set insurance

The organizations transacting Agricultural Insurance in India:

- i) General Insurance Corporation of India
- ii) National insurance Corporation of India
- iii) New India Assurance Company Limited
- iv) Oriental Corporation of India
- v) United India Corporation of India.

As per the IRDAnorms, every new insurer in the general insurance industry shall do at least a minimum amount of business in the social sector, which includes crop and agriculture sector.

Crop Insurance:

Crop insurance is a means of “protecting the farmers against uncertainties of crop yields arising out of practically all natural factors beyond their control”. It is a financial mechanism in which the uncertainty of loss in crop yields is minimized by pooling large number of uncertainties that impact on crop yields so that the burden of loss can be distributed.

Crop Insurance as Risk Management:

Crop production involves numerous risks, natural, social, economic and personal. But the principal characteristic, which distinguishes crop production from any other activity, its great dependence on nature, Crop production unlike almost any other activity has to be carried on in the face of continual uncertainties arising out of diverse natural and social elements. Normally the greatest impact of all these elements falls on crop production.

Uncertainty of crop yield is thus one of the basic risks, which every farmer has to face, more or less, in all countries, whether developed, or newly developing. But these risks are particularly high in newly developing countries.

It is true that much of the present uncertainty of crop production in the newly developing countries like India could be removed by technical measures and by improvements in social and institutional set-up. Still, a good deal of uncertainty will always be there, as no imaginable measure could make crop production completely independent of the natural hazards. And also, the physical measures are to be justified by their cost-benefit ratio.

Crop Insurance Schemes:

For over 50 years crop insurance has been discussed in India in many of forums as an important tool of risk management in crop production. The first aspect regarding the modalities of crop insurance considered was whether the same should be on an individual approach or on Homogenous area approach.

The “individual approach “ basis necessitates reliable and accurate data of crop yield of individual farmers for sufficiently long period , for fixing of premium on actuarially sound basis. The “homogenous area “approach envisages that in the absence of reliable data of individual farmers and in view of the moral hazards involved in the individual approach, a homogenous area comprising villages that are homogenous from the point of view of crop production and whose annual variability of crop production would be similar ,

would form the basic unit instead of the individual farmer.

The government of India introduced some of the crop insurance schemes in India for the welfare of the agriculture farmers

1. Pilot Crop Insurance Scheme (PCIS)-1979:

Based on the recommendations of Prof.V.M Dandekar, a Pilot Crop Insurance scheme was introduced by GIC from 1979. The important features of the scheme were:

- a) The scheme was based on “Area Approach”.
- b) The Scheme covered Cereals, Millets, Oilseeds, Cotton, Potato, Gram and Barley.
- c) It was confined to loaned farmers only, on voluntary basis.
- d) The risk was shared between the GIC and the State Government in the ratio of 2:1.
- e) The maximum sum insured was 100% of the crop loan; which was later increased to 150%.
- f) 50% subsidy was provided for insurance charges payable by Small / Marginal farmers by the State Government & the Government of India on 50:50 bases.

2. Comprehensive Crop Insurance Scheme (CCIS):

Based on the experience of PCIS, the Comprehensive Crop Insurance (CCIS) was introduced with effect from 1st April 1985 by the Government of India with the active participation of State Governments. The Scheme was optional for the States. The Scheme is linked to short term crop credit and implemented on Homogeneous Area approach. 15 states and 2 UTs implemented the Scheme until Kharif 1999 are 1.Andhra Pradesh 2.Assam 3.Bihar 4.Goa 5.Gujarat 6.Himachal Pradesh 7.Karnataka 8.Kerala 9.Madhya Pradesh 10.Maharashtra 11.Meghalaya 12.Orissa 13.Tamilnadu 14.Tripura 15.West Bengal 16.Andaman & Nicobar Islands and 17.Pobdicherry.

The states of Rajasthan, Uttar Pradesh, Jammu & Kashmir, Manipur and Delhi had initially joined the Scheme but subsequently opted out after implementing for few years.

Main Features of the Scheme:

- a) It covered farmers availing crop loans from Financial Institutions for growing food crops & oilseeds on compulsory basis. The coverage was restricted to 100% of crop loan subject to maximum of Rs.10, 000/- per farmer / season.
- b) The premium rates were 2% for Cereals and Millets and 1% for Pulses and Oil seeds. 50% of the premium payable by Small and Marginal farmers is subsidized equally by Central and State Governments.
- c) The premium and claims were shared by Central & States Government in 2:1 ratio.
- d) The Scheme was optional to State Government.
- e) The scheme is a multi agency effort, involving Government of India, Departments of State Governments, Banking Institutions and GIC.

3). National Agriculture Insurance Scheme (NAIS) (1999-2000)

On June 23,1999 the Prime Minister launched a new crop insurance scheme called Rashtriya Krishi Bima Yojana (RKBY) under the National Agricultural Insurance Scheme(NAIS). Participation in RKBY was compulsory for farmers growing notified crops and availing crop loans from formal credit Institutions. In case of loan farmers, the Sum insured was equal to the amount of crop loan advanced. The farmer had the option to insure the amount equivalent to the value of threshold yield of the insured crop. A farmer may also insure his crop beyond the value of threshold yield level up to 150% of average yield of notified area on payment of premium at commercial rates.

The risks covered under the NAIS are:

- Fire & Lightning

- Storm, Cyclone, Hailstorm, Typhoon, Tempest,
- Hurricane, Tornado
- Flood, Inundation & Landslide
- Drought, Dry spells
- Pests / Diseases

Exclusions: War, nuclear risks, malicious damage.

Under NAIS, premium rates are 3.5% of sum insured for bajra and oilseeds, 2.5% for other Kharif crops, 1.5% for wheat and 2% for other Rabi crops. Small and marginal farmers are entitled to a premium discount of 10%. In the case of commercial / horticultural crops, actuarial rates are being charged.

NAIS is being implemented by 23 states and two Union territories. During the last 12 crop seasons (from Rabi 1999-2000 to Kharif 2005), 7.51 crore farmers have been covered over an area of 12.2 crore hectares insuring a sum of Rs.70,696 crore. Claims paid Rs.7207 crore against premium income of Rs.2226 crore benefiting more than two crore farmers in the implementation of NAIS so far.

4). Weather Based Insurance in India

In India, weather-based insurance was first introduced in 2003 by ICICI Lombard for groundnut and castor farmers of Mahboobnagar district in Andhra Pradesh, followed- by the pilot rainfall insurance scheme by IFFCO-Tokio General Insurance (ITGI) in 2004-05 in Andhra Pradesh, Karnataka and Gujarat. The Agricultural Insurance Company of India (AIC), the public sector insurer, also introduced rainfall i-nsurance (Varsha Bima) in 20 rain gauge areas spread over Andhra Pradesh, Karnataka, Rajasthan and Uttar Pradesh in 2004-05, providing five different options suiting varied requirements of the farming communityseasonal rainfall insurance based on aggregate- rainfall from June to September, sowing failure insurance, rainfall distribution insurance with the weight assigned to different weeks, agronomic index based on the water requirement of crops at different phenophases, and a

catastrophic option, covering extremely adverse deviations in rainfall during the season.

Weather insurance in the country received- a big boost when the finance minister in his 2007-08 budget speech termed it as a “promising risk mitigation scheme” and earmarked Rs 100 crore for its implementation on a pilot basis in a few states as an alternative to NAIS. Weather-Based Crop Insurance Scheme (WBCIS) was piloted by the AIC in Karnataka in Kharif 2007. Presently, these products are being offered in selected regions for different crops by AIC and private insurers ICICI Lombard General Insurance Company and ITGI.

WBCIS also operates on the concept of “area approach”, whereby each reference unit area (RUA) is linked to a reference weather station (RWS) and all farmers in a given RUA are deemed to have suffered the same level of adverse weather incidence. WBCIS is based on actuarial rates of

Premium (with a cap at 8-10% for food crops and oilseeds and 12% for commercial crops) but to make the scheme attractive, premium actually charged from farmers has been restricted to “at par” with the NAIS. The difference between flat premium rates and the actuarial premium rates are borne by the central and the implementing state government on a 50: 50 basis. The private companies are extended the same level of financial support by the government. Unlike NAIS, the entire claim under the scheme is borne by the insurers. Weather insurance is already being treated- as an “alternative” to NAIS (at least in the pilot areas) as the latter is not available to the farmers in areas where the former is notified.⁵ Table 1 shows the coverage experience under WBCIS implemented by the dominant insurer AIC.

Weather-Based Crop Insurance Scheme: Season-wise Business and Claims Experience :
Table 1

Season	Implementing States	FC	SI	FP	TP	TC	FB	Total	Farmers' Loss
								Claim	Claim Ratio Cost
								Ratio	(in %)
Kharif 2007	Karnataka	0.44	5,301	142	703	524	0.35	74.55	369.75 9.89
Rabi 2007-08	Rajasthan,								
Bihar,	Chhattisgarh, MP	6.27	1,70,495	4,300	13,845	10,072	1.88	72.74	234.23 5.91
Kharif 2008	MP, Haryana,								
	Punjab,								
	Bihar, Rajasthan,								
	Jharkhand,								
	Maharashtra,								
	Karnataka,								
	Orissa, Tamil Nadu	1.65	31,313	831	31,68	1,440	1.04	45.45	173.19 4.60
Rabi 2008-09	Haryana, Bihar, Rajasthan,								
	Jharkhand,								
	Karnataka,								
	Tamil Nadu, Kerala,								
	Chhattisgarh, West								
	Bengal,								
	Himachal Pradesh	1.69	42,623	874	3,590	2,651	1.12	73.84	303.26 6.22
Total		10.05	2,49,732	6,147	21,306	14,687	4.39	68.93	238.92 26.61

Source : Economic & Political Weekly, vol xlv no 6, February 6, 2010

Crop –wise Gross area Sown and Insured under all insurance schemes in India from 2012-13 to 2015 -16 sureTable-2 (see annexure)

Form the above table below2 – it is observed that paddy was sown in 427.57 lakhs hectare and area insured 105.04 lakhs hectare in 2012-13 , in 2013-14 paddy was sown in 444.75 Lakhs hectare and area insured is 93.93.LH in 2014-15 paddy was sown in 444.75LH and area insured was 96.5 LH and in 2015-16 paddy was sown in 444.75 LH and area insured was 114.93 LH .Wheat was sown in 304.95 LH with an area insured 64.59 LH in 2013-14 what sown in 313.85 LH with an area insured 79.69 LH , in 2014-15 sown 313.85 LH with a area insured is 78.83 LH in 2015-16 it is sown in 313.85 LH and area insured is 87.82 LH. Oil seeds sown in 290 LH with area insured is 98.35 LH in 2013-14 oil seeds are sown 301.11 LH with are insured as 112.11 Lh , In 2014-15 sown was 301.11 LH and area insured was 301.11 LH and area insured was 101.41 LH in 2015-16 oilseeds was sown in 301.11 LH and area insured was 132.51 LH . the over all in 2012-13 the area sown was 1943.99 LH with area insured was 444.03 LH in 2013-14 area sown was 2008.59 LH with an are insured 427.23 LH in 2014-15 the area sown was 2008.59 LH and are insured was 444.41 LH , in 2015-16 the area sown was 2008.59 LH and the area insured was 524.49 LH

Funds released by central government under various schemes for crop insurance in India from 1997-2002 to 2016-17 in different five years plansTable -3 (see annexure)

From the table-3 it is observed funds released by the central government under various schemes for crop insurance in India in different five years plans from 1997 to 2016 for NAIS from 1999 to 2000 was Rs 21273.35 crores , for WBCIS since Kharif 2007 was Rs 3826.16 crores and MNAIS scheme since Rabi 2010-11 was Rs 1531.03 crores , CPIS scheme since 2009-2010 was Rs 2.95 crores and PMFBY since kharif 2016 was Rs 28386.91 crores

State –wise number of farmers, Area and sum Insured Under pradhan Mantri Fasal Bima

Yojana In India in kharif 2016 Table-4(see annexure)

From the table –4 below it is observed that Maharashtra 109.52 lakh farmers were insured ,with 66.78 Lakh hectare with a sum insured of Rs 20942.67 crores , Rajasthan 53.05 lakh farmers were insured with an are of 74.62 Lakh hectare with a sum insured 12207 crores , Madhya Pradesh 34.72 lakh farmers were insured with and area insured 73.59 Lakhs Hectare and the sum insured was Rs 19041.24 corers . the overall India the no.of farmers insured are 363.04 crores with an area of 374.83 Lakhs hectare and the sum insured was Rs 128984.99 crores under PMFBY in kharif 2016.

National agricultural insurance scheme (NAIS) under trends in Area , sum insured , premium and claims in India from 2012-13 to 2015-16 Table:-5 (see annexure)

From the table -5 it is observed that in 2012-13 the no. of farmers covered in kharif was 10649354 and 6141677 in rabi with a total 16791031 with an area of 15693700 hectare in kharif and 8691157 hectare in Rabi with a total of 24384857 hectare with a sum insured 4290779 , with a total premium of 132644 lakhs , claims reported are 470056 lakhs Rupees the total no. of farmers benefitted are 2613107 . in 2013-14 the no. of farmers covered 11254942 with 15983340 hectare of area with total sum insured are 3353878 lakhs with a total premium of 113173 lakhs and the no. of . Farmers benefitted are 2738903 . In 2014-15 the no.of farmers covered in kharif are 7729333 with a area of 6785416 area hectare with a sum insured of 1492021 lakhs with a total premium of 51936 lakhs . In 2015-16 the no. of farmers are 238594749 with an area of 353369458 hectare with a sum insured of 37682975 lakhs with a total premium of 37682975 lakhs with a claims reported 3588295 lakhs and the no. of farmers benefitted are 59973512 in National agricultural insurance scheme (NAIS) under trends in Area , sum insured , premium and claims in India from 2012-13 to 2015-16

Number of Farmers / sum Insured, gross premium and claim reported under coconut palm insurance scheme in India from 2012-13 to 2014-15 Table:-6 (see annexure)

From the table- below-6 it is observed that the in 2012-13 the no.of farmers insured are 12279 lakhs with sum insured are 7843.9 lakhs with a gross premium of 40.57 lakhs with a claims reported are 76.8 lakhs under coconut palm insurance scheme (CPIS) in 2013-14 are 1390 lakhs farmers insured with sum insured of Rs 8694.6 lakhs with a premium of 70.87 lakhs with a claims reported 95.49 lakhs . In 2014-2015 the no.of farmers insured are 2845 lakhs with sum insured are 2500 lakhs with a gross premium of 17.6 lakhs with a claims reported are 30.75 lakhs under CPIS scheme from 2012-13 to 2014-15

Season / scheme wise sum insured ,premium and claims paid by modified national agricultural insurance scheme (MNAIS) from 2012-13 to 2014-15 : table -7 (see annexure)

From the table it is seen that in 2012-13 the no.of farmers covered are 3008835 lakhs with area insured are 2981434.94 hectare the sum insured are 697466.85 lakhs with a premium of 29537.17 lakhs with claims reported are 67406.36 lakhs claims paid are 64294.56 lakhs and the numbers of farmers benefited are 714050 lakhs . In 2013-14 the no.of farmers covered are 5358738 lakhs with area insured are 5527856.21 hectare the sum insured are 1223224.11 lakhs with a premium of 46328.66 lakhs with claims reported are 138226.21 lakhs claims paid are 133162.04 lakhs and the numbers of farmers benefited are 1765694 lakhs In 2014-15 the no.of farmers covered are 9095373 lakhs with area insured are 10638480.86 hectare the sum insured are 1880712.76 lakhs with a premium of 62547.61 lakhs with claims reported are 117167.49 lakhs claims paid are 110675.88 lakhs and the numbers of farmers benefited are 2387140 lakhs by modified national agricultural insurance scheme (MNAIS) from 2012-13 to 2014-15

Future outlook for Crop Insurance in India:

The National Agricultural Insurance Scheme (NAIS) is improved version of CCIS in both scope and content. NAIS contains many features that are comparable to some of the well-designed comprehensive schemes in the world. However, this is not to say that the Scheme has no scope for further improvement. Some of the directions for future may include:

- i) The NAIS which still to have agriculturally important States, such as Punjab, Haryana, Rajasthan etc in its fold and more crops and sections of farmers yet to be reached, may struggle to penetrate beyond 10% to 15% of cropped area.
- ii) A dynamic and rapidly changing agriculture will stress the capability of public sector to adapt in the future. It would require private sector to achieve substantial market penetration.
- iii) Separate schemes addressing special needs of hilly regions, areas with sharp variations in micro-climate, are required.
- iv) Farms increasingly aware of the risks of production. Prefer comprehensive risk package; both yield and price/revenue and coverage of post harvest losses.
- v) Demand for custom-made covers will increase both from corporate and big farms. Micro-insurance is going to be the 'mantra' to reach out to rural households.
- vi) Need for package policies and integration of insurance services with credit institutions.
- vii) The demand for coverage of perennial horticulture crops against comprehensive risk, covering gross value of produce, will have to be met.
- viii) Subsidy is essential. The pattern will have to change to reflect cross section of variations.
- ix) The government will have to support the front-end (premium, administrative costs etc.), leaving the back-end (claims) to insurers. It's a sure way of not only limiting its liabilities,

but also a direction for development of agricultural insurance on professional lines.

- x) The government will have to provide reinsurance protection for catastrophic losses.
- xi) Need for streamlining agricultural relief through insurance and a degree of compulsion of participation.
- xii) An exclusive Organization is to be created for implementation of agricultural insurance. At the same time services of other agencies, such as financial institutions, marketing agencies, NGOs etc. are to be used to reduce costs of delivery and service.

Finding from the study

- The scheme was based on “Area Approach The risk was shared between the GIC and the State Government in the ratio of 2:1. 50% subsidy was provided for insurance charges payable by Small / Marginal farmers by the State Government & the Government of India on 50:50 bases.
- The premium rates were 2% for Cereals and Millets and 1% for Pulses and Oil seeds. 50% of the premium payable by Small and Marginal farmers is subsidized equally by Central and State Governments Under NAIS, premium rates are 3.5% of sum insured for bajra and oilseeds, 2.5% for other Kharif crops, 1.5% for wheat and 2% for other Rabi crops. Small and marginal farmers are entitled to a premium discount of 10%.
- In the case of commercial / horticultural crops, actuarial rates are being charged. Premium (with a cap at 8-10% for food crops and oilseeds and 12% for commercial crops) but to make the scheme attractive, premium actually charged from farmers has been restricted to “at par” with the NAIS.
- The Government is relieved of present irregular financial burden of providing relief. **Very high administrative costs:** An exclusive agency with sufficient network to administer the Scheme on its own would involve very

high administrative costs and the resultant high costs of insurance.

- in 2015-16 the area sown was 2008.59 LH and the area insured was 524.49 LH , CPIS scheme since 2009-2010 was Rs 2.95 crores and PMFBY since kharif 2016 was Rs 28386.91 crores
- In 2014-15 the no.of farmers covered are 9095373 lakhs with area insured are 10638480.86 hectare the sum insured are 1880712.76 lakhs with a premium of 62547.61 lakhs with claims reported are 117167.49 lakhs claims paid are 110675.88 lakhs and the numbers of farmers benefited are 2387140 lakhs by modified national agricultural insurance scheme (MNAIS) from 2012-13 to 2014-15 The government will have to provide reinsurance protection for catastrophic losses. Need for streamlining agricultural relief through insurance and a degree of compulsion of participation.

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Annexure – tables of Analysis
Crop –wise Gross area Sown and Insured under all insurance schemes in India from 2012-13 to 2015 -16
Table-2

(Area in Lakh Hectare)												
Crops	2012-2013			2013-2014			2014-2015			2015-16		
	Gross Area Sown	Area Insured	%age of Area Insured	Gross Area Sown*	Area Insured	%age of Area Insured	Gross Area Sown*	Area Insured	%age of Area Insured	Gross Area Sown*	Area Insured	%age of Area Insured
Paddy	427.57	105.04	24.57	444.75	93.93	21.97	444.75	96.5	23.5	444.75	114.93	25.84
Wheat	304.95	64.59	21.18	313.85	79.69	26.13	313.85	78.83	25.46	313.85	87.82	27.98
Coarse Grains	251.45	51.22	20.37	254.97	44.41	17.66	254.97	50.35	23.67	254.97	59.61	23.38
Sugarcane	54.43	3.18	5.85	55.26	3.05	5.6	55.26	1.46	2.67	55.26	2.29	4.14
Cotton	118.81	13.45	11.32	119.07	12.71	10.7	119.07	15.32	12.92	119.07	14.49	12.17
Jute and Mesta	8.55	0.05	0.63	8.28	0.04	0.46	8.28	0.69	8.18	8.28	0.04	0.43
Oilseeds	290.97	98.35	33.8	301.11	112.11	38.53	301.11	101.41	35.96	301.11	132.51	44.01
Pulses	219.59	66.07	30.09	237.79	64.7	29.46	237.79	65.35	26.27	237.79	71.19	29.94
Vegetables	55.05	7.34	13.33	56.08	10.24	18.61	56.08	21.05	37.92	56.08	20.54	36.62
Fruits**	37.66	5.6	14.88	41.6	1.25	3.31	41.6	2.27	40.08	41.6	3.97	9.54
Others	-	-	-	175.83	-	-	175.83	8.17	-	175.83	17.11	9.73
Area under All Crops	1943.99	444.03	22.84	2008.59	427.23	21.98	2008.59	441.41	22.51	2008.59	524.49	26.11

Source: indiatat.com accessed on 29-06-2017 accessed from Pondicherry University

Funds released by central government under various schemes for crop insurance in India from 1997-2002 to 2016-17 in different Five years plans
Table -3

(Rs. in Crore)						
Plans/Years	NAIS (Since Rabi 1999-2000)	WBCIS (Since Kharif 2007)	MNAIS (Since Rabi 2010-2011)	CPIS (Since 2009-2010)	PMFBY (Since Kharif 2016)	Total
IXth Plan (1997-2002)	811.49	-	-	-	-	811.49
Xth Plan (2002-2007)	2626.84	-	-	-	-	2626.84
Xth Plan (2007-2012)	5851.88	1370.37	87.15	1.95	-	7311.35
12th Plan (2012-2017)	-	-	-	-	-	-
2012-2013	700.00	655.00	194.18	0.50	-	1549.68
2013-2014	1600.00	700.00	251.02	0.50	-	2551.52
2014-2015	1543.56	470.00	584.79	Nil	-	2598.35
2015-2016	1937.79	630.79	413.89	Nil	-	2982.47
2016-2017	6201.79	-	-	Nil	1753.41	7955.21
Total	21273.35	3826.16	1531.03	2.95	28386.91	-

Source: indiatat.com accessed on 29-06-2017 accessed from Pondicherry University

State –wise number of farmers, Area and sum Insured Under pradhan Mantri Fasal Bima Yojana In India in kharif 2016 :Table-4

States	No. of Farmers Insured (Lakh)	Area Insured (Lakh Hectare)	Sum Insured (Rs. in crore)
Andhra Pradesh	8.54	6.57	5187.84
Bihar	14.83	13.11	6526.00
Chhattisgarh	13.26	17.90	6764.00
Goa	0.01	0.54	5.76
Gujarat	11.91	25.11	11248.00
Haryana	6.96	11.49	6732.00
Himachal Pradesh	0.97	0.36	256.07
Jharkhand	8.49	3.40	1827.83
Karnataka	14.34	12.02	5423.66
Madhya Pradesh	34.27	73.59	19041.24
Maharashtra	109.52	66.78	20942.67
Manipur	0.08	0.09	36.94
Meghalaya	0.00	0.00	0.30
Odisha	17.63	12.57	6888.61
Rajasthan	53.05	74.62	12207.00
Tamil Nadu	0.13	0.31	242.39
Telangana	5.81	5.16	3234.00
Tripura	0.02	0.01	3.57
Uttar Pradesh	30.11	35.05	13920.10
Uttarakhand	1.28	0.79	524.04
West Bengal	31.83	15.36	7972.97
India	363.04	374.83	128984.99

Source: indiastat.com accessed on 29-06-2017 accessed from Pondicherry University

National agricultural insurance scheme (NAIS) under trends in Area , sum insured , premium and claims in India

from 2012-13 to 2015-16

National agricultural insurance scheme (NAIS) under trends in Area , sum insured , premium and claims in India from 2012-13 to 2015-16									
Season	No. of Farmers Covered	Area (in Hect.)	(Rs. in Lakh)					Claims Settled	No. of Farmers Benefitted
			Sum Insured	Total Premium	Subsidy	Claims Reported	Claims Payable		
Kharif	10649354	15693700	2719906	87874	10863	278572	-	-	1810161
Rabi	6141677	8691157	1570873	44770	4684	191484	-	-	802946
Total 2012-13	16791031	24384857	4290779	132644	15547	470056	-	-	2613107
Kharif	9722158	14266028	2892425	97537	15624	299806	-	-	2669002
Rabi	1532784	1717312	461453	15636	7011	1629	-	-	69901
Total 2013-14	11254942	15983340	3353878	113173	22635	301435	-	-	2738903
kharif 2014-15	7729333	6785416	1492021	51936	3925	-	-	-	-
Kharif Seasons Total	17984454	26652943	28085742	913743	90700	2801309	-	-	44905935
Rabi Seasons Total	58750201	86840022	9597233	239552	49106	786985	-	-	15067577
Grand Total	23859474	35336945	37682975	1153295	139806	3588295	-	-	59973512

Source: indiastat.com accessed on 29-06-2017 accessed from Pondicherry University

Number of Farmers / sum Insured , gross premium and claim reported under coconut palm insurance scheme in India from 2012-13 to 2014-15 Table:-6

(Rs. in Lakh)				
Years	Number of Farmers Insured	Sum Insured	Gross Premium	Claims Reported
2011-2012	8454	5510.95	29.77	92.47
2012-2013	12279	7843.9	40.57	76.8
2013-2014	13970	8694.6	70.87	95.49
2014-2015	2845	2500.56	17.6	30.75

Source: indiastat.com accessed on 29-06-2017 accessed from Pondicherry University

Season / scheme wise sum insured ,premium and claims paid by modified national agricultural insurance scheme (MNAIS) from 2012-13 to 2014-15 : table -7

(Rs. in Lakh)										
Season	No. of Farmers Covered	Area Insured (In Hectare)	Sum Insured	Farmers' Premium	Govt Premium (Share)	State Government Premium (Share)	Gross Premium	Claims Reported	Claims Paid	No. of Farmers Benefited
Khari f 2012	2062516	2239297.19	489692.88	22033.49	17198.93	17198.93	56431.35	62144.59	61948.33	602353
Rabi 2012-13	946319	742137.76	207773.96	7503.68	5781.98	5652.19	18937.95	5261.77	2346.24	111697
Total 2012-13	3008835	2981434.94	697466.85	29537.17	22980.91	22851.12	75369.30	67406.36	64294.56	714050
Khari f 2013	2361334	2274451.46	582563.26	25504.09	19242.10	19273.58	64022.77	85468.73	81191.24	962600
Rabi 2013-14	2997404	3253404.75	640660.85	20824.57	10772.76	11831.67	43444.51	52757.48	51970.80	803094
Total 2013-14	5358738	5527856.21	1223224.11	46328.66	30014.86	31105.25	107467.28	138226.21	133162.04	1765694
Khari f 2014	5895294	7085433.17	969658.09	35196.66	28965.20	31364.64	95526.51	57063.57	54840.50	1472654
Rabi 2014-15 (P)	3200079	3553047.69	911054.67	27350.95	11521.28	11522.19	50394.43	60103.92	55835.38	914486
Total 2014-15	9095373	10638480.86	1880712.76	62547.61	40486.48	42886.83	145920.94	117167.49	110675.88	2387140
Grand Total	19037142	20844175.57	4206306.50	152580.21	102153.38	107432.19	362182.34	342752.84	330862.10	5141706

Source: indiastat.com accessed on 29-06-2017 accessed from Pondicherry University

A STUDY ON AWARENESS OF FARMERS TOWARDS CROP INSURANCE IN NIZAMAABAD AND KAMAREDDY DISTRICT

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ABSTRACT:

Agriculture is the back bone of the Indian economy. Due to the unpredictable climatic change, farmers income suffers a lot. To overcome this, farmers are taking crop insurance for their farms. In this paper, an attempt has been made to find farmers level of awareness towards crop insurance. Samples of 200 farmers were randomly selected from Nizamaabad and Kamareddy District. It is found that four variables namely farmers gender, educational qualification, farm size, source of knowledge about crop insurance have significant association with level of awareness towards crop insurance. The research concluded that government should organize crop insurance related awareness programmes to farmers.

Key Words: Agricultural Crop, Crop Insurance, IRDA, Government, Farmers & Etc

1. Introduction:

Agriculture is the back bone of the Indian economy. The crop depends on the natural rainfall and other atmospheric factors. Food is the crowning need of the every human being; too much emphasis has been on commercializing agricultural production. Therefore, adequate production and even distribution of food has become a high priority of our country and to the world. In this changing agricultural scenario and global competition, there is a need of exploiting the limited available resources at maximum level with a smoothly, at minimal cost and adequate flow of finance or credit is primary factor for sustainable agriculture development. Hence Government agencies are promoting diversification in production, research, and farm extension. Due to the unpredictable climatic change, farmers credit earning capacity suffers a lot. Crop insurance is an emerging concept in our country. Thus, IRDA is playing vital role in safeguarding the finance of the farmers. It has been established by Government for supporting and promoting agriculture and rural development. In order to achieve its mission, IRDA is running on many plans and schemes out of them

crop insurance is one of important insurance scheme to farmers. Agriculture Insurance Company of India (AIC), 10 private General Insurance Companies namely ICICI-Lombard, IFFCO-TOKIO, HDFC-ERGO, Cholamandalam-MS, Tata-AIG, Future General India, Reliance, Bajaj Allianz, SBI and Universal Sompo General Insurance companies are implementing the crop insurance programme.

2. Crop Insurance:

- Crop insurance helps both farmers and Governments: After a bad agricultural season, it helps farmers to cope with risks through payouts and reduce the burden of Government's disaster payments(Veermanietal,2005).
- Insurance also allows farmers to take more risks in farming: use resources more efficiently and take up enterprises which they wouldn't have in absence of insurance coverage(Ahsanetal,1982).
- In spite of 30 years of efforts and high subsidies, adoption of crop insurance by Indian farmers is low.

Need of Crop Insurance:

Every year, in one part of India or the other food crops are affected by natural calamities, "Crop yield instability is the normal condition and agriculture continues still to be which the farmer's fortunes are exposed, is practically the same as before. In fact, good years and bad years, wet weather and drought or floods and frost, low yields and bumper crops are to be expected in mixed succession. The total loss due to natural calamities (like flood, drought and plant diseases) is estimated as high as Rs. 1,000 crores every year. The man behind the plough has to be assured that he will be compensated for such loss in crops. Otherwise, he cannot be drawn into the campaign to increase productivity of land under his plough,"

The need for protecting the farmer from natural hazards arises for the following reasons:

- (1) In our country Nature has always been moody. **"She is unpredictably generous to one state and disconcertingly bad-tempered to another. This fickleness of weather conditions in different parts of the country upsets the whole agricultural economy, and makes one part bountiful, while the other starves."**
- (2) Besides droughts and floods, locusts, plant diseases have always been a serious enemy to our agriculture by destroying standing crops and thereby reducing farmers' income.
- (3) Majority of the holdings are tiny, from which the farmers get marginal surplus in good years and incur heavy deficits in the bad ones.
- (4) Farming is more hazardous than any other enterprise. The weather can make all the difference between success and failure. Consequently, many farmers, particularly the small ones, feel shy of adopting new techniques.

The fear of loss is so overwhelming that even when convinced of the gain accruing from the application of science and technology, they prefer to go along the traditional track of low productivity. Once freed from fear by crop insurance they can quicken the pace to high productivity.

The Fourth Plan observed, "Severe distress is caused to the farmers by crop failure resulting from drought, floods and other natural calamities. This risk is likely to get accentuated under conditions of large investments in fertilizers, pesticides, improved seeds and other inputs which are proposed to be used on a large scale during the Fourth Plan. One of the important means of alleviating distress arising out from natural calamities could be the organisation of crop insurance."

3. Review of Literature:

Barman, B (2003), in his study entitled "Institutional Rural Credit in Assam: A Case Study of Rangia Subdivision" examined the impact of the institutional credit on the socio-economic status of the rural people at micro level. The field survey covered 300 beneficiaries which were selected with simple random sampling technique. The study found that the procedure for receiving loan was not simple and credit-deposit ratio of the sample banks of the Range sub-division was very low. The scholar had suggested that the flow of credit needs to be doubled to mitigate the gap between demand for and supply of funds to the agricultural sector.

Sharma (2007) in their study entitled "Access to credit- A study of hills farms in Himachal Pradesh." showed that credit was very low in absolute terms which might be because the farmers had small holdings and thus borrowings for machinery etc. were avoided. Among non-institutional sources, moneylenders had no role to play. Contribution of friends/ relatives was found to be significant. Among agricultural loan, crop production loan for seed, fertilizer etc. was found to be important. Among social factors, formal education was found to be important in enhancing the probability of being a borrower. Also farm size and non-farm income played a vital role in borrowing behaviour.

Sunny IbeObilor (2013), in his study entitled "The Impact of Commercial Banks Credit to Agriculture on Agricultural Development in Nigeria: An Econometric Analysis" evaluated the

impact of commercial banks' credit to agricultural sector under the Agricultural Credit Guarantee Scheme Fund in Nigeria. Until the mid-seventies, agriculture was the primary foreign exchange earner for Nigeria. Now it has lost its prime position to the mineral sector. Of these factors, inadequate capital is considered as the single most important factor affecting the performance of the sector. It therefore empirically examined the impact of Agricultural Credit Guarantee Scheme Fund, agricultural product prices, government fund allocation and commercial banks' credit to agricultural sector on agricultural productivity. The result revealed that Agricultural Credit Guarantee Scheme Fund and Government fund allocation to agriculture produced a significant positive effect on agricultural productivity, while the other variables produced a significant negative effect. It is recommended that farmers should be encouraged to be applying for loans from the participating banks to enhance their agricultural activities and productivity.

4. Objectives of the Study:

To identify the farmers awareness towards crop insurance with special reference to Nizamaabad and Kamareddy District.

5. Research Methodology:

Nizamaabad and Kamareddy District is the study area selected for this research. Primary data is collected through well-structured questionnaire. A sample of 200 respondents in NIZAMAABAD and Kamareddy District has been selected by using random sampling method. The collected information were reviewed and consolidated into a master table. For the purpose of analysis the data

were further processed by using statistical tools. The statistical tools are

- Simple Percentage
- Chi-Square Test
- Friedman Ranking Test

6. Limitations of the Study:

- The study is restricted to the selected sample of Nizamabad and Kamareddy District and hence the result of the study cannot be generalized.
- The statistical methods used to analyze the data have their own limitation.
- All the limitations of primary data are applicable to this study.

7. Analysis and Interpretation:

Demographic Profile of the Farmers: Table no.1 describes the demographic profile of the farmers for the study. Out of 100 respondents who were taken for the study: it has been identified that most (63%) of the respondent are male, (57%) whose age group is under 26 to 50 years, most (68%) of the respondents are up to school level, the annual income of (42%) respondents is above Rs.2,50,000, (54%) of the farmers have 2 to 10 acres farm area for their agriculture, (52%) of the respondents have above 10 years farming experience, (64%) of the respondents belong to joint family and (61%) of the respondents came to know about the Crop insurance through Friends/ Relatives.

Table 1: Demographic Profile of the Farmers

Factors	Number of Farmers N=200	Percentage
Gender		
Male	126	63
Female	74	37
Age (Years)		
Up to 25	28	14
26 to 50	114	57
Above 50	58	29
Educational Qualification		
Up to School Level	136	68
Graduate	42	21
Post Graduate	22	11
Annual Income		
Up to Rs.1,00,000	48	24
Rs.1,00,001 to Rs.2,50,000	68	34
Above Rs.2,50,000	84	42
Farm Size (Acres)		
Up to 5	54	27
5 to 10	108	54
Above 15	38	19
Type of Family		
Nuclear Family	72	36
Joint Family	128	64
Sources of Knowledge		
Friends/ Relatives	122	61
Newspapers/TV	24	12
Bank Officers	54	27

Table 2: Relationship between the Demographic Profile and level of awareness towards Crop insurance

Variables	Level of Awareness			Total	X ² Value	Table Value	Remarks
	Low	Moderate	High				
Gender							
Male	26	44	76	126	7.634	5.991	S
Female	16	26	32	74			
Age(Years)							
Up to 25	8	10	10	28	2.499	9.488	NS
26 to 50	34	52	28	114			
Above 50	24	10	24	58			
Educational Qualification							
Up to School Level	52	40	44	136	16.178	9.488	S
Graduate	16	16	10	42			
Post Graduate	8	6	8	22			
Annual Income							
Up to Rs. 1,00,000	22	14	12	48	1.823	9.488	NS
Rs. 1,00,001 to Rs. 2,50,000	18	38	12	68			
Above Rs. 2,50,000	28	36	20	84			
Farm Size (Acres)							
Up to 5	24	16	14	54	2.613	9.488	S
5 to 10	38	46	24	108			
Above 15	8	18	12	38			
Type of Family							
Nuclear Family	14	40	18	70	3.598	5.991	NS
Joint Family	36	68	24	128			
Sources of Knowledge							
Friends / Relatives	22	46	54	122	14.862	9.488	S
Newspapers / TV	6	10	8	24			
Bank Officers	20	14	20	54			

Relationship between the Demographic Profile and Level of Awareness towards Crop Insurance:

Table no.2 depicts the relationship between selected demographic variables and Level of the Awareness of the respondents. It is clear that , the calculated Chi-square value is less than the table value at five percent level, there does not exists any significant association between age, annual

income, type of family of the farmers and level of awareness towards Crop insurance. Thus the null hypothesis is accepted. It is clear that, the calculated Chi-square value is greater than the table value at five percent level, there exist a significant association between gender, educational qualification, farm size, source of knowledge about Crop insurance and level of awareness towards Crop insurance. Thus the null hypothesis is rejected.

Table 3: Awareness of Farmers towards Crop Insurance– Friedman Rank Test

Factors	A	NANDA	DA	Total	Average Rank	Rank
Terms and Conditions	90	50	60	200	4.56	4
	45	25	30	(100.00)		
Premium	136	48	16	200	5346	1
	68	24	8	(100.00)		
Mode of Premium	92	68	40	200	4.79	3
	46	34	20	(100.00)		
Type of Risk	100	44	56	200	5.14	2
	45	22	28	(100.00)		
Methods of loss determining	56	82	62	200	4.12	5
	28	56	36	(100.00)		

Table no.3 shows about the Friedman Rank Test for awareness of farmers towards crop insurance were 0.000 level of significance which shows that there is a relationship between the ranks given. It shows that Premium was the first awareness factor of the farmers towards crop insurance, Type of Risk was ranked as the second awareness factor, Mode of premium was ranked as third factor, Terms and conditions was ranked as fourth factor and Methods of loss determining was the fifth awareness factor of the farmers towards crop insurance.

Conclusion:

Crop Insurance is one of the most innovative, highly appreciated and non-discriminatory banking credit products. The crop insurance not only solves the credit problem of farmer but also help our country to grow economically. Crop insurance plays an important role in agriculture; hence the crop insurance is carried as a credit vehicle in rural areas with the objective of risk dispersal to small, marginal farmers, large farmers & socio economically weaker section of population for the development of agriculture. In present scenario the government should take necessary steps to educate the importance of crop insurance to the farmers.

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FDI IN INDIAN INSURANCE SECTOR: A CRITICAL ANALYSIS

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ABSTRACT

The journey of Foreign Direct Investment (FDI) & insurance sector being hand in hand is not very long. It has been merely sixteen years of togetherness. It was in the year 2000 that the insurance sector was liberalized after a long debatable period. The private players were granted permission to participate in insurance business along with foreign investment up to 26% in the equity share capital. Several new companies apart from the already existent LIC and GIC emerged, and the major issues which Indian insurance industry had hitherto faced- such as insurance density and insurance penetration, were to a great extent now dealt with. There have been unending debates in the past decade regarding whether it was the effect of privatisation (which gained ground in 2000) or the coming together of the private sector and foreign investors that facilitated such a considerable improvement in the performance of insurance sector. Researchers in the field are yet to reach a unanimous agreement, since both the inclusion of foreign capital and the coming on of privatisation overlap chronologically, both occurring at the turn of the millennium.

However, the improvement of the insurance sector did not reach the heights expected, which called for a further increase in FDI in 2000. The FDI limit, which had so far been fixed at 26%, was now proposed to be pushed up to 49%. The year 2015 saw the passing of the Insurance Amendment Bill, which raised the FDI limit to 49%.

The paper aims to critically examine the role of foreign direct investment in insurance sector and the government policy of increasing the FDI in this sector. Hence this paper aims to analyse the data provided by IRDA annual reports and other journals through certain statistical tools how far FDI has impacted the growth and development of insurance sector.

Keywords: FDI, Insurance Density, Insurance penetration, Linear Regressions.

1. INTRODUCTION

Indian insurance sector although is witnessing growth and development at a fast pace still lags behind many similar economies in the baseline of insurance density. Insurance density is measured as the ratio of premium in US dollar to total population. Insurance density in India is around US\$ 54.7 billion however countries like US, UK or France have it at US\$4000. Even countries like Thailand and Malaysia who are counted in the countries for low insurance density have greater

than US\$100. Insurance penetration, which measures the contribution of the insurance industry in relation to a nation's GDP, is still quite nominal for India that is around 3.3% and lags behind many developing and developed countries. Hence it's really essential to study the regions that are in performance for the intensification and advancement of the Indian insurance industry. It was observed that long after the liberalisation of the insurance sector in India, the public sector

companies like LIC and GICs continued to be dominant enjoying around 90% of the market share. Back in the late 90s the then policymakers understood the need of a thriving insurance industry and initiated the reform process dismantling the physical barriers for growth that emerged in “Licence-Permit Raj”. Mr C.S. Rao the IRDA chairman 2007, in his speech explained a dynamic insurance industry to be one of the main engines of growth in any economy and for this reason the opening up of this sector for private as well as foreign players was remarkably necessary. After a long debatable period this sector was liberalised with allowing of private companies in addition to 26% of foreign shareholding. This was not the end of the discussion over FDI in the history of Indian insurance sector, it was again in 2008 when the call for raising the foreign capital limit in the insurance sector was felt and once again after an elongated dubious period of around seven years finally the FDI limit was augmented to 49%. Therefore this paper attempts to understand the association between foreign direct investment and the growth and development of Indian insurance sector and for this purpose linear regression is used.

2. INDIAN INSURANCE SECTOR

Prior to 1956 private companies owned insurance business in India. The management of life insurance was taken by the process of nationalisation in the year 1956 by an act of parliament. Later in the year 1972 General Insurance Corporation (GIC) was set up to deal in non-life services like casualty & property insurance and reinsurance. The Malhotra

Committee report (1994) supported the liberalisation of the Indian Insurance sector. Professional regulation as a matter of priority was made as a strong case by the committee report almost as a condition precedent to the opening up of the sector to private and foreign participation. It was not until the year 1999 that with Mr N.Rangachary as its chairman the Insurance Regulatory and Development Authority was formed to protect consumer interest and ensure orderly growth of insurance market in India through its professional regulations. The IRDA Act marks the end of the government’s monopoly in the sector as it seeks to endorse the private players (comprising limited foreign capital) in Indian insurance sector (Economic Survey of India, 1999-2000).

3. INSURANCE SECTOR OF INDIA: CURRENT SCENARIO

At the end of March 2016, Indian insurance industry consists of 54 registered companies out of which 24 are in life insurance business and the non-life business consists of the rest 29 out of which 5 are exclusive health insurers (IRDA Report, 2015-16). Life insurance cooperation (LIC) is the sole public sector company among the life insurers and six public sector insurers in the non-life area. General Insurance Corporation (GIC Re) is the sole name in the national reinsurance business. This picture was not same since the beginning of the millennium it has changed over the years starting with just ten companies in the area of life insurance business and four companies in the area of non-life business.

TABLE No. 1
NUMBER OF REGISTERED INSURANCE COMPANIES IN INDIA

YEARS	LIFE INSURANCE	NON- LIFE INSURANCE	RE- INSURANCE	TOTAL
2000-01	11	10	1	22
2001-02	13	13	1	27
2002-03	14	14	1	28
2003-04	14	14	1	28
2004-05	14	14	1	29
2005-06	16	15	1	32
2006-07	17	17	1	35

2007-08	20	21	1	42
2008-09	22	21	1	44
2009-10	23	24	1	48
2010-11	24	24	1	49
2011-12	24	27	1	52
2012-13	24	27	1	52
2013-14	24	28	1	53
2014-15	24	28*	1	53
2015-16	24	29*	1	54

Source: IRDA Annual reports

Analysis: The above table no. 1 highlights the number of registered insurance companies over the years since privatisation. Life insurance sector consist of one public sector Company i.e. Life insurance cooperation of India (LIC) with 70.4% market share which continues to be a dominant market leader in the field of life insurance business till today. All others are private insurance companies which have increase in their number over the years and can be observed in the table. Non-life insurance companies' column consists of 4 public sector general insurance companies in the year 2000-01 which increased to 6 in the year 2002-03 and remained so till year 2015-16.

4. CURRENT SCENARIO AT INTERNATIONAL LEVEL:

Internationally, the share of life insurance business in total premium is 55.6% out of which the share of life insurance business is at 79% and that of non-life is at 21%. India is ranked 10TH among the 88 countries in life insurance business for which data was published by Swiss Re (IRDA Annual Report, 2015-16). The year 2015 observed India's share in global life insurance market at 2.24% which was at 2.08% in the year 2014. However, India's life insurance premium has increased by 7.8% when the global life insurance premium augmented by 4%. The Indian non-life insurance sector witnessed a progress of 8.1% though the growth in global non-life insurance premium was only 3.6%. However the portion of Indian non-life insurance premium in global non-life insurance premium was at 0.75% and out of those 88 countries, India ranks 18TH. (IRDA Annual report 2015-16).

5. FDI in Indian Insurance Industry – A Historic Synopsis

Foreign direct investment in Indian insurance sector was introduced in the year 2000 when the government liberalized this sector. Though, other sectors of the economy had seen liberalization in 1990s but insurance with few other sectors was thought to be sensitive at that time hence was kept back from opening up but, in late 90s government felt the need of liberalizing this sector therefore Malhotra committee a committee specifically on insurance sector was formed in April 1993 with R. N. Malhotra, a former finance secretary and governor of RBI. The purpose was to access the strengths and weaknesses of the sector, to review the then existing structure of supervision and regulation of insurance sector and to suggest the reforms for modernizing the regulatory system in tune with changing economic environment. The committee recommended opening of the insurance sector to private players with foreign holding up to 26 per cent and setting up of an independent regulatory authority. Seventeen private insurance companies entered the Indian market for both life and non-life business in the year 2000-01 with foreign equity in their share capital. This number grew over the years but again in the year 2008 the debate over increasing of the foreign capital limit in insurance sector broke out and ended up increasing the limit to 49% in the year 2015. This once more gave confidence to the private players and their number substantially increased during 2015-16 (IRDA annual Report, 2015-16). Currently government is again reviewing its policy for 100 per cent FDI in insurance sector.

6. Theoretical background of the study:

In the past one and a half decade the insurance sector has experienced a massive transformation in terms of number of insurers involved, volume of funds and the level of penetration & density which is the result of liberalization. Liberalization denotes a reduction of government or other barrier to market access, especially as relates to foreign insurers (Skipper, 1996). Neoclassical economists supported the deregulation and often argue that countries should rapidly deregulate industries and liberalize markets (Sobita, 2011; Becker, 1983; Stigler, 1971). Liberalization was not just the opening up for private players but also the foreign investors in the domestic insurance market. Hence, the tribute of growth and development of insurance sector cannot be given solitary to the private players, for the fact we know that there was no single private player who entered the market without FDI in its equity share capital. FDI is considered momentous for the long term economic development of the country for the reason that it is not only a source of capital but also a spring of innovated technology with the best global management practices (Goldberg, 2004). With a large population India has a vast untapped insurance market, as only a small percentage of India's strong population has insurance cover either for life or health. So experts believe that there is huge scope for growth and this is one of the major reasons for recognised foreign partners to join hands with domestic players. There are several studies over the years which have tried to find out the impact of opening up, the trends in the insurance market, the performance of the industry after the liberalization and the impact of FDI. They found that the sector was in requisite of massive funds before liberalization as LIC was not able to handle the growing need of capital (Ranade & Ahuja, 1999). The decision to privatize is mainly taken because of fiscal requirements rather than desire to improve the efficiency; in India when economic reforms began in 1991 the country was facing severe balance of payment

crises (Kumari, 2016). Consequently, Foreign Direct Capital was necessary and the need of private sector entry has been justified on the basis of enhanced efficiency of operation, attainment of greater density and penetration of insurance in the country and for greater mobilised savings (Talwar & Ali, 2015) and also according to various IRDA Annual reports over the years. Impact of private players and inclusion of foreign capital have been studied through several researches such as (Jain, 2013) who explains the requirement of liberalization for the purpose of increased funds and innovated insurance products in the life insurance market. Moreover, the growth of this sector due to privatisation is generating employment in India where unemployment is one of the major challenges of the country and this is upheld by scholars who have elucidated how this sector is responsible for the livelihood of many rural and urban families (Gumber & Kulkarni, 2000).

The relationship between foreign direct Investment and growth of the insurance sector is been evidenced and associated by many scholars. The potential and performance of the insurance sector is universally assessed with two parameters, viz. Insurance penetration and insurance density these are used to study the progress and development of the insurance sector of any country. Insurance penetration is measured as the percentage of insurance premium to GDP and insurance density is calculated as the ratio of premium to population (per capita premium). All through the first decade of liberalization, insurance sector has recounted consistent increase in insurance penetration from 2.71 per cent in 2001 to 5.20 per cent in 2009. Since then, the level of penetration was declining which however increase in 2015 reaching 3.44 per cent after passing of the insurance bill 2015 where the government increased the foreign capital limit to 49% from 26%. A similar trend in the level of insurance density is observed as it reached the maximum of US\$ 64.4 billion in the year 2010, from the level of US\$ 11.5 billion in 2001

TABLE No. 2
INSURANCE PENETRATION DENSITY AND FDI IN INDIA

YEAR	LIFE INSURANCE			NON LIFE INSURANCE			INDUSTRY		
	FDI (US \$)	DEN (US \$)	PEN %	FDI (US \$)	DEN (US \$)	PEN %	FDI (US \$)	DEN (US \$)	PEN %
2001-02	—	9.1	2.15	—	2.4	0.56	—	11.5	2.71
2002-03	—	11.7	2.59	—	3	0.67	—	14.7	3.26
2003-04	0.12	12.9	2.26	0.04	3.5	0.62	0.16	16.4	2.88
2004-05	0.17	15.7	2.53	0.05	4	0.64	0.22	19.7	3.17
2005-06	0.23	18.3	2.53	0.05	4.4	0.61	0.28	22.7	3.14
2006-07	0.31	33.2	4.1	0.07	5.2	0.6	0.38	38.4	4.8
2007-08	0.4	40.4	4	0.11	6.2	0.6	0.51	46.6	4.7
2008-09	0.7	41.2	4	0.14	6.2	0.6	0.84	47.4	4.6
2009-10	0.95	47.7	4.6	0.16	6.7	0.6	1.11	54.3	5.2
2010-11	1.17	55.7	4.4	0.19	8.7	0.71	1.36	64.4	5.1
2011-12	1.13	49	3.4	0.2	10	0.7	1.33	59	4.1
2012-13	0.99	42.7	3.17	0.21	10.5	0.78	1.11	53.2	3.96
2013-14	0.96	41	3.1	0.21	11	0.8	1.17	52	3.9
2014-15	0.92	44	2.6	0.22	11	0.7	1.14	55	3.3
2015-16	1.07	43.2	2.72	0.35	11.5	0.72	1.42	54.7	3.44

Source: IRDA Annual Report

Table no 2 shows the inclusion of foreign direct investment (FDI) in life and non-life sector over the years. it can be observed from the table that the sector's penetration and density have seen a growing trend over the years with the increase in the absolute amount of FDI in their equity share capital.

7. RESEARCH GAP

The research gap of the study has been found with the help of literature review. The majority of the research studies covered various aspects of insurance development and explained the relationships theoretically .As we know that, the foreign direct investment has received importance since the commencement of liberalization. Thus, in the present research paper, we have tried to study this relationship between variables statistically.

8. OBJECTIVES OF THE STUDY

1. To study the impact of FDI on the density of life insurance in India.
2. To examine the impact of FDI on the penetration of life insurance in India.
3. To judge the impact of FDI on the density of non-life insurance in India.
4. To measure the impact of FDI on the penetration of non-life insurance in India.

9. HYPOTHESES OF THE STUDY

H₀1: There is no significant impact of FDI on the density of life Insurance in India.

H₀2: There is no significant impact of FDI on the penetration of life Insurance in India.

H₀₃: There is no significant impact of FDI on the density of non-life Insurance in India.

H₀₄: There is no significant impact of FDI on the penetration of Non-life Insurance in India.

10. RESEARCH METHODOLOGY:

The present study is based on the secondary source of data which is collected from the various Annual reports of the Insurance Regulatory & Development Authority (IRDA). The data collected has been analysed and interpreted in such a way so as to achieve the objectives of the study. The data was collected from the annual reports 2001-01 till 2015-16. The independent variable FDI was converted to US\$ billion from its absolute

amount which was in Rs crore so that the variables used i.e. FDI, insurance density and insurance penetration comes to a common unit and can be analysed using linear regression.

11. RESULTS OF HYPOTHESES TESTING:

A linear regression analysis was run using SPSS to find the relationship between the increasing Foreign Direct Investment in insurance sector and the increasing density and penetration of the sector over the years. As we know the sector is generally bifurcated into life insurance and the non-life insurance sector. Hence the analysis is divided into two portions viz. **Life insurance** and **Non-life insurance**.

A. FDI & LIFE INSURANCE SECTOR OF INDIA:

Model 1: representing FDI and life insurance density

Variables Entered/Removed ^a			
Model	Variables Entered	Variables Removed	Method
1	FDI ^b	.	Enter

a. Dependent Variable: DEN

b. All requested variables entered.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.963 ^a	.928	.922	4.078

a. Predictors: (Constant), FDI

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	9.454	2.360		4.007	.002
	FDI	35.784	2.875	.963	12.446	.000

a. Dependent Variable: DEN

Interpretation of model 1:

The R value represents the simple correlation and is 0.963, indicating a high degree of correlation between the independent variable FDI and the dependent variable i.e. life insurance Density in this case. The R Square value indicates how much

of the total variation in the dependent variable Density can be explained by the independent variable FDI. In this case its 92.2% which is very large. Hence, on the basis of above analysis it is found that there is significant positive relationship between FDI and the density of life insurance in India.

Model 2: representing FDI and life insurance penetration

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	FDI ^b	.	Enter

a. Dependent Variable: PEN

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.407 ^a	.166	.096	.708

a. Predictors: (Constant), FDI

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.796	.410		6.823	.000
1 FDI	.771	.499	.407	1.544	.149

b. Dependent Variable: PEN

Interpretation of model 2:

The R value representing simple correlation is 0.407, indicating a moderate positive correlation between the independent variable FDI and the dependent variable i.e. life insurance penetration. The R Square value indicating quantum of variation in the dependent variable penetration can be explained by the independent variable FDI. In

this case its 96% which is quite large. Hence, on the basis of above analysis it is found that there is significant positive relationship between FDI and the penetration of life insurance in India.

B.FDI & NON-LIFE INSURANCE SECTOR OF INDIA:

Model3: representing FDI and non-life insurance density

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	FDI ^b	.	Enter

a. Dependent Variable: DEN

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.934 ^a	.873	.862	1.1454668

a. Predictors: (Constant), FDI

Coefficients ^a					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.483	.610		4.067	.002
FDI	32.434	3.572	.934	9.080	.000

a. Dependent Variable: DEN

Interpretation of model 3:

The R value representing the simple correlation is 0.934, which is again indicating a high degree of correlation between the independent variable FDI and the dependent variable 'Density' of non-life insurance in this case. The R Square value indicates how much of the total variation in

the Density of non-life insurance can be explained by the independent variable FDI. In this case its 87.3% which is large. Hence on the basis of above analysis it is found that there is significant positive relationship between FDI and the density of non-life insurance in India.

Model 4: representing FDI and non-life insurance penetration

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	FDI ^b	.	Enter

a. Dependent Variable: PEN

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.018 ^a	.407	.358	0.055079

a. Predictors: (Constant), FDI

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)		.029		20.267	.000
FDI		.171		2.872	.014

a. Dependent Variable: DEN

Interpretation of model 4:

The R value representing the simple correlation is 0.018, which is again positive but not as significant as of other independent variables and FDI in this case. The R Square value indicates how much of the total variation in the penetration of non-life

insurance which can be explained by the independent variable FDI. In this case its 35.8%. Hence on the basis of above analysis it is found that there is significant positive relationship between FDI and the penetration of non-life insurance in India.

12. CONCLUSION:

Insurance is the back bone of any economy as its country's risk management system and influence growth of the economy in numerous ways. Indian Insurance sector has immense potential to be a part in growth momentum but the sector demands huge investment in the form of working capital and in-depth knowledge of the market. Though the gestation period for the private and foreign players in the Indian insurance industry is not too long but enough to state their ability for growth potentials and taking the sector to the next level. The study identifies there is a significant positive relationship between FDI and the insurance density and insurance penetration for both life and non-life sector in India. Hence government can look up its policy of 100 per cent FDI in this sector. The increased density and penetration with the opening up of insurance sector gives a clear indication of the ability of the foreign and private players to enhance the size, awareness and participation in the insurance market internationally.

13. LIMITATIONS OF THE RESEARCH:

No study is completed in its outlook and free from loopholes. Hence following are the limitations of this research.

1. The present study is completely based on secondary source of data. Moreover data has been collected from IRDA annual reports hence there is a chance of discrepancy.
2. The present study has been limited to the Insurance Sector.
4. The data has been arranged as per requirements of the study.
5. In this study, researchers mainly focused to measure the impact of FDI on Insurance density and Insurance penetration for both life and non-life sector of the insurance industry.
6. All responses for the study have been solicited from particularly insurance sector; it may vary for rest of the sectors.

7. The statistical test used to analyse the data has its own limitations.
8. The data for FDI in the year 2000-01 and 2001-02 was not available.

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AN ANALYTICAL STUDY OF THE IMPACT OF FDI ON INDIAN LIFE INSURANCE SECTOR

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ABSTRACT

This research paper is basically based on the study of impact of FDI in Indian Life insurance sector. Even after the liberalization of insurance sector, the public sector insurance companies have continued to dominate the insurance market, enjoying over 90 percent of market share. The Indian government liberalized the insurance sector in year 2000 and opened the doors for private participation. The long-pending Insurance Bill, a key economic reform legislation providing for raising foreign investment cap from 26 percent to 49 per cent, was on 4 march, 2015 passed by Lok Sabha with the government insisting that the measure is crucial for expanding the penetration of insurance in the country. Foreign Direct Investment (FDI) Proposals up to 26 Per Cent of the Total Paid-Up Equity of the Indian Insurance Company Allowed on the Automatic Route, and FDI Proposals which take the Total Foreign Investment Above 26 Per Cent and up to the Cap of 49 Per Cent Shall Require FIPB Approval. To check the impact of FDI in Life Insurance sector secondary data has been collected from various reports of related authorities. With the help of regression it is interpreted that with the p value less than .05 there is significant impact of FDI in Life Insurance Sector.

Keywords: *FDI, Equity Share Capital, Life Insurance Sector, Foreign Promoters.*

Introduction

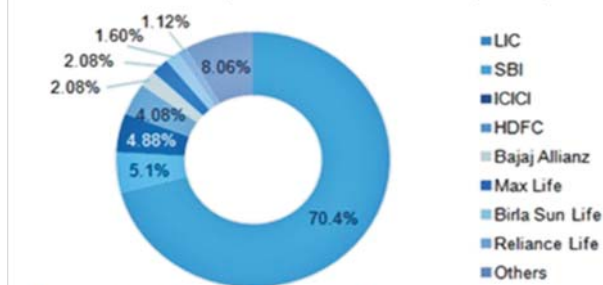
Foreign direct investment (FDI) is a direct investment into production or business in a country by an individual or company of another country, either by buying a company in the target country or by expanding operations of an existing business in that country. Foreign direct investment is in difference to portfolio investment which is an inactive investment in the securities of another country such as stocks and bonds. FDI is a strong source of money.

In India, there are 53 insurance companies consisting 24 life insurance companies and 29 are non –life insurance companies. LIC is the sole public company among all the life insurance companies in insurance industry. Indian life insurance sector has about 360 million policies

which is the biggest in all over the world and it is expected to increases in next 5 years with CAGR of 12-15 %. Some major highlights in this sector are:

- The life insurance market grew from US\$ 10.5 billion in FY02 to US\$ 27.5 billion in FY16
- Over FY02–FY16, life insurance premiums expanded at a CAGR of 7.5 per cent.
- The life insurance industry has the potential to grow 2-2.5 times by 2020.
- With 70.4 per cent share market share in FY16, LIC continues to be the market leader, followed by SBI (5.1 per cent), ICICI (4.9 per cent) and HDFC (4.1 per cent)

Major companies market share in terms of life insurance premium collected (FY16)



Source: TechSci Research, LIC - Life Insurance Corporation of India

Review of literature

Yadav, R.K. & Mohania, S. (2016). In their research paper titled impact of FDI on life insurance sector concluded that increasing FDI for this sector is a great movement, since this sector required big investment that can be done through only FDI. They stressed on the point that the IRDAI and RBI and other institutions should keep an eye on the outflow of Indian currency. They found that Indian insurance industry is still less penetrated and has huge growth potential. Foreign direct investment (F.D.I.) plays significant role in the economic development of the country.

Hedge, S.k. & Ranebennur, S. (2014). Attempted a study on FDI in Indian Insurance Industry and made an understand about the role of FDI in Indian insurance sector. They told that Indian life insurance sector was growing at faster rate at that time and had given a platform for economic growth and employment. They also discussed about the problems like lack of awareness of policy system, inflexible and costly plans and worst system in rural area facing at that time. The foreign direct investment (FDI) has not a reverse impact on the working of private life insurance companies business in India, but it assists for infrastructure development, assists in better facilities and techniques for sales person, broker etc.

Objectives of the Study

The main objectives of this study are:

- To study the share of foreign promoters in Indian Life Insurance sector.
- To study the foreign promoter companies in Indian Life Insurance sector.

- To study the top 10 investing countries in Indian Life Insurance Sector.
- To know the impact of FDI on Indian Life Insurance Sector.

Research Methodology

- To achieve the objectives, the data for the period 2001 to 2014 have been taken.
- **Analysis Method:** The collected data are analyzed with the help of **Linear Regression**.
- **Sources of Information:** This study is based on Secondary data, the data is collected from various sources:-Handbook on Indian Insurance Statistics, Annual Reports of IRDA, Reports from various Indian Insurance Companies, Publications, Journals and Internet

Analysis and Interpretation

1. Share of Foreign Promoters in Indian Life Insurance Sector

Table 1
FDI in Equity Share Capital in Indian Life Insurance Sector (Rs. Crore)

Year	Equity Share Capital	Share of Foreign Promoter
Upto 2001	758	184.65
Upto 2002	911	235.55
Upto 2003	2,234.13	563.44
Upto 2004	3,243.71	782.34
Upto 2005	4,352.81	1053.94
Upto 2006	5,890.81	1355.34
Upto 2007	8,124.41	1809.74
Upto 2008	12,296.42	2821.63
Upto 2009	18,253.04	4354.51
Upto 2010	21,019.99	5053.58
Upto 2011	23,661.85	5723.81
Upto 2012	24931.92	6324.26
Upto 2013	25518.72	6045.9
Upto 2014	25938.51	6113.36
Upto 2015	26239.55	NA
Upto 2016	26691.46	NA

Source: Compiled from Various Reports of IRDA and Indian Insurance Companies.

This table reveals the share of foreign promoters in the Indian life insurance sector. It says that the total equity share capital in year 2000-2001 was Rs. 758 crore which, over the years shows a increasing trend till year 2015-2016. Like this the FDI in life insurance sector was Rs. 184.65 crore as a part of Rs. 758 crore. This is also showing an increasing pattern till year 2011-2012 but in the year 2012-2013 it fell down by Rs. 6045.9 crore and in 2013-2014 it increased again with Rs. 6113.36 crore.

2. Top 10 Foreign Promoter Companies in Indian Life Insurance Sector

Table 2
Top 10 Foreign Promoter Companies in Life Insurance Sector (Rs. Crore)

Total FDI in Life Insurance Sectors		
Ranks	Name of the company	Upto 31.03.2014
1	PNB Met Life (USA)	523.35
2	AVIVA (UK)	521.27
3	HDFC Std. (UK)	518.67
4	TATA AIA (USA)	507.91
5	MAX Life (Japan)	505.62
6	Birla Sunlife (Canada)	494.31
7	Bharti AXA (Paris)	439.60
8	ICICI Prudential (UK)	370.78
9	Future Generali (Italy)	370.26
10	AegonReligare (USA)	339.82
	TOTAL	4591.59

Source: Compiled from Various Reports of IRDA and Indian Insurance Companies

Table 2 is basically prepared to highlight the share of top 10 foreign companies in the Indian Life Insurance sector. According to this table, the first position is occupied by PNB Met life Insurance Company from USA with a share of Rs.523.35 crore. Second position is grabbed by AVIVA (UK) in the Life Insurance sector with a contribution worth Rs.521.27 crore. If we looked in the last the

tenth position is of Aegon Religare Company from USA with a share of Rs. 339.82 crore.

3. Top Ten Countries Attracting Highest FDI Inflows in Indian Life Insurance Sector

Table 3
Top 10 Investing Countries FDI Inflows in Indian Life Insurance Sectors (Rs. Crore)

Total FDI in Life Insurance Sectors		
Ranks	Country	Upto 31.03.14
1	U.K.	1534.22
2	U.S.A.	1459.58
3	Japan	617.49
4	Canada	494.31
5	Paris	439.60
6	Italy	370.26
7	Australia	311.04
8	Netherland	260.00
9	Hong Kong	247.00
10	Belgium	208.00

Source: Compiled from Various Reports of IRDA and Indian Insurance Companies

This table describes the top investing countries in the Indian Life Insurance Sector. This can be seen in the table that the highest contribution is made by the U.K. with Rs. 1534.22 crore and after that U.S.A contributed worth Rs. 1459.58 crore. If we look at the last the least contributor country is Belgium who invested only Rs. 208 crore.

4. Impact of FDI on Indian Life Insurance Sector

FDI- Independent Variable

**Equity Capital in Indian life insurance sector-
Dependent Variable**

Table- 4
Descriptive Statistics

	Mean	Std. Deviation	N
Equity Share capital of Indian life insurance	12652.5229	10103.59407	14
FDI in Indian life insurance	3030.1464	2447.02863	14

Table-5
Correlations

		equity share capital of Indian life insurance	FDI in Indian life insurance
Pearson Correlation	equity share capital of Indian life insurance	1.000	.999
	FDI in Indian life insurance sector	.999	1.000
Sig. (1-tailed)	equity share capital of Indian life insurance	.	.000
	FDI in Indian life insurance	.000	.

Table-6
Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.999 ^a	.998	.998	495.68364	.998	5389.147	1	12	.000	1.655

a. Predictors: (Constant), FDI in Indian life insurance

b. Dependent Variable: Equity Share Capital of Indian Life Insurance sector

Table 5 & 6 shows the strength of relationship between the model and the dependent variable (Equity Share Capital). Table 5 indicates the correlation between the dependent variable (Equity Capital in Indian Life Insurance Sector) and independent variable (FDI in Indian Life Insurance

Sector). Table 5 shows the highest correlation with the value of $R = .999$ between these 2 selected variables. And in the table 6 of model summary in which value of $R^2 = .998$ highlighted that 99.8% variations in Equity capital are due to variations in FDI.

Table-7
ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1324125544.727	1	1324125544.727	5389.147	.000 ^b
	Residual	2948427.213	12	245702.268		
	Total	1327073971.939	13			

a. Dependent Variable: equity share capital of Indian life insurance

b. Predictors: (Constant), FDI in Indian life insurance

Table 7 is ANOVA table which represents the F value = 5389.147 and p value is .000 which means this is significant at 5% level of significance.

Table- 8
Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	155.186	215.711		.719	.486
	FDI in Indian life insurance	4.124	.056	.999	73.411	.000

a. Dependent Variable: Equity Share Capital of Indian life insurance

Table 8 of coefficients executes the estimates of b-values (Unstandardized coefficients) that explicate the individual contribution of independent variable to the model. The negative value shows the negative relationship between the predictor and outcome variable and vice-versa. When we replace the B values in equation we find the model as:

$$\text{Equity Share Capital} = b_0 + b_1 (\text{FDI}) \\ = 155.186 + 4.124 (\text{FDI})$$

The value of $b_1 = 4.124$ indicates that as FDI increases by one unit, equity capital increases by 4.124 units. Therefore, every additional unit of FDI is associated with an extra 4.124 unit's increment in Equity Capital.

The standardized beta values in the table indicate the volume of change in standard deviation outcome due to one standard deviation change in the predictor. This is true only if the effects of other factors held constant.

Testing of Hypothesis

H0: There is no significant impact of FDI on Indian Life Insurance Sector.

Table 8 points that p value is less than .05. So, here it can be said that null hypothesis is rejected and concluded that there is significant impact of FDI on Indian Life Insurance Sector.

Conclusion

In conclusion we can say that there is no denying fact that insurance services have been recognized the world over as an important tool for socio-economic development for a nation. This is seen by the above study that FDI has significant impact in insurance sector. So, it can be said that FDI has been one of the major contributors in the growth of the Indian economy and therefore, the need for higher FDI is felt across sectors in the Indian economy. No doubt, there is an urgent need for providing life insurance coverage in India. This

industry can achieve a high growth in future if right policies are adopted.

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CAPITAL ASSET PRICING MODEL - AN ECONOMETRIC STUDY

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ABSTRACT:

The main purpose of this study is to empirically investigate the applicability of CAPM for 10 selected stocks listed in the National Stock Exchange (NSE) over the period January, 2015 – August, 2016. The study shows that CAPM held good completely for 6 stocks. So CAPM was not found to be applicable to all the stocks under study. It may be noted that stocks, with superior risk adjusted performances by both Treynor and Sharpe measures, were also ones for which CAPM held good completely. All the ‘Defensive’, ‘Undervalued’ stocks displaying superior market performance were found to be ‘CAPM supportive’.

Keywords: CAPM, Treynor Statistics, Sharpe Statistics, Systematic Risk, Skewness, Jarque-Bera Test, Jensen Statistics.

Introduction:

The CAPM was originally developed as an offshoot from the Market Model by Sharpe (1964) and Lintner (1965). The model explains (i) the relationship between the risk and return on a financial security and (ii) uses this relationship to determine the appropriate price of and return on the security. In CAPM capital Markets are perfect without the existence of transaction cost. In the presence of any risk-free asset in the capital market, the individual risk-premium, as the CAPM holds, must be linearly and proportionately related to market premium. The constant of proportionately is the systematic risk ($\hat{\alpha}$). Following rise in systematic risk rises, given risk-free rate, expected return on the security concerned rises.

Thus CAPM holds that (i) individual risk premium is in *Homogenous Degree One* relation with the market premium, and

(ii) security return varies directly with the associated risk. This positive *ex post* risk-return relationship is symmetric to the *ex ante* risk-return relation which an investor who undertake more risk for more return.

Numerous empirical studies had been carried out to investigate applicability of CAPM in different countries. These studies present mixed evidences for CAPM. As a matter of fact, there are abundant evidences against CAPM these studies claim that there are other factors affecting returns in stock market rather than systematic risk. A brief review of some relevant studies is presented below.

Literature Survey:

Don U.A.Galagedera (November 2014) in “A Review of Capital Asset Pricing Models” dealt with individual security returns and examined the risk-return relationship. His multifactor models were virtually extended forms of the Capital Asset Pricing Model (CAPM) with higher order co-moments and asset pricing models conditional on time-varying volatility. He held that an inverse relationship between beta and portfolio returns might be expected, when the market return fell short of risk free return such that the risk premium emerged negative, an inverse relationship between beta and portfolio returns is expected.

Jianhua Dai, Jian Hu and Songmin Lan (2014) in “Research on Capital Asset Pricing Model: Empirical in China Market” examined the CAPM

in China's Stock markets. Stock data and combined data of Shanghai Stock Exchange were used in the study. Empirical analysis of these data had been carried out by way of t-statistics and joint test to verify if CAPM model would be true for China's stock market. They concluded that CAPM model was essential feature in China's stock market. Thus, CAPM model can be applied in empirical analysis.

Michael C. Jensen & Myron Scholes (1972) in "The Capital Asset Pricing Model: Some Empirical Tests" sought to develop portfolio evaluation models and measure the relation between the expected risk premiums on individual assets and their systematic risk. Their study involved capital asset pricing model, Cross-sectional Tests, Two-Factor Model, and aggregation problem. They reported that the expected excess return on an asset was not strictly proportional to its Beta.

M.Srinivasa Reddy, S. Durga (2015) in "Testing the Validity of CAPM in Indian stock markets" examined the relationship between risk and expected return of securities. This paper tested the CAPM for the Indian stock market using Black Jensen Scholes methodology. The sample involves 87 stocks included in the Nifty and Nifty Junior indices from 1st Jan 2005 to Aug 2014. The test was based on the time series regressions of excess portfolio return on excess market return. The results show that CAPM partially held in Indian markets over the period of study.

Sylvester Jarlee (2007) in "A Test of the Capital Asset Pricing Model: Studying Stocks on The Stockholm Stock Exchange" over the period January 2001 - December 2006 employed tools like CAPM, Time-series test, Cross-sectional test. The study did not fully uphold the CAPM. Further the study did not provide evidence that higher beta yielded higher return while the slope of the security market line was negative and downwards sloping. However, a linear relationship between beta and return was established.

Theriou. N, Aggelidis. V, and Spiridis. T (2001) in "Empirical Testing of Capital Asset Pricing

Model" examined if there did exist any linear relation between risk and portfolio returns over the period July 1992 to the June 2001. This study involved the use of CAPM, beta, cross-section of returns and two-factor model. They concluded that the traditional CAPM was not confirmed in the ASE for the period of study between the July 1992, June 2001.

Tom A. Fearnley (2002) in "Estimation of an International Capital Asset Pricing Model with Stocks and

Government Bonds" investigated if US, Japanese and European stocks and government bond returns were linearly related. He further sought to explore the time variation of the price of market risk for a structural change in the prices of market and currency risk. Study was carried out with International CAPM and Multivariate GARCH. He found that CAPM held better for the stock markets than for the bond markets.

TL Reddy and RJ Thomson in "The Capital-Asset Pricing Model: The Case of South Africa" examined the capital-asset pricing model (CAPM) for the South African security markets. In this research paper they considered quarterly total returns from 10 sectoral indices listed on the JSE Securities Exchange for the period 30 June 1995 - 30 June 2009. They found, on the assumption of normal distribution of the residuals of the return-generating function, that CAPM could be rejected for certain periods. However, the use of the CAPM for long-term actuarial modeling in the South African market could be reasonably justified.

W. S. Nel (2011) in "The application of the Capital Asset Pricing Model (CAPM): A South African Perspective" emphasized on two of its main components, namely the risk-free rate and beta. He held that both academia and investment practitioners favored the CAPM but they disagreed significantly with regard to the components of the CAPM and the use of alternative models.

Objective of the Study:

The objective of this study is to empirically investigate the applicability of CAPM for some selected stocks listed in the National Stock Exchange (NSE) over the period January, 2015 – August, 2016. More specifically, the study is directed to examine

- (i) if individual risk premia were directly related to market premia,
- (ii) if the risk-return relation for these stocks were positive as dictated by the CAPM,
- (iii) if the stocks were ‘underpriced’ or ‘overpriced’ and
- (iv) the risk adjusted relative performance of these selected stock with respect to the market.
- (v) the role of CAPM in the choice of stocks by a rational investor.

Data:

The study involves the use of daily stock closing prices of 10 selected stocks listed in the National Stock Exchange (NSE) for the period January, 2015-August, 2016. The data have been collected from the official website of the Bombay stock Exchange (www.nseindia.com)

The risk-free asset has been proxied by the 91-day Treasury Bill & data on the risk-free rates for the relevant period were obtained from the RBI Bulletin, a publication of RBI.

Section I

Methodology

The Market Model, developed by Sharpe (1964), holds that most shares maintain some degree of positive correlation with market portfolio. When market rises, most shares tend to rise. Sharpe postulated a linear link between a security return and the market return as a whole such that the excess return on a security is linearly and proportionately related to the excess return on the market portfolio. Let us consider a security i with expected return $E(R_i)$. Then for any risk free return (R_t^*), CAPM definition is that

$$E(R_{it}) - R_t^* = \beta_i [E(R_{mt}) - R_t^*] \quad \text{————— (1)}$$

Where $E(R_i)$ = expected rate of return on security i

R_t^* = risk free rate of return

$E(R_m)$ = expected rate of return on the market portfolio

$E(R_{it}) - R_t^*$ = the excess of rate of return on security i over the risk free rate of return

= the risk premium for the security i

$E(R_{mt}) - R_t^*$ = the expected rate of market return over the risk free rate

= the market premium

β_i = the sensitivity of the risk premium of the security i to the market premium

Therefore, the equation (1) states that the risk premium for any individual security (i) equals the market premium times the corresponding .

Thus according to Sharp’s model, the only common factor affecting all securities is the market rate of return. All other factors, like dividend yields, price-earning ratios, quality of management and industrial features bear no separate influence on .

Methodological Issues:

Equation (1) contains three variables viz $E(R_{it})$, $E(R_{mt})$ and β_i while R_t^* is proxied through the arithmetic average of historical risk free rates of return.

$E(R_{it})$ and $E(R_{mt})$ are unobservable. In most of the studies cited in literature survey $E(R_{mt})$ is usually estimated by measuring the average of the historical returns on a market portfolio. Again, the time series data on and can be used to measure

These can be used to estimate

$$\beta_i = \frac{\text{Cov}(R_i R_m)}{\text{Var}(R_m)} = \frac{\sigma_i \rho_{im}}{\sigma_m} \quad \text{————— (2)}$$

Thus, $E(R_{mt})$, R_t^* and β_i are obtained and these statistics can be used to measure $E(R_{it}) - R_t^*$

since by the equation (1)

$$E(R_{it}) - R_t^* = \beta_i [E(R_{mt}) - R_t^*]$$

This estimation involves the measure of $E(R_{mt})$ and R_t^* , the average rate of return on R_{mt} and the 'average rate of return on risk-free assets' derived on the basis of the historical datasets for the variables concerned. Thus $E(R_{mt})$, R_t^* and β_i are 'single fixed values' used for the estimation of a single fixed value for $E(R_{it})$. As a result, the study

looses the dynamic charm and intricacy of the relations between $E(R_{mt})$ and $E(R_{it})$ over the period of study concerned.

Section II Estimation and Findings

I) Stationarity, Integreblity and Contegration

Series of excess returns on securities ($R_{it} - R_t^*$); R_{it} ; $i = 1, \dots, 10$ of 10 different companies and market return series ($R_{mt} - R_t^*$) have been subject to ADF Unit Root Tests for examining stationarity and determining integrability of the series concerned. Results of such tests have been presented below.

Table-1

Results of ADF Unit Root Tests on the Return Series [$R_{it} - R_t^*$] and [$R_{mt} - R_t^*$] at level (1.1.2016 – 1.1.2017)

Securities	ADF Statistics of the Return Series [$R_{it} - R_t^*$] and [$R_{mt} - R_t^*$] with exogenous constant	Critical Values At 1% level	Inference on Stationarity & Integrability
Market(BSE)	-17.03369	-3.746402	I(0)
Jindal	-21.47825	-3.746362	I(0)
Bharat Petroleum	-18.01948	-3.846362	I(0)
Cipla Ltd.	-17.19244	-3.946362	I(0)
Coal India Ltd.	-15.99994	-3.546362	I(0)
GAIL	-18.50178	-3.746362	I(0)
HDFC Mutual Fund	-24.40784	-3.746362	I(0)
HDFC	-19.31812	-3.746402	I(0)
Hero Motocorp	-17.72367	-3.746362	I(0)
Hindalco	-15.14793	-3.746362	I(0)
Kotac Mahendra	-16.64522	-3.646362	I(0)

It is observed that premia of all the individual securities and of the market are I(0) indicating that the premia are stationary at level.

From the Table-1 it is observed that

$$(R_{it} - R_t^*) \sim I(0) \text{ and } (R_{mt} - R_t^*) \sim I(0).$$

Consequently, $(R_{it} - R_t^*) = Y_t \sim I(0)$ and

$(R_{mt} - R_t^*) = X_t \sim I(0)$ are cointegrated. The estimable cointegrating equation is

$$Y_t = \alpha + \beta X_t + u_t \quad (18)$$

where $u_t \sim iidN(0, \sigma_u^2)$

It is observed that returns of 19 stocks exhibit White Noise Process. These stocks are Jindal, Bharat Petroleum, Cipla Ltd, Coal India Ltd. GAIL, Hero Motocorp, Hindalco, Kotac Mahendra. Results of estimation of the equation (18) for securities of 10 different companies are being presented below in Table-2.

Table-2
Estimated Cointegration Equations for the Selected Stocks

Stock Name	1/2014 to 8/2015	Estimate	Std. Error	t value	Pr(> t)
Jindal	<i>Slope(β)</i>	2.530243	0.860354	2.708470	0.0071
	<i>Intercept Term</i>	-0.539299	0.178532	-2.460615	0.0143
	$R^2 = 0.018$, Adj. $R^2 = 0.015$, F-Stat=7.33. & Pro(0.007), D-W stat=2.10, AIC=5.25, SC=5.27				
Bharat Petroleum	<i>Slope(β)</i>	1.872924	0.540672	3.279109	0.0011
	<i>Intercept Term</i>	0.151345	0.112195	1.348946	0.1781
	$R^2 = 0.026$, Adj. $R^2 = 0.023$, F-Stat=10.75. & Pro(0.001), D-W stat=1.98, AIC=4.32, SC=4.33				
Cipla Ltd.	<i>Slope(β)</i>	1.342116	0.433614	2.864564	0.0044
	<i>Intercept Term</i>	0.060323	0.089979	0.670413	0.5030
	$R^2 = 0.020$, Adj. $R^2 = 0.017$, F-Stat=8.20. & Pro(0.004), D-W stat=1.97, AIC=3.88, SC=3.90				
Coal India Ltd.	<i>Slope(β)</i>	1.342116	0.433614	2.864564	0.0044
	<i>Intercept Term</i>	0.060323	0.089979	0.670413	0.5030
	$R^2 = 0.020$, Adj. $R^2 = 0.017$, F-Stat=8.20. & Pro(0.004), D-W stat=1.97, AIC=3.88, SC=3.90				
GAIL	<i>Slope(β)</i>	1.318465	0.465680	3.046007	0.0025
	<i>Intercept Term</i>	-0.113830	0.096633	-1.177958	0.2395
	$R^2 = 0.022$, Adj. $R^2 = 0.020$, F-Stat=9.27. & Pro(0.0024), D-W stat=2.021, AIC=4.025, SC=4.045				
HDFC Mutual Fund	<i>Slope(β)</i>	0.088266	0.053896	1.452173	0.1472
	<i>Intercept Term</i>	-0.036020	0.011208	-3.213836	0.0014
	$R^2 = 0.005$, Adj. $R^2 = 0.002$, F-Stat=2.10. & Pro(0.14), D-W stat=1.35, AIC=-0.28, SC=-0.26				
HDFC	<i>Slope(β)</i>	0.383733	0.040839	8.661686	0.0000
	<i>Intercept Term</i>	0.097866	0.008474	11.54828	0.0000
	$R^2 = 0.158$, Adj. $R^2 = 0.156$, F-Stat=75. & Pro(0.00), D-W stat=1.61, AIC=-0.84, SC=-0.82				
Hero Motocorp	<i>Slope(β)</i>	0.970933	0.407875	2.404985	0.0166
	<i>Intercept Term</i>	-0.005550	0.084638	-0.065579	0.9477
	$R^2 = 0.014$, Adj. $R^2 = 0.011$, F-Stat=5.78. & Pro(0.016), D-W stat=1.92, AIC=3.76, SC=3.78				
Hindalco	<i>Slope (β)</i>	1.168161	0.641626	1.820626	0.0694
	<i>Intercept Term</i>	-0.128130	0.133144	-0.962344	0.3365
	$R^2 = 0.008$, Adj. $R^2 = 0.005$, F-Stat=3.31. & Pro(0.069), D-W stat=1.97, AIC=4.66, SC=4.68				
Kotac Mahendra	<i>Slope(β)</i>	1.444189	0.431651	3.345735	0.0009
	<i>Intercept Term</i>	0.073845	0.089572	0.824418	0.4102
	$R^2 = 0.024$, Adj. $R^2 = 0.027$, F-Stat=11. & Pro(0.000), D-W stat=2.04, AIC=3.87, SC=3.89				

Table-3

Securities of Com.	Average Rate of Return over the Period	S. D. of Return	β	R^2
Market (BSE)	0.067675	0.868551	1	1
Risk free bond	0.084530	0.005938	1	1
Jindal	-0.278911	3.344780	2.330243	0.018
Bharat Petroleum	0.263986	2.127500	1.772924	0.026
Cipla Ltd.	0.181083	1.698382	1.342116	0.020
Coal India Ltd.	0.073872	2.000806	1.342116	0.020
GAIL	-0.008255	1.819446	1.318465	0.022
HDFC Mutual Fund	-0.036212	0.792115	0.088266	0.005
HDFC	0.143062	1.222526	0.453733	0.158
Hero Motocorp	0.073168	1.583670	0.783786	0.014
Hindalco	-0.065650	2.484021	1.168161	0.008
Kotac Mahendra	0.184085	1.690386	1.444189	0.024

Findings:

It has been observed from Tables 2 and 3 that

- (i) (a) R^2 value in each of the estimated equations is low. Yet F values, which are significant at 1% or 5% level, indicate that the estimated equations are good fit. Thus linear relationship between individual risk premium and market risk premium gets confirmed.

- (b) DW statistics indicate that residuals are *white noise* and the estimations are free from autocorrelation.

- (ii) (a) Average returns for 5 companies exceed that for the market. These companies are Bharat Petroleum, Kotac Mahendra, Cipla Ltd., Sun Pharm. Indus. Ltd, HDFC.

Again standard deviations of returns of these companies, which measure total risk involved, exceed that for the market. Higher standard deviation with higher return implies positive risk-return relationship in case of these companies.

- (b) Average returns for the remaining 5 companies lag behind that for the market. However, standard deviation of returns for 4 of these companies exceed that of the market. For HDFC Mutual Fund both the average return and standard deviation fall short of those of

the market. For these 4 companies there exist an asymmetric risk-return relationship.

- (c) Average return for 4 of the 5 companies are found to be negative over the period of studies. These companies are Jindal, Gail, HDFC Mutual Fund, Hindalco. For these companies Risk-Return relationship is found to be negative.

- (iii) $\hat{\alpha}$ is not statistically significant (even for 5% level) for securities of 6 companies. However, is statistically significant (at 5% level) for securities of 4 companies like Jindal, Cipla, HDFC Mutual Fund, HDFC. Therefore, $\hat{\alpha} = 0$ assumption behind CAPM does not strictly hold for securities of these 4 stocks. However, this assumption ($\hat{\alpha} = 0$) behind CAPM holds for the rest 6 companies.

- (iv) $\hat{\alpha}$ is significant (i.e., $\hat{\alpha} \neq 0$) at 1% or 5% level for the returns of 25 companies concerned. Therefore, *cointegration* between security returns and market returns are established for the companies implying that variation in security risk premium is linearly related to market risk premium, given that corresponding residuals are $I(0)$.

- (v) In case of 6 companies for which $\hat{\alpha}$ is statistically insignificant (even at 5% level),

the relationship is *Homogenous of degree one* as suggested by the CAPM. On the other hand, in case of 4 companies, as cited above, for which is statistically significant (at 5% level), the relationship between security risk premium and market risk premium is not strictly *Homogenous of degree one*. Thus for these 4 companies CAPM does not hold strictly.

(vi) (a) for security returns of 6 companies. These companies are Jindal, Bharat Petroleum, Coal India Ltd, Gail, Hindalco, Kotac Mahendra. Since implies that stocks of these companies are more volatile than market portfolio. These stocks, therefore, act as '*Aggressive Securities*'.

(b) for the remaining 4 companies. Since implies that, these stocks are less volatile than the market portfolio. These stocks, if included into any portfolio, help stabilize the portfolio. Consequently, these stocks act as '*Defensive Securities*'. It may be stated that in case of 5 of these companies for which is found to be

statistically insignificant (even at 5% level) as stated in (vi) above CAPM does not hold at all.

Section III

Composite Performance Measures

Treynor's Composite Performance Measure (T) indicates the stock's '*risk premium return per unit of risk*'. All risk-averse investors would prefer to maximize this value. Comparing a stock's T value to a similar measure for the market portfolio indicates whether the stock would plot above the SML. A stock with T value higher than that for the market portfolio plots above the *Security Market Line (SML)* indicating superior risk adjusted performance.

Sharpe's Composite measure of performance (S Statistics) indicates the '*risk premium return per unit of total risk*'. In terms of *Capital Market Theory*, this performance measure uses risk to compare the stock to the *Capital Market Line (CML)*, whereas Treynor measure examines the performance in relation to the SML.

Table-4

Securities of Companies	Average Rate of Return over the Period	Standard Deviation of Return	β	R^2	Jansen Statistics(α)	Risk Adjusted Performance w.r.t. Market	
						Sharpe Statistics	Treynor Statistics
Market (BSE)	0.067675	0.868551	1	1		0.077652	0.067445
Risk free bond	0.000230	1.28E-05	1	1			
Jindal	-0.268911	3.344780	2.330243	0.018	-0.439299	-0.08047	-0.1155
Bharat Petroleum	0.253986	2.127500	1.772924	0.026	0.151345	0.119274	0.143129
Cipla Ltd.	0.151083	1.698382	1.242116	0.020	0.060323	0.088822	0.121448
Coal India Ltd.	0.063872	2.000806	1.242116	0.020	0.060323	0.031808	0.051237
GAIL	-0.007255	1.819446	1.418465	0.022	-0.113830	-0.00411	-0.00528
HDFC Mutual Fund	-0.026212	0.792115	0.078266	0.005	-0.036020	-0.03338	-0.33785
HDFC	0.123062	1.222526	0.353733	0.158	0.097866	0.100474	0.347245
Hero Motocorp	0.063168	1.583670	0.783786	0.014	-0.005550	0.039742	0.0803
Hindalco	-0.055650	2.484021	1.168161	0.008	-0.128130	-0.0225	-0.04784
Kotac Mahendra	0.174085	1.690386	1.444189	0.024	0.073845	0.102849	0.120382

The Table-4 presents the T and S Statistics for the market as well as for 10 companies. It is observed that T-statistics for 5 companies exceed that of the market. Therefore, performance of these companies excelled over the market. Ranks of these companies on the basis of T statistics are being presented. These companies are Bharat Petroleum, Hindalco, Kotac Mahendra, HDFC, Hero Motocorp.

Again Sharp (S) statistics indicate that 4 companies had performance better than the market. Ranks of

these companies are also being presented within parentheses. There is a close association between these two ranking. Companies, which excelled in performance on the basis of both the measures, are Bharat Petroleum, Cipla Ltd, HDFC, Kotac Mahendra.

Section IV Summary & Conclusion

The summary of the findings has been presented through the Table-5.

Table-5
Summary of the Findings

Stocks	Stochastic Structure of Return	Over/Under	Risk-Return relation	$\alpha = 0$	$\beta \neq 0$	CAPM	Aggressive / Defensive	Rank as per Superiority	
								T	S
Jindal	WN	Over	Negative	Does not hold	Holds	Holds Partially	Aggressive		
Bharat Petroleum	WN	Under	Positive	Holds	Holds	Holds	Aggressive	2	1
Cipla Ltd.	WN	Under	Positive	Does not hold	Holds	Holds Partially	Defensive	3	4
CoalIndia Ltd.	WN	Under	Negative	Holds	Holds	Holds	Aggressive		
GAIL	WN	Over	Negative	Holds	Holds	Holds	Aggressive		
HDFC Mutual Fund	ARIMA(1,0,6)	Under	Negative	Does not hold	Holds	Holds Partially	Defensive		
HDFC	ARIMA(2,0,0)	Under	Positive	Does not hold	Holds	Holds Partially	Defensive	1	3
Hero Motocorp	WN	Under	Negative	Holds	Holds	Holds	Defensive	5	
Hindalco	WN	Over	Negative	Holds	Holds	Holds	Aggressive		
Kotac Mahendra	WN	Under	Positive	Holds	Holds	Holds	Aggressive	4	2

The Table-5 helps us identify

- stocks which were 'under-valued' or 'over-valued' and 'aggressive' or 'defensive'
- stocks for which risk-return relations were positive or negative
- stocks with or without *Homogenous degree one* relation between individual risk premia and market premia such that $\hat{\alpha}=0$ and $\hat{\alpha} \neq 0$
- stocks for which CAPM held good completely (i.e., $\hat{\alpha}=0$, $\hat{\alpha} \neq 0$). or partially (i.e., $\hat{\alpha} \neq 0$, $\hat{\alpha} \neq 0$). or was not applicable at all ($\hat{\alpha}=0$).
- stocks which had superior risk-adjusted relative performances with respect to market as measured by both Treynor and Sharpe Statistics.

The study shows that

- CAPM held good completely for 6 stocks. So CAPM was not found to be applicable to all the stocks under study.
- 10 stocks display white noise. For 6 of these stocks CAPM held completely (i.e., $\hat{\alpha}=0$, $\hat{\alpha} \neq 0$) and for 4 of these stocks CAPM held partially (i.e., $\hat{\alpha} \neq 0$, $\hat{\alpha} \neq 0$).

A rational investor may decide to choose a stock with the potentiality of

(i) attaining superior risk-adjusted performance in the market

(ii) stabilizing the volatility of portfolio which he already possesses and

(iii) reaping higher actual rate of returns than expected

In such case, he would choose a ‘defensive’, ‘undervalued’ stock displaying superior risk-adjusted performances by Treynor and Sharpe standards. In this case, his choice gets limited to 1 stocks (Cipla) with white noise structure for returns.

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