DETERMINANTS OF INSURANCE PREMIUM OF LIFE INSURANCE COMPANIES IN NEPAL

A Thesis

Submitted by

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CERTIFICATION OF AUTHORSHIP

I certify that the work in this thesis entitled "**Determinants of Insurance Premium of Life Insurance Companies in Nepal"** has not previously been submitted for a degree nor has it been submitted as part of requirements for a degree except as fully acknowledged within the text. I also certify that the thesis has been written by me. Any help that I have received in my research work and the preparation of the thesis itself has been acknowledged. In addition, I certify that all information sources and literature used are indicated in the reference section of the thesis.

(……..……..)

Keshab Raj Bhatta

Date: 2020

RECOMMENDATION LETTER

It is certified that thesis entitled "**Determinants of Insurance Premium of Life Insurance Companies in Nepal"** submitted by Keshab Raj Bhatt is an original piece of research work carried out by the candidate under my supervision. Literary presentation is satisfactory and the thesis is in a form suitable for publication. Work evinces the capacity of the candidate for critical examination and independent judgment. Candidate has put in at least 60 days after registration the proposal. The thesis is forwarded for examination.

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APPROVAL-SHEET

We, the undersigned, have examined the thesis entitled "**Determinants of Insurance Premium of Life Insurance Companies in Nepal"** presented by Keshab Raj Bhatt, a candidate for the degree of Master of Business Studies (MBS) and conducted the viva voce examination of the candidate. We hereby certify that the thesis is worthy of acceptance.

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Keshab Raj Bhatt

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS

ALICL	:	Asian Life Insurance Company Limited
Avg.	:	Average
C. Size	:	Company Size
F.A	:	Fixed Assets
G.R	:	Growth Rate
GDP	:	Gross Domestic Product
GLICL	:	Gurans Life Insurance Company limited
LIC_S	:	Life Insurance Companies
LIQ.	:	Liquidity
Ltd.	:	Limited
NEPSE	:	Nepal Stock Exchange
No.	:	Number
PLICL	:	Prime Life Insurance Company Limited
ROA	:	Return on Assets
ROE	:	Return on Equity
Rs.	:	Rupees
SLICL	:	Surya Life Insurance Company Limited
Std. Dev	:	Standard Deviation
VOC	:	Volume of Capital

ABSTRACT

Premium is one of the most important objectives of insurance management because one goal of insurance management is to maximize the owner's wealth. The variation of premiums between life insurance companies over the years, within a country, leads to believe that internal factors play a major role in determining premiums. This paper investigated the determinants of company specific factors (Size of Company, Liquidity Ratio, Volume of Capital, Fixed Assets and Growth Rate) on premiums represents by ROA and ROE. Premiums are dependent variable while Size of company, liquidity, Volume of capital, Fixed assets and Growth Rate are independent variables. The sample in this study includes four of the selected life insurance companies for eight fiscal years (2011-2019). Secondary data obtained from the Annual Reports of selected life insurance companies, relevant articles, books and magazines are analyzed. The results of the paper show that factors such as Size of Company, liquidity, Volume of Capital, Fixed Assets and Growth Rate are the main factors affecting the premiums of insurers, where the fixed assets show the positively relationship with premiums, while Company Size, Liquidity, Volume of Capital and Growth rate shows the negatively relationship with premiums.

Keywords: *Life insurances, Size of Company, Liquidity, Volume of Capital, Fixed Assets, Growth Rate, ROA, ROE*

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CHAPTER I
INTRODUCTION

1.1 Background of the Study

The insurance sector plays an important role in the service-based economy and its services are now being integrated into wider financial industry. An insurance company offers insurance policies to the public, either by selling directly to an individual or through any other source such as an employee's benefit plan.

Insurance companies are the critical part of financial system and play an important role in the growth and the development of economic sector of any nation. Life insurance is a contract that is made between an individual and insurance company where individual agrees to pay premium and in return, insurance company pays a certain sum of money either on the death of insurer or on the expiry of a fixed period. It deals only with physical and mental accident of individual. Life insurance can be defined as a service that provides a benefit in case a risk occurs. This service has usually a financial nature in favor of an individual, association or business in exchange for collected premiums or contributions. Thus, life insurance is the economic sector that includes the conception, production and marketing of this type of service.

Life insurance is a great invention of human civilization. Huebner established the concept of "human life value" which is regarded as the economic and philosophical framework of life insurance. White (1993) argues that Huebner's concept of human life value is more than just a proposition that a human life has an economic value. Conceptually, human life value involves several important concrete elements, among them the socio-economic relation is the most important one. Actually, insurance of human life means the insurance of the productive capacity of a person which ensures continuity of income in case of unemployment, disability or death of insured and protect to the family members from the financial paucity. The insurance in Nepal doesn't have a long history. Modern insurance company began from 1947 A.D. Due to lack of awareness, people were not serious about the significance of different aspects of insurance. This resulted in people suffering heavy losses during accidents. The first insurance company was named as "Maal Chalanira Bima Company" which

was later renamed as “Nepal insurance and Transport Company” in 1959 and further renamed as “Nepal Insurance Company Ltd”. In 1968, the government of Nepal established “Rastriya Bima Sasthan” under the Company act. Beema Samiti (Insurance Board) is an autonomous body, established to develop, systemize, regularize and regulate the insurance business of Nepal under Insurance Act, 1992” (Insurance Board of Nepal). Insurance company collects funds as premium method in accordance to their nature and corporate objectives.

In Nepal, Rastriya Beema Sansthan started life insurance business from 1973. In private sector, first life insurance Company was established in 1988. During 25 years period (1988-2012), the number of private sector life insurance companies reached to eight. But the interest of general public towards life insurance over the last few years has grown as more Nepalese are looking to get insured. And due to this some new life insurance companies were introduced.

With the introduction of new Life Insurance Companies, the earning of the sector has also increased simultaneously. As per the data of Insurance Board, the insurance companies have managed to increase the insurance premium amount by 52% in the fiscal year 2074/75. The total insurance premium amounted to Rs 13.03 Arab in the fiscal year 2073/74 which has increased to Rs 19.44 Arab in the fiscal year 2074/75. The increase in the number of life insurance companies can be considered as the major reason for the increment of the premium amount. The premium amount of life insurance has also increased to Rs 3550 million. This shows the life insurance performance is normally measured in net premium earned and Premium is expressed from annual turnover, return on investment and return on equity.

In current scenario, life insurance companies are the most charmed scrip of both traders and investors. Earthquake of 2072 is the main reasons behind the drastic progress in insurance sectors as most of the people are acknowledge with its importance. According to the fourth quarter report as published by the insurance sectors, most of them have reported outstanding growth in terms of net premium collection, number of policies and timely settlement of claims as well which leads for 3 the rise in reserve, insurance fund, earning per share (EPS), net worth per share and other fundamentals as well. The scrip price traded in Nepal Stock Exchange (NEPSE) is quite impressive due to high volatility as traders are the one who speculates with

this sector to book capital gains rather than banking sector. Though there is high risk, there are also equal chances to make good profit.

Premium is one of the most important objectives of insurance management because one goal of insurance management is to maximize the owner` s wealth (Harrington, 2005). During the period of 2008-2016, the annual reports of insurance corporations in Nepal show large fluctuations in the profits. This variation of profits among insurance corporations suggests that firm-specific factors play crucial role in influencing insurance companies` Premium. It is therefore essential to identify what are these factors and how they help life insurance companies to take actions that will increase their Premium and investors to forecast the Premium of life insurance companies in Nepal.

The Premium of life insurance companies are subject of concerned to policyholders, shareholders, regulator, and Government. Financially sound life insurance company can offer higher amount of bonus to its policyholders and higher amount of dividend to shareholders. They also able to contribute more amount of tax to government, create more employment opportunity, and provide more resources to government and private sector as compared to the company having poor financial status. Therefore, the Premium helps to channelize the funds in an appropriate way to support the business activities in the economy.

The determinants of financial institutions Premium have attracted the interest of academic research as well as management, financial market and regulators. The significance of variables as determinants of Premium differs from firm to firm. Some variables have greater influencing on the Premium of financial institution whereas some variables have no significant effect. Miller, S. M. and Noulas (1997) found negative relationship between credit risk and Premium. Ben Naceur and Goaied (2008) found capital adequacy has positive effect on Premium and negative impact of size on Premium. Pradhan and Shrestha (2015) revealed that liquidity has negative impact on the financial performance of firm. However, size has positive 4 impact on financial performance of firm. Karki, H (2004) revealed that liquidity ratio is positively related with return on equity.

In a majority of research papers that are similar to this study, Premium is measured

using ratios. Premium ratios are the most suitable approach to measure Premium. This is for the simple reason that they are not influenced by price fluctuations. The above discussion shows that the studies devoted to the factors that influence the performance of life insurance companies. Though there are these findings in the context of different countries, no such findings using more recent data exist in the context of Nepal. Hence, this study focuses on the determination of financial Premium of life insurance companies in context of Nepal.

1.2 Statement of the Problem and Research Question

Premium is one of the most important objectives of insurance management because one goal of insurance management is to maximize the owner's wealth and premium position Born H.P. (2001). During the period of 2011/12- 2018/19 the annual report of insurance corporation in Nepal shows large fluctuation in the profits. The variation of profits among life Insurance corporations suggests that firms- specific factors play crucial role in influencing insurance companies premium. It is therefore essential to identify what are these factors and how they help life insurance companies to take action that will increase their premium and investors to forecast premium of like insurance companies in Nepal.

Life insurance companies could flourish by taking reasonable leverage rise or could become insolvent if the risk is out of control. Adams and Buckle (2000) provided the evidence that insurance companies with high leverage have better operational performance than insurance companies with low leverage. Nevertheless, more empirical evidence supports the view that leverage risk reduces company performance Carson and Hoyt (1995) found that leverage is significantly positively related to the premium of insolvency. More empirical finding have confirmed that there is positive relationship between liquidity and financial performance of insurers (Ambrose and Carroll, 1994 and Carson and Hoyt, 995). However, according to the theory of agency costs, high liquidity of assets could increase agency costs for owners because managers might take advantage of the benefits of liquid assets (Adams and buckle, 2000)

Based on statement of the problem the following research questions are set in this study:

1. What are the internal factors that affect the insurance premium of life insurance companies in Nepal?
2. What are the relationship between company specific determinants such as size of company, liquidity, volumes of capital, fixed assets and growth rate with premium?
3. Which company specific determinants effect most the premium of selected Nepalese life insurance?

1.3 Purposes of the Study

The major purposes of the study are to assess the relationship between determinants of premium of life insurance companies in Nepal. The specific objectives of the study are as follows:

1. To analyze the internal factor of Nepalese life insurance companies that affects the insurance premium.
2. To examine the relationship between company specific determinants such as size of company, liquidity, volume of capital, fixed assets and growth rate with premium.
3. To identify the major company specific determinants affecting in determining the premium of selected Nepalese life insurance.

1.4 Significance of the Study

The significance of this study comes from the facts that various studies in Nepal have investigated the determinants of premium only for non-financial and banking sector. Need of study provides useful information to policy makers and regulators to sustain ability of the life insurance companies in the country. The study finding will benefit management and staff of life insurance companies who will gain insight into the factors affecting the premium of Life Insurance Company.

There are several studies that have been carried out on the factors affecting the performance of insurance companies in foreign countries. However, under development countries like Nepal are lacking such studies. Most of the studies

previously focused on commercial bank not on insurance companies. Therefore, this study is expected to provide empirical evidence regarding the determinant of premium of life insurance sector plays important role in the financial services industry in almost developed and developing countries, contributing to economic growth, efficient ill sources allocation, reduction of transaction cost, creation of liquidity, facilitation of economic of scales in investment and speed of financial losses (Haiss and Sumegi, (2008). As such, an understanding of determinants of Life Insurance Company's performance and the drivers of Life Insurance Companies performance for that matter is essential and crucial to the stability of the economy.

1.5 Limitations of the Study

The following are some of the limitations of study:

i. The research study was based on secondary data; therefore, the accuracy of results and conclusion highly depend upon the reliability of these data.
ii. The evaluation is made through the analysis of financial statement published and presents by the companies.
iii. This study has taken ROA and ROE as the measure of financial performance. However, there are several other variables such as earning per share, dividend per share, market value per share, net operating margin etc. which measures the premium of Nepalese life insurance companies.
iv. The selected sample of four life insurance companies may not represent the sample.
v. Financial report may suffer from alteration, manipulation of data. Systematic undervaluation or overvaluation of assets etc.
vi. Variables such as company dynamics, regulatory environment, conpany’s franchise and competitive market position could not be concluded.
vii. External economic variables such as change in interest rate, number of insurers and inflation could not be included.

1.6 Chapter Plan

The research has been organized into the title of these chapters are as follows:

Chapter I-Introduction

It starts with the first chapter introduction that includes general background followed by the statement of the problem, objectives of the study, significance and limitation of the study.

Chapter II-Literature Review

The second chapter is literature survey and conceptual framework. It provides insights of the literature reviews. It includes review of literatures from global context and reviews of some Nepalese studies. In addition, conceptual framework is also discussed under this chapter and it is ended with concluding remarks of detail reviews of literature.

Chapter III-Research Methodology

Chapter three research methodology covers the research design, nature and sources of data, selection of sample insurance companies, data analysis procedures, model used for data analysis, instrumentations and overall analysis plan along with the limitations of the study.

Chapter IV-Results and Discussion

Fourth chapter is results and discussion which focuses on the systematic presentation and analysis of data. It is the most important part of the research where the extermination of Premium of life insurance Company in Nepal is established by descriptive statistics and using regression analysis, correlation analysis.

Chapter V-Conclusion

Chapter five conclusion provides a summary of overviews on all works carried out in chapter one through four including major conclusion derived from the study. This chapter also includes a separate section for recommendation and scope for future research based on major findings of the determinants of Premium of life insurance companies.

CHAPTER II

LITERATURE REVIEW

This section highlights the available literature that discusses the determinants of Premium of life insurance companies and presents the conceptual framework of the study. Conceptual framework gives an in-depth review of related studies in the context of both developed and emerging countries. This section provides various literatures conducted among variables along with their relationships with each other.

Conceptual framework of the study clarifies how the study is organized and what various variables have been selected. This chapter is also concerned with the review of literature of relevant financial statement and journals, books, thesis of previous research studies.

2.1 Conceptual Review

The attention devoted in literature to the determinants of Premium in life insurance industry has been low if compared to the extensive studies of the banking industry and the financial sector. Because of the various results obtained from different studies exploring the determinants of Premium in the life insurance industry, the studies will be subsequently presented together with their main empirical results.

2.1.1 Premium and its Determinants

The term profit can take either its economic meaning or accounting concept which shows the excess of income over expenditure viewed during a specified period of time. Koller (2011) argued that Premium is the most important and reliable indicator as it gives a broad indicator of the ability of an insurance company to raise its income level.

According to Hamadan (2008) there are different ways to measure Premium such as: return on asset (ROA), return on equity (ROE), and return on invested capital (ROIC). ROA is an indicator of how profitable a company is relative to its total assets, whereas ROE measures a company's Premium which reveals how much profit a company generates with the money shareholders have invested. ROIC is a 10 measure used to asses a company's efficiency in allocating the capital under its control in profitable investments. This measure gives a sense of how well a company is in using its money

to generate returns. However, most researchers in the field of insurance and their Premium stated that the key indicator of a firm's Premium is ROA defined as the before tax profits divided by total assets. Adams and Hardwick (1999) and Malik (2011) are amongst many others, who have suggested that although there are different ways to measure Premium it is better to use ROA Almajali, Alamro and Al-Soub (2012) investigated the factors that mostly affect financial performance of Jordanian Insurance Companies. The results showed, leverage, liquidity, size, management competence index have a positive statistical effect on the financial performance of Jordanian Insurance Companies. Curak (2011) examines the determinants of the financial performance of the Croatian composite insurers, between 2004 and 2009. The finding reveals that company size, underwriting risk, inflation and return on equity have a significant influence on insurers' Premium.

Burca and Batrinca (2014), analyze the determinants of the financial performance in the Romanian insurance market during the period 2008–2012, it showed the financial leverage in insurance, company size, growth of gross written premiums, underwriting risk, risk retention ratio and solvency margin have significance effect.

SylwesterKozak (2011) in Poland, Hamadan (2008) in United Arab Emirates (UAE), Swiss, R. (2008) in Egypt conducted their research concerning determinants of Premium in general insurance companies and others conducted their study on determinants of life and health insurance companies. Hence, most of the researchers focused on internal factors affecting Premium and most of the factors considered are age of company, size of company, leverage ratio, growth rate, and volume of capital, tangibility of assets and liquidity ratio which is also used in this study too.

2.1.2 Premium of Life Insurance

The Premium of a life insurance company is critically dependent on its operating and financial activities. Operating activity consists of insurance operations: selling 11 new policies and servicing existing policies. Financial activity consists of investing the policies' premiums. The profits from operating activities stem from the difference between premium revenue and the total cost of insurance and operations, whereas the profits from financial activities come from the difference between actual investment returns and the returns credited to the policies.

It is not surprising that life insurance industry is highly regulated and monitored because in society insurance serves as essential purpose. In state life insurance companies perform various activities to make sure that life insurance consumers have access to insurance and treated fairly by insurer and their agents, and that life insurance companies are financially practicable. Historically the forms of insurance regulations include laws related to the formation, operations of insurer, and terms of insurance contract and licensing. These laws also include surplus and minimum capital requirements restrictions on the investment on statutory reserves and prescribed methods for calculation of reserves (Meyers and Smith, 1988).

Premium of a life insurance company is of most importance to its operations. To determine the viability of the insurer, regulators rely on the financial reports prepared according to statutory accounting principles (SAP) and particularly on net income and the book value of equity. If regulators determine that the insurer's viability is at risk, they may seize the firm or take any other action necessary to improve the deficiency in capital. Because of the analysis of both net income and equity, the Premium of the insurer determines to large extent its ability to invest and grow (Greene and Segal 2004).

During 1980 the Premium of insurance companies varied across different a legal and regulatory measure that reveals that these environments were supposed to protect the insurance contract that may have had reverse effect if they created a significant constrained on the activities of the insurance companies (Born 2001). Agiobenebo and Ezirim (2002) examined the relationship between Premium and financial intermediation in Nigeria. Results showed that the level of premium to total assets is positively related to level of Premium of insurance companies and also significant. The factors of net potential, loan levels, investments were found positively related but insignificant.

In addition, growth in the money supply has a negligible effect on Premium, while DP and capitalization of assets on the stock market have a negative relationship with ROA. Then, Premium is positively influenced by the size, sales growth and investment. On the other hand, assets and existing leverage are negatively correlated with Premium. Several studies have been made to measure the performance of insurance companies. For example, the operational state of insurers has no impact on

Premium by providing public coverage but has a significant impact on the Premium of insurance companies. However, size, investment and liquidity are the key determinants of the financial viability of insurance companies.

2.2 Review of Empirical Studies

The previous related literatures in relation to the factors that affect the Premium of life insurance companies were reviewed in this section.

Malik (2011) investigated the determinants of Premium in insurance companies of Pakistan. Specifically, this study examined the effects of firm specific factors (age of company, size of company, volume of capital, leverage ratio and loss ratio) on Premium proxies by ROA. A key indicator of insurance companies Premium used in the study is return on assets. Premium is dependent variable while age of company, size of company, volume of capital, leverage and loss ratio are independent variables. The sample in this study includes 35 listed life and non-life insurance companies which cover the period of 2005 to 2009. The multiple regression models are used to identify the relationship between dependent and independent variables.

The findings show that there is no relationship between Premium and age of the company and there is significantly positive association between size of the company and Premium. The result also shows that the volume of capital is significantly and positively related to Premium. Loss ratio and leverage ratio showed negative but significant relationship with Premium.

Daare (2016) studied the determinants of non- life insurance companies Premium in India. The study used eight general insurance companies (2 publics and 6 private companies) as sample from the year 2006 to 2016. The data collected were analyzed 13by using a number of basic statistical techniques such as T-test, F-test and Multiple-regression. Dependent variable of the study was return on assets whereas age, size, loss ratio, liquidity, gross domestic product growth rate, inflation rate and premium growth rate were independent variables. The study revealed size, loss ratio, premium growth rate and inflation have negative impact on return on assets. In contrast, liquidity, age and gross domestic product growth rate have positive influence on return on assets of Indian non-life insurance companies.

Ahmed & Usman (2011) examined the impact of firm specific factors including size,

leverage, tangibility, risk, growth, liquidity, and age on performance (return on assets) of 25 listed life insurance companies of Pakistan for the period 2001 to 2007.

The data collected was analyzed by using a number of basic statistical techniques such as T-test and Multiple- regression. The result indicated that size and financial leverage are the only statistically significant determinants of the performance of life insurance companies of Pakistan. It was found that size has positive and financial leverage has negative impact on Premium. It was also concluded that growth, age and liquidity has negative but insignificant impact on Premium.

Al-Soub (2012) investigated the factors that mostly affect financial performance of Jordanian Insurance Companies. The study population consisted of all insurance companies' listed at Amman stock Exchange during the period 2002-2007 which count 25 insurance company. The data collected was analyzed by using a number of basic statistical techniques such as T-test and Multiple- regression. The results showed that leverage, liquidity, Size, Management competence index have a positive statistical effect on the financial performance of Jordanian Insurance Companies. The study recommended that a high consideration of increasing the company assets will lead to a good financial performance and there is a significant need to have highly qualified employees in the top managerial staff.

Charumathi (2012) used a sample of twenty-three Indian life insurance companies for the period 2008-11 and examined the impact of firm specific characteristics such as leverage, size, premium growth, liquidity, underwriting risk and equity capital on return on assets. The study used linear multiple regression model. This study concluded that Premium of life insurers is positively and significantly influenced 14 by the size (as explained by the logarithm of net premium) and liquidity.

The leverage, premium growth and logarithm of equity capital have negative and significant influence on the Premium of Indian life insurers. This study did not find any evidence for the relationship between underwriting risk and Premium. Sambasivam and Ayele (2013) examined the effect of firm specific factors (age of company, size of company, volume of capital, leverage ratio, liquidity ratio, growth and tangibility of assets) on Premium proxies by return on assets in Ethiopia. The sample in this study includes nine of the listed insurance companies for nine years (2003 to 2011). From the regression results; growth, leverage, volume of capital, size,

and liquidity are identified as most important determinant factors of Premium hence growth, size, and volume of capita are positively related. In contrast, liquidity ratio and leverage ratio are negatively but significantly related with Premium. The age of companies and tangibility of assets are not significantly related with Premium.

Bawa & Chattha (2013) examined the financial performance of life insurers in Indian insurance industry using the sample of 18 Indian life insurers (including 1 public and 17 private) during the year 2007/08 to 2011/12. Performance of life insurance companies is measured with return on assets whereas liquidity, solvency, leverage, size and equity capital are independent variables. The study uses multiple linear regression model to measure the extent to which these determinants exert impact on life insurer's Premium. The results of the study revealed that Premium of life insurers is positively influenced by liquidity and size and negatively related with capital. Premium does not show any relationship with solvency and insurance leverage.

Boadi, Antwi and Curtis Lartey (2013) studied the determinants of the Premium of insurance firms in Ghana. Secondary data on financial reports were collected from sixteen insurance firms in Ghana for the period 2005 to 2010. It adopted the longitudinal time dimension, specifically, the panel method and ordinary least square regression. The study discovered that, apart from tangibility which has a negative relationship, there is a positive relationship between leverage, liquidity and Premium of insurance firms in Ghana.

Mehari & Aemiro (2013) analyzed the firm specific factors that determine the insurance companies' performance in Ethiopia. The study investigated the impact of firm level characteristics (size, leverage, tangibility, loss ratio, growth in writing premium, liquidity and age) on performance of insurance companies in Ethiopia. Return on assets is used as indicator of insurance company's performance i.e. dependent variable. The multiple linear regression models have been used to analyze the impact of independent variables on dependent variables. The study includes 9 insurance companies over the period 2005 to 2010. The study revealed that insurers' size, tangibility and leverage are statistically significant and positively related with return on total assets; however, loss ratio (risk) is statistically significant and negatively related with ROA. Thus, insurers' size, Loss ratio (risk), tangibility and leverage are important determinants of performance of insurance companies in

Ethiopia. But, growth in writing premium, insurers' age and liquidity have statistically insignificant relationship ROA.

Derbali (2014) used a sample of eight life insurance companies in Tunisia to analyze the determinants of performance of life insurance companies over the period of eight years (2005 to 2012). The results of the estimation of a regression model on panel data show that three variables, Size, age and Growth are the most important determinants of the performance of insurance sector in Tunisia during the period going from 2005 until 2012. The two variables Age and Growth have a positive impact on performance while the Size has a negative impact on the level of performance. . The other variables leverage, tangibility and liquidity are insignificant in relation to the performance of life insurance Tunisian firms.

Kaya (2015) investigated the firm-specific factors affecting the Premium of non- life insurance companies operating in Turkey. Data of 24 non-life insurance companies operating in Turkey for the period 2006 to 2013 were examined using single and multiple regression models. Dependent variables of the study are return on assets and return on equity whereas, independent variables are size, age, loss ratio, leverage, current ratio, and premium retention ratio and premium growth rate. The study concluded Premium of non-life insurance companies is statistically significant and positively related to the size of the company and premium growth rate, whereas 16 Premium is statistically significant and negatively related to the age of the company, loss ratio, and current ratio.

Ijaz (2015) studied Premium was dependent variables and firm size, financial leverage, underwriting risk, financial soundness, growth opportunities, diversification, working capital management and equity market, and Inflation were independent variables. His last findings were firm size, financial leverage, underwriting risk, financial soundness, growth opportunities, diversification, working capital management and equity market conditions were statistically significant determinants of the Premium of insurance companies. Relative firm size, financial leverage and underwriting risk have negative impact while rest of the variables have positive impact on Premium of life insurance companies.

Suheyli (2015) attempted to find the determinants of insurance companies' Premiumin Ethiopia. In order to achieve this objective, the study used mixed research

approach. Panel data covering eleven-year period from 2004 to 2014 are analyzed for nine insurance companies. Also in-depth interview is conducted with company managers. The findings of the study showed that underwriting risk, technical provision and solvency ratio have statistically significant and negative relationship with insurers' Premium. However, reinsurance dependence has negative but insignificant relationship with Premium. On the other hand, variables like liquidity, company size and premium growth have a positive and statistically significant relationship with insurers' Premium. In addition, economic growth rate has significant positive influence on Premium whereas inflation has insignificant negative influence on insurers' Premium. The study provides evidence that underwriting risk, technical provision and liquidity are the most important factors that affect Premium of insurance companies in Ethiopia.

Simkhada (2015) has conducted a research work on "Revenue planning and its effects on Premium," with special reference to Prudential Insurance company Limited". For this thesis study he used both primary and secondary sources of data where the major objective was to analyze the planned and actual revenue of Prudential Insurance Company. He was able to find out that actual and budgeted premium was favorable in every year except 2065/66.

Oktiani and Andati (2017) analyzed the Firm Specific Factors and Macroeconomic determinant of Life Insurance Companies' Premium in Indonesia using panel data analysis during the period of 2010 to 2014. Out of 50 life insurance companies in Indonesia 32 companies were examined. The study examined the firm-specifics factors consist of size of company, equity capital, premium growth, risk based capital ratio, leverage ratio and liquidity ratio, while macroeconomic factor is inflation rate.

The findings indicated negative and significant influence of premium growth and risk based capital on Premium; and significant positive influence of equity capital, liquidity ratio, leverage ratio and size of company on Premium. Additionally, results reveal that inflation rate is not significantly influence the Premium of life insurance companies. The other finding is companies that have good level of total assets, equity capital, leverage ratio and liquidity ratios tend to have good achievement ROA ratio. Companies should be able calculating technical reserves appropriately, construct the optimal portfolio in order to be able to generate maximum profits and streamline

expenses operating expenses to maintain the achievement of good Premium.

2.3 Review of Nepalese Studies

In Nepalese context, following studies are of some importance while studying the Premium of insurance companies. Thapa (2004) submitted his study on "Insurance Industry in Nepal, A Comparative Study on Premium Collection and Investment Pattern," for thesis study he uses both primary and secondary sources of data. The main objective of the researcher was to analyze the growth of the premium collection trend. He found that the premium collection rate of Nepalese insurance industry has fluctuating trend.

Nepal (2012) studied "Insurance Market in Nepal" and came up with the following conclusion, poor educational background; high poverty level and political instability the key factors that have played a significant role in denying more participation in insurance sectors. On the other hand, due to rapid advancement in information sectors, people's awareness towards insurance has been a key factor in this positive change. In the present context, people are being more knowledgeable about the importance and the benefits that insurance provides in their personal and professional life. These days' insurance are not only the means of saving the money but it has been more like securing the future from uncertainty. These encouraging developments in insurance sector have opened a door for fierce competition in insurance industry.

Pradhan & Shrestha (2015) examined the impact of bank specific variables and macroeconomic variables on the performance of commercial banks of Nepal. The dependent variable is bank performance which has been specified in terms of ROA, ROE and NIM while the independent variables are capital adequacy ratio, asset quality, management efficiency, liquidity management, employee expenses, other operating expenses, credit risk, growth of gross domestic product and inflation. To test the impact of importance of bank specific and macro-economic variables on bank performance regression models have been estimated. The study reveals that management efficiency has a very strong and positive relationship with bank performance in Nepal. The macroeconomic variables are not significant and hence there is no evidence that external forces have impact over bank performance. The study showed that all the bank specific factors are found to be significant factors affecting the bank performance.

Ghimire (2015) has conducted his study on "Life Insurance Companies in Nepal: A Critical Appraisal." From this study he has concluded that the contribution of life insurance companies plays vital role in economic development of Nepal and from the life insurance policyholders' and experts perspectives can deliver its services in a more effective way. There is positive relationship between number of policies enforced and number of employees, number of policies enforced and number of agent, number of policies enforced and number of branch but there is negative relationship between number of policies enforced and geographical coverage. The increasing trend of industry average death claims to gross premium ratio shows that LICs have accepted significant number of sub-standard lives in order to achieve the higher sales volume.

Lamichane (2016) has conducted his research work on “Revenue Panning and Its Effect on Premium with special reference to Sagarmatha Insurance Company Ltd”. The major objective of the research was study the premium collection and investment 19 position of the insurance company. From the analysis, he found that the total premium collection and net profit was in increasing trend but the trend was decreasing in the case of net profit.

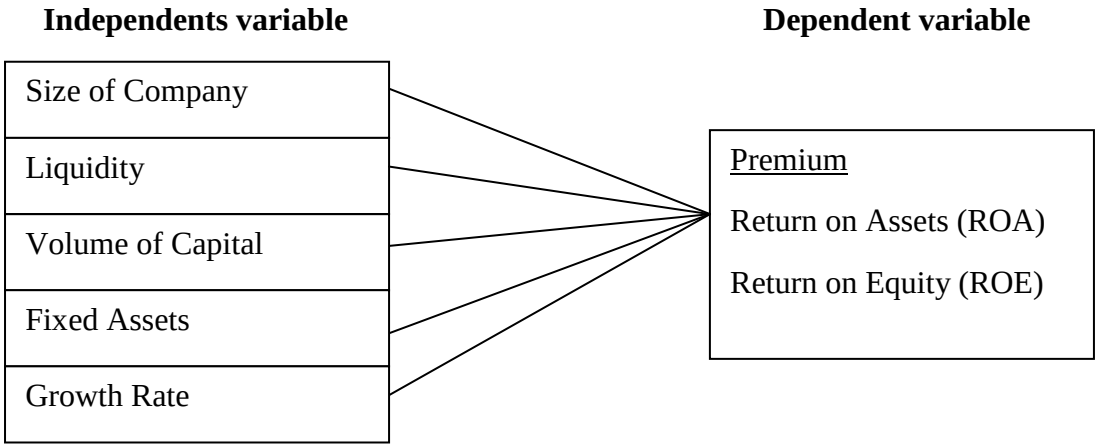
The study reveals that most appropriate works on the measurements of the performance and Premium in the field of corporate finance is going on. The numerous works on internal and external factor’s performance and Premium of insurance companies has carried out with the help of panel data and they were done on multiple countries. The study showed that all the insurance companies' specific factors are found to be significant factors affecting the company's performance.

2.4 Conceptual Framework

Conceptual framework is the basis or foundation upon which the study is established. The conceptual framework describes the relationship among the dependent and independent variable the relationship among explaining the firm specific factor affecting the premium of Nepalese life insurance companies. It helps to determine and define the focus and goal of the research problem. Based on the objectives of the study and based on the literature review following conceptual framework is framed to summarize the main focus and scope in terms of variable included.

The study focuses on the firm specific factor affecting the premium of Nepalese life insurance companies. The conceptual framework of this study includes return on assets (ROA) and return on equity (ROE) used as dependent variable likewise, in depend variable includes size of company, liquidity, volume of capital , fixed assets and growth rate had been used to shown how much influence of these valuable are on premium of Nepalese life insurance companies. Thus, the following conceptual model is framed to summarize the main focus and scope of this study in term of variable included. The relationship between dependent and independent variable is shown by following figure:

Figure 2.1: Determinants of Premium of Life Insurance Companies



Conceptual literature examines how financial and non- financial factors such as, size of company, liquidity, volume of capital, fixed assets and growth rate have an influence on the firms premium and growth. In this study these factor has chosen because they are the most appropriate ones for Nepalese context among many factors affecting the premium. On the other hand, these factors can be easily measured by using the data that is afford by the Nepalese life insurance companies.

2.4.1 Dependent Variables

Return on Assets (ROA)

Return on assets is a major indicator that indicates the Premium of financial institutions. It is used to measure the revenue generated from the use of the firm's assets. It is a ratio of firm's net income divided by the firm's total assets. It measures

the ability of the firm's management to generate income by utilizing company assets. It further indicates the efficiency of the management of a company in generating net income from all the resources of the institutions (Bhatia, 2007). Ongore & Kusa (2013) revealed that the firm having higher return on assets has efficient management. It indicates that the management is able to utilize all the resources of the firm efficiently in generating net income.

Return on Equity (ROE)

The return on shareholder's investment is assessed by return on equity. It shows the effectiveness of management to create extra earnings for shareholders (Tezel and 21 McManus, 2003). In other words, ROE measures Premium of a firm by exposing how much profit it generates with the money shareholders have invested. ROE is often used by traders to detect the firms that have faster growth of total shareholder equity. As a result, stock prices will grow in the case of maximizing the shareholders' wealth (Rothschild, 2006). ROE is calculated by net income available to shareholders divided by shareholders' equity.

2.4.2 Independent Variables

The Company Size

The company size can be expressed by many variables such as number of employees, number of branches, or total assets. Firm size is expected to promote economies of scale and reduce the cost of gathering and processing information. Performance is likely to increase in size, because larger firms will have better risk diversification, more economic scale advantage, and overall better cost efficiency (Boyd and Levine 2001). In this study, total asset is used as a proxy for Company Size. Size of the life insurance company is measured in terms of natural log of total assets. A larger life insurance company can gain competitive benefits through efficient facilities and also reduce risk through greater portfolio diversification.

Liquidity

Liquidity for life insurance companies shows the ability of insurers to pay current liabilities, which have the nature of operating expenses or payment of compensation in case of damage. For the insurer primary sources of liquidity are cash flow from net

premiums, investment returns and liquidation of assets (Chen and Wong, 2004). Liquidity is measured in terms of current assets divided by current liability. Companies with more liquid assets are less likely to fail because they can realize cash even in very difficult situations. It is therefore expected that life insurance companies with more liquid assets will outperform those with less liquid assets. However, according to the theory of agency costs, high liquidity of assets could increase agency costs for owners because managers might take advantage of the benefits of liquid assets (Adams and Buckle, 2000). In addition, liquid assets imply high reinvestment risk since the proceeds from liquid assets would have to be reinvested after a 22 relatively short period of time. Undoubtedly, reinvestment risk would put a strain on the performance of a company.

The Volume of Capital

The capital of a company is expressed by the basic accounting equation as the difference between total assets with total liabilities. In studies related to factors affecting the Premium of insurance companies, the size of capital as a factor is represented by the ratio of shareholder equity to total assets, but this factor can be expressed by the carrying amount of capital life insurance companies. These studies have shown that there is a statistically significant positive relation between the volumes of capital life insurance companies with their Premium, expressed by ROA (Al-Shami, 2013 and Malik, 2011).

Fixed Assets

Fixed assets are represented by the ratio between fixed assets to total assets. Results of various studies on the impact of fixed assets in the Premium of insurance companies have been contradictory. Hifza Malik (2011) in his study of the factors affecting the Premium of insurance companies in Pakistan in 2011 shows that there is a statistically significant relationship between fixed assets and Premium of companies. He argues that due to the fact that the greater the weight of fixed assets in total assets, the greater is the insurance company, Premium will be even greater. However, a study conducted in the UK by Yuqi Li (2007) shows that there is no statistically significant relationship between fixed assets and Premium of insurance companies.

The Growth Rate of the Company

The growth rates for companies are generally expressed through the change in percentage of total assets of the company from year to year. In particular, for life insurance companies' growth rate expresses the percentage change in the total amounts of signed premiums from insurance companies. It is also argued about the fact that a company always has to increase its resources to have a better performance, and consequently to be more profitable. However, the relationship between the growth rate of the company and its Premium may not be positive, as it is expected to be, 23 because in some cases, a greater growth rate could expose an insurance company to a higher risk and that means that the company needs to increase its technical reserves (Burca & Batrinca, 2014).

2.5 Research Gap

There have been found numerous research studies on the impact of different firm specific and macroeconomic variables on the performance of companies in different countries over different time period. While in the context of Nepal, few studies have been carried out on the factors affecting the performance of Nepalese firms. But there is a gap of such studies especially in Nepalese life insurance companies and hence the need for this study is required. Most of the past researchers studied are conducted their study on few years back period so they cannot explain the adequate current phenomenon.

Research gap shows a deep understanding of the status of the body of knowledge in our chosen field. After review the past articles and thesis, Premium performance of life insurance companies is affected by many factors. Not only external or macroeconomic factors play a role in determining Premium, so this studied focus on internal factors. This research study is mainly focus on life insurances' specific variables. This study is based on current data for determining Premium of life insurance companies of Nepal and has tried to show its effect on performance of life insurance companies. This study provides details about the Premium of sample life insurance companies along with their variables. This area is pure area for research. This study can add value to the existing body of the literature.

CHAPTER III
RESEARCH METHODOLOGY

This chapter explains the methodology employed in this study. This chapter has been divided into seven sections. Section one provides a description of study design used in the study. Section two deals with the population and sample along with the selection of companies for the purpose of the study. Section three deals with the sources of data. Section four describes data collection procedures. Section five deals with data processing procedure. Similarly, section six is data analysis tools and techniques. Finally, section seven presents limitations of the study. This chapter points out the research methodology. It will focus of issues such as: research design, nature and sources of data, selection of companies and data analysis methods etc.

3.1 Research Design

This research designs adapted in this study consist of descriptive research design to deal with the issues associated with determination of premium of life insurance companies in context of Nepal. The descriptive research design has been adapted for fact finding and search adequate information about determination of premium of life insurance Company in Nepal. Descriptive research design has been employed to discuss the average characteristics about firm specific variables affecting the premium of Nepalese life insurance companies and their premium indicators like ROA and ROE.

In this research ROA and ROE are considered as dependent variables and size, liquidity, volume of capital, fixed assets and growth rate as independent variables. Co-relational research seeks to establish a relation/ association/ co-relation between two or more variables that do not readily lend themselves to experimental manipulation.

3.2 Population and Sample

In order to examine the determination of premium of life insurance companies, this study contains a sample of 4 life insurance companies among 18 life insurance companies of Nepal. Respective data were collected for the time period of 2011-12 to 2018-2019, leading to a total of 32 observations. These life insurance companies are selected on the basis of younger life insurance companies in Nepal. According to their

establishment period using convenience sampling method because selection of the sampling unit is totally based on convenience of the researcher.

Table 3.1 list of Selected Life Insurance Companies with Establishment in Nepal

S.N.	Name of Life Insurance Companies	Establishment Date	Study Period	Observation
1.	Prime Life Insurance Company Limited (PLICL)	June 2009	2011-2019	8
2.	Asian Life Insurance Company Limited (ALICL)	April 2008	2011-2019	8
3.	Gurans Life Insurance Company Limited (GLICL)	March 2008	2011-2019	8
4.	Surya Life Insurance Company Limited (SLICL)	March 2008	2011-2019	8
Total No. of Observations				**32**

Source: Beema Samiti (Insurance Board)

3.3 Source of Data

This study is more concerned on comparative analysis of firm specific variable and firm premium among the life insurance companies of Nepal. This study also tries to measure the relationship between firm specific factors and Life Insurance Company's premium. This study is basically conducted to find whether there is a positive or negative relationship between firm specific factors and firm premium variable. In this study, secondary source of data is collected for the study. Data were collected from reports published by the Beema Samiti (Insurance Board of Nepal), annual reports of respective Life Insurance Companies. The data has covered last 8 years of operations from (2011-12 to 2018-19). The measures of performance of the insurance companies are the dependent variable and factors affecting the premium of Life Insurance Company are independent variable in this study.

3.4 Data Collection Procedure

The study was based on secondary data. The data collected and analyzed is balanced panel data of four general Life Insurance Companies in Nepal for the period of 2011-2019 A.D. The sources of data will be as follows:

- Annual report of Life Insurance Company.
- Publications of Insurance Board of Nepal (Beema Samiti).

3.5 Data Processing Procedure

This section discusses how the analysis has been conducted in the chapter. It is necessary to follow certain steps and procedures in analyzing data in order to understand the results and generalize the findings. The analysis of secondary data intends to study the relationship and cause and effect between the variables. This section is divided into various sub-sections first of which deals with the descriptive statistics of the sample observations including the mean, standard deviation, minimum and maximum values of the observations. Correlation analyses have been conducted in the second section followed by the step wise regression analysis. Test of significance, standard error of estimate. All the observed relationship and findings have been interpreted to derive the meaningful conclusions regarding the determination of premium of Nepalese Life Insurance Companies.

3.6 Data Analysis Tools and Techniques

This section deals with statistical and econometric models used for the purpose of analysis of secondary data. The data are analyzed by using statistical package for social science (SPSS 20). Descriptive correlation and regression methods of analysis are used in the study. The descriptive statistics such as mean, standard deviation, minimum and maximum values of the variables are used to describe the characteristics of sample firms during the period 2011-12 to 2018-19. Correlation analysis is used to assess the direction of relationship between the dependent and independent variables. Along with this, regression analysis is used to find out the influence of independent variable over dependent variable solely and combined with other variable. Likewise, normality test is done to find out the data is normally distributed or not. The study examines the relationship between firm specific variables and firm premium of Life Insurance Company of Nepal.

Table 3.2 Description of Variables

S.N.	Variables	Description	Measurement
1.	SIZE	Size of the company	Natural Logarithm on total assets
2.	LIQ.	Liquidity (Times)	Current assets to total liabilities
3.	VOC	Volume of capital (%)	Shareholders' equity to total assets
4.	FA	Fixed Assets (%)	Fixed assets to total assets
5.	GR	Growth Rate (%)	Change in total assets percentage
6.	ROA	Return on Assets (%)	Net income to total assets
7.	ROE	Return on equity (%)	Net income to shareholder's equity

CHAPTER IV
RESULTS

This chapter provides systematic presentation, interpretation and analysis of secondary data with various issues associated with the analyzing the relationship between firm specific factors and life insurance companies performance .The basic steps in the analytical process consists of identifying issues, determining the availability of suitable data, deciding the method appropriate for answering the questions of interest, applying the methods and evaluating , summarizing and communicating the results. Various statistical tools described in chapter three have been stipulated for this purpose.

The comparative analysis for selected life insurance companies has been made to grasp the total picture of life insurance sectors. First of all, data analyses of variables of the study are done and then descriptive statistics is presented. Correlation analysis is presented to show the nature of relationship between dependent and independent variables. Finally, the results of regression model presents how the independent variables affect the dependent section wrap up this chapter with concluding remarks about the result derived from the secondary data.

4.1 Data Analysis of Variables of the Study

4.1.1 Independent Variables

4.1.1.1 Company Size

Company size represent to the total assets of the company. As indicated earlier, size of the life insurance measured by the log of total assets shows the size of the financial institution.

Table 4.1 Size of Selected Life Insurance Companies (in million Rs.)

Year	ALICL	SLICL	GLICL	PLICL	Mean	Std. Dev.
2011/12	1890.07	131.33	604.65	558.45	796.13	759.79
2012/13	2888.88	487.73	849.87	1242.87	1367.34	1060.20
2013/14	4145.08	665.13	1429.86	2059.34	2074.85	1493.25
2014/15	1103.52	901.57	1957.88	2062.09	1506.27	589.00
2015/16	1407.54	1573.53	2814.04	3589.64	2346.19	1039.73
2016/17	1716.41	1417.92	3645.55	2492.80	2318.17	994.15
2017/18	1541.37	2397.59	4656.95	3794.73	3097.66	1393.97
2018/19	1658.91	3579.81	5918.88	3093.15	3562.69	1769.82
Mean	2043.97	1394.33	2734.71	2361.63		
Std. Dev.	996.41	1134.34	1892.31	1121.12		

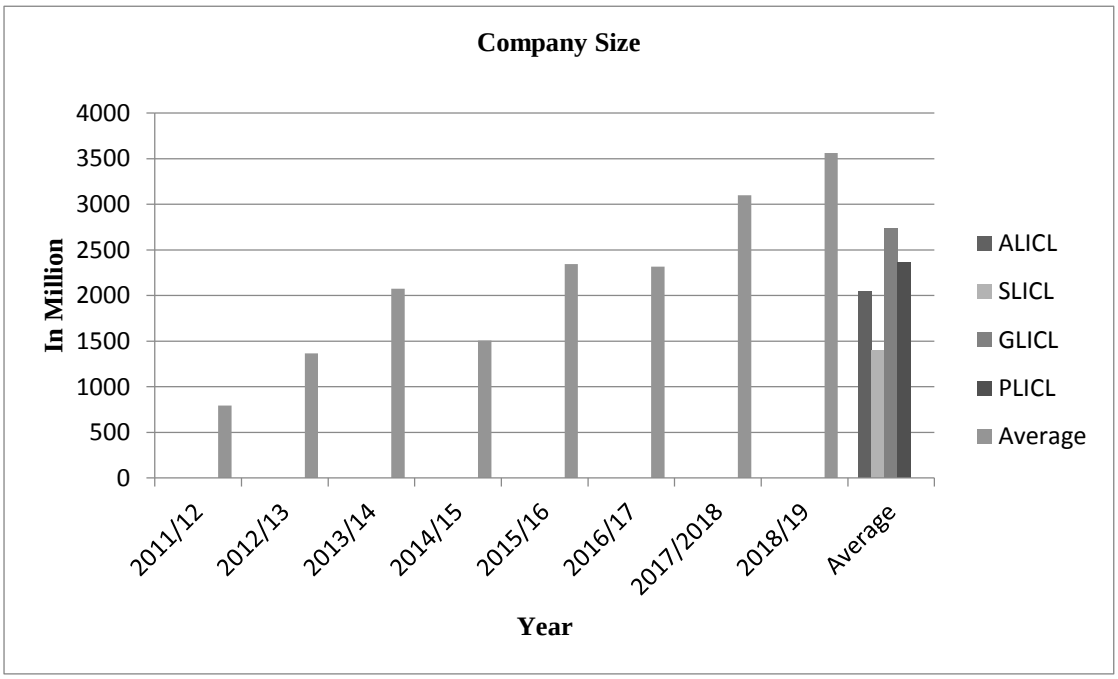
Source: Annual Reports of ALICL, SLICL, GLICL and PLICL from the F/Y 2011/12 to 2018/19

The table 4.1 shows the size of four life insurance companies for the eights fiscal years with their means value and standard deviations. Among the selected life insurance companies GLICL has highest average size of Rs.2734.71 million and SLICL have lowest of Rs.1394.33 million during the period of 2011/19. PLICL has average size of Rs.2361.63 and ALICL has Rs.2043.97 average size. This indicates that GLICL has highest total assets in average and are in better position in the market than other selected life insurance companies as size of company is expressed by logarithm of its total assets

This table also shows that size varies widely within the individual life insurance companies. The size of GLICL is increased from first year to last year from Rs.604.65 million to Rs. 5918.88 million which indicate that there is increasing in total assets every year. The size of SLICL is increased from Rs.131.33 million in 2011/12 to Rs. 1573.53 million in 2015/16 but has decreased in year of 2016/17 by Rs. 1417.92 million then after increasing up to year 2018/19. The size of PLICL is increased from Rs.558.45 million in 2011/12 to Rs.3589.64 million in 2015/16 but has decreased in year 2016/17 then after increasing in year 2017/18 up to Rs.3794.73 million and then decreasing in year 2018/19. Likewise, the size of ALICL is increasing from Rs.1890.07 million in 2011/12 to Rs.4145.08 million in 2013/14 then after increasing or decreasing up to year 2018/19.

Similarly, the variation in size of life insurance companies as indicated by standard deviation of ALICL, SLICL, GLICL, PLICL are Rs.996.41million, Rs.1134.34 million, Rs.1892.31 million, Rs.1121.12 million respectively. Among those GLICL has higher variation and ALICL has lower variation.

Figure 4.1 Average Size of Selected Life Insurance Companies (in million Rs.)



The figure 4.1 reveals that the trend of average size computed across the study period. The average size is in increasing trend over the period 2011/12 to 2013/2014 as per the figure. But the average size of life insurance companies in year 2014/15 decreased and then after it again increased up to the year 2018/19. The highest average size is in 2018/19 and the lowest average size is in 2011/12. Likewise, according to individual the average size of SLICL is less than other. Decreasing trend shows the decline in assets.

4.1.1.2 Liquidity

Liquidity is a financial ratio that shows the ability of insurer to pay current liabilities, which have the nature of operating expenses or payment of compensation in case of damage. Liquidity is current assets for the year divided by current liabilities, usually the average value over the year. Table 4.2 below presents the structure of liquidity for selected life insurance companies.

Table 4.2 Liquidity of Selected Life Insurance Companies

Year	ALICL	SLICL	GLICL	PLICL	Mean	Std. Dev.
2011/12	15.44	2.80	4.35	2.10	6.17	6.25
2012/13	14.51	6.86	10.37	3.79	8.88	4.62
2013/14	31.34	6.71	13.39	4.59	14.01	12.15
2014/15	7.43	4.75	11.90	6.00	7.52	3.12
2015/16	6.34	5.22	14.06	5.65	7.82	4.19
2016/17	5.87	4.06	12.17	3.91	6.50	3.88
2017/18	4.32	4.81	13.88	5.18	7.05	4.57
2018/19	3.25	5.92	11.50	4.09	6.19	3.71
Mean	11.06	5.14	11.45	4.41		
Std. Dev.	9.34	1.36	3.13	1.24		

Source: Annual Reports of ALICL, SLICL, GLICL and PLICL from the F/Y 2011/12 to 2018/19

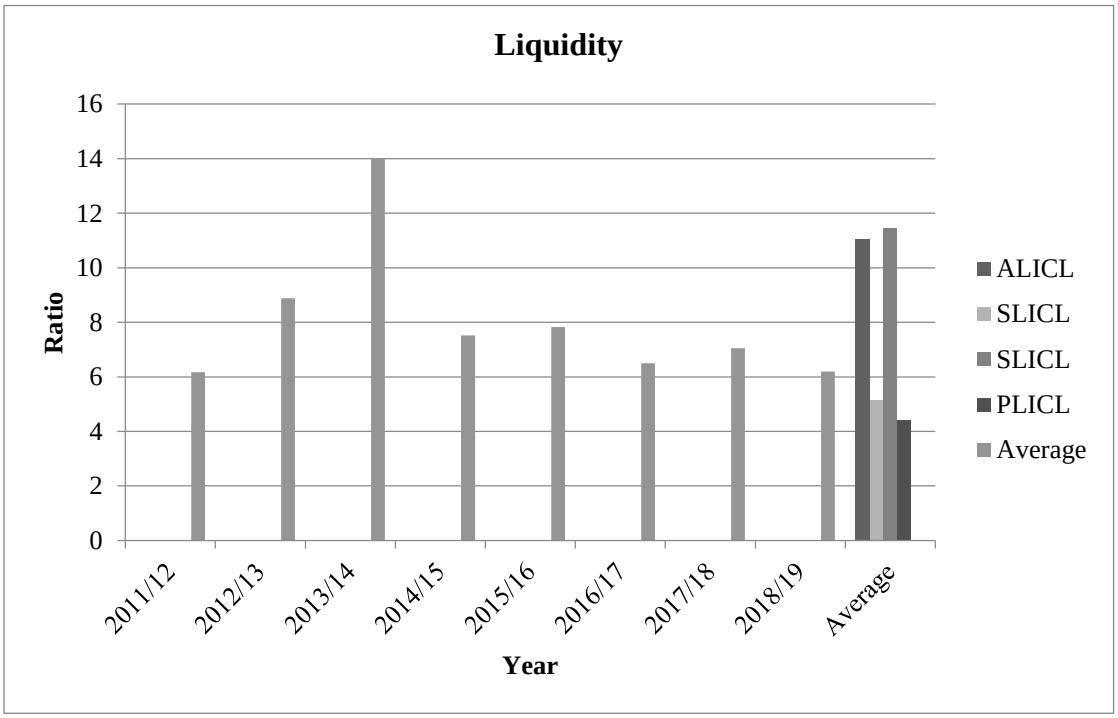
Table 4.2 shows the liquidity ratio of four life insurance companies of eight fiscal years with their mean value and standard deviation. Among the selected life insurance companies GLICL has the highest average liquidity ratio 11.45 and PLICL have lowest 4.41 during the period of 2011 to 2019. ALICL has average liquidity ratio of 11.06 and SLICL has average liquidity ratio 5.14. This indicates that GLICL has more ability to pay compensation in case of damage than other selected life insurance companies as liquidity of insurance company is expressed by its current ratio.

Table 4.2 also shows that liquidity varies widely within the individual life insurance companies and the trend of liquidity ratio is very fluctuating. ALICL has highest liquidity ratio in year 2013/14 but fluctuating liquidity ratio in every year. SLICL has liquidity ratio of 2.80 in 2011/12 and then increasing in year 2012/13 up to 6.86 and again decreasing or increasing in year up to 2018/19. The liquidity ratio of GLICL is increased from 4.35 in year 2011/12 to 13.39 in year 2014/15 then after decrease in year 2015/16 to 11.90 and then increasing in year 2015/16 to 14.06 again it starts increase or decrease in liquidity ratio up to 2018/19. Likewise, PLICL also has increasing and decreasing trend. At year 2011/12 it has 2.10 and then after it increase up to year 2014/15 to 6.00 and then after it has increasing and decreasing trend up to

year 2018/19 which means that the ability of paying compensation is fluctuating up to year 2018/19 from 2015/16.

Similarly, the variation in liquidity of life insurance companies as indicated by standard deviation of ALICL, SLICL, GLICL, and PLICL are 9.34, 1.36, 3.13, and 1.24 respectively. Among those ALICL has higher variation and PLICL has lower variation.

Figure 4.2 Average Liquidity of Selected Life Insurance Companies



The figure 4.2 reveals that the trend of average liquidity ratio calculated across the study period. The average liquidity ratio trend is in fluctuating trend over the period 2011/12 to 2018/19 as per the figure. It shows that the average liquidity ratio of life insurance companies increased from year 2011/12 to 2013/14 and then decreased and increased in every year up to 2018/19. The highest liquidity ratio is in 2013/14 and lowest is in 2011/12. And according to individual, ALICL has highest average liquidity ratio than others. Increasing trend shows the higher payment of compensation whereas decreasing trend shows lower payment of compensation.

4.1.1.3 Volume of Capital

VOC is a financial ratio that shows the return of assets and profit of the company. VOC is shareholder's equity for the year divided by total assets, usually the average value over the year. Table 4.3 below presents the structure of VOC for selected life insurance companies.

Table 4.3 Volume of Capital of Selected Life Insurance Companies

Year	ALICL	SLICL	GLICL	PLICL	Mean	Std. Dev.
2011/12	1.46	5.14	1.36	2.72	2.67	1.76
2012/13	1.35	1.81	1.32	1.65	1.53	0.24
2013/14	1.27	1.96	1.16	1.37	1.44	0.36
2014/15	6.11	1.45	1.12	1.80	2.62	2.34
2015/16	6.20	1.54	1.05	1.35	2.54	2.45
2016/17	6.43	2.44	1.06	2.53	3.12	2.31
2017/18	9.52	2.09	1.11	2.47	3.80	3.86
2018/19	11.69	1.96	1.19	3.90	4.69	4.81
Mean	5.50	2.30	1.17	2.22		
Std. Dev.	3.92	1.19	0.11	0.86		

Source: Annual Reports of ALICL, SLICL, GLICL and PLICL from the F/Y 2011/12 to 2018/19

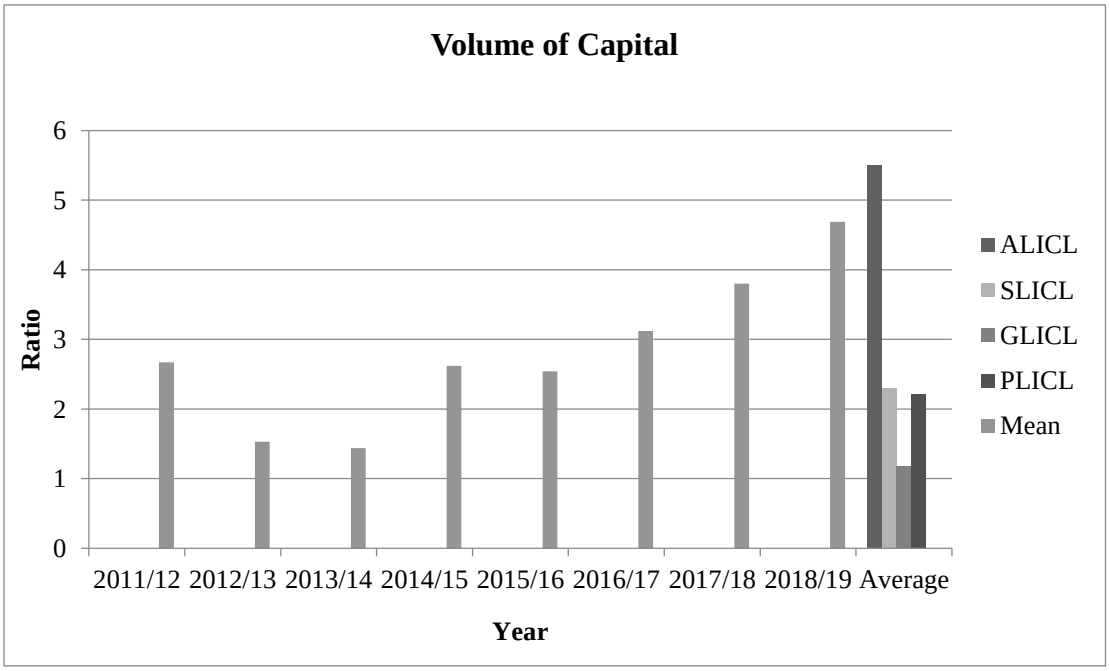
Table 4.3 shows the VOC of four life insurance companies for the eight fiscal years with their mean value and standard deviation. Among the selected life insurance companies ALICL has highest average VOC of 5.50 then the SLICL has average VOC of 2.30 and then the GLICL has average VOC of 1.17 again the PLICL has average VOC of 2.22. This indicates that ALICL has high return of assets and profits than other selected life insurance companies.

Table 4.3 also shows that VOC varies widely within the individual life insurance companies and the trend of VOC is very fluctuating. ALICL has decreased VOC from 1.46 to 1.27 in year 2011/12 to 2013/14 and then after it has increased VOC to 11.69 in year 2018/19. SLICL has 5.14 VOC in year 2011/12 and then after it has increasing and decreasing trend up to year 2018/19. GLICL has VOC 1.36 in year 2011/12 and then after it has decreased up to year 2015/16 and then it has increased to 1.19 in year

2018/19. PLICL has also increasing and decreasing trend. First three years it decreased from 2.67 to 1.37 after that it has increased to 1.80 in year 2014/15 again it has decreasing and increasing trend up to year 2018/19 and at last year it has 3.90 which means the return on assets and profit increased at last year.

Similarly, the variation in VOC of life insurance companies as indicated by standard deviation of ALICL, ALICL, GLICL, and PLICL are 3.92, 1.19, 0.11, and 0.86 respectively. Among those, ALICL has higher variation and GLICL has lower variation.

Figure 4.3 Average Volume of Capital of Selected Life Insurance Companies



The figure 4.3 reveals that the trend of average VOC calculated across the study period. The average VOC is increased in year 2011/12 then after it decreased up to year 2013/14 again it increased in year 2014/15 again then after it decreased in year 2015/16 and at last three years the VOC has increased as per the given figure. The highest VOC is in year 2018/19 and lowest is in year 2013/14. Overall trend line shows average VOC of Nepalese life insurance companies experienced a fluctuating trend over the period. And according to individual, average VOC of ALICL is high than others selected life insurance companies. Increasing trend shows the return on assets and profits of the companies.

4.1.1.4 Fixed Assets

Fixed assets are a financial ratio that shows the performance of the company. Fixed assets are fixed assets for the year divided by total assets, usually the average value over the year. Table 4.4 below presents the structure of fixed assets for selected life insurance companies.

Table 4.4 Fixed Assets of Selected Life Insurance Companies

Year	ALICL	SLICL	GLICL	PLICL	Mean	Std. Dev.
2011/12	3.50	6.31	2.80	25.35	9.49	10.68
2012/13	2.35	2.35	2.68	10.78	4.54	4.16
2013/14	1.75	3.20	1.66	5.84	3.11	1.95
2014/15	1.84	3.06	1.42	5.84	3.04	1.99
2015/16	15.02	2.15	0.89	3.24	5.33	6.53
2016/17	13.15	2.69	0.61	4.43	5.22	5.51
2017/18	14.55	1.75	0.77	3.06	5.03	6.41
2018/19	14.78	1.71	0.74	3.73	5.24	6.48
Mean	8.37	2.90	1.45	7.78		
Std. Dev.	6.47	1.48	0.88	7.52		

Source: Annual Reports of ALICL, SLICL, GLICL and PLICL from the F/Y 2011/12 to 2018/19

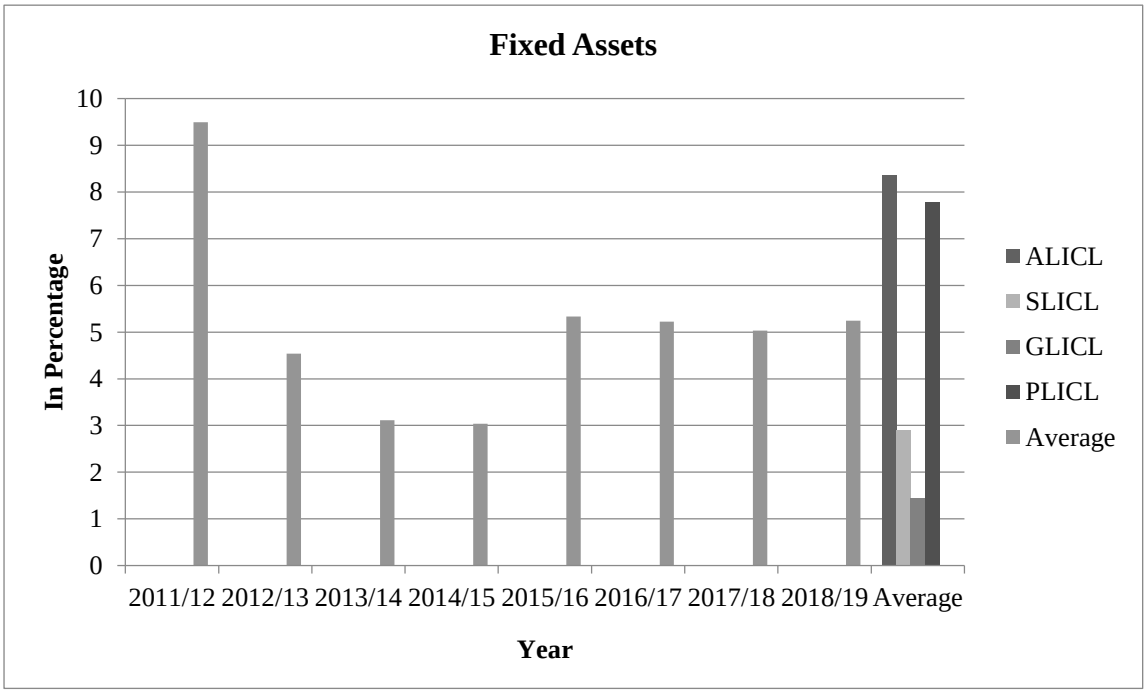
Table 4.4 shows the fixed assets of four selected life insurance companies for the eight fiscal years with their mean value and standard deviation. Among the selected life insurance companies ALICL has highest average fixed assets 8.37 percent and GLICL have lowest 1.45 percent during the period of fiscal year 2011 to 2019. ALICL has average fixed assets 8.37 percent and SLICL has 2.90 percent average fixed assets. Similarly, the average fixed assets of GLICL has 1.45 percent and PLICL has average fixed assets of 7.78 percent. This indicates that ALICL has better performance than other selected life insurance companies as fixed assets measures the performance of the companies.

Tables 4.4 also shows that fixed assets varies widely within the individual life insurance companies and the trend of fixed assets is very fluctuating. ALICL has decreasing trend up to year 2013/14 that is from 3.50 percent to 1.75 percent and then

after it has increasing trend up to fiscal year 2015/16 again it has increasing or decreasing trend up to 2018/19. SLICL has fixed assets of 6.31 percent in fiscal year 2011/12 then after it has decreased in year 2012/13 after that it has fluctuating up to fiscal year 2018/19. The fixed assets of GLICL has decreasing trend up to year 2016/17 that is from 2.80 percent to 0.61 percent after that it has increasing or decreasing trend up to year 2018/19 from year 2017/18. Likewise, PLICL has decreasing trend up to year 2012/13 from year 20111/12 and then after it has constants in two fiscal years that is 2013/14 and 2014/15 after that it has fluctuating fixed assets in every year up to 2018/19. The last year fixed assets is increased to 3.73 percent which means performance in last year is increased.

Similarly, the variation in fixed assets of selected life insurance companies as indicated by standard deviation of ALICL, SLICL, GLICL, and PLICL are 6.47 percent, 1.48 percent, 0.88 percent and 7.52 percent respectively. Among those, PLICL has higher variation and GLICL has lower variation.

Figure 4.4 Average Fixed Assets of Selected Life Insurance Companies



The figure 4.4 reveals that the trend of average fixed assets calculated across the study period. The average fixed assets decreased up the year 2014/15 then increased to 2015/16. At last three years it has decreased to 5.24 percent. The highest average fixed assets is in year 2011/12 and lowest is in year 2014/15. Overall, trend line

shows average fixed assets of Nepalese life insurance companies experienced a fluctuating trend over the period. And according to individual, average fixed assets of ALICL is high than others. Increasing trend shows the increment in performance of the company and vice-versa.

4.1.1.5 Growth Rate

Growth rate is a financial ratio that shows the collection of premium of the company. Growth rate is change in premium for the year, usually the average value over the year. Table 4.5 below presents the structure of growth rate for selected life insurance companies.

Table 4.5 Growth Rate of Selected Life Insurance Companies

Year	ALICL	SLICL	GLICL	PLICL	Mean	Std. Dev.
2011/12	10.48	38.60	62.48	39.63	37.80	21.29
2012/13	11.06	33.71	11.34	19.79	18.98	10.63
2013/14	19.90	91.70	33.73	8.76	38.52	36.89
2014/15	20.24	74.87	44.97	12.01	38.02	28.28
2015/16	21.32	48.62	40.14	25.74	33.96	12.65
2016/17	14.51	24.07	38.54	18.78	23.98	10.47
2017/18	31.59	30.57	35.29	16.11	28.39	8.43
2018/19	39.78	45.98	32.73	24.11	35.65	9.41
Mean	21.11	48.52	37.40	20.62		
Std. Dev.	10.13	23.31	14.21	9.55		

Source: Annual Reports of ALICL, SLICL, GLICL and PLICL from the F/Y 2011/12 to 2018/19

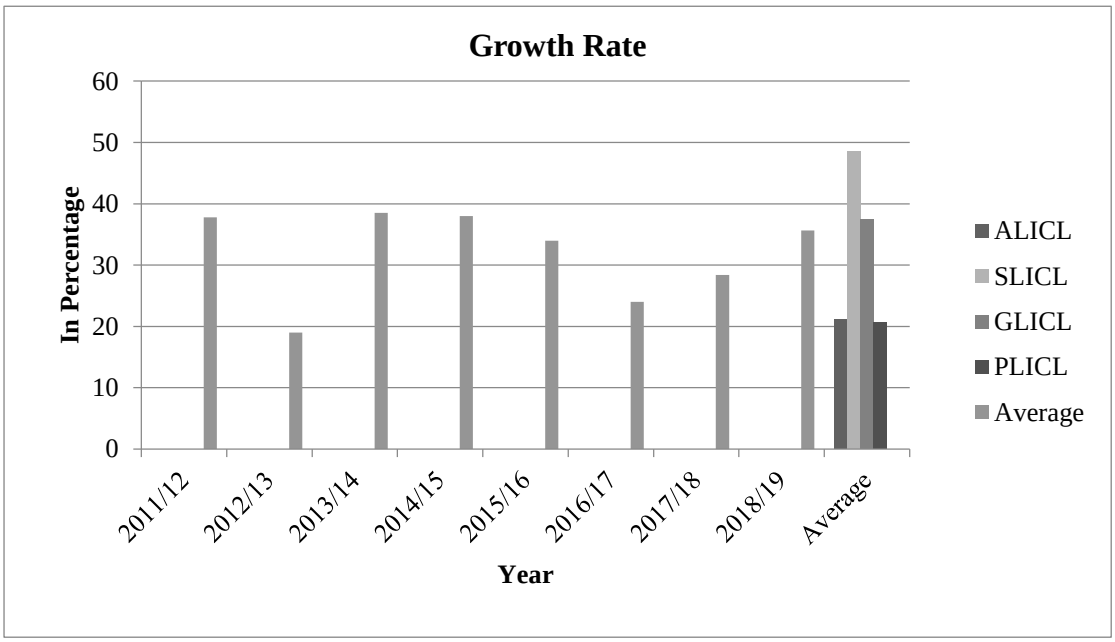
Table 4.5 shows the growth rate of four life insurance companies for the eight fiscal year with their mean value and standard deviation. Among the selected life insurance companies SLICL has highest average growth rate that is 48.52 percent and PLICL have lowest that is 20.62 percent during the period of 2011 to 2019. Likewise, GLICL has average growth rate 37.40 percent and ALICL has 21.11 percent average growth

rate. This indicates that SLICL has better collection of premium than other selected life insurance companies as growth rate measures the change in premium collected during the period of the companies.

This table also shows that growth rate varies widely within the individual life insurance companies and the trend of growth rate is very fluctuating. ALICL has 10.48 percent growth rate in year 2011/12 than after it has increased to 21.32 percent in 2015/16 then after it has decreased in year 2016/17 to 14.51 percent again after that it has increased last two years to 39.78 percent. SLICL has 38.60 percent growth rate in year 2011/12 than after it has decreased to 33.71 percent in year 2012/13 and in year 2013/14 the growth rate of it was huge change that is 91.70 percent again than after decreasing and increasing trend has been continued till 2018/19 and growth rate in 2018/19 is 45.98 percent. GLICL has growth rate in year 2011/12 is 62.48 percent then after it has decreased in year 2012/13 to 11.34 percent after that the growth rate in year 2013/14 is 33.73 percent which was increased from year 2012/13 then after it has again increased in last four years as compared to year2013/14 but at last year the growth rate of it was 37.40 percent. Likewise, the growth rate of PLICL in year 2011/12 is 39.63 percent then after it has decreasing up to year 2013/14 to 8.76 percent then after in year 2014/15 the growth rate is 12.01 percent and in year 2015/16 the growth rate is 25 .74 percent after that it has decreased up to year 2018/19 to 24.11 percent which mean premium collection of last three years is decreased.

Similarly, the variation in growth rate of life insurance companies as indicated by standard deviation of ALICL, SLICL, GLICL and PLICL are 10.13 percent, 23.31 percent, 14.21 percent and 9.55 percent respectively. Among those SLICL has higher variation and ALICL has lower variation because SLICL has higher standard deviation and ALICL has lower standard deviation than others.

Figure 4.5 Average Growth Rate of Selected Life Insurance Companies



The figure 4.5 reveals that the trend of average growth rate calculated across the study period. The average growth rate is in increasing and decreasing trend every year. The highest average growth rate is in year 2013/14 and lowest is in year 2012/13. Overall, trend line shows average growth rate of Nepalese life insurance companies experienced a fluctuating trend over the period. And according to individual, average growth rate of SLICL has high growth rate than others. Increasing trend shows the increment in premium collection of the company.

4.1.2 Premium Indicators

4.1.2.1 Return on Assets

Return on assets reveals the firm's ability of generating profit by utilizing the total assets. Having higher ratio of ROA represents that management of organization is able to utilize its total assets efficiently and effectively than the other organization. The ROA position of Nepalese life insurance companies has been shown and analyzed as below:

Table 4.6 Return on Assets of Selected Life Insurance Companies

Year	ALICL	SLICL	GLICL	PLICL	Mean	Std. Dev.
2011/12	6.03	22.38	7.03	22.56	14.50	9.21
2012/13	4.35	8.26	5.46	10.16	7.06	2.64
2013/14	1.81	6.58	2.69	5.66	4.19	2.29
2014/15	2.83	2.43	1.89	5.87	3.26	1.79
2015/16	7.54	8.42	.79	5.82	5.64	3.41
2016/17	2.95	9.61	.85	9.44	5.71	4.49
2017/18	2.99	5.06	1.23	5.70	3.75	2.04
2018/19	3.51	5.83	1.29	10.12	5.19	3.77
Mean	4.00	8.57	2.65	9.42		
Std. Dev.	1.90	6.02	2.34	5.70		

Source: Annual Reports of ALICL, SLICL, GLICL and PLICL from the F/Y 2011/12 to 2018/19

Table 4.6 shows the ROA of four life insurance companies for the eight fiscal years with their mean value and standard deviation. The ratio shows the ROA of ALICL is increased in year 2011/12 and then decreased in year 2012/13 after that it has decreased up to year 2018/19. The average ROA indicates that the ALICL is able to yield 4.00 percent net profit from its total assets.

ROA of SLICL is increased in year 2011/12 and then decreased up to year 2018/19. The average ROA of SLICL indicates that the bank is able to yield 8.57 percent net profits from its total assets.

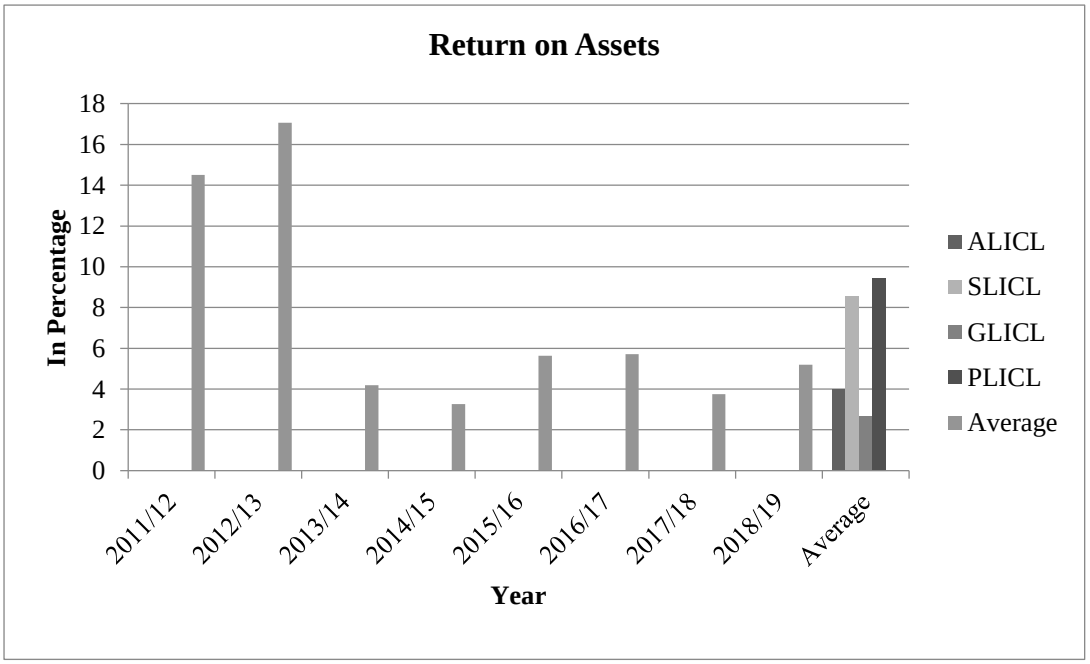
Likewise, the ROA of GLICL is increased in year 2011/12 and then after it has decreased up to year 2018/19. The average ROA of GLICL indicates that the bank is able to yield 2.65 percent net profit from its total assets.

Again, the ROA of PLICL is increased in year 2011/12 and then after it has decreased up to year 2018/19. The average ROA of PLICL is able to yield 9.42 percent from its total assets.

Similarly, the variation in ROA of selected life insurance companies as indicated by standard deviation of ALICL, SLICL, GLICL and PLICL are 1.90 percent, 6.02

percent, 2.34 percent and 5.70 percent respectively. Among those, SLICL has higher variation and ALICL has lower variation which means SLICL has higher risk associated with ROA and GLICL has lower risk associated with ROA. Also SLICL is able to make higher return to its assets.

Figure 4.6 Average ROA of Nepalese Selected Life Insurance Companies



The figure 4.6 reveals the average return on assets (ROA) of four life insurance companies (ALICL, SLICL, GLICL and PLICL) for the eight fiscal years. The average ROA of selected life insurance companies has inconsistent and decreasing trend over the period 2011/12 to 2018/19. The highest ROA is in 2012/13 and the lowest is in 2014/15. Similarly, according to individual, average ROA of PLICL has highest and GLICL has lowest.

4.1.2.2 Return on Equity

Return on equity reveals that equity shareholder's funds are extremely utilized and managed in the organization and vice-versa. The position of ROE of existing Nepalese life insurance companies is shown below:

Table 4.7 Return on Equity of Selected Life Insurance Companies

Year	ALICL	SLICL	GLICL	PLICL	Mean	Std. Dev.
2011/12	8.28	4.35	5.15	8.28	6.52	2.06
2012/13	6.15	4.57	4.13	6.15	5.25	1.05
2013/14	4.14	3.35	2.32	4.14	3.49	.86
2014/15	3.26	1.68	1.68	3.26	2.47	.91
2015/16	1.22	5.46	0.76	4.30	2.94	2.30
2016/17	0.46	3.93	0.80	3.74	2.23	1.86
2017/18	0.99	2.42	1.11	2.31	1.71	.76
2018/19	0.30	2.98	1.08	2.60	1.74	1.26
Mean	3.10	3.59	2.13	4.35		
Std. Dev.	2.93	1.23	1.65	1.98		

Source: Annual Reports of ALICL, SLICL, GLICL and PLICL from the F/Y 2011/12 to 2018/19

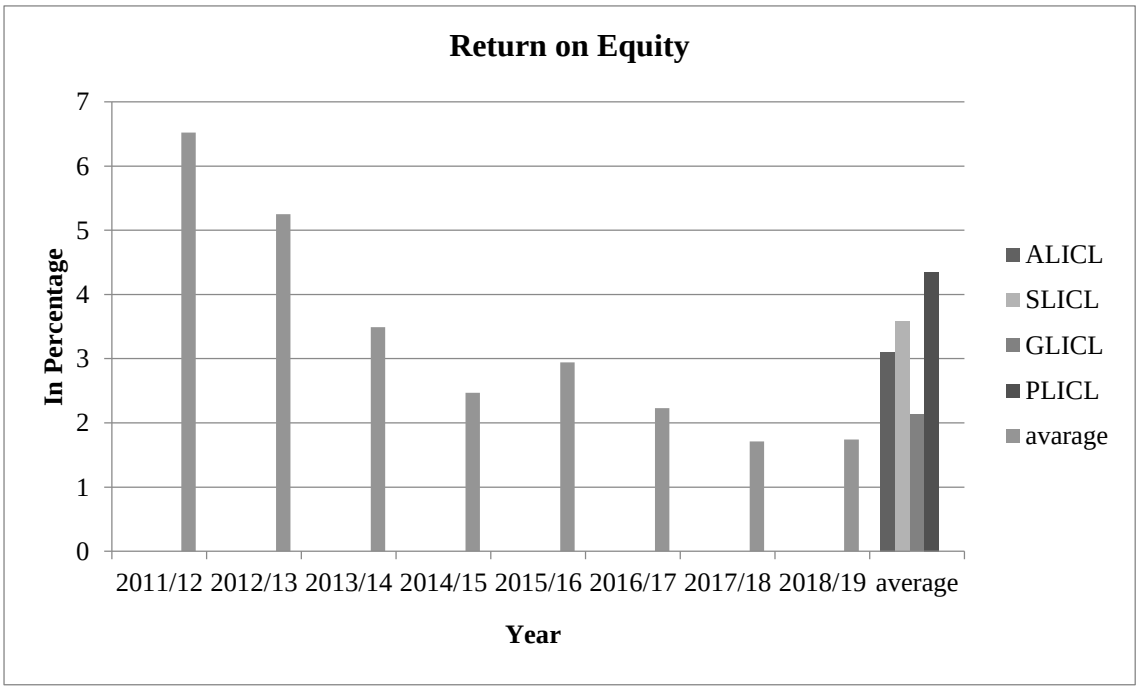
Table 4.7 shows ratios of ROE of four selected life insurance companies for the eight fiscal years with their mean value and standard deviation. In the above table we can see that the ROE of ALICL has decreased up to year 2016/17 and then after in fiscal year 2017/18 the ROE of it was 0.99 percent then after in year 2018/19 the ROE of it was 0.30 percent. The ROE of SLICL is 4.35 percent in year 2011/12 then after it has increased in year 2012/13 to 4.57 percent again it has decreased up to year 2014/15 to 1.68 percent then after it has increased in year 2015/16 after that it has decreasing trend up to year 2018/19 to 2.98 percent. The ROE of GLICL is 5.15 percent in year 2011/12 then after it has decreasing trends up to year 2015/16 again then after it has decreasing or increasing trend up to year 2018/19. Similarly, the ROE ratio of PLICL is 8.28 percent then after it has decreasing trend up to 2014/15 then after it has increased in year 2015/16 then after it has decreased up to year 2018/19 to 2.60 percent which means that the performance is not good up to year 2018/19 from year 2016/17.

The average mean value of all selected life insurance companies ALICL, SLICL, GLICL and PLICL are 3.10 percent, 3.59 percent, 2.13 percent and 4.35 percent respectively. Among those average ROE of PLICL is 4.35 percent which is higher and the average ROE of GLICL is 2.13 percent which is lower then other selected life

insurance companies. Higher ROE indicates that company can generate more rate of returns by owner's equity. In this situation the PLICL can generate more rate of return and GLICL can generate less rate of return then other selected life insurance companies.

Similarly, standard deviation of ALICL, SLICL, GLICL and PLICL are 2.93 percent, 1.23 percent, 1.65 percent and 1.98 percent respectively. It indicates that ALICL can generate more rate of return by taking more risk whereas SLICL can generate less rate of return by taking less risk.

Figure 4.7 Average ROE of Nepalese Selected Life Insurance Companies



The figure 4.7 reveals that the average return on equity (ROE) of four life insurance companies (ALICL, SLICL, GLICL and PLICL) for the eight fiscal years. The average ROE of life insurance companies has been inconsistent and decreasing trend over the period 2011/12 to 2018/19. The highest ROE is in 2011/12 and the lowest is in 2017/18. Similarly, according to individual, average ROE of PLICL has high and the average ROE of GLICL is low.

4.1.3 Descriptive Statistics

The descriptive statistics used in this study consists of minimum, maximum, mean, and the standard deviation associated with variables under consideration. therefore, descriptive statistics enables to present the data in a more meaningful way, which allows simpler interpretation of the data. The descriptive statistics of dependent variables (return on assets and return on equity) and independent variables (size, liquidity, VOC, fixed assets and growth rate) is presented in the table 10 of 8 sample of life insurance companies of Nepal from 2011/12 through 2018/19.

Table 4.8 Descriptive Statistics

Variables	N	Minimum	Maximum	Mean	Std. Deviation
Size	32	131.33	5918.88	2133.6606	1362.68492
Liquidity	32	2.10	31.34	8.0175	5.79854
Volume of capital	32	1.05	11.69	2.7994	2.58553
Fixed assets	32	.61	25.35	5.1250	5.67315
Growth rate	32	8.76	91.70	31.9109	18.81564
Return of assets (ROA)	32	.79	22.56	6.1606	5.11525
Return of equity (ROE)	32	.30	8.28	3.2922	2.11030
Total	224	.30	5918.88	312.9952	901.79579

Source: Annual Reports of ALICL, SLICL, GLICL and PLICL from the F/Y 2011/12 to 2018/19

ROA is an indicator of how efficient a company is using its assets to generate before contractual obligation must be paid. The mean value of ROA is 6.1606 percent indicating that during the period 2011-2019. The standard deviation of ROA is 5.1153 percent which shows the slightly small variation on total asset of sample life insurance companies. The minimum and maximum values of ROA are 0.79 percent and 22.56 percent respectively.

The profitability measured by ROE also showed that the mean value of life insurance profitability 3.2922 percent during the period 2011 to 2019, on average; the sample life insurance provides 3.2922 percent return to their shareholders. The standard deviation of the ROE is 2.1103 percent shows the lower variation. The minimum and maximum values of ROE are 0.30 percent and 8.28 percent respectively.

Regarding the independent variables, the company size shows the total assets of the company. The mean value of company size is Rs.2133.6606 million and the standard deviation of the company size is Rs.1362.6849 million which small variation. The minimum and maximum values of company size are Rs.131.33 million and Rs.5918.88 million respectively. The mean value of liquidity is 8.0175 percent which shows that short term liabilities can be paid from current assets. The standard deviation of liquidity is 5.7985 percent which has low variation life insurance companies to this factor. The mean value of VOC is 2.7994 percent. The minimum and maximum values of VOC are 1.05 percent and 11.69 percent respectively. The variation of standard deviation is lower 2.5855 percent. Overall fixed assets 5.1250 percent indicates that fixed assets comprise on average 5 percent of total assets of life insurance companies. Standard deviation 5.6731 percent indicates that there is variation of company is slightly equal. Growth rate has an average of 31.9109 percent, which shows that the total premiums of the insurance companies taken under have increased by 45 percent over the period 2011 to 2019. Standard deviation of 18.8156 percent shows that exist a sensitive variation among companies related to this factor.

4.1.4 Correlation Analysis of Variables

This shows that the correlation coefficient and significant value to find out the relationship between, ROA, ROE and independent variables. The coefficients show the magnitude and direction of the relationship, whether it is strong, weak, positive and negative. The higher the values the stronger the relationship, and the smaller the coefficient is an indicator of a weak relationship. The sign also shows the direction of the relationship. The positive sign shows a positive relationship and the negative shows the opposite. The eight fiscal years' data have been taken for achieving the reliable results.

Table 4.9 Correlation between ROA and Independent Variables

		Return of assets (ROA)	Size	Liquidity	Volume of capital	Fixed assets	Growth rate
Return of assets (ROA)	Pearson Correlation	1	-0.486**	-0.493**	0.075	0.487**	0.016
	Sig. (2-tailed)		0.005	0.004	0.683	0.005	0.931
	N	32	32	32	32	32	32
Size	Pearson Correlation	-0.486**	1	0.460**	-0.266	-0.388*	-0.245
	Sig. (2-tailed)	0.005		0.008	0.141	0.028	0.177
	N	32	32	32	32	32	32
Liquidity	Pearson Correlation	-0.0493**	0.460**	1	-0.361*	-0.415*	-0.170
	Sig. (2-tailed)	0.004	0.008		0.042	0.018	0.351
	N	32	32	32	32	32	32
Volume of capital	Pearson Correlation	0.075	-0.266	-0.361*	1	0.600**	-0.074
	Sig. (2-tailed)	0.683	0.141	0.042		0.000	0.686
	N	32	32	32	32	32	32
Fixed assets	Pearson Correlation	0.487**	-0.388*	-0.415*	0.600**	1	-0.094
	Sig. (2-tailed)	0.005	0.028	0.018	0.000		0.607
	N	32	32	32	32	32	32
Growth rate	Pearson Correlation	0.016	-0.245	-0.170	-0.074	-0.094	1
	Sig. (2-tailed)	0.931	0.177	0.351	0.686	0.607	
	N	32	32	32	32	32	32

**. Correlation is significant at the 0.01 level (2-tailed).

* .Correlation is significant at the 0.05 level (2 tailed).

Table 4.9 presents the correlation coefficients of ROA and independent variables. The correlation coefficient between company size and ROA is -0.486 and significant value is 0.005 which shows that there is significant negative correlation between ROA and company size. Therefore, this result indicated that as the value of company size decreases, the ROA will increase and vice-versa.

The correlation coefficient between liquidity and ROA is -0.493 and significant value is 0.004 which shows that there is significant negative correlation between liquidity and ROA. This result indicated that as the value of liquidity decreases, the life insurance company's profitability will increase and vice-versa.

The correlation coefficient between VOC and ROA is 0.075 and significant value is 0.683 which indicates that there is insignificant positive relationship between VOC and ROA.

The correlation coefficient between fixed assets and ROA is 0.487 and significant value is 0.005 which indicates that there is significant positive relationship between ROA and fixed assets. It indicates profitability of life insurance companies increases when fixed assets increases

At last, there is insignificant negative relationship between GR and ROA as it has 0.016 correlation coefficient and significant value is 0.931.

Table 4.10 Correlation between ROE and independent variables

		Return of equity (ROE)	Size	Liquidity	Volume of capital	Fixed assets	Growth rate
Return of equity (ROE)	Pearson Correlation	1	-0.336	-0.013	-.0360*	0.126	-0.156
	Sig. (2-tailed)		0.060	0.944	0.043	0.491	0.393
	N	32	32	32	32	32	32
Size	Pearson Correlation	-0.336	1	0.460**	-0.266	-0.388*	-0.245
	Sig. (2-tailed)	0.060		0.008	0.141	0.028	0.177
	N	32	32	32	32	32	32
Liquidity	Pearson Correlation	-0.013	0.460**	1	-0.361*	-0.415*	-0.170
	Sig. (2-tailed)	0.944	.008		.042	.018	.351
	N	32	32	32	32	32	32
Volume of capital	Pearson Correlation	-0.360*	-0.266	-0.361*	1	0.600**	-0.074
	Sig. (2-tailed)	0.043	.141	.042		.000	0.686
	N	32	32	32	32	32	32
Fixed assets	Pearson Correlation	0.126	-0.388*	-0.415*	0.600**	1	-0.094
	Sig. (2-tailed)	0.491	0.028	0.018	0.000		0.607
	N	32	32	32	32	32	32
Growth rate	Pearson Correlation	-0.156	-0.245	-0.170	-0.074	-0.094	1
	Sig. (2-tailed)	0.393	0.177	0.351	0.686	0.607	
	N	32	32	32	32	32	32

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Table 4.10 presents the correlation coefficient of ROE and independent variables. The correlation coefficient between company size and ROE is -0.336 and significant

value is 0.060 which shows that there is insignificant negative correlation between ROE and company size

The correlation coefficient between liquidity and ROE is -0.013 and significant value is 0.944 which shows that there is significant negative correlation between liquidity and ROE. This result indicated that as the value of liquidity decreases, the life insurance companies ROE will increase and vice-versa.

The correlation coefficient between VOC and ROE is -0.360 and significant value is 0.043 which indicate that there is insignificant negative relationship between VOC and ROE.

The correlation coefficient between fixed assets and ROE is 0.126 and significant value is 0.491 which indicate that there is significant positive relationship of ROE with fixed assets. It indicates ROE of life insurance companies increases when fixed assets increased.

At last, there is insignificant negative relationship between GR and ROE as it has -0.156 correlation coefficient and significant value is 0.393.

4.1.5 Regression Analysis of Variables

The regression analysis is carried out to determine whether the dependent variable is influence by the given independent variables or not. In this analysis ROA and ROE are dependent variables and size, liquidity, VOC, fixed assets and GR is independent variables. The data of eight fiscal year has been taken to achieve reliable results.

4.1.5.1 Regression Analysis of ROA

Table 4.11 Regression Analysis between ROA and explanatory variables

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.708[a]	0.501	0.405	3.94646

a. Predictors: (Constant), C. Size, Liquidity, VOC, FA and GR

b. Dependent Variable: Return of assets (ROA)

The table 4.11 shows the total variation of ROA that explained by C. size, liquidity, VOC, FA and GR. The value of coefficient of multiple determinations squaring R (R^2) is 0.501. It implies that the independent variables (i.e. C. Size, LIQ, VOC, F.A, and G.R) together explain by 50.10 percent in the variation of ROA at 95% confident interval. The chance of error of the estimate is 3.9465. The finding of the coefficient of multiple determinations R square shows that 50.10 percent changes in ROA of Nepalese life insurance companies by C size, LIQ., VOC, F.A, and G.R and remaining 49.90 percent contributes by other quantitative and qualitative factors. R is the correlation coefficient which shows the relationship between the dependent and independent variables. In finding, the above table shows that there is significantly positive relationship between the dependent and independent variables as shown by 0.708.

Table 4.12 Goodness of fit of Regression (ANOVA)

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	406.200	5	81.240	5.216	0.002[b]
Residual	404.938	26	15.575		
Total	811.138	31			

a. Dependent Variable: Return of assets (ROA)

b. Predictors: (Constant), C.size, LIQ, VOC, FA and GR

A multiple regression was performed between return on assets as the dependent variable and company size, liquidity, volume of capital, fixed assets and growth rate as independent variables. The adjusted squared multiple correlation was significantly different from zero (F=5.216, P>0.002) and 40.5% of the variation in the dependent variable was explained by the set of independent variables. Only the independent variables company size (t= -1.696, p=0.102), and fixed assets (t=2.568, p=0.016) were found to uniquely and significantly contribute to the prediction of return on assets.

Table 4.13 Regression result for independent effect on ROA

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(Constant)	11.644	2.886		4.034	0.000
	Size	-0.001	0.001	-0.282	-1.696	0.102
	Liquidity	-0.291	0.147	-0.330	-1.981	0.058
	Volume of capital	-0.820	0.348	-0.414	-2.358	0.026
	Fixed assets	0.433	0.169	0.480	2.568	0.016
	Growth rate	-0.026	0.040	-0.095	-0.640	0.128

a. Dependent Variable: Return of assets (ROA)

From the analysis, the value of the constant is 11.644. From this information the regression equation can be produced.

Return on assets (ROA) =11.644 -0.001(Company size) -0.291(Liquidity) -0.820(Volume of capital+0.433(Fixed Assets) -0.026(Growth Rate)

From the coefficient table the regression coefficient of C. Size, LIQ., VOC, F.A, and G.R are -0.001, -0.291, -0.820, 0.433 and -0.026 respectively which indicates 1 unit increment in C. size leads to 0.001 decrement in ROA. 1-unit increment in liq. leads to 0.291 decrements in ROA and 1-unit increment in VOC will leads to 0.433 increment in ROA and 1-unit increment in G.R leads to 0.026 decrements in ROA of Nepalese life insurance companies.

From the above finding there is positive relationship between dependent variable (ROA) and independent variable (F.A) and there is negative relationship between ROA and C. Size, LIQ., VOC, and G.R. The study further revealed that the P-value was less than 5% in C. size and fixed assets, which shows that C. size and fixed assets has a statistically significant for this study at 95% confidence level. It means that C. size and fixed assets significantly influences on ROA whereas LIQ, VOC and G.R have statistically insignificantly influences on ROA.

4.1.5.2 Regression Analysis of ROE

Table 4.14 Regression analysis between ROE and explanatory variables Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.709[a]	0.503	0.407	1.62462

a. Predictors: (Constant), Growth rate, Volume of capital, Size, Liquidity, Fixed assets

b. Dependent Variable: ROE

The table 4.14 shows that the total variation of ROE that explained by C. size, LIQ, VOC, FA and GR. The value of coefficient of multiple determinations R square is 0.503. It implies that the dependent variables (i.e. C.Size, LIQ, VOC, FA and GR) contributed by 50.30 percent in the variation of ROE at 95 % confident interval. The chance of error of the estimate is 1.62462. The finding of coefficient of multiple determinations R square shows that 50.30 percent changes in ROE of Nepalese life insurance companies by C. size, LIQ, VOC, FA , GR and remaining 49.70 percent contributes by other qualitative and quantitive factors. R is the correlation coefficient which shows the relationship between dependent variables and independent variables. In finding, the above table shows that there is significantly positive relationship between dependent and independent variables as shown by 0.709.

Table 4.15 Goodness of fit of regression (ANOVA)

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	69.430	5	13.886	5.261	0.002[b]
	Residual	68.624	26	2.639		
	Total	138.054	31			

a. Dependent Variable: Return of equity (ROE)

b. Predictors: (constant), C. Size, LIQ., VOC, FA and GR

A multiple regression was performed between Return on Equity as the dependent variable and company size, liquidity, volume of capital, fixed assets and growth rate as independent variables. The adjusted squared multiple correlation was significantly

different from zero (F=5.261, P>0.002) and 49.7 percent of the variation in the dependent variable was explained by the set of independent variables. Only the independent variables company size (t= -2.885, p=0.008), volume of capital (t= -4.018, p=0.000) and fixed assets (t=1.927, p=0.065) were found to uniquely and significantly contribute to the prediction of return on equity.

Table 4.16 Regression result for Independent effect on ROE

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	6.649	1.188		5.595	0.000
Size	-0.001	0.000	-0.478	-2.885	0.008
Liquidity	0.020	0.060	0.054	0.324	0.249
Volume of capital	-0.575	0.143	-0.704	-4.018	0.000
Fixed assets	0.134	-0.069	0.360	1.927	0.065
Growth rate	-0.032	-0.017	-0.282	-1.914	0.067

a. Dependent Variable: Return of equity (ROE)

From the analysis, the value of the constant is 6.649. From this information the regression equation can be produced.

Return on Equity =6.649 -0.001 (Company Size) +0.020 (Liquidity) -0.575(Volume of Capital) +0.134(Fixed Assets) -0.032(Growth Rate).

From the coefficient table the regression coefficient of C. Size, LIQ., VOC, FA and GR -0.001, 0.020, -0.575, 0.134, -0.032 respectively which indicates 1-unit increment in company size leads to 0.001 decrements in ROE. 1 unit in liquidity leads to 0.020 increments in ROE and 1-unit increment in VOC will leads to 0.575 decrements in ROE. Similarly, 1-unit increment in fixed assets leads to 0.134 increment in ROE and 1-unit increment in growth rate leads to 0.032 decrement in ROE of Nepalese life insurance companies.

From the above finding there is positive relationship between dependent variables (ROE) and independent variables (fixed assets and liquidity) and there is negative relationship between ROE and C. Size, VOC and GR. The study further revealed that the P-value was less than 5% in company size, volume of capital and fixed assets which shows that company size, volume of capital and fixed assets has a

statistically significant for this study at 95% confident level. It means that C. size, VOC and FA significantly influences on ROE whereas LIQ. and GR has statistically insignificant influences on ROE.

Table 4.17 Normality Test Result of Independent Variables and Dependent Variables

	Size	Liquidity	Volume of capital	Fixed assets	Growth rate	Return of assets (ROA)	Return of equity (ROE)
Skewness	0.87	2.31	2.16	2.06	1.38	2.05	0.67
Std. Error of Skewness	0.41	0.41	0.41	0.41	0.41	0.41	0.41
Kurtosis	0.47	7.40	4.43	4.30	2.47	5.07	0.13
Std. Error of Kurtosis	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Value of Skewness	2.09	5.58	5.21	4.98	3.32	4.95	1.62
Value of Kurtosis	0.58	9.14	5.48	5.31	3.05	6.26	0.16

The table shows the results of normality test of independent and dependent variables. It indicates that the value of skewness and value of kurtosis lies between -1.96 to +1.96 then the data is normally distributed otherwise not. Here, in this study the value of skewness of dependent variable (ROE) is 1.62 which indicates that the data is normally distributed and the value of skewness of ROA variable is 4.95 which indicates that the data is not normally distributed. Similarly, the value of skewness of independent variable such as (company size, liquidity, volume of capital, fixed assets and growth rate) are 2.09, 5.58, 5,21, 4.98, 3.32 respectively which indicates the data is not normally distributed.

Likewise, the value of kurtosis of dependent variable (ROE) is 0.16 which indicates that the data is normally distributed and the value of kurtosis of ROA variables is 6.26 which indicates that the data is not normally distributed. Similarly, the value of kurtosis of independent variable (size of company) is 0.58 which indicates that the data is normally distributed and other variables such as liquidity, volume of capital, fixed assets and growth rate are 9.14, 5.48, 5.31, 3.05 respectively which indicates that the data is not normally distributed. Therefore, according to skewness the ROE is normally distributed and kurtosis the size of company and ROE is normally distributed.

4.2 Major finding

The variables tested in this study are C.size, LIQ., VOC, F.A. and G.R. the data are analyzed on the basis of results from descriptive statistics, correlation and regression analysis.

(i) According to return on assets, PLICL has highest mean value of ROA (i.e, 9.42 percent) and GLICL has lowest mean value of ROA (i.e, 2.65 percent). It measures the management of companies by generating profit utilizing the real investment resources of companies. Therefore, it seems that PLICL is showing better performance on ROA.

(ii) From return on equity, PLICL has highest mean value (i.e, 4.35 percent) and GLICL has lowest mean value (i.e, 2.13 percent). It shows that PLICL have higher return that generate by owner's equity.

(iii) From the findings of descriptive statistics, the average ROA and ROE are 6.1606 percent and 3.2922 percent with standard deviation of 5.1152 percent and 2.1103 percent shows that the premium performance of Nepalese life insurance companies is satisfacyory with average variation in return. In case of C. size determinants, the average is Rs. 2133.66 million which is more than standard deviation. The average liquidity is 8.0175 percent showing high premium of life insurance companies. The average VOC is 2.7994 percent with variation 2.5855 percent. The average level of F.A is 5.1250 and variation is 5.6731 percent which indicate that there is higher level of variation. The average value of G.R. is 31.9105 percent which shows slow growth of life insurance companies.

(iv) The premium performance determinants such as C. size, LIQ., and G.R. appears statistically insignificant to affect the premium performance indicator ROA of Nepalese life insurance companies but, VOC and fixed assets are significant to the life insurance premium performance. In case of premium measure ROE C. size and volume of capital are significant but, LIQ., F.A. and G.R do not significant with life insurance premium performance.

(v) Based on finding from regression analysis the C.size, LIQ., and G.R. has insignificant result with ROA. On the other hand C. size and VOC has significant result with ROE.

(vi) Normality test result of independent variables and dependent variables should be done by using the value of skewness and kurtosis. Since the overall results shows that ROE has more significant results as compared to ROA. Further, explanatory power (R square) of ROE model is mo 50.30 percent compared with ROA model i.e, and 50.10 percent.

CHAPTER V

CONCLUSIONS

This chapter presents the conclusion of the study. It has been started with the discussion, conclusions and it provides the implications as well as scope for the further research at the end of this chapter.

5.1 Discussion

Regression analysis showed that company size factor has a negative impact, however significant in the premium of life insurance companies in our country. Other international studies on the impact of company size on the premium of the companies in general have also reached the same result or outcome that the impact of the size of the company is negatively related to premium (Niresh & Velnampy, 2014); (Velnampy & Nimalathasan, 2010). One explanation for this result is the fact that financial sector companies, which include life insurance companies, are less affected by the size of the company in their premium, compared to industrial companies. However, the conclusion reached by the study is consistent by the result on the impact of company size on the profitability of life insurance companies.

The result of regression analysis shows there is a statistically significant negative correlation between the premium of life insurance companies and ROE but negatively insignificant between ROA in our country and their premium. The reason for this result is explained by the fact that the greater in the current ratio (through which represented liquidity) the smaller is the premium (Chen & Wong, 2004), as funds held in the form of liquidity can be invested and ensure higher premium (Chen & Wong, 2004).

Regression analysis conformed the negative nature of the relationship between the volume of capital and ROA. The previous research shows that the capital has a positive impact on the premium of life insurance companies, as a greater capital enables life insurance companies to achieve opportunities quickly and react quickly in case of loss. We can say that the impact of the volume of the capital factor in the premium of life insurance company could be subject to macroeconomics factors specific to each county, which are not considered in this study.

Regression analysis showed that an increase in fixed assets variable brings increase in the premium of life insurance companies as there is positive significant relationship with both ROA and ROE. The reason for this result can be explained by the fact that the increase in fixed assets does affect positively the premium of a company.

The result of regression analysis showed that the impact of the growth rate of the life insurance companies in their premium is negative and statistically insignificant. The result is explained that by the ideas that by collecting more premiums life insurance companies are negatively affected to its premium. The above conclusion is also consistent with the conclusions reached by international scholars (Malik, 2011); (Yuqi, 2007); (Naveed, Zulfquar, & Ahmad, 2011) about the impact of the rate of growth in the premium of insurers.

5.2 Conclusions

The objective of this study is to examine the company specific determinants affecting premium of life insurance companies as measured by ROA and ROE. This study used secondary data during the period 2011 - 2019 and the sample of 4 life insurance companies that were operating. Descriptive statistics, regression analysis and normality test were performed to describe the premium of selected life insurance companies among life insurance companies.

The study investigates the impact of firm level characteristics on premium of the life insurance sector over the period of eight years from 2011 to 2019. For this purpose, size of company, liquidity, volume of capital, fixed assets and growth rate are selected as explanatory variables while ROA and ROE is taken as dependent variables. Therefore, internal factors are very important component to determine the premium of insurance sectors. The research questions of this study that are asked in the chapter first have been answered in this conclusion respectively.

i. The main objective of this study is to determine the premium of life insurance of the country. The analysis also revealed that company specific determinants such as C. Size, LIQ., VOC, FA and GR are the main determinant which influences the premium. All the specific determinants of selected life insurance company are related with its premium. A determinant having positive impact increasing the premium and vice- versa. But there are other macro-economic factors also. The analysis is also supported by Oktiani and

Andati (2017) as premium can be determine by macroeconomic factors not only specific factors.

ii. The analysis reveals that the relationship between identified company specific determinants such as C. Size, LIQ., VOC, FA and GR with ROA and ROE varies. The result shows that the significantly negative relationship between ROA and C. Size and LIQ. However, there is insignificantly positive relationship between ROA and VOC whereas ROA and GR has insignificantly negative relationship. ROA and FA has significantly positive relationship which means FA helps to increase premium. Similarly, ROE has insignificantly negative relationship with C. Size, VOC and GR have significantly relationship with liquidity. ROE and fixed assets have significantly positive relationship. Therefore, there is significantly and insignificantly relationship between premium and company specific determinants with positive and negative impact.

iii. The major conclusion of the study is that the fixed assets is the major factor affecting the premium of Nepalese life insurance companies. The result reveals that fixed assets have positive impact on return on assets and return on equity (ROA & ROE) of Nepalese life insurance companies. This indicates that increase fixed assets leads to increase in returns on assets and return on equity and vice-versa for Nepalese life insurance companies.

iv. The study also concludes that taking in consideration the nature of influence of the above factors on the premium of life insurance companies, Nepalese life insurance operate with a negative average premium.

5.3 Implications

The research has conducted with objectives and spirit of analyzing the factors of premium of selected life insurance companies. Based on the research and analysis the following implication has pointed out:

i. The study is only based on internal factors. Thus, there are also macroeconomics variables such as money, supply and unemployment rate etc from which we can determine the premium of financial companies.

ii. The size of selected life insurance business is increasing. The increasing number of selected Life Insurance Companies indicates that there exists

competition in the market. To monitor, control and regulate this business the government also should bring the strategies and policies over them.

iii. The sample size and time period taken for the study is limited so future study can be conducted by taking large sample size for long time period.

iv. The companies are suggested to expand its insurance activities in rural area by establishment of branches or by appointment of agents according to its potentiality.

v. 5The negative impact of company size and volume of capital on premium of life insurance companies implies that high level of debt should be avoid return of assets can be increased.

vi. Fixed assets negative have a negatively impact on the premium of insurance companies, so insurers should not hold high levels of fixed assets. Insurance companies, as if financial institutions do not need many fixed assets, so they should be prudent in relation to the level of fixed assets.

vii. Life insurance business should be also social responsibility oriented rather than only involving increasing total premium in order to retain stable to this business at present situation

viii. Life insurance in every sector on investment is necessary and important. As one of the major non-life insurance business in Nepal the company should advertise and educate the people about the profitable part of insurance which can reduce the huge amount of losses due to uncertainty.

5.3.1 Area for Further Research

This study contains numerical secondary data to analyze quantitative factors to know whether or not it effects on premium of life insurance companies of Nepal. The suggestion for further research can be presented in following research areas:

i. Future research should focus on both internal and external factors that would provide better insights for both management and regulatory bodies.

ii. Future research include whether they allocate resources and manage risks efficiently hence factors affecting premium of life insurance companies and their implications in risk management practices.

iii. This result is basically based on the life insurance companies of Nepal. Thus the future study may include other financial and non-financial sector such as commercial bank, development bank, finance companies, hotel and other service industries such as Manufacturing industries, Microfinance, hydro-power companies that are listed in NEPSE.

iv. Further insurance can be done on non- life insurances companies also.

v. This study is based only on secondary data and does not include the preference of different stakeholders.

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Appendix I

Size

Year	ALICL	SLICL	GLICL	PLICL	Mean	Std. Dev.
2011/12	1890.07	131.33	604.65	558.45	796.13	759.79
2012/13	2888.88	487.73	849.87	1242.87	1367.34	1060.20
2013/14	4145.08	665.13	1429.86	2059.34	2074.85	1493.25
2014/15	1103.52	901.57	1957.88	2062.09	1506.27	589.00
2015/16	1407.54	1573.53	2814.04	3589.64	2346.19	1039.73
2016/17	1716.41	1417.92	3645.55	2492.80	2318.17	994.15
2017/18	1541.37	2397.59	4656.95	3794.73	3097.66	1393.97
2018/19	1658.91	3579.81	5918.88	3093.15	3562.69	1769.82
Mean	2043.97	1394.33	2734.71	2361.63		
Std. Dev.	996.41	1134.34	1892.31	1121.12		

Liquidity

Year	ALICL	SLICL	GLICL	PLICL	Mean	Std. Dev.
2011/12	15.44	2.80	4.35	2.10	6.17	6.25
2012/13	14.51	6.86	10.37	3.79	8.88	4.62
2013/14	31.34	6.71	13.39	4.59	14.01	12.15
2014/15	7.43	4.75	11.90	6.00	7.52	3.12
2015/16	6.34	5.22	14.06	5.65	7.82	4.19
2016/17	5.87	4.06	12.17	3.91	6.50	3.88
2017/18	4.32	4.81	13.88	5.18	7.05	4.57
2018/19	3.25	5.92	11.50	4.09	6.19	3.71
Mean	11.06	5.14	11.45	4.41		
Std. Dev.	9.34	1.36	3.13	1.24		

Volume of Capital

Year	ALICL	SLICL	GLICL	PLICL	Mean	Std. Dev.
2011/12	1.46	5.14	1.36	2.72	2.67	1.76
2012/13	1.35	1.81	1.32	1.65	1.53	.24
2013/14	1.27	1.96	1.16	1.37	1.44	.36
2014/15	6.11	1.45	1.12	1.80	2.62	2.34
2015/16	6.20	1.54	1.05	1.35	2.54	2.45
2016/17	6.43	2.44	1.06	2.53	3.12	2.31
2017/18	9.52	2.09	1.11	2.47	3.80	3.86
2018/19	11.69	1.96	1.19	3.90	4.69	4.81
Mean	5.50	2.30	1.17	2.22		
Std. Dev.	3.92	1.19	.11	.86		

Fixed assets

Year	ALICL	SLICL	GLICL	PLICL	Mean	Std. Dev.
2011/12	3.50	6.31	2.80	25.35	9.49	10.68
2012/13	2.35	2.35	2.68	10.78	4.54	4.16
2013/14	1.75	3.20	1.66	5.84	3.11	1.95
2014/15	1.84	3.06	1.42	5.84	3.04	1.99
2015/16	15.02	2.15	.89	3.24	5.33	6.53
2016/17	13.15	2.69	.61	4.43	5.22	5.51
2017/18	14.55	1.75	.77	3.06	5.03	6.41
2018/19	14.78	1.71	.74	3.73	5.24	6.48
Mean	8.37	2.90	1.45	7.78		
Std. Dev.	6.47	1.48	.88	7.52		

Growth Rate

Year	ALICL	SLICL	GLICL	PLICL	Mean	Std. Dev.
2011/12	10.48	38.60	62.48	39.63	37.80	21.29
2012/13	11.06	33.71	11.34	19.79	18.98	10.63
2013/14	19.90	91.70	33.73	8.76	38.52	36.89
2014/15	20.24	74.87	44.97	12.01	38.02	28.28
2015/16	21.32	48.62	40.14	25.74	33.96	12.65
2016/17	14.51	24.07	38.54	18.78	23.98	10.47
2017/18	31.59	30.57	35.29	16.11	28.39	8.43
2018/19	39.78	45.98	32.73	24.11	35.65	9.41
Mean	21.11	48.52	37.40	20.62		
Std. Dev.	10.13	23.31	14.21	9.55		

ROA

Year	ALICL	SLICL	GLICL	PLICL	Mean	Std. Dev.
2011/12	6.03	22.38	7.03	22.56	14.50	9.21
2012/13	4.35	8.26	5.46	10.16	7.06	2.64
2013/14	1.81	6.58	2.69	5.66	4.19	2.29
2014/15	2.83	2.43	1.89	5.87	3.26	1.79
2015/16	7.54	8.42	.79	5.82	5.64	3.41
2016/17	2.95	9.61	.85	9.44	5.71	4.49
2017/18	2.99	5.06	1.23	5.70	3.75	2.04
2018/19	3.51	5.83	1.29	10.12	5.19	3.77
Mean	4.00	8.57	2.65	9.42		
Std. Dev.	1.90	6.02	2.34	5.70		

ROE

Year	ALICL	SLICL	GLICL	PLICL	Mean	Std. Dev.
2011/12	8.28	4.35	5.15	8.28	6.52	2.06
2012/13	6.15	4.57	4.13	6.15	5.25	1.05
2013/14	4.14	3.35	2.32	4.14	3.49	.86
2014/15	3.26	1.68	1.68	3.26	2.47	.91
2015/16	1.22	5.46	.76	4.30	2.94	2.30
2016/17	.46	3.93	.80	3.74	2.23	1.86
2017/18	.99	2.42	1.11	2.31	1.71	.76
2018/19	.30	2.98	1.08	2.60	1.74	1.26
Mean	3.10	3.59	2.13	4.35		
Std. Dev.	2.93	1.23	1.65	1.98		

APPENDIX II

Means

Report

Value

Variables	N	Minimum	Maximum	Mean	Std. Deviation
Size	32	131.33	5918.88	2133.6606	1362.68492
Liquidity	32	2.10	31.34	8.0175	5.79854
Volume of capital	32	1.05	11.69	2.7994	2.58553
Fixed assets	32	.61	25.35	5.1250	5.67315
Growth rate	32	8.76	91.70	31.9109	18.81564
Return of assets (ROA)	32	.79	22.56	6.1606	5.11525
Return of equity (ROE)	32	.30	8.28	3.2922	2.11030
Total	224	.30	5918.88	312.9952	901.79579

Correlations

Correlations

		Return of assets (ROA)	Size	Liquidity	Volume of capital	Fixed assets	Growth rate
Return of assets (ROA)	Pearson Correlation	1	-.486**	-.493**	.075	.487**	.016
	Sig. (2-tailed)		.005	.004	.683	.005	.931
	N	32	32	32	32	32	32
Size	Pearson Correlation	-.486**	1	.460**	-.266	-.388*	-.245
	Sig. (2-tailed)	.005		.008	.141	.028	.177
	N	32	32	32	32	32	32
Liquidity	Pearson Correlation	-.493**	.460**	1	-.361*	-.415*	-.170
	Sig. (2-tailed)	.004	.008		.042	.018	.351
	N	32	32	32	32	32	32
Volume of capital	Pearson Correlation	.075	-.266	-.361*	1	.600**	-.074
	Sig. (2-tailed)	.683	.141	.042		.000	.686
	N	32	32	32	32	32	32
Fixed assets	Pearson Correlation	.487**	-.388*	-.415*	.600**	1	-.094
	Sig. (2-tailed)	.005	.028	.018	.000		.607
	N	32	32	32	32	32	32
Growth rate	Pearson Correlation	.016	-.245	-.170	-.074	-.094	1
	Sig. (2-tailed)	.931	.177	.351	.686	.607	
	N	32	32	32	32	32	32

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Correlations

Correlations

		Return of equity (ROE)	Size	Liquidity	Volume of capital	Fixed assets	Growth rate
Return of equity (ROE)	Pearson Correlation	1	-.336	-.013	-.360*	.126	-.156
	Sig. (2-tailed)		.060	.944	.043	.491	.393
	N	32	32	32	32	32	32
Size	Pearson Correlation	-.336	1	.460**	-.266	-.388*	-.245
	Sig. (2-tailed)	.060		.008	.141	.028	.177
	N	32	32	32	32	32	32
Liquidity	Pearson Correlation	-.013	.460**	1	-.361*	-.415*	-.170
	Sig. (2-tailed)	.944	.008		.042	.018	.351
	N	32	32	32	32	32	32
Volume of capital	Pearson Correlation	-.360*	-.266	-.361*	1	.600**	-.074
	Sig. (2-tailed)	.043	.141	.042		.000	.686
	N	32	32	32	32	32	32
Fixed assets	Pearson Correlation	.126	-.388*	-.415*	.600**	1	-.094
	Sig. (2-tailed)	.491	.028	.018	.000		.607
	N	32	32	32	32	32	32
Growth rate	Pearson Correlation	-.156	-.245	-.170	-.074	-.094	1
	Sig. (2-tailed)	.393	.177	.351	.686	.607	
	N	32	32	32	32	32	32

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Regression

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	Growth rate, Volume of capital, Size, Liquidity, Fixed assets[b]	.	Enter

a. Dependent Variable: Return of assets (ROA)

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.708[a]	.501	.405	3.94646

a. Predictors: (Constant), Growth rate, Volume of capital, Size, Liquidity, Fixed assets

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	406.200	5	81.240	5.216	.002[b]
	Residual	404.938	26	15.575		
	Total	811.138	31			

a. Dependent Variable: Return of assets (ROA)

b. Predictors: (Constant), Growth rate, Volume of capital, Size, Liquidity, Fixed assets

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	11.644	2.886		4.034	.000
	Size	-.001	.001	-.282	-1.696	.102
	Liquidity	-.291	.147	-.330	-1.981	.058
	Volume of capital	-.820	.348	-.414	-2.358	.026
	Fixed assets	.433	.169	.480	2.568	.016
	Growth rate	-.026	.040	-.095	-.640	.128

a. Dependent Variable: Return of assets (ROA)

Regression

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	Growth rate, Volume of capital, Size, Liquidity, Fixed assets[b]	.	Enter

a. Dependent Variable: Return of equity (ROE)

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.709[a]	.503	.407	1.62462

a. Predictors: (Constant), Growth rate, Volume of capital, Size, Liquidity, Fixed assets

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	69.430	5	13.886	5.261	.002[b]
	Residual	68.624	26	2.639		
	Total	138.054	31			

a. Dependent Variable: Return of equity (ROE)

b. Predictors: (Constant), Growth rate, Volume of capital, Size, Liquidity, Fixed assets

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.649	1.188		5.595	.000
	Size	-.001	.000	-.478	-2.885	.008
	Liquidity	.020	.060	.054	.324	.249
	Volume of capital	-.575	.143	-.704	-4.018	.000
	Fixed assets	.134	.069	.360	1.927	.065
	Growth rate	-.032	.017	-.282	-1.914	.067

a. Dependent Variable: Return of equity (ROE)