Contribution of Insurance Industry in Economic Growth of Nepal with Reference to Nepal Life Insurance Company Limited and Lumbini General Life Insurance Company Limited

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Abstract
Insurance as a method for risk mitigation and get coverage from unprecedented loss caused by unfortunate and unplanned series of events. On individual level, insurance might be a risk hedging tool, or an alternative investment option to savings in banks, finances or holding any form of asset. But on the macroeconomic level, insurance is a unique kind of financial intermediary that channelizes small amount of savings from the large group of population and pool them as the source of capital, while also offering benefits of other traditional financial intermediaries.

Keywords: Insurance, Risk Mitigation, Macroeconomics.

1 INTRODUCTION

According to the finance-growth nexus theory-economic growth from productivity of capital investment and other efficient medium of investment and use of innovative technology leads in financial development (Levine 1997). Numerous channels are functioning as financial intermediaries that affect economic growth. The financial functions include the different mechanism of pooling resources, clearing and settlement for exchange of goods and services, also routing them in investment on productive sectors with minimizing and hedging risk to making suitable decision in economic sector (Merton and Bodie, 1995).

UNCTAD (2007) has recognized that, the insurance industry plays a critical role in promoting industrial and infrastructural enterprises (Beema Samiti (Insurance Regulatory Authority of Nepal), 2019). Insurance is different from traditional financial intermediaries like banks, co-operative, finances etc. as they pool the resource, contribute to the stability of economy and assist business participants to cope with the aggravated and unprecedented risks (Oke, June, 2012). From this perspective, the industry has been mobilizing and routing the savings to support commercial and entrepreneurial activities to enhance the living standard and overall wellbeing of a country (Beema Samiti (Insurance Regulatory Authority of Nepal), 2019).

From consumer perspective, insurance is a hedging tool to minimize risk at the time of sudden, unprecedented risk and unfavorable situation (Ghimire, 2014). Insurance generates a peace of mind and provides relief from financial and mental burden, in case of any misfortune due to medical, accidental and natural conditions.

Conventionally, insurance was originated as a social security device, gradually developed as a cooperative institution, further it was developed in the form of mutual insurance while insurance companies now are operating as a commercial institution (Ghimire, 2020) Insurance industry can be considered as crucial part of institutional investment. They invest in capital market like shares and debentures of corporate house, along with other schemes like mutual funds, government bonds, and other investment schemes and generate sufficient income which are then distributed to general public in the form of predetermined insurance benefits (Securities Board of Nepal (SEBON), 2007).

1.1Insurance Definition

Insurance company is a major financial intermediary for the collection and systematic mobilization of savings of people from the deprived and vulnerable middle- and lower-income groups. These savings are channelized into investment for economic growth. Insurance differs from other forms of financial intermediaries in terms of the economic functions served by it.

Evidence from research shows that insurance contributes significantly to economic development by enhancing the investment climate and encouraging a more productive combination of activities than would have been the case in the absence of risk management tools. This contribution is magnified b y the complementary growth of banking and other financial structures.

Insurance is often defined as the act of pooling funds from many insured entities (known as exposures) in order to pay for relatively uncommon but severely devastating losses which can occur to these entities. The insured entities are therefore protected from risk for a fee, with the fee being dependent upon the frequency and severity of the event occurring. (Encarta dictionary, 2009). Thus, it is a commercial enterprise and a major part of the financial services industry. Insurance is a form of risk management in which the insured transfer the cost of potential loss to another entity in exchange for monetary compensation known as the premium. Insurance in economic terms is refers to the pooling mechanism for reducing the down-side of risk through resource reallocation from good to stormy states of the world.

Churchill et. Al (2003) opines that insurance facilitates financial protection against by reimbursing losses during crisis. It is designed to protect the financial well-being of an individual, company or other entity in the case of unexpected loss. This protection is accomplished through a pooling mechanism whereby many individuals who are vulnerable to the particular risk are joined together into a risk pool. Each person pays a small amount of money, known as a premium, into the pool, which is then used to compensate the unfortunate individuals who do actually suffer a loss.

Agbaje (2005) defined insurance 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 involved the transfer of risk from one individual to another, sharing losses on an equitable basis by all members of the group. The group, known as insurance company, must increase its hold on the premium and widen its profit margin to cope with the demand of there.

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. 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 translated into higher long-run development.

Insurance sector acts as the mobilizer of savings, a financial intermediary, a promoter of investment activities, a stabilizer of financial markets and a risk manager. The life insurance sector plays an important role in providing risk cover, investment and tax planning for individuals; the non-life insurance industry provides a risk cover for assets. By bringing sense of security and peace of mind, insurance industry encourages adventure, investment and entrepreneurship (PERPETUA, February, 2017).

Insurance contracts involve small periodic payments, known as premiums, in return for protection against uncertain, but potentially severe losses. The major benefit of insurance industries is that, since the premiums are paid in advance, the insurance companies have the benefit to invest them in other productive investment opportunities which provide higher returns and increase the value prior to paying the needed claims and expenses. Since the maturity period of insurance is known pre-hand and span over a relatively longer period of time, insurance industry can invest in long-term investment activities like (PERPETUA, February, 2017):

- Investment in Government Securities (IVGS)
- Investment in Stocks and Bonds (IVSB)

- Investment in Real Estate and Mortgage (IVRM)
- Investment in Cash and Deposit and Hand (IVCD)

Insurance investment creates opportunities and simulations in the economy, resulting in better performing economic growth indicators (PERPETUA, February, 2017).

1.2Scope & Significance of Study

This study focused on the contribution of both life and non-life insurance industry in GDP of Nepal. There are 19 life insurance, 20 non-life insurance and one re-insurance company operating withing the geographical boundary of Nepal.

With the time and cost constraints in hand, this paper has analyzed one life insurance company and one non-life insurance company to provide a representative and generalized scenario of the both types of insurance industry. Nepal Life Insurance Company (NLIC), established in 2001 is the foremost life insurance company of Nepal. The apex company has highest net premium collection and consequently has highest GDP contribution among life insurance companies. Lumbini General Insurance Company (LGIC), 2005, is a leading non-life insurance company and has strong market coverage and valuation.

These two companies have been thoroughly studied in an attempt to provide a representative data on how and to which extent, the insurance industry is contributing to the GDP of Nepal.

1.3Problem Statement

Financial Intermediaries form a major support base for economy of any country. Banks, finances and microfinances play a vital role in the economy and have a significant contribution in the economic growth as well. Insurance industries, though having immense potential to impact the economic activities are not getting enough priority.

By pooling the resources to compensate and minimize at the risk at the time of emergencies, insurance industries generate a peace of mind to the consumers, while also contributing to the economy by mobilizing the pooled and unused resources to investment activities, the tax contribution to the government, employment generation etc.

The findings of this study shall highlight the potential of insurance industry to impact and positively contribute to the economy. Attributing to the time and resource constraints, the study shall be based on two major insurance companies, Nepal Life Insurance Company (NLIC) and Lumbini General Insurance Company Limited (LGIL), working in life and non-life insurance industry of Nepal respectively.

1.4Aim & Objectives

The major aims and objectives of this study are discussed as below:

- To identify the impact of insurance industry in the capital market.
- To identify the impact of insurance industry in the GDP of Nepal.
- To study the ways how insurance industry contributes to the economic growth.

1.5Methodology & Resources

This study is fundamentally based on secondary data sources. The major portion of this study involves secondary data analysis and archival study. The authorized financial statement of two major insurance companies form a major portion of the resource. Authorized publications from Nepal Beema Sansthan, quarterly and annual reports published by the life and non-life insurance companies, findings of other researchers, experts, analysts and critics were thoroughly studied. Besides, large body of literature published in national and international journals (Kautish et al, 2008, 2012, 2013, 2020), similar case studies in developing and developed nations, were analyzed and reviewed and on the basis of these literature, the conclusion has been drawn (Ghimire, 2014).

Simple percentage analysis and Regression & Correlation analysis were used for quantitative analysis and SPSS was the statistical analysis tool incorporated.

1.6Limitation

Time and cost constraints are the most common limitations faced by most of the scholars. This paper is also not an exception to those limitations.

Besides that, following are the major constraints:
One life insurance company (NLIC) and one non-life insurance company (LGIL) have been taken to provide a representation of the insurance industry in Nepal. The paper does not represent the overall insurance industry and its impacts.
The organizations under consideration are among the strongest competitors in their area. Hence, the findings might not reflect the contribution of each and every insurance company in the market.
The paper is largely based on the study of secondary data published by the authorized bodies. Some of them also constitute the unconsolidated and unaudited reports. Hence, the figures undertaken might slightly differ from the actual ones.
Data from the last 5 to 10 years have been taken under analysis. Since the study is largely based on quantitative analysis, the accuracy of the findings is determined by the accuracy of data.
Also, under current circumstances of global pandemic COVID-19, the forecast made for the upcoming years on the basis of past data can be hugely unrealistic.

1.7Expected Deliverables

The expected results of this study are:

- Contribution of insurance market in the economic growth of Nepal.
- Contribution of insurance market in solving the employment issue in Nepal.
- Comparison the benefits of investing in insurance with that of other investment options like equity market.
- Comparison of the impact of insurance and equity in the capital market.
- A regression equation demonstrating the relationship between economic growth (GDP) and insurance industry shall be derived. Attributing to the time and cost constraints, since all insurance companies cannot be brought under the area of study, data from Nepal Life Insurance Company Limited and Lumbini General Insurance Company Limited shall be used to present a representative equation. The study shall also consider the impact of life insurance and non-life insurance industry separately.

2 LITERATURE REVIEW

2.1Theoretical Framework

2.1.1. Exogenous Growth Theory

Exogenous Growth Theory is based on the assumption that exogenous or outside factors are more critical in determining the growth of an economy, business or individual than the endogenous or inside factors. Exogenous growth theory implies that the factors are mainly outside one's control. They cannot be acted upon, but only can be reacted to. Advancement in technology, political forces, tax rates etc. are considered the exogenous factors (Fine, 2000) (THEMBA G. CHIRWA, 2018).
Neoclassical Growth Model/ The Solow Growth Model
Neoclassical Growth Theory, developed by Solow and Swan (1956) is among the pioneer economic growth theory which outlines that economic growth is a function of three major driving forces- labor, capital and technology (Hernández, 2003). It is focused on capital accumulation and its link to saving decisions. It discusses on how returns on capital and labors increases at first and then grows in a diminishing trend, i.e. the concept of diminishing return to capital and labor.
Neoclassical theory has three main propositions: labor, capital and technology. The first proposition focuses on the growth of labor. It says that in long run, the growth of the economy is dependent on the rate of growth of labors, irrespective of the ration of savings and investment to GDP. Second focuses on the savings and investment to GDP ratio. Since the per capital income depends on the savings to investment to GDP ratio, economic growth is directly proportional to the capital investment and inversely related the growth of population. The final proposition is that under circumstances that different countries are provided with identical preferences and technology, capital-labor ratio and productivity of capital are inversely related (Hernández, 2003) (Fine, 2000).

2.1.2. Endogenous Growth Theory

The principal concept behind the growth of endogenous growth model is the elimination of assumption of diminishing return to capital (Frans Bal, n.d.). It was developed to assess the omissions and deficiencies in Solow-swan model. Endogenous growth model focused on technological changes due to change in investment, capital and human resource.

2.1.3. Paul Romer's Endogenous Growth Theory

This Theory recognizes the existence and importance of the increasing returns in terms of growth. The factors affecting growth are knowledge, human capital, technological change, presence of competitors etc. Romer emphasizes on the involvement of human capital in knowledge-based works for the development of new ideas and economic growth. This theory emphasizes technological advancement, accumulation of knowledge as critical factor for growth in sustainable and long-term economic growth (Schilirò, 2019).

2.2Empirical Framework

Empirical research is research using empirical evidence. It is also a way of gaining knowledge by means of direct and indirect observation of experience. It is based on observed and measured phenomena and derives knowledge from actual experience rather than from theory or belief. Empirical study from numerous scholars provides sufficient evidence to support the possible relation between financial intermediaries and economic growth.

Chen, Lee and Lee (2011) sampled 60 countries for the time period of 1976-2005 to examine the impact of life insurance market on GDP by using a derivative of endogenous growth model and generalized method of moments (GMM) technique. The study covered life insurance market and stock market operations. The result derived the existence of causal relationship running from life insurance market to economic growth. The study also evidences that stock market and life insurance markets are substitutes rather than complements (Chen P.F, 2012).

Agwuegbo, Adewole and Maduebun (2010) conducted a study in Nigeria to predict impact of insurance investment using a factor analytic approach. The study found that a significant portion of Nigeria's investible fund is generated by insurance industry. Investment activities boost the economic activities, increases the output level of goods and services, while insurance enhances risk management and thus promotes and stabilizes the growth of economy.

Ching, Kogid and Furuoka (Kok Sook Ching, 2010), predicted the casual relation between insurance funds and economic growth using Johansen co-integration test, and the Granger causality test based on the Vector Error Correction Method (VECM). The study concludes on the possible existence of long-term relationship between insurance indicators (total assets of life insurance sector) and economic growth, and a short-run causal relationship from the real GDP to the life insurance indicators. It also identifies the insurance industry as potentially effective financial intermediaries to channel long-term savings to capital market and that could eventually impact the country's economic growth (Kok Sook Ching, 2010).

The study by Chui and Kioot (2008) highlighted the investment function of the insurance companies. They advocated that, since the premiums were paid in advance were generally bound for a known and longer period of time, they can be invested until payment claims are made. The premiums paid are not meant for immediate consumption, hence they can be employed to be productive and increase the value or even multiply, depending on the time frame and nature of investment.

According to O'Sullivan and Sheffrin (2006, pp.613-14), financial intermediaries comprise of banks, insurance companies, corporate and finances, mutual funds and other forms of financial institutions.

These institutions are recognized as financial intermediaries because they act as a mediator which accepts surplus funds from savers and supplies the pooled fund to businesses and individuals in deficit, in return for a sum called interest. Insurance companies trade with premium amount to compensate for the claim payments that aid for risk mitigation and protection from unprecedented risk and loss (Kok Sook Ching, 2010).

(Outreville, 1990) studied 55 developing countries to study the relationship between insurance premium and economic growth and identified a positive relationship between per capita premium and per capita GDP.

Marco Arena (2006) performed a study to gather evidence of causal relationship between insurance activity and market growth. The scope of study covered fifty-six developing and non-developing countries over 1974-2004 and used generalized method of moments (GMM) for dynamic models. Total premium of life insurance and non-life insurance were the independent variables under study while GDP per capita was the dependent variable. The findings of the study shed light on the difference of impact caused by life insurance and non-life insurance depending upon the strength of the economy of the underlying countries. Developed and economically stable and growing countries witnessed significant and positive causal effect of both life and non-life insurance on economic growth. However, only non-life insurance was found to have impact on the economic growth of developing countries Also, even in developed and high-income countries, non-life insurance seemed to have higher impact than life insurance (Arena, December 2008).

Haiss and Su megi (2008) studied 29 OECD countries nat performed a cross-country panel data analysis on data of premium collection from 1992- 2004. Insurance industry, though being an important and emerging financial intermediary, sufficient study regarding its impact on economic growth was lacking. The authors targeted to fulfill the gap. Ordinary least square method (OLS) was implemented with country or time-fixed effects. The study showed the existence of a causal relationship between insurance market and economic growth. The impact of life-insurance on GDP growth was higher in the EU-15 countries like Switzerland, Norway and Iceland. while liability insurance had relatively higher impact in Central and Eastern Europe. A common finding with that of other researchers was that the impact of insurance depended on the level of economic development (Sümegi, 2008) (Kok Sook Ching, 2010) (Oke, June, 2012).

3 RESEARCH DESIGN AND METHODOLOGY

3.1Research Design

This work documents the process of the research design. Being based on the 'research onion' framework by Mark Saunders (Saunders, 2016), this work describes the research philosophy adopted, approaches to theory development, strategies used, and techniques/ procedures adopted for data collection. The research onion framework is assists in determining the type of research, data collection methods and appropriate form of data analysis.

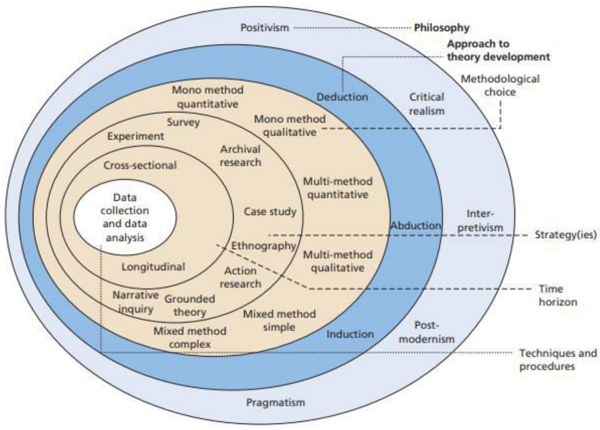

Figure 4.1 The research 'onion'
Source: © 2015 Mark Saunders, Philip Lewis and Adrian Thornhill

Fig 1: The research onion (Saunders, 2016)

3.2Research Philosophy

Research philosophy is the about the system of beliefs and assumptions on how knowledge development takes place (Saunders, 2016).

The five major research philosophies described by the 'onion' framework are positivism, critical - realism, interpretivism, postmodernism and pragmatism. Positivism is the research philosophy adopted as this paper is based on the analysis of facts and figures to derive credible and meaningful patterns of relationship between the variables under study.

3.3Approach to Theory Development

The research onion framework recognizes three different approaches to theory development:

- Deductive
- Inductive
- Abductive reasoning.

Deductive reasoning is when the research starts with the theory derived from academic literature and the research strategy is designed being based on that. Inductive reasoning is when the analysis of data leads to the generation of new theory or modification of existing theory. Inductive reasoning followed by subsequent test with additional test data to verify the outcome is called abductive reasoning.

Since this paper uses economic growth models, empirical method, the approach being used is deductive reasoning.

3.4Population & Sample

The study targets to provide a representation of the overall insurance industry of Nepal, both life and non-life. However, due to time constraints, one life insurance company NLIC and one general insurance company LGIC have been selected for the in-depth study.

Financial statements of NLIC and LCIC for the fiscal years 2074/75, 73/74, 72/73, 71/72 and 070/71 have been used as data sample. The summarized report of all insurance companies published by the Insurance Board has also been used for better comparative analysis.

3.5Dependent & Independent variable

Gross Domestic Product (GDP) of Nepal is the dependent variable under study.

Net premium collection (both life and non-life), Tax contribution by insurance companies, employment opportunities generated, total insurance investment (TII) are the independent variables under study.

Hypothesis - I

H0: Null Hypothesis: There is no significant relation between Net premium collection and economic growth of Nepal.

H1: Alternate Hypothesis: Net premium collection has significant impact on economic growth of Nepal

Hypothesis - II

H0: Null Hypothesis: There is no significant impact of tax from insurance in economic growth of Nepal.

H1: Alternate Hypothesis: Tax contribution from insurance industry has significant impact on economic growth of Nepal

Hypothesis - III

H0: Null Hypothesis: Employment generated by insurance industry has no significant impact on economic growth of Nepal.

H1: Alternate Hypothesis: Employment generated by insurance industry has significant impact on economic growth of Nepal.

Hypothesis – IV

H0: Null Hypothesis: Capital mobilization or total investment by insurance industry has no significant impact on economic growth of Nepal.

H1: Alternate Hypothesis: Capital mobilization or total investment by insurance industry has significant impact on economic growth of Nepal.

3.6Research Framework

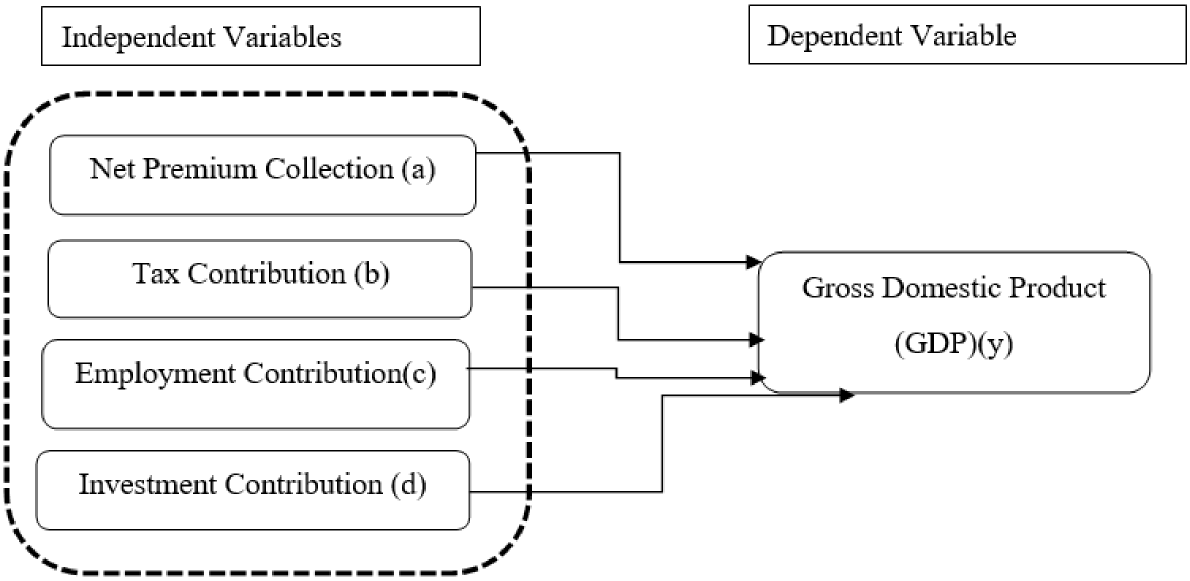

Fig 2: Framework

3.7Research Choices

Qualitative research is descriptive form of research and is used to understand the concepts, thoughts or experiences. Quantitative research involves data collection and statistical analysis to derive patterns, meanings out of the scattered data. Quantitative research is used in cases to confirm or test the theories and assumptions.

The purpose of this study is to confirm the relationship between GDP (dependent variable) and net premium collection, tax collection, employment contribution, investment contribution (independent variables) of insurance industry. The study is based primary on quantitative analysis and is supported by qualitative analysis. As per the research onion framework, the study uses mixed-method of research technique.

3.8Sources of Data Collection

Authorized quarterly and annual financial reports published by the companies have been taken from their official website. For summarized figure of the overall insurance industry of Nepal, the annual reports published by the Insurance Board have also been analyzed.

3.9Strategies

The possible strategies for study might be experiment, survey, archival research, use of case study, ethnography, action research, grounded theory, narrative inquiry, etc. to name a few. This paper uses a combination of archival research, case study in different developed and developing countries including economically poor countries like Nigeria. Grounded theory has also been used to provide theoretical support for the study results observed.

3.10 Time Horizon

Regarding the time horizon, as the study aims to derive the impact that insurance industry has made in economic growth and what is expected of it in future, study that is spread over longitudinal time horizon is more representative. Due to resource and time constraints, data of last 5 fiscal years only are considered in this paper.

3.11 Data Collection Procedure

For data collection, first of all, annual financial reports published by NLIC and LGIC were extracted from their authorized company websites. Then after, balance sheet, profit and loss account, income

statement for each fiscal year under consideration were thoroughly analyzed to collect the values for independent variables under consideration like, tax contribution, net premium collection etc. Number of employees and number of insurance agents were also collected from the different indexes and charts published. Investment contribution was also abstracted by summarizing and aggregating the investment in major securities like government bonds and debenture, mutual funds, fixed deposit and equity share investment in other financial institutions, investment in citizen investment trust (CIT) etc.
Annual report published by Insurance Board was also used to compare the contribution of overall insurance industry and that of NLIC and LCIC as representative life and non-life insurance companies.

3.12 Data Analysis

This paper is primarily based on the quantitative method of data analysis. SPSS is the statistical tool used to derive and analyze the relation between the selected dependent and independent variables.

3.12.1. Descriptive analysis

Out of four major types of descriptive statistics, frequency, central tendency and dispersion have been used. Descriptive analysis helps to minimize the huge data into smaller by accessing the accuracy in data. Every part of data analysis it is key factors measures the raw data into meaningful way. From descriptive analysis mean, median, standard deviation, maximum, minimum values are calculated. Whereas, Mean is the average value from the observation of different insurance company and standard deviation measure the how correctly the mean has been representing. The data has been collected to analyze the result with precision. Here SPSS tools are used for analyzing the data of some insurance company of Nepal.

3.12.2. Inferential analysis

Inferential analysis is the degree of the uncertainty and estimation for the variable that they may produce positive or negative result. It helps to compare the data with previous research done my many researchers. Generally, for this study ANOVA Test, Correlation and regression analysis can be calculated.

3.12.3. Regression and Correlation

Regression provides the relation between the variables under study and correlation provides their degree of relativity. Multiple regression evaluates the relationship between two or more variable taking dependent and independent variable to measure he strength between both. Significance level of the variable is deliberated. P-Value measures the significance level. The measurement of P-Value is 0.05 which indicate the significance if the P-Value is higher the hypothesis is rejected and if the P-Value is less than 0.05 the hypothesis is accepted and significance.

3.12.4. Regression Analysis

Regression analysis comprises a set of statistical tools that provide the basis drawing inferences on the relationship between the interrelated variables (Cho, 2004).
When performing a regression analysis, a regression equation is used which is composed of dependent variables, independent variables or explanatory variables, intercept variables, slope parameters and unobservable error component ε (Anon., n.d.).

3.13 Components of Regression Model

Dependent Variable
Independent Variable
Slope Parameters
Unobservable error component
A simple linear regression model would be,
$y = \beta 0 + \beta 1 X + \varepsilon$,
where,
y = dependent or study variable
X = independent or explanatory variable
$\beta 0$ = intercept parameter
$\beta 1$ =slope parameter

ε = unobservable error component

A liner regression model with single independent variable is termed as simple linear regression model. Linear regression model with more than one independent variable is called multiple linear regression model (Anon., n.d.).

3.13.1. Correlation

While regression analysis provides the relation among the variables under study, their degree of relation can be derived from correlation analysis.

Besides quantitative method, qualitative analysis has also been used. Empirical and theoretical study by numerous scholars and experts, journal articles on insurance and its impact on economy under numerous developing and developed countries, research papers based on the context of Nepal have been studied and their findings have been used to resonate with the findings of quantitative data analysis.

3.14 Ethical Consideration

Data collection and sampling is a critical aspect as it determines the overall statistical output of any study. Non-probability sampling of data has been used being based on the convenience and easy availability of data. Attempts have been made to reduce the impact of prejudice, individual preferences and cognitive biases on the output of the analysis. Data analysis has been done on the basis of the authorized financial statements published on the authorized website of the organization under study. No explicit manipulation has been performed on the data so that the output of the study could reflect the accurate outcome of the data input.

4 DATA ANALYSIS AND FINDINGS OF RESEARCH

The major part during analysis is data and the result. The objective regarding insurance and the research question will be fully justified. The data collected from the publication of different government sources and legal sources. The raw data are inserted and the result is concluded. To more clarify and justified the data there is use of histogram and graph which is easy to understand. Descriptive and inferential analysis was performed on the data collected. Mean, median, mode, standard deviation, variation and percentage analysis were performed for the descriptive analysis of the study. Under inferential analysis, following tests were carried out:

- Histogram
- Independent Sample t-Test
- Multiple Linear Regression
- Correlation Analysis

4.1Online Data Analysis

The key source to gather data are secondary sources for the study and recent 5years data are taken to analysis. Nepal insurance in reference with other insurance company (life and non-life) and its contribution to increase the GDP can be examines. Online annually published results of insurance company by the government and bank are taken. SPSS tools and excel are used to demonstrate graph, chart and histogram.

4.1.1 Contribution of Net Premium Collection to GDP

Here, a comparative analysis of the contribution of overall insurance industry has been made against the contribution made by NLIC and LGIC respectively.

Table 1: Number of Insurance Companies Categorized by Ownership and Type

Ownership	Insurance Type			Total
	Life	Non-Life	Reinsurance	
Government	1	1	-	2
Private Sector	16	16	-	31
Foreign Investment	1	2	-	3
Joint Venture	1	1	1	3
Total	19	20	1	40

Table 2: Contribution of Net Insurance Premium Collection to GDP (Beema Samiti Nepal, 2076)

Fiscal Year	Net Premium Collection	GDP	Contribution of Net Premium Collection to GDP
2070/71	3,043.13	1,94,160.00	1.57
2071/72	3,641.26	2,12,460.00	1.71
2072/73	4,361.62	2,30,942.00	1.89
2073/74	5,409.27	2,59,613.45	2.08
2074/75	7371.27	3,03,511.62	2.43

Table 3: Contribution of Net Premium of NLIC to GDP

Fiscal Year	Net Premium Collection	GDP	Contribution of Net Premium Collection to GDP
2070/71	5,675,000,000.00	1,94,160.00	1.57
2071/72	8,093,000,000.00	2,12,460.00	1.71
2072/73	10,261,000,000	2,30,942.00	1.89
2073/74	12,220,000,000.00	2,59,613.45	2.08
2074/75	16,184,000,000.00	3,03,511.62	2.43

Table 4: Contribution of Net Premium of LGIC to GDP

Fiscal Year	Net Premium Collection	GDP
2070/71	386,243,107	1,94,160.00
2071/72	412,513,149	2,12,460.00
2072/73	468,562,541	2,30,942.00
2073/74	747,803,080	2,59,613.45
2074/75	754,197,877	3,03,511.62

5 Conclusion and Recommendation

5.1Introduction

Financial intermediaries form a strong backbone for a stable and growing economy of any country. Contribution of banks, finance, micro-finances, co-operatives has always been crucial and significant in the economy of Nepal as well. Insurance is a different form of financial intermediary as it pools the capital from small sources, channelizes them for large scale investments and also provides coverage from unprecedented loss and risks. Economic growth was considered as causal factor for the growth of insurance industry. In recent times, the opposite relation is also being observed. Numerous theoretical and empirical research have derived proofs for the existence of causal relationship between growth of insurance industry and economic growth of Nepal.
For this study, Gross Domestic Product (GDP) was used as a measure of the economic growth. Net premium collection by insurance industries, tax contribution, investment amount and employment opportunities generated were used as the variables to measure the contribution of insurance sector in the economy. Nepal Life Insurance Company (NLIC) and Lumbini General Insurance Company (LGIC) were taken as representative of life and non-life insurance sector respectively. Financial reports published for the last 5 fiscal years ranging from 2070/71 to 2074/75 were used as the secondary source of data for this paper. The summarized report from the apex regulatory body, the Insurance Board of Nepal has also been analyzed to compare the impact of overall insurance industry with that of individual contribution from NLIC and LCIC respectively.
SPSS was used for statistical analysis. Descriptive and Inferential analysis was performed. The study was aimed at deriving a regression equation depicting the relation between GDP (dependent

variable) and net premium collection, tax contribution, investment amount and employment generated (independent variables) by the insurance industry.

5.2Findings

The basic chart and bar graph analysis of the data collected over for the period of fiscal years 2070/71 to 2074/75 showed that the net premium collection for both NLIC and LGIC are in increasing trend except for the fiscal year 2072/73, where the whole country was facing crisis due to the 2072 massive earthquake. The insurance industry as a whole also demonstrates similar trend of growth like NLIC and LCIC.

For statistical analysis, inferential analysis has been carried out. Inferential analysis involves drawing conclusions out of the existing data and identify patterns and meanings from them. Correlation and regression analysis have been done as the part of the inferential analysis.

Pearson coefficient for the independent variables (net premium collection, tax contribution, investment contribution and employment contribution) are observed to be positive in case of both NLIC and LGIC. Meaning that, there is positive correlation between the independent variables and dependent variables. Correlation coefficient for net premium collection is found to be 0.938 for NLIC and 0.936 for LGIC, drawing the conclusion that net premium collection and GDP are nearly perfectly positively correlated.

R square value for NLIC is 0.419 and that for LGIC is 0.031. For LGIC, since the p-value is less than 0.05, statistical evidences are found to be in support of the alternate hypothesis. Hence, the net premium collection, tax contribution, investment contribution and employment contribution are found to have significant impact on the economic growth, i.e. GDP.

On the part of regression analysis, the regression equation obtained for NLIC is

$y = -4.999X1 – 1.39X2 + 1.859X3+ 0.173X4+ 10708.49$, --------------- (I)

and that for LGIC is

$y = -0.050X1 – 0.03X2 + 0.017X3+ 0.09X4+ 13.117$----------------------(II)

where,

y = Gross Domestic Product,

X1 = Income Tax,

X2 = Investment Contribution,

X3 = Net Premium Collection,

X4 = Employment Contribution

For NLIC, the beta coefficients of Income tax, Net premium collection and investment contribution are significant indicating that contribution of tax paid, net premium collection and investment contribution by NLIC is the higher in the GDP in comparison to the contribution of employment generated by NLIC.

In case of LGIC, beta coefficients of tax contribution and investment contribution is significantly higher than that of employment contribution and net premium collection.

5.3Discussion and Conclusion

The study is based on theoretical, empirical and statistical analysis. Observation from all these methods concludes to the existence of causal relationship from the net premium collection, tax contribution, income contribution and employment contribution to the economic growth of Nepal. The case holds true for both our life insurance industry NLIC and non-life insurance industry LGIC respectively.

The importance of microfinances and the role played by the first and only re-insurance company of Nepal, Nepal Re has also been briefly discussed. Microfinances assist to bring the most vulnerable and deprived large population under the insurance coverage causing dual benefits like increasing the market coverage, capitalization of small savings and increasing opportunities, moral support for encouraging involvement in productive economic activities by the deprived group. Domestic reinsurance, on the other hand assists economic growth by limiting the massive outflow of domestic currency in the form of reinsurance premium. Reinsurance also helps to mobilize the domestic funds for internal investment and development activities.

The growth in insurance industry is exciting, overwhelming and intimidating at the same time. Through empirical research and cognitive analysis, the major reason behind the growth of insurance industry in Nepal are found to be increased awareness regarding importance and benefits of insurance, government policies to encourage insurance like tax subsidiaries, mandatory insurance for risk prone group like migrant workers, accidental insurance for vehicles, agricultural insurance etc. Market expansion invites multiple competitors in the market, which in turn benefits the customers. Growing number of insurance companies compete in terms of service provided, return rates, market coverage etc. to grow customer base and maintain stability. Furthermore, a drastic incorporation of digital applications and payment systems in the insurance industry also can be considered another crucial catalyst of the growth.

5.4Limitation

All forms of research and study are bound to some form of limitation that challenge the accuracy and consistency of their findings and conclusions. This paper was no exception. The major limitations observed in this paper are:

The findings of the study are based on the analysis of financial statements for the last 5 years only.

The study only identifies the direct impact of insurance industry. The quantified data of indirect impact that insurance companies make through various channels of loan supply, investment in major and minor developmental projects, capital generation etc. are too vague to be covered by this time and cost constrained study.

The accuracy of the findings is dependent on the accuracy of the data published by organizations under observation.

5.5Contribution and Importance of Dissertation

Numerous researches have been done to analyze the contribution of traditional financial intermediaries like banks, co-operatives, finances etc. in the economy. Studies have also been conducted to derived the relationship flow from economic growth to insurance industry, i.e. economic growth as a causal factor for growth of insurance industry. The relation from growth of insurance industry to economic growth is a relatively new field of study and few studied have been performed in this sector.

This paper shall be of assistance to scholars who are willing to conduct further study on the sector of insurance industry and economic growth. They shall be able to get a summarized visual of where the insurance industry stands in Nepal, how is it growing, how is it contributing to the growth of Nepal and how the industry can be improved further for improvising its significance at domestic and international level.

Economists and authorities shall be able to recognize the growing interest of scholars and youths on the sector of insurance. Increasing number of studies in this sector shows that the people willing to learning and exploring the potential of growth in insurance sectors, in relation to their development in economic growth. The topic becomes more relevant in the present context of a global pandemic where people have realized the importance of insurance. The contribution from insurance industry to recover from this unprecedented situation can assist the government in bringing back the pandemic hit economy to normal and also play a significant role for general public. Hence, this might be a fruitful turning stone for the budding insurance industry of Nepal.

This paper shall provide a compilation of data from multiple years and multiple sectors and generate an aggregate figure. Hence, the paper shall be contributory to scholars, researchers, and other government and non-government authorities, who are willing to have a brief image of the current situation of insurance industry, its current market and impact in economy, along with the potential that it holds to bring a change in the economy of Nepal and the most deprived and vulnerable groups as well.

5.6Self-Review

The impact of insurance industry on the economic growth is a relatively less explored field of study. Earlier studies carried out were usually to evidence the presence of causal relationship from economic growth to insurance industry. Number of studies made to identify whether the insurance

industry also acts as a causal factor are relatively low in number. The number of studies carried out being based in Nepal are even fewer. Under these circumstances, the author believes that this paper shall be of assistance to scholars, researchers, government and non-government officials who attempt to get a brief overlook on the current trends of insurance industry in Nepal, its impact on economy, the potentials in this industry and the factors for improvement.
The author has referred to economic growth theories to provide a theoretical framework for the study. Attempts have been made to include as much as empirical evidence to support the outcome of statistical analysis.
Data collection has been done by considering ethical standards, from the authorized published sites and the data clearing has been done from the sample without any unnecessary manipulation that could impact the output of the analysis. The tables, figures and charts used are self-descriptive and provides a quick information upon observation.
The author has consciously made attempts to reduce or eliminate the prevalence of any form of personal prejudice, discrimination, stereotypes to achieve unbiased and accurate outcomes.
However, there are much more rooms for improvement in every step beginning from literature review, to data collection and analysis of data.
In a nutshell, despite of some limitations and rooms for improvement, the author believes the study shall be helpful to future scholars and researchers conducting in depth research and diverse study on the impact of insurance industry to economic growth.

5.7Recommendation

The insurance coverage of Nepal stands only at 17.5% of the total population, even among which, 5% might have purchased insurance policy from more than one insurance companies (The Kathmandu Post, 2019). From the analysis of past data, it can be concluded that insurance is one of the fastest growing industry in Nepal. Fueled by the increasing awareness among people, improvisation on service provided by insurance companies, government intervention to monitor, regulate as well as to create favorable environment for industry growth, number of private and joint-venture domestic and international companies operating in Nepal are increasing. The insurance Board also recently grant permission to .. life insurance and .. non-life insurance companies, after almost a decade. This can also be taken as sign of growth in coverage and market of insurance industry in coming few years.
With just 17.5% population coverage, insurance industry alone contributes to the 2.43% of the total GDP of Nepal. Under the years of our observation, GDP contribution of insurance industry in terms of net premium collection, was 1.57% in 2070/71, 1.71% in 2071/72, 1.89% in 2072/73, followed by 2.08 in 2073/74 and 2.43 in 2074/75 respectively. These figures depict the continuous progressive impact the insurance sector is making in the economy.
Most of the consumers of insurance industry are urban based. The middle class and poor families, who are more prone to the risk like natural calamities and are most affected by happenstances and misfortunes are still not under the coverage. Micro-insurance service was proposed and brought into action by the Government of Nepal to help the most vulnerable population get access of the insurance services. Micro-insurance will be accountable for collecting small deposits from the large group of deprived population to generate capital amount for investment purposes. Loan against insurance services, guarantee of coverage in case of loss also encourages further production among people, which again indirectly contributes to GDP growth.
Another crucial and farsighted move by Government of Nepal is the establishment of Nepal Reinsurance Company, Nepal Re. The government has made it mandatory to re-insure at least 20percent of their policies with the domestic reinsurance company of Nepal, under the budget statement for 2018-19. This prevents huge volume of currency outflow in form of reinsurance premium to foreign reinsurance companies and assists in capital generation within country for further development and investment activities.
The regression equation also shows causal relationship between insurance company and GDP growth. Steps taken by government so far are praiseworthy, but not enough. Increasing insurance

coverage, developing policies to cover most vulnerable group and sector, easy access to insurance, easy processing of insurance claims and payments, and export-based insurance development are few crucial steps the insurance companies can adopt to increase their market coverage. NLIC is the leading company in the sector of life insurance while LGIC is also a dominant competitor in non-life sector.

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