

**MANAGEMENT OF PRE- AND POST- EARTHQUAKE-2015
CLAIMS AND THEIR EFFECT ON FINANCIAL PERFORMANCE OF
NON-LIFE INSURANCE COMPANIES IN NEPAL:
*A CASE STUDY OF SIDDHARTHA INSURANCE LTD. AND NECO
INSURANCE LTD.***

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RECOMMENDATION

This is to certify that the thesis

Submitted by

Ronesh Shrestha

Entitled

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INSURANCE COMPANIES IN NEPAL:

A CASE STUDY OF SIDDHARTHA INSURANCE LTD. AND NECO INSURANCE LTD.

has been prepared as approved by this department in the prescribed format of the Faculty of Management. This thesis is forwarded for examination.

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and found the thesis to be the original work of the student and written according to the prescribed format. We recommend the thesis to be accepted as partial fulfillment of the requirements for the Degree of Masters of Business Studies (MBS).

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DECLARATION

I hereby, declare that the work reported in this thesis entitled “**Management of Pre- and Post-Earthquake-2015 Claims and Their Effect on Financial Performance of Non-Life Insurance Companies In Nepal: A Case Study of Siddhartha Insurance Ltd. and Neco Insurance Ltd.**” submitted to Office of the Dean, Faculty of Management, Tribhuvan University, is my original work done in the form of partial fulfillment of the requirements for the Degree of Masters of Business Studies (MBS) under the supervision of Dr. Arhan Sthapit of Tribhuvan University.

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The thesis entitled on “**Management of Pre- and Post- Earthquake-2015 Claims and Their Effect on Financial Performance of Non-Life Insurance Companies in Nepal: A Case Study of Siddhartha Insurance Ltd. and Neco Insurance Ltd.**” has been prepared in the partial fulfillment for the Degree of Masters of Business Studies (MBS) under the supervision of Dr. Arhan Sthapit.

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ABBREVIATIONS

C.V.	:Coefficient of Variation
GDP	:Gross Domestic Products
IBNFR	:Incurred but Not Fully Reported
IBNR	:Incurred but Not Reported
NIL	:Neco Insurance Limited
P.E.	:Probable Error
R	:Correlation Coefficient
R ²	:Coefficient of Multiple Determinations
RBNFS	:Reported but Not Fully Settled
RBNS	:Reported but Not Settled
SIL	:Siddhartha Insurance Limited
S.D.	:Standard Deviation

CHAPTER-I

INTRODUCTION

1.1 General Background

In the world of uncertainty, people always seek for security of their lives and property. Due to the rapid development of economic and industrial sectors, several social and environmental changes have taken place which creates the uncertainty to human beings. Definitely no one can predict the unfortunate situation and amount of loss that could be generated with these changes. Hence, to cope with these unexpected situations insurance industry has been emerged. People live in society which is full of risks and uncertainty. Insurance is a device providing financial compensation to those who suffer from misfortune. In other words, insurance is the best means for security to human life and property from various risks. It is a kind of investment, from which one gets return only when certain loss occurred from predetermined incidents.

Insurance is defined as a form of risk management primarily used to hedge against unforeseen risks of contingent losses. It is the equitable transfer of the risks from the possibility of occurrence of losses from one person to another against a certain fixed amount of premium to the company as per the terms and conditions of the contract. Insurance companies performed three distinct jobs: i) Risk pooling, diversifying and loss compensation; ii) Risk management; and iii) Resource mobilization. Insurance enhance the economy through promoting financial stability, mobilizing savings, facilitating trade and commerce, enabling risk management, encouraging loss mitigation, fostering efficient capital allocation and substituting the complement of government social security programs (Skipper, 2001). In Nepal, insurance business is regulated by Insurance Board (Beema Samiti). Generally, insurance companies are considered as an important part of institutional investment because they invest in corporate securities as well as other collective investment schemes which in turn produce sufficient income to meet their obligations in the form of promised insurance benefits. Normally, insurance can be categorized as life insurance and non-life insurance which is also referred as general insurance.

After a massive earthquake hit Nepal in April-2015, various catastrophic were taken place in the country. During this particular period of time, the major impact could be seen on the insurance sectors as they have to meet their obligations. As per the published data of the Insurance Board

dated 18.02.2018, the total claim to be settled by non-life insurance companies stood as Rs. 16.69 billion, out of which Rs. 12.55 billion has been settled. The current study is also related with the analysis of pre- and post- financial performance of the non-life insurance companies after the massive Earthquake of April-2015 considering the impact of claim settlement through the case analysis of “Siddhartha Insurance Limited” and “Neco Insurance Limited”.

1.1.1 Brief of April-2015 Earthquake

A major magnitude of 7.8 richter scale Earthquake struck Nepal on April 25, 2015. It was the largest earthquake to strike Nepal in over 80 years. That tremor plus subsequent aftershocks left more than 9,100 people dead and nearly 25,000 others injured. Extensive damage was recorded throughout Nepal, particularly in the capital city of Kathmandu. The main jolt was later followed by a major magnitude of 7.3 richter scale aftershock on May 12, 2015. Extensive catastrophic damage to property was reported throughout Nepal. Hundreds of thousands of buildings collapsed across many parts of Nepal as a result of the Earthquakes. Several important historical buildings collapsed or sustained severe damage in Kathmandu and in the surrounding area including monuments that comprised the United Nations Educational, Scientific, and Cultural Organization’s cultural heritage site of the Kathmandu Valley. More than 30 monuments in the Kathmandu valley were collapsed. Nepal’s state utility provider, Nepal Electricity Authority reported that 16 hydropower facilities – out of 23 that were operational were significantly damaged. The worst impact of the Earthquake was in the districts of Sindhupalchowk, Dolakha and Nuwakot. A World Bank assessment tentatively listed total economic damage solely in Nepal at USD 5.10 billion and valued additional economic losses including business interruption and specific sector losses at nearly USD 1.90 billion. This value is equivalent to more than one-third of Nepal’s entire GDP.

1.1.2 Insurance in Nepal

The insurance in Nepal does not have a long history. Modern insurance company began from 1947 A.D. Due to the 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 Chalani ra 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)”.

Beema Samiti (Insurance Board) is the insurance regulatory authority of all the life and non-life insurance companies of Nepal. The word ‘Beema’ means ‘Insurance’ and ‘Samiti’ means ‘Board’. Hence, the word ‘Beema Samiti’ is synonymous to the Insurance Board which is constituted to systematize, regularize, develop and regulate the insurance business within the country under Insurance Act, 1992. This Insurance Board looks after all the insurance related activities in the state of Nepal. As a regulatory body, its main concern is to create a professional, healthy and develop insurance markets in Nepal.

Furthermore, after the restoration of democracy in 1990 A.D., insurance environment began to change simultaneously along with other factors. Thus, to meet the requirements of the changing situation, Insurance Act, 1968 was repealed by the new Insurance Act, 1992 (Beema Ain, 2049). The preamble of the Act clearly states about the purpose of the new Act i.e. to establish an Insurance Board in order to systematize, regularize, develop and regulate the insurance business. To achieve the goal of the preamble, Beema Samiti (Insurance Board) is formed as an autonomous body the Insurance Act of 1992.

1.2 Brief Profile of Sample Non-Life Insurance Companies

Although there are various non-life insurance companies in Nepal, the present study has covered the following two non-life insurance companies:

1.2.1 Siddhartha Insurance Limited

Siddhartha Insurance Limited was established in the year 2006. The company is one of the fastest growing insurance companies in Nepal with strong presence in the form of 54 branches. The company is being promoted by leading business houses, industrial conglomerate and institutions. The shareholder’s pattern and capital structure of Siddhartha Insurance Limited has been illustrated in the table below:

Table 1.1 Shareholder’s Pattern of SIL

Subscription	% Holding
Promoter Shareholders	51.00%
Siddhartha Bank Limited	15.00%
General Public	34.00%

Note: Website of SIL

Table 1.2 Capital Structure of SIL

Capital	Rs. (In Crore)
Authorized Capital	100.00
Issued Capital	53.45
Paid-up Capital	44.83

Note: Website of SIL

1.2.2 Neco Insurance Limited

Neco Insurance Limited is a limited liability company registered under the Company Act, 2021 B.S. incorporated on 16.12.1994. It has been operating general insurance business in Nepal since 30.05.1996 as per the license granted by Insurance Board of Nepal. The company is operating its business through 27 service outlets nationwide. The table below illustrates the shareholder’s pattern and capital structure of NIL.

Table: 1.3 Shareholder’s Pattern of NIL

Subscription	% Holding
Promoter Shareholders	60.00%
General Public	40.00%

Note: Website of NIL

Table 1.4 Capital Structure of NIL

Capital	Rs. (In Crore)
Authorized Capital	100.00
Issued Capital	64.80
Paid-up Capital	32.40

Note: Website of NIL

1.3 Statement of the Problem

In the recent perspective regarding the development of the economy, the role of insurance industry is equal as the role of banking industry. The sound financial health of the insurance is very important as the insurance companies may declare insolvent against the predetermined clause at any particular period of time. So, it is an essential task for the regulators, investors and the insurance companies itself to have a periodic evaluation and monitoring of the financial condition of the insurance companies especially after the massive April-2015 Earthquake which had adversely affected the non-life insurance companies to a greater extent than the life insurance companies. It is because the non-life insurance companies have to face the large number of claims from the Earthquake victims. As per the published data of Insurance Board dated 18.02.2018, almost all of the non-life insurance companies except NB Insurance Company Limited, have to face the claims obligations of total Rs. 16.69 billion out of which Rs 12.55 billion or 75.19 percent of total claims have been only settled till 18.02.2018. Based on this fact, this study will try to seek the answers of the following statements relating to the selected non-life insurance companies:

1. Do the selected non-life insurance companies are been able to maintain the minimum acceptable level of financial status as before the April-2015 Earthquake throughout the review period?
2. Are the present policyholders safe in terms of their claim settlement procedures and duration after addressing the huge claims generated from the April-2015 Earthquake?

1.4 Objectives of the Study

The core objective of the study is to examine the pre- and post- financial performance of the two non-life insurance companies after the massive Earthquake of April-2015 in Nepal considering the impact of the claim settlement. The specific objectives of the study are listed below:

1. To evaluate the pre- and post- April-2015 Earthquake impact on the performance of the selected non-life insurance companies through the analysis of different ratios;
2. To evaluate the efficiency of the claim settlements of the selected non-life insurance companies before and after the April-2015 Earthquake.

1.5 Significance of the Study

The massive Earthquake of April-2015 brought the physical and economic devastation in Nepal. Most of the physical destructions were covered by the insurance companies that help the economy to overcome from the greatest disaster. Thus, this study is useful to the policyholders to examine whether the selected non-life insurance companies have the sufficient reserve or not to meet their unexpected claims easily and timely after the April-2015 Earthquake. This study will also be useful to the management and the general public to examine the Earthquake (April-2015) impact on the financial performance of the selected non-life insurance companies considering the impact of the claim management for the Earthquake victims.

1.6 Organization of the Study

This study has been divided into five chapters. Each chapter has different following aspects:

Chapter I: Introduction

The introduction chapter briefly explains about the general background of the study that has been undertaken followed by the brief of April-2015 Earthquake and introduction of insurance in Nepal. It also discusses about the statement of the problem, objectives of the study, significance of the study and organization of the study.

Chapter II: Review of Literature

The second chapter reviews the articles, journals, literature and relevant researches pertinent to the study. This chapter contains conceptual framework and research review of related study by different researchers to assess the research gap.

Chapter III: Research Methodology

The third chapter describes the methods that are used to conduct the research to achieve its objectives. This chapter consists of research design, nature and sources of data, population and sample and methods of analysis that includes financial tools and statistical tools and limitations of the study for analyzing the claim management and financial efficiency of SIL and NIL.

Chapter IV: Presentation and Analysis of Data

The study is fully based on the secondary data. This chapter deals with the presentation and analysis of data. Tables, charts along with various financial and statistical tools have been used to analyze and interpret the data.

Chapter V: Summary, Conclusions and Recommendations

This is the final chapter of the study which consists of the summary of the four earlier chapters. This chapter draws a conclusion of the study and attempts to offer various suggestions and recommendations for the improvement of the future performances of the selected non-life insurance companies.

CHAPTER-II

REVIEW OF LITERATURE

Review of literature means reviewing the previous research studies or other pertinent propositions in the related area of the study so that the conclusions and deficiencies of the past studies may be known and further research can be conducted. A literature review is a critical and in-depth evaluation of previous researches. It is focused and directed towards specific purposes. The major objective of this chapter is to review the different available literature from various sources that are relevant to the study. This chapter has been divided into the following categories:

- Conceptual Framework
- Review of Studies
- Concluding Remarks

2.1 Conceptual Framework

This sub-chapter presents the theoretical aspects of the research topic. It includes the following:

- Insurance
- Claims Procedures
- Reinsurance

2.1.1 Insurance

Insurance is a form of risk management primarily used to hedge against the risk of a contingent and uncertain losses. An entity which provides insurance is known as an insurer or insurance company and a person or entity who buys insurance is known as an insured or policyholder. Thus, insurance is a special type of contract between an insurance company and its policyholder in which the insurance company agrees that on the happening of certain events, the insurance company will make payment to its policyholder against the certain fixed amount paid by the policyholders at a regular interval of time called a premium. The insurance contract acts as fundamental base that provides the detailed conditions and circumstances under which the insurer will compensate the insured. If the insured experiences a loss which is potentially covered by the insurance contract then the insured submits a claim to the insurer for processing.

Accordingly, the insurer also may hedge its own risk by taking out reinsurance under which another insurance company agrees to cover some of the risk especially if the risk is too large for the primary insurer to carry. To illustrate how the insurance company works, the following framework is discussed below:

1. Choose a Policy

An insurance policy is a document that lists exactly what the policyholders are or aren't protected against. For example, as per the terms and conditions of the insurance policy, a travel insurance policy will cover the medical bills if the policyholders would injure abroad or domestically during the travel.

2. Pay the Premium

The premium is the amount that the policyholders pay each month or year (or sometimes just once) to have the insurance. The amount that the policyholders pay depends on the risk and on the value of the events for which the policyholders are insuring. For example, if someone is an inexperienced driver it is more likely that he or she will have an accident, so the insurance will cost more for such people if they take the insurance service.

3. Make a Claim

If something happens that is covered by the policy then the policyholder can claim against the insurance company. The policyholders need to tell the insurance company regarding the reason for claiming which in further the insurance company will verify whether the claim is covered under the policy or not and if the claim meets with what the policyholder is protected against then the insurance company pay the policyholder as agreed.

2.1.1.1 Types of Insurance Company

People always seek protection of their lives and property. So, to protect the interest of the people physically and economically, the insurance companies provide the service through the following two insurance companies:

1. Life Insurance Company

Life insurance is a contract between the policyholder and the insurance company under which the insurance company promises to pay a designated beneficiary a sum of money in exchange for

a premium upon the death of an insured person (often the policyholder). For this, the policyholder pays a premium either regularly or as one lump sum. However, specific exclusions are often written into the contract to limit the liability of the insurance company such as claims relating to suicide, fraud, war and riot. Depending on the nature of protection, life insurance policies are classified as follows:

a) Term Life Insurance

Term life insurance stays in effect for a specified period of time or until a certain age of the policyholders.

b) Whole Life Insurance

Whole life insurance normally covers the policyholder until his or her death. This type of insurance policy exists unless the policy is terminated due to the non-payment of premium.

2. Non-Life Insurance Company

Non-life insurance company is also known as general insurance company. Non-life insurance is a contract between the policyholder and the insurance company under which the insurance company provides the security to the policyholder against the property and financial risk. It excludes the products of life insurance. Non-life insurance protects the policyholders from the financial impact of risks created by human beings such as theft and accidents or natural calamities such as flood, storm and earthquake against the things they value such as homes, cars and other valuables products. Depending on the nature of protection, non-life insurance policies are classified as follows:

a) Motor Insurance

Motor insurance covers all damages and liability to a vehicle against various on-road and off-road emergencies. A comprehensive policy even secures against damage caused by natural and man-made calamities. Common motor insurance includes:

- Car Insurance
- Two Wheeler Insurance
- Commercial Vehicle Insurance

b) Health Insurance

Health insurance covers the medical and surgical expenses of the insured individual due to the hospitalization from an illness. It guarantees peace of mind in times of financial crisis and helps secure own health and that of one's family. A health insurance policy is the only way to mitigate the financial risk in case of medical emergency. Common types of health insurance policies include:

- Individual Policy
- Family Floater Policy
- Surgery Cover

c) Travel Insurance

Travel insurance is also referred as visitor insurance. It covers one against unseen medical and non-medical emergencies during overseas travel ensuring a worry-free travel experience. The premium under travel insurance is small which is to be paid in the event of an accident such as losing the luggage, loss of passport, delayed flights, accidental death etc. Different types of travel insurance policies include:

- Individual Travel Policy
- Family Travel Policy
- Student Travel Policy

d) Home Insurance

Home insurance protects the house and/or the contents in it depending on the scope of insurance policy opted for. It secures the home against the natural calamities and man-made disasters and threats. Home insurance provides protection against risks and damages from fire, burglary, theft, flood, earthquakes etc. covering the physical assets and valuables contents in it. The common types of home insurance policies include:

- Special Perils Policy
- Content Insurance
- Public Liability Coverage

e) Marine Insurance

Marine insurance is also referred as cargo insurance. Marine insurance covers goods, freight, cargo and other interests against the loss or damage during transit by rail, road, sea and/or air. Shipments are protected from the time the goods leave the seller's warehouse till they reach the buyer's warehouse. The party responsible for insuring the goods is determined by the sales contract. Marine insurance policy can be taken by buyers, sellers, import/export merchants, contractors etc. The common types of marine insurance policies include:

- Cargo Policy
- Hull Policy
- Freight Policy

f) Fire Insurance

Fire insurance protects the policyholders from the damages caused to the property or goods due to fire. Fire and home insurance policies are sometimes used interchangeably since the coverage they provide are almost the same; however the terms and conditions of both policies are different. It covers the replacement, reconstruction or repair expenses of the insured property. Some of the common fire insurance policies are listed below:

- Valued Policy
- Specific Policy

2.1.1.2 Importance of Insurance

Insurance is important to an individual, business and society. The importance of insurance are briefly explained below:

1. Safety and Security

The insurance provides safety and security against the loss on a particular event. In case of life insurance, payment is made when death occurs or the terms of insurance is expired. The loss to the family at a premature death and payment in old age are adequately provided by insurance. In other words, security against premature death and old age sufferings are provided by life insurance. Similarly, the insurance also provides the security against the loss at fire, loss at

damage, destruction or disappearance of property or under any contingency events that does not fall under the life insurance products.

2. Risk Sharing

Under the insurance, the risk of an individual is shared among the group of individuals. A large number of persons get insurance policies and pay premium to the insurer. Whenever a loss occurs, it is compensated out of funds of the insurer. Thus, it protects the policyholders against the large unexpected catastrophic casualties.

3. Provide the Returns to the Policyholders

Insurance collects the premium from the policyholders by underwriting the policies. These premiums are used to pay the policyholders against the contingency events as per the terms and conditions of the policy or else the amount collected from the premium is used by the insurance companies to invest in the income generating securities or the sectors which would provide a better yield to the company and the policyholders ultimately.

4. Continuation

In world of business, commerce and industry a huge number of properties are employed. With a slight slackness or negligence, the property may be turned into ashes. The accident may be fatal not only to the individual or property but to the third party also. The insurance covers such type of risk on the behalf of people who assure to give continuity to the business if any uncertain things happen in the future. Generally, such type of risk is large for the insurance companies themselves, so they also insure with the third party which is called as reinsurance.

2.1.1.3 Principles of Insurance

This sub-chapter provides the detailed guidelines or the principles under which both the life insurance and non-life insurance incorporates their activities which are briefly discussed below:

1. Principle of Utmost Good Faith

According to this principle, the insurance contract must be signed by both parties in an absolute good faith or trust. The person getting insured must willingly disclose and surrender to the insurer his or her complete true information regarding the subject matter of insurance. The insurer's liability gets void or legally revoked or cancelled if any facts about the subject matter of

insurance are either omitted, hidden, falsified or presented in a wrong manner by the insured. Same way the insurance company should disclose the terms of the policy to the insured at the time of soliciting an insurance policy.

2. Principle of Insurable Interest

Under this principle of insurance, the insured must have interest in the subject matter of the insurance. Absence of interest makes the contract null and void. If there is no insurable interest, an insurance company will not issue a policy. An insurable interest must exist at the time of the purchase of the insurance.

For example: a creditor has an insurable interest in the life of a debtor. Likewise, the owner of a taxicab has insurable interest in the taxicab because he or she is getting income from it. But if he or she sells it then he or she will not have an insurable interest left in that taxicab.

3. Principle of Indemnity

Indemnity means security or compensation against loss or damage. The principle of indemnity is such principle of insurance stating that an insured may not be compensated by the insurance company in an amount exceeding the insured's economic loss or would be compensated with the amount equivalent to the actual loss. This is a regulatory principal. This principle is observed more strictly in property insurance than in life insurance. The purpose of this principle is to set back the insured to the same financial position that existed before the loss or damage occurred.

4. Principle of Proximate Cause

Proximate cause literally means the nearest cause or direct cause. This principle is applicable when the loss is the result of two or more causes. This principle implies that whenever a claim is registered for a loss, the insurance company while settling the claim must look into the nearest or proximate cause of loss rather than the remote cause. If the proximate cause of loss is covered under the policy then only the insurance company shall admit any claim.

For example: A cargo ship's base was punctured due to rats which lead the sea water to enter the ship due to which cargo was damaged. Here, there are two causes for the damage of the cargo ship: i) The cargo ship getting punctured because of rats; and ii) The sea water entering the ship through puncture. The risk of sea water is insured but the first cause is not. The nearest cause of damage is sea water which is insured and therefore the insurer must pay the compensation.

However, in case of life insurance, this principle does not apply. Whatever may be the reason of death, whether a natural death or an unnatural death, the insurer is liable to pay the amount under the insurance policy.

5. Principle of Subrogation

This principle implies that once a loss is settled by the insurance company, the right over that property passes over to the insurance company who may deal with such property in any way as it deems fit. In other words, when the insured is compensated for the losses due to the damage to the insured property then the ownership right of such property shifts to the insurer. This principle is applicable only when the damaged property has any value after the event causing the damage. The insurer can benefit out of subrogation rights only to the extent of the amount he has paid to the insured as compensation.

For example: Mr. Ram insures his house for Rs. 1 million. The house is totally destroyed by the negligence of his neighbor Mr. Shyam. The insurance company shall settle the claim of Mr. Ram for Rs. 1 million. At the same time, it can file a law suit against Mr. Shyam for Rs. 1.2 million, the market value of the house. If the insurance company wins the case and collects Rs. 1.2 million from Mr. Shyam then the insurance company will retain Rs. 1 million (which it has already paid to Mr. Ram) plus other expenses such as court fees. The balance amount, if any will be given to Mr. Ram, the insured.

6. Principle of Contribution

This principle implies that if there are multiple insurers insuring the same loss then the insured can claim under the policy either from any one of the insurer or from the entire insurers in proportion to the loss as a contribution. The insured shall not claim for the same amount from different insurers i.e. he or she cannot make profit out of the loss by making the same claim from different insurers.

For example: Mr. Hari insures his property worth Rs. 1,000,000 with two insurers Siddhartha Insurance Limited for Rs. 600,000 and Neco Insurance Limited for Rs. 400,000. Hari's actual destroyed property is worth Rs. 600,000, then Mr. Hari can claim the full loss of Rs. 600,000 from Siddhartha Insurance Limited only or he can claim Rs. 360,000 from Siddhartha Insurance Limited and Rs. 240,000 from Neco Insurance Limited. So, if the insured claims full amount of

the compensation from one insurer then he or she cannot claim the same compensation from other insurer and makes a profit. Secondly, if one insurance company pays the full compensation then it can recover the proportionate contribution from the other insurance company.

2.1.2 Claims Procedures

Insurance companies try to make the claims process as smooth as possible but the policyholder must go through a few steps in the claims process. This sub chapter describes the various stages that a claim goes through from its occurrence to conclusion on the following points:

a) Claim Notification

Most policies state that the insured should notify their insurer of a claim promptly. The initial report may be verbal but the insured will be required to give further information by completion of a claim form. For liability claims, the insured is required to forward all correspondences to his or her insurer. It is the insured's responsibility to prove that they have suffered a loss and the loss was caused by a peril which is covered by the policy. The policyholder must also prove the amount of loss on various ways like purchase receipts, repair account or a valuation. Besides, an insurer also needs to separate genuine claims from fraudulent ones.

b) Claim Review

This involves analysis of the claim, comparison of information in claim form with what was provided in the proposal form, interpretation of the policy in light of the claim, economic considerations such as decision on whether the claim is too small to warrant further investigations or the need to call for additional documentation. Alternatively, a large claim may justify further investigations or legal action. The insurer needs to check that the policy was in force at the time of loss, the insured's details are as per proposal form, the peril insured against is covered by the policy, the insured has complied with the policy terms and conditions and that the loss claimed against does not fall under an exclusion. Claims review is a crucial stage in the claims process, in view of likely conflicts arising from policy interpretation, economic considerations, market practice and legal requirements.

c) Response to Claimant

The initial response is usually an acknowledgment or a request for further information. Once the insurer is satisfied with information given, they either convey decision to pay or decline to pay the claim. A third response may be offered to pay a lower amount than that claimed or enter into the negotiations with the insured without initially making any offer. This is in a situation where liability is accepted but insurer is not satisfied with amount claimed. Whether the insurer intends to decline a claim or enter into negotiation, they must convey to the insured their reasons for the decision and also assure that the insured is satisfied with the decision so that it avoids the insured resorting to litigation.

d) Claim Investigation

In some cases, the insurer may not have full facts of the claim and is unable to make a decision on a claim. They may therefore require to appoint an investigator to carry out an investigations and file a report to the insurer. This is mainly for motor and liability claims. Investigations are also necessary if a claim is suspected to be fraudulent. The nature of other claims requires an insurer to appoint a loss adjuster to establish liability and quantum of the claim. This is especially for property claims including fire, burglary and marine among others. In the case of motor claims, a motor assessor assesses the extent of damage to the vehicle and establishes the cost of repairs. He also advises whether to repair the vehicle or treat it as a constructive total loss and pay insured pre-accident value of the vehicle. Once investigations are completed, the insurer is expected to convey findings and next course of action to the insured. The investigator must exercise speed but also be efficient. The report should be comprehensive, covering all the salient features of the claim while bringing out the issues in an orderly and clear manner.

e) Claim Settlement

Where liability is not in dispute and both insurer and insured are in agreement on quantum, settlement follows immediately. However, in situations where either liability or quantum is in dispute, the claim is delayed. In some cases, especially for the liability claims, they are determined in court. Once the insured reports a claim and provides all the required documents, the insurer shall admit liability or deny liability. The insurer also determines the amount payable to the claimant and pays the claim within ninety days from the date of reporting the claim. If

liability is determined by court then insurer must settle the claim within ninety days of the court determination.

f) Claim Recoveries

An insurer may require recovering all or part of their outlay. There are four sources of recovery; from a third party who was to blame for the accident, from a party insurer who has subrogation rights against, from a reinsurer if reinsurance protection is in place or from sale of salvage.

g) Review of Performance

It is necessary to review the claims from time to time in order to ensure that internal decisions were correctly made, that the reserve maintained for a file is adequate and whether any lessons can be learnt from experience from a particular claim. The review is carried out from a sample of files and any large or problematic claims.

h) Litigation

The insured and insurer may fail to reach a desirable solution to a claim, and in such a case, the insured may resort to litigation. The court listens to both the insured and the insurer and makes a ruling on both liability and quantum. Liability claims are usually determined by court after the aggrieved party files a case in court. Liability claims arise out of legal liability for incidents involving injury to third parties or damage to their property.

i) Outsourcing of the Claims Function

Outsourcing means using skilled resource outside the company to handle work traditionally performed by in-house staffs. An insurer may outsource all of the above processes but may also opt to outsource some of them. Though some insurers have in-house assessors, investigators and loss adjusters, most insurers outsource these functions to independent service providers.

2.1.3 Reinsurance

Reinsurance is a process whereby one entity (the reinsurer) takes on all or part of the risk covered under a policy issued by an insurance company in consideration of a premium payment. In other words, it is a form of an insurance cover for insurance companies. Reinsurance allows insurance companies to remain solvent after major claims events such as major disasters like hurricanes, earthquake, landslides etc. The basic role of reinsurance is risk management. But

sometimes it is used for tax mitigation and other reasons also. The insurance company that purchases the reinsurance policy is called a "ceding company" or "cedent" or "cedant" under most arrangements whereas the company issuing the reinsurance policy is called as the "reinsurer". A company that purchases reinsurance pays a premium to the reinsurance company, who in exchange would pay a share of the claims incurred by the purchasing company. The reinsurer may be either a specialist reinsurance company which only undertakes reinsurance business or another insurance company.

2.1.3.1 Methods of Reinsurance

There are two methods through which the insurance companies reinsure themselves and they are briefly discussed below:

1. Facultative Reinsurance

Facultative reinsurance is normally purchased by ceding companies for individual risks not covered or insufficiently covered by their reinsurance treaties for amounts in excess of the monetary limits of their reinsurance treaties and for unusual risks. Under this method, each policy is negotiated separately that is reinsured. Underwriting expenses and personnel costs are higher for such business because each risk is individually underwritten and administered. Ultimately, a facultative certificate is issued by the reinsurance company to the ceding company reinsuring that one policy.

2. Treaty Reinsurance

Treaty Reinsurance means that the ceding company and the reinsurer negotiate and execute a reinsurance contract under which the reinsurer covers the specified share of all the insurance policies issued by the ceding company which come within the scope of that contract. The reinsurance contract may oblige the reinsurer to accept reinsurance of all contracts within the scope or it may allow the insurer to choose which risks it wants to cede with the reinsurer obliged to accept such risks.

2.1.3.2 Types of Reinsurance

The insurance company can choose any one of the below reinsurance types for the reinsurance facility:

1. Proportional Reinsurance

Under proportional reinsurance, one or more reinsurers take a stated percentage share of each policy that an insurer issues or writes. The reinsurer will then receive that stated percentage of the premiums and will pay the stated percentage of claims. In addition, the reinsurer will allow a ceding commission to the insurer to cover the costs incurred by the insurer mainly acquisition and administration.

The arrangement may be quota share or surplus reinsurance or a combination of the two. Under a quota share arrangement, a fixed percentage of each insurance policy is reinsured. Under a surplus share arrangement, the ceding company decides on a retention limit say Rs. 100,000. The ceding company retains the full amount of each risk, with a maximum of Rs. 100,000 per policy or per risk and the balance of the risk is reinsured. The ceding company may seek surplus reinsurance to limit the losses it might incur from a small number of large claims as a result of random fluctuations in experience.

The ceding company may seek a quota share arrangement for several reasons. First, it may not have sufficient capital to prudently retain all of the business that it can sell. For example, it may only be able to offer a total of Rs. 100 million in coverage but by reinsuring 75 percent of it so that it can sell four times as much.

2. Non-Proportional Reinsurance

Under non-proportional reinsurance, the reinsurer only pays out if the total claims suffered by the insurer in a given period exceed a stated amount which is called the retention. For instance the insurer may be prepared to accept a total loss up to Rs. 1.00 Crore and purchases a layer of reinsurance of Rs. 4.00 Crore then the insurer would bear Rs. 1.00 Crore of the total loss and will recover Rs. 2.00 Crore from its reinsurer. However, the insurer retains any excess of loss over Rs. 4.00 Crore unless it has purchased a further excess layer of reinsurance.

2.1.3.3 Functions of Reinsurance

Almost all the insurance companies have a reinsurance program. The ultimate goal is to reduce their exposure to loss by passing part of the risk of loss to the reinsurer or a group of reinsurers. The functions of reinsurance are briefly discussed below:

1. Risk Transfer

With reinsurance, the insurer can issue policies with higher limits than would otherwise be allowed thus being able to take on more risk because some of that risk is now transferred to the re-insurer.

2. Income Smoothing

Reinsurance can make an insurance company's results more predictable by absorbing larger losses and reducing the amount of capital needed to provide coverage. The risks are diversified with the reinsurer bearing some of the loss incurred by the insurance company. The income smoothing comes forward as the losses of the cedants are essentially limited.

3. Surplus Relief

Proportional treaties provide the cedent with surplus relief. Surplus relief is the capacity to write more business and/or at larger limits.

4. Arbitrage

The insurance company may be motivated by arbitrage in purchasing reinsurance coverage at a lower rate than they charge the insured for the underlying risk. In general, the reinsurer may be able to cover the risk at a lower premium than the insurer because the reinsurer may have some intrinsic cost advantage due to economies of scale or some other efficiency. Reinsurers may operate under weaker regulation than their clients. This enables them to use less capital to cover any risk and to make less conservative assumptions when valuing the risk. Similarly, reinsurers will often have better access to underwriting expertise and to claims experience data, enabling them to assess the risk more accurately and reduce the need for contingency margins in pricing the risk.

5. Reinsurer's Expertise

The insurance company may want to avail itself of the expertise of a reinsurer, or the reinsurer's ability to set an appropriate premium in regard to a specific risk. The reinsurer will also wish to apply this expertise to the underwriting in order to protect its own interests.

2.2 Review of Studies

This section explains the previous studies in the field of insurance companies. There are so many studies made by different national and international scholars which are overviewed and discussed further:

2.2.1 Review of Journal and Articles

Articles, journals and bulletins have great significance for conducting research study. So, various published articles by different management experts and journals or bulletins relating to the claim management and its effect on the financial performance of the insurance companies have been analyzed.

Chellasamy & Valarmathi (2017) used the CARMEL model to identify the relationship between the components of CARMEL and to analyze the financial performance of the top five general insurance in India based on the data of 2006-2007 to 2015-2016. Insurance companies are exposed to different types of risk by doing their core business, starting from underwriting risks that are accepted from insurers through investment risks to the non-technical risks such as management risk, business risk and legal risk. Based on the study, all the companies performed well during the period of study. However, this study revealed that to remain competitive in the market the insurance companies should pay proper attention to capital adequacy, liquidity positions and management soundness because these indicators play an important role to increase the financial efficiency.

Lawrence, Evans & Richard (2017) described how the inadequacies outstanding claim provision be the main cause of bankruptcy of an insurance industry which might lead to the insolvency of the investors and the stakeholders if failed to detect the manipulation on time. The article discussed about the different factors like paid claims, reinsurance issued premium and size of firm as well as macroeconomic variables such as inflation, investment rate and real GDP growth

rate that affect the outstanding claim provision by taking the data of 22 non-life insurance firms covering the period 2007-2012. The results show that the claims paid and reinsurance issued premiums are negatively related to outstanding claim provision. Similarly, size and the real GDP growth rate were found to be positively related with reported outstanding claim provision in the Ghanaian non-life insurance industry.

Yordanova & Stoykov (2016) analyzed the claims received by Bulgarian insurance company and the model adopted to examine the claim count per period and claim size. The article described the claims in three different parts under the general insurance. From the occurrence of the claim to its notification to the insurance company, the claim is said to be Incurred but Not Reported (IBNR). After notification, the claim is known by the company and there may be some time before the complete payment is made. We call this claim Reported but Not Settled (RBNS). Other acronyms are IBNFR (Incurred but Not Fully Reported) and RBNFS (Reported but Not Fully Settled). The article includes 9168 fully paid claims of a Bulgarian insurer originated from housing insurance between 2009 and 2015 years. The article also discussed the applicability of the model as:

- Occurrence time of every claim;
- Declaration time of every claim;
- Time of payment done for every claim;
- Amount paid for every claim.

The study in this paper shows that logarithm of the claim size of house insurance policies can be fitted by normal distribution, the number of claims per year or per month can be modeled by poisson distribution and inter-arrival time between two consecutive claims can be modeled by exponential distribution.

Ansari & Fola (2014) employed CARMEL model to analyze the variables of the life insurance companies. According to the result of this study, capital adequacy, asset quality, management efficiency, earnings/profitability and liquidity position significantly vary in private and public life insurance companies in India.

Derbali (2014) focused on the growth and profitability of the life insurance companies. According to the study, the company growth rate and age were identified which had a positive impact while company size affecting negatively the profitability of insurance companies.

However, variables such as leverage ratio, tangibility and liquidity risk were identified as had no significant impact on life insurance companies' profitability.

Ghimire (2013) conducted the analytical study to understand the level of soundness of 16 private sectors non-life insurance companies of Nepal using the financial ratios based on CARMEL. The study took the data of the year 2006 to 2011. The study revealed that the overall financial efficiency of the non-life insurance companies during the study period was not good. The ratios which have negative impact on the financial health were in increasing trend and the ratios which play the positive role on financial efficiency were in decreasing trend.

Joo (2013) analyzed that the insurance sector has undergone significant transformation after liberalization. This is also true with Indian insurance market where insurance penetration and density is very low compared to other countries. Therefore, many foreign insurance companies were lured to make entry in Indian insurance in order to insulate positive spread from large untapped insurance market, mainly by entering into joint venture with local partners. Thus Indian insurance market after liberalization was assaulted by the pressure of globalization, competition from multinational insurance companies and lavish underwriting chase which are seen as threats as well as opportunities for insurance companies. However, entry of new players has resulted into heavy underwriting losses for Indian public and private insurers. But heavy underwriting losses had reverse impact on their solvency margins. In present study, the Insurance Solvency International Ltd. (ISI) predictors have been employed to study the solvency position of Indian non life insurers. Further, study highlights the extent of relationship between various factors and solvency of non life insurers in India by using multiple regression analysis. The result of the study has shown that claim ratio and firm size have greater impact on solvency position of insurance companies.

Gurung (2011) analyzed the performance of insurance business in Nepal through the use of simple percentage and correlation coefficient on the quantitative data. The study reveals that there were altogether 25 insurance companies viz. 8 life insurance and 16 non-life insurance and one offer both life and non-life services. They have altogether 340 branch offices in Nepal. The growth of insurance policies for both life and non-life insurance companies had been increasing and significant during the study period. Similarly, the progressive trend of premium collection reached to 48 percent for non-life and 37.06 percent for life insurance in FY 2066/67 and

contributed 1.70 percent in GDP of the economy. Moreover, the investment of insurance companies has been positive but fluctuating over the period under study. However, the correlation coefficient between total premium collection and total investment is positive with $r=0.97$ and significant as its P.E is only 0.0163. These facts reveal that the performance of insurance business in Nepal is satisfactory.

Quaiser (2007) focused on the claim settlement facilities of the non-life insurance companies. According to the study, unlike life insurance, where all policies necessarily result in claims either maturity or in death, general insurance not all policies result in claims. Approximately around 15 percent policies in general insurance result in claim. He concluded “insurer’s procedure for handling claims are coming under closer scrutiny by the regulators as well as the consumers’ forum or court. If recent judgments are any indication, in so far as retail customers are concerned in the absence of any frauds the insured may not be able to repudiate the claim on the ground of innocent non-disclosure or misrepresentation of facts and non-causation of breaches of warranty and get away with it”.

Roy, Vij & Goswami (2006) described about the claim management and processing which accounts to save an estimated 80 percent of operational cost for an insurance company. By automating all or some of the elements of the lengthy claims process, insurers can capture substantial cost savings and gain efficiency by providing a faster, more transparent, claimant friendly and participative experience. Key objectives of claim automation include automating first notification of loss, the initial customer/claimant touch points reducing manual processes, and streamlining workflow throughout the process.

Viscusi (2006) provided a detailed empirical examination of how catastrophic risk affects the performance of the market for homeowners’ insurers. This study described that in the absence of reinsurance, Progressive Financial, the fourth largest personal insurer of Florida went bankrupt resulting from the catastrophic effect of Hurricane Katrina. This event revealed that the catastrophic effect would come on a lump sum rather than year to year predictable pattern. This study considered the different catastrophic effects on different states of United States of America from the year 1984 to 2004. Through this study, the researcher came into conclusion that catastrophic risks pose considerable problems for the insurance industry. In addition, this study also concluded that catastrophic risks reduce the total premiums earned in the state which is not a reflection of lower

rates but rather a reflection of reduced amounts of insurance coverage that people purchase. One would expect the quantity of coverage to decline as the price of insurance rises but the results indicate that more than this influence is at work. Catastrophes lead to a reduction in the net number of firms writing insurance coverage in the state as well as an increase in the probability of exit from the state. As one would expect, these effects are greatest for the firms that are least able to withstand the major financial shock of a catastrophic event.

2.3 Concluding Remarks

Various studies in the international level and few studies in the national level have been conducted on the non-life insurance companies. A study made in another country may not be significant for our country since the policies and the mechanism of operating the non-life insurance companies are different on a country basis. Similarly, a research made on a particular period of time may not be true at all other point of time because the variables or data that have been undertaken for the study may have changed from time to time, hence, updating the result is also most important. Mainly most of the previous studies are focused on profitability and solvency of the non-life insurance companies. This study has been tried to be made different from previous studies on the ground of Nepalese non-life insurance companies by having a distinctive analysis of pre- and post- April-2015 Earthquake impact on the claim management and its effect on the financial performance of the non-life insurance companies.

During the literature review, no previous studies were found applying this technique on the selected non-life insurance companies, so there is a research gap and the present study has been performed to fulfill this research gap.

CHAPTER-III

RESEARCH METHODOLOGY

Research methodology is a sequential steps to be adopted by a researcher in studying a problem with certain objectives in view. It provides a basic framework on which the research is based. It is a planned and systematic way of dealing with collection, analysis and interpretation of facts and figures. In this chapter, the research design, data collection procedure and procedures concerning the analysis of data are described thoroughly.

3.1 Research Design

Research design is a framework that stipulates what sorts of information to be gathered from which source by what procedures. It is a planned structure and strategy of investigation conceived so as to obtain answers of questions and to control variance. This study is based on descriptive and analytical approaches. Descriptive approaches are adopted to interpret financial performance of the two non-life insurance companies through the analysis of pre- and post-April-2015 Earthquake impact on their financial performance. For the analytical part, financial tools and statistical tools are used with the help of published annual report.

3.2 Nature and Sources of Data

This study is mainly based on the secondary data. Secondary data refers to the data collected from various sources without the involvement of personal procedures for data collection through the field visit or any other sources. The required data for the study are collected from the published annual reports of the selected non-life insurance companies of the last five fiscal years ranging from 2012/13 to 2016/17. Similarly, some of the data is being gathered from the website of the Insurance Board.

3.3. Population and Sample

Population refers to the entire group of people, events or things of interest that a researcher wishes to investigate. As this study is related with the examination of the pre- and post-Earthquake (April-2015) impact on the claim management and its effect on the financial performance of the non-life insurance companies, all non-life insurance companies are taken into

account as a population. The reliability of the current study depends on the latest available data to depict the capability of the companies regarding the claim management and other financial ratios. Since, the data of most of the non-life insurance companies were not available on their official websites so out of the total population of 17 non-life insurance companies which are listed under Insurance Act 1992, following two non-life insurance companies are taken as a sample for the study.

The selected non-life insurance companies are:

- 1) Siddhartha Insurance Limited
- 2) Neco Insurance Limited

The selected non-life insurance companies shared the highest claim management proportion as compared to the other non-life insurance companies whose data were available. As per the data of Insurance Board dated 18.02.2018, the amount of estimated claim of Siddhartha Insurance Limited stood as Rs. 917.89 million out of which Rs. 707.80 million has been settled. Likewise, the amount of estimated claims of Neco Insurance Limited stood as Rs.619.30 million out of which 587.90 million has been settled. Hence, meeting of such huge amount of claims has definitely affected the performance of the selected non-life insurance companies.

3.4. Methods of Analysis

Specific financial and statistical tools are used in this research. The analysis of data is done according to pattern of data available. The calculated results are tabulated under different headings for ease of reading, and then they are compared with each other to interpret the results. Under the financial tools, different types of ratios are used to depict the financial strength and weakness before and after the April-2015 Earthquake. Similarly, under the statistical tools arithmetic mean, standard deviation, coefficient of correlation, coefficient of determination and probable error are used in the research. The tools used in the research are briefly discussed below:

3.4.1 Financial Tools

In recent times, the insurance industry has been going through a lot of changes which appear to have increased the vulnerability of this sector. After the massive April-2015 Earthquake, the

non-life insurance companies not only have to meet the huge claim obligation but also have to maintain and enhance its financial performance in order to remain competitive in the market. To evaluate the financial position and performance of any firm, ratio is used as a key tool for financial analysis. Financial analysis is the process of identifying the financial strength and weakness of the firm by properly establishing relationship between the items of the balance sheet and profit and loss account.

3.4.1.1 Capital Adequacy

Capital is considered as a buffer to protect the companies and promote the soundness on the financial system. It indicates whether the insurer has enough capital to absorb the losses arising from claims or not. Capital can also be defined as the money contributed by the proprietors to an organization. Thus, high capital adequacy ratio is the key indicator of an insurer's financial soundness position and prudential level. Analysis of capital adequacy depends critically on realistic valuation of both assets and liabilities of the insurance companies. Higher capital adequacy ratio means capital is sufficient for the smooth run of the insurance business. It is important for an insurance company to maintain policyholder's confidence and preventing the insurer from going bankrupt or insolvent. Under capital adequacy ratio following ratio is calculated:

1. Capital to Total Assets Ratio

Capital is considered as a cushion that protects the companies and promotes the stability and efficiency of the firm. It reflects the overall financial condition of the insurer and also the ability of management to meet the need of additional capital. This ratio is calculated by dividing the capital by the total assets of the non-life insurance companies.

$$\text{Capital to total Assets Ratio} = \frac{\text{Capital}}{\text{Total Assets}}$$

Where the Insurance Board describes the calculation of capital as:

Capital = Equity share capital + All Reserves–Deferred Tax Reserve–Loss Transferred from Profit and Loss Account–Insurance Reserve–Miscellaneous Expenses not written off

Total Assets = Fixed assets + Current assets + Investment +Loans and advances

3.4.1.2 Reinsurance and Actuarial Issues

Reinsurance and actuarial issues reflect the overall underwriting strategy of the insurer and depicts what proportion of risk is passed on to the reinsurers. Overall insurer's capital and reinsurance cover need to be capable of covering a severe risk scenario. If the insurer relies on reinsurance to a substantial degree, it is critical for the insurer to examine the financial health of its reinsurers. Under the reinsurance and actuarial issues, following ratio is calculated:

1. Risk Retention Ratio

Risk retention ratio serves as an indicator of insurance risk management policy of insurers. It indicates the level of risks retained by the insurer. The strength of the insurance companies' underwriting is brought out by its historical claims experience, degree of diversification in risks underwritten and the relative growth in business volumes. It reflects the overall underwriting strategy of the insurer and depicts what proportion of risk is passed on to the reinsurers. Higher ratio is preferable for the policyholders because if the ratio is high then it indicates that the company is capable to fulfill the claims on time and vice versa for the insurance companies. This ratio is calculated by dividing the net premium written by the gross premium.

$$\text{Risk Retention Ratio} = \frac{\text{Net Premium}}{\text{Gross Premium}}$$

3.4.1.3 Earnings and Profitability

The quality of earnings and profitability is a very important criterion that determines the ability of an insurer to earn consistently. An analysis of the earnings helps the management, shareholders and policyholders to evaluate the performance of the insurance companies, sustainability of earnings and to forecast growth of the insurance companies. Earnings are one of the key sources of inbuilt long term capital base for an insurance company. Profitability is vitally more important for assuring that the insurance companies stay in business or activity. Low profitability may signal fundamental problems of the insurer and may consider a leading indicator for solvency problems. The factors that affect the earnings and profitability of the non-life insurance companies are described below with the following ratios:

1. Incurred Claim Ratio

Incurred claim ratio is also known as loss ratio. Incurred claim ratio measures the company's loss experience as a proportion of premium income earned during the year. It is a reflection on the nature of risk underwritten and the adequacy or inadequacy of pricing of risks. This ratio can be analyzed from the company and policyholder point of view. From the company point of view, the lower ratio is considered as a good indicator because it depicts that most of the claims are fulfilled by the reinsurance companies, thus contributing more income to the profit and loss account of the insurance company in the form of net earned premium during the financial year. However, from the policyholder point of view, the higher ratio is considered as a good indicator because it depicts that the company is able to meet the claims of the policyholders on time. The incurred claim ratio is calculated as under:

$$\text{Incurred Claim Ratio} = \frac{\text{Net Claims Incurred}}{\text{Net Premium Earned}}$$

2. Claim Settlement Ratio

Claim settlement ratio is an important part of the insurance company and policyholder. Claim settlement ratio is the indicator how much claims have been settled during the end of the financial year. High ratio is preferable for policyholders because higher the ratio means lower the chances for claim rejection. The company prefers to have low claim settlement ratio because it affects their income which is not a good indicator for the economy too. It is calculated as under:

$$\text{Claim Settlement Ratio} = \frac{\text{Total Claims Paid During the Period}}{\text{Total Claims Received During the Period}}$$

3. Reinsurance Ratio

Reinsurance is a process through which the insurance companies insure themselves against the catastrophic affect. The insurance company calls for reinsurance because whenever the huge claim appears then the insurance company could easily meet its obligation without much hampering the size of its balance sheet. From the company point of view, higher the ratio, higher will be the profitable because the company can meet the unexpected huge claims without much liquidating its assets and without the use of excessive premium that it earns from undertaking the

insurance policies. On the other hand, the policyholder prefers low ratio because lower ratio indicates that the insurance companies can meet their claim without any delay and rejection. This ratio is calculated as under;

$$\text{Reinsurance Ratio} = \frac{\text{Claims Received from Reinsurance}}{\text{Total Claims Paid during the Period}}$$

4. Insurance Margin

There's typically a gap between the time someone pays their premiums and when a claim is paid. During this period, an insurer has cash in its hands which can be either placed in the bank account to collect interest or invest in other assets in search of higher returns. This ratio measures the average return on the company's invested assets in relation with the premium earned after deducting the premium which is paid to the reinsurance companies from the gross premium. It describes how the companies are generating the income from the investment on different securities and loans and advances. Both from the company and policyholder point of view, higher ratio is preferable because if the margin will be higher than the company could generate more income on the one hand whereas on the other hand this return will be directly forwarded to the policyholders in the form of claim amount and other returns. This ratio is calculated as under:

$$\text{Insurance Margin} = \frac{\text{Income from Investment, Loans and Others}}{\text{Net Premium}}$$

5. Return on Equity

Return on equity measures the profitability of the companies. It shows how many rupee of profit a company generates with each rupee of shareholders' equity. It is also known as return on net worth or return on capital. Under this ratio, higher return on equity is preferable because higher ratio depicts that the company is able to generate more profit even after meeting its claim obligation either through itself or through the reinsurance companies. This ratio is calculated as under:

$$\text{Return on Equity} = \frac{\text{Profit after Tax before the allocation of reserve and bonus}}{\text{Net Worth or Capital}}$$

Where,

Net Worth= Share Capital + Reserve and Surplus

3.4.1.4 Liquidity

Good liquidity helps an insurance company to meet policyholder's obligations promptly. An insurer's liquidity depends upon the degree to which it can satisfy its financial obligations by holding cash and investments that are sound, diversified and liquid or through operating cash flows. A high degree of liquidity enables an insurer to meet the unexpected cash requirements without untimely sale of investments which may result in substantial realized losses due to temporary market conditions and/or tax consequences. Liquidity is usually a less pressing problem for insurance companies at least as compared to banks, since the liquidity of their liabilities is relatively predictable and the liabilities, besides claims are also for shorter period of time. If this ratio is less than one, then the insurer's liquidity becomes sensitive to the cash flow from premium collections. The formula for computing this ratio is:

$$\text{Liquidity Ratio} = \frac{\text{Liquid Assets}}{\text{Current Liabilities}}$$

Where,

Liquid assets=Cash + Bank Balance + Short Term Investment

3.4.2 Statistical Tools

Statistical tools are the mathematical techniques that are used to analysis and interpret the results of performance. It is used to describe the relationship between the variables. This study holds the use of various statistical tools, which are discussed below:

1. Mean (\bar{X})

Arithmetic mean is the most popular and widely used measure of central tendency. It is also known as average. The arithmetic mean or average is the sum of total values to the number of observations in the sample. It represents the entire data which lies almost between the two extremes. For this reason an average is frequently referred to as a measure of central tendency. It is the mathematical representation of a typical value of a series of numbers computed as the sum

of all the numbers in the series divided by the count of all numbers in the series. It is obtained by dividing sum of obtain observations by the number of items. It is calculated as:

$$\bar{X} = \frac{\sum X}{N}$$

2. Standard Deviation (S.D.)

The measurement of the scatterings of the mass of figures in a series about an average is known as dispersion. S.D. is an absolute measurement of dispersion in which the drawbacks present in other measures of dispersion are removed. The high amount of dispersion reflects high standard deviation. The small standard deviation means the high degree of homogeneity of the observations. It is calculated for selected dependent and independent variable specified. It is the positive square root of the deviations of the variables from the arithmetic mean. The standard deviation is calculated as under:

$$SD = \sqrt{\frac{\sum(x - \bar{x})^2}{n - 1}}$$

3. Coefficient of Variation (C.V.)

C.V. reflects the relation between standard deviation and mean. The relative measure of dispersion based on the standard deviation is known as coefficient of standard deviation. The coefficient of dispersion based on standard deviation multiplied by 100 is known as C.V.

It is used for comparing variability of two distributions. If the \bar{X} be the arithmetic mean and the standard deviation of the distribution, then the CV is defined as:

$$C.V. = (S.D./Mean) \times 100\%$$

Less the C.V. more will be the uniformity, consistency and more the C.V., less will be the uniformity and consistency.

4. Coefficient of Correlation (r)

Correlation analysis is the statistical tools that we can use to describe the degree to which one variable is linearly related to another. Coefficient of correlation is the measurement of the degree

of relationship between two casually related sets of figures whether positive or negative. Its value lies somewhere ranging between -1 to +1. If both variables are constantly changing in the similar direction, the value of coefficient will be +1 indicative of perfect positive correlation. When the value coefficient will be -1 two variables take place in opposite direction. The correlation is said to be perfect negative. In this study, simple coefficient of correlation is used. In practical life, the possibility of obtaining either perfect positive or perfect negative correlation is very remote.

$$r = \frac{n \sum X_1 X_2 - \sum X_1 \sum X_2}{\sqrt{n \sum X_1^2 - (\sum X_1)^2} \sqrt{n \sum X_2^2 - (\sum X_2)^2}}$$

5. Coefficient of Determination (r²)

The coefficient of determination is the measure of the degree of linear association or correlation between two or more independent variables. It measures the percentage of total variation in dependent variables explained by independent variables. If r² has a zero value then it indicates that there is no correlation which means all the data points in scatter diagram fall exactly on the regression line. If it has the value equal to one then it indicates that there is perfect correlation and as such the regression line is the perfect estimator. But in most of the cases the value of r² will lie somewhere between these two extremes of 1 and 0. One should remember that r² close to one indicates a strong correlation between two variables and r² near to zero means there is little correlation.

6. Probable Error

It is the amount by which the arithmetic mean of a sample is expected to vary because of chance alone. The probable error of the coefficient of correlation helps in interpreting the value and measuring the reliability of the coefficient of correlation. It is a measure of the error of estimate for a sample from a normal distribution. It is computed by multiplying the standard error with 0.6745. It is calculated by:

$$P. E. = 0.6745 \frac{1 - r^2}{\sqrt{n}}$$

Where,

r = the value of correlation coefficient

n = number of pairs of observation

P.E. is used in interpretation whether the calculated value of r is significant or not

If $r < 6 * P.E.$ then it is insignificant or there is no evidence of correlation

If $r > 6 * P.E.$ then it is significant

If $P.E. < r < 6 * P.E.$ then nothing can be concluded

3.5 Limitations of the Study

The study has been conducted on the basis of annual reports of selected non-life insurance companies, published and unpublished material. Therefore the strength of findings will largely depend upon the correctness of input information. Since the study has been conducted by assuming about various factors, it has following limitations:

1. The study is based on the secondary data. Thus, the result of the analysis depends upon the information published.
2. The study considers only two non-life insurance companies as a sample and real situation of other non-life insurance companies may be different.
3. The analysis covers the time duration of only five years audited data from 2012/13 to 2016/17.

CHAPTER-IV

PRESENTATION AND ANALYSIS OF DATA

This chapter deals with the presentation and analysis of available secondary data, facts and figures related to the different aspects of the research work. In this study, financial as well as statistical tools are used to achieve the pre-determined objectives. The available data are tabulated, analyzed and interpreted to examine the financial performance of the non-life insurance companies after the April-2015 Earthquake impact of the claim management. The analyzed data and results are presented clearly and simultaneously with suitable tables and figures for further processing and analysis by the use of financial and statistical tools as presented below:

4.1. Capital Adequacy

Capital refers to the cushion that protects the insurance companies at the time of solvency and brings the stability and efficiency on the operation and the financial system. It determines that whether the non-life insurance companies are capable or not to meet the huge claim obligation through the deployment of its own capital and reserve when the premium amount and reinsurance amount is not enough to repay the claim. It also depicts the possibility of undertaking the new policies because new policies bring the new claim obligation when occurred, so in order to undertake the new policies the insurance companies must increase their capital in order to protect from getting insolvent. Considering the importance of this fact after the April-2015 Earthquake, the Insurance Board has instructed all the non-life insurance companies to meet their capital up to Rs. 1.00 billion. The ratio under capital adequacy is explained below:

4.1.1 Capital to Total Assets Ratio

This ratio determines whether the non-life insurance companies have increased their capital or not in relation with the assets. After the April-2015 Earthquake, the non-life insurance companies have to meet their claim obligation on the one hand whereas on the other hand, they have to increase their capital too while undertaking the new insurance policies. If the companies do not increase their capital in proportion to the increase in assets then the companies will not be able to undertake the new policies as there will be the risk of getting insolvent when the huge

claims like April-2015 Earthquake emerges. Considering this fact, the Insurance Board of Nepal, has also directed the non-life insurance companies to increase their capital.

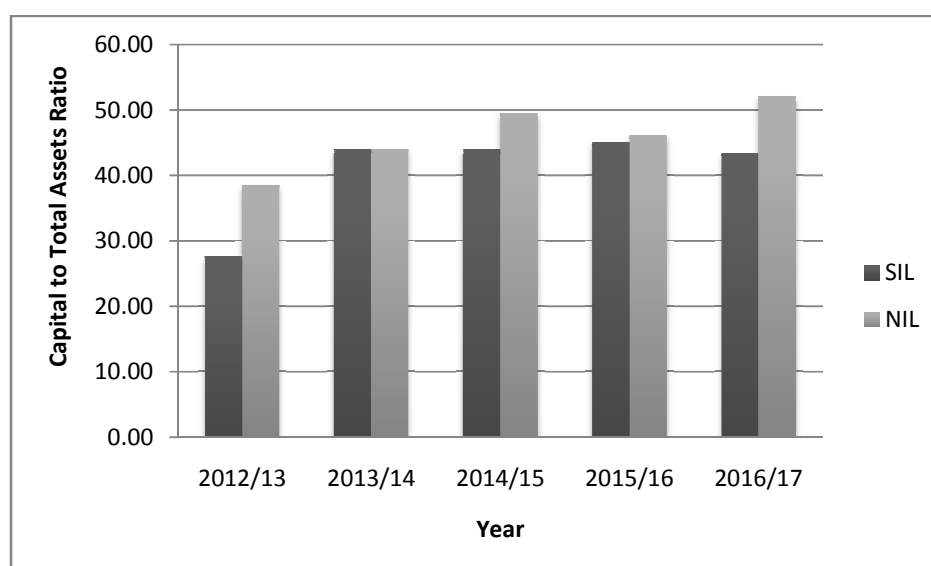
Table 4.1 Analysis of Capital to Total Assets Ratio

(Details in Appendix-I)

Name	2012/13	2013/14	2014/15	2015/16	2016/17	Mean	S.D.	C.V.
	(In percentage)							
SIL	27.57	44.04	44.00	45.05	43.34	40.80	7.42	18.19
NIL	38.49	43.98	49.47	46.22	52.07	46.04	5.23	11.36

Note: From Annual Reports of FY 2012/13 to 2016/17

The above table shows that the average or mean of NIL is higher than SIL. From the above table, it is found that the mean of SIL is 40.80 percent and NIL is 46.04 percent. Likewise, the S.D. of SIL is 7.42 percent and NIL is 5.23 percent whereas C.V. of SIL is 18.19 percent and NIL is 11.36 percent. According to the concept of capital to total assets ratio, higher ratio with the least volatility is considered as an indicator of the sound performance. So, on the basis of this concept, NIL is functioning more efficiently towards raising the capital as compared to SIL which depicts that the NIL can undertake the new policies as there is a less chance of getting insolvent. The above table is illustrated in the following diagram:



Note: From Annual Reports of FY 2012/13 to 2016/17

Figure 4.1 Analysis of Capital to Total Assets Ratio

The above figure shows that there is an increasing trend of capital to total assets ratio of both non-life insurance companies before April-2015 Earthquake. However, after the April-2015 Earthquake, there is a fluctuating trend of capital to total assets ratio. It is because the selected non-life insurance companies have to pay the claim of the Earthquake victims as and when reported which resulted in the reduction of the amount allocated for the different kinds of reserve that are transfer from the profit and loss account to the balance sheet. Due to the April-2015 Earthquake, the non-life insurance companies have to face the huge claim obligation which created the risk of getting insolvent, as a result of this, the Insurance Board instructed all the non-life insurance companies to increase their capital from getting insolvent against the fulfillment of claim obligation arise from such natural calamities in the future. Hence, the non-life insurance companies increase their assets and capital too but the increment ratio of capital is lower than the increment ratio of assets and vice versa which resulted the fluctuating ratio for both companies in the year 2015/16 and 2016/17.

4.2 Reinsurance and Actuarial Issues

Reinsurance and actuarial issues reflect the overall underwriting strategy of the insurer and depicts what portion of risk is passed on to the reinsurers. Under the reinsurance and actuarial issues risk retention ratio is calculated which is presented below:

4.2.1 Risk Retention Ratio

Risk retention ratio reflects what portion of risk is passed on to the reinsurers. For covering the risk of policyholder's claims both capital of non-life insurance companies and cover of reinsurance amount is important. It is good to examine the financial health of the reinsurer, if the insurer relies on it to a substantial degree. The ratio is expressed as the relationship between net premium and gross premium. Gross premium is simply the premium received against the policies that the companies sell to the policyholders where as net premium is calculated by adding gross premium, reinsurance accepted and subtracting reinsurance ceded out of it. The result derives from this ratio can be interpreted differently from the policyholder and company point of view. From the policyholders' point of view, higher ratio means there is a less chance of delay in the claim settlement. Likewise, from the company point of view, higher ratio means the company is

exposed to huge claim risk without the adequate coverage of reinsurance whose impact could be seen on the financial statement of the company when the huge claim arises.

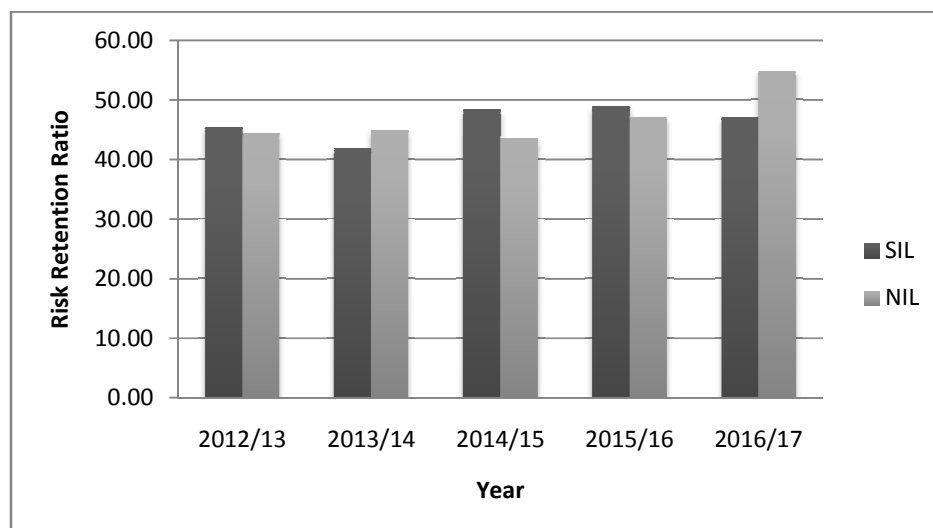
Table 4.2 Analysis of Risk Retention Ratio

(Details in Appendix-II)

Name	2012/13	2013/14	2014/15	2015/16	2016/17	Mean	S.D.	C.V.
	(In percentage)							
SIL	45.38	41.81	48.33	48.82	46.97	46.27	2.82	6.10
NIL	44.41	44.95	43.61	47.09	54.82	46.98	4.57	9.73

Note: From Annual Reports of FY 2012/13 to 2016/17

The above table shows that the average or mean of NIL is slightly higher than SIL. From the above table, it is found that the mean of SIL is 46.27 percent and NIL is 46.98 percent. Likewise, the S.D. of SIL is 2.82 percent and NIL is 4.57 percent whereas C.V. of SIL is 6.10 percent and NIL is 9.73 percent. The table clearly shows the difference between the result of mean with S.D. and C.V. because of the contrast concepts between the policyholder and the insurance companies. On the basis of the policyholder's concept, NIL is functioning more efficiently because it retains most of the premium itself due to which it has the ability to settle the claim on time. In the same time it is highly exposed to the risk than SIL as SIL has more reinsurance coverage because of low ratio. The above table is illustrated in the following diagram:



Note: From Annual Reports of FY 2012/13 to 2016/17

Figure 4.2 Analysis of Risk Retention Ratio

The above figure shows that there is an increasing trend of risk retention ratio for NIL throughout the review period except the year of April-2015 Earthquake which indicates that NIL is highly exposing to the risk of claim obligation instead of passing to the reinsurer even after the April-2015 Earthquake. The data of Insurance Board regarding the outstanding claims reveals that NIL has the low claim obligation as compared to SIL which could be the reason for not passing the risk to the reinsurance. Since, NIL is absorbing more risk by retaining the premium, it has the ability to settle the claim on time when which could be the good indicator from the policyholders' aspects.

On the other hand, there is a fluctuating trend of the risk retention ratio for SIL but after the April-2015 Earthquake, the ratio is decreasing which indicates that the company is passing its risk to the reinsurers so that the company does not have to suffer from the huge claim obligation as like April-2015 Earthquake.

4.3 Earnings and Profitability

Earnings are the key and arguably the only source of long term capital. A business must be able to earn adequate profits in relation to the risk and capital invested in it. The efficiency and the success of a business can be measured with the help of profitability ratios. Low profitability may signal fundamental problems of the insurer and may consider a leading indicator for solvency problems. In the context of April-2015 Earthquake, the major impact of the claim management could be seen on the non-life insurance companies. The different ratios that are calculated under the earnings and profitability have their own significance in terms of company and policyholder point of view. The ratios under earnings and profitability are briefly explained below:

4.3.1 Incurred Claim Ratio

Incurred claim ratio indicates the amount of claim that the insurance companies entertain from the net premium that they earned during the end of the financial year. This ratio is also known as loss ratio. For the economy and insurance companies, lower ratio is expected to be a good signal because low claim has to be paid to the policyholders from the premium that the company earned during the year. If the company does not have to pay the huge claims then the company could invest the earned premium amount on the profitable sectors that not only generates handsome returns but also helps the companies in meeting their claims timely.

On the other hand, from the policyholder point of view, higher incurred claim ratio is considered as a good signal because it indicates that the company is effective and efficient for settling the claim with its own resources.

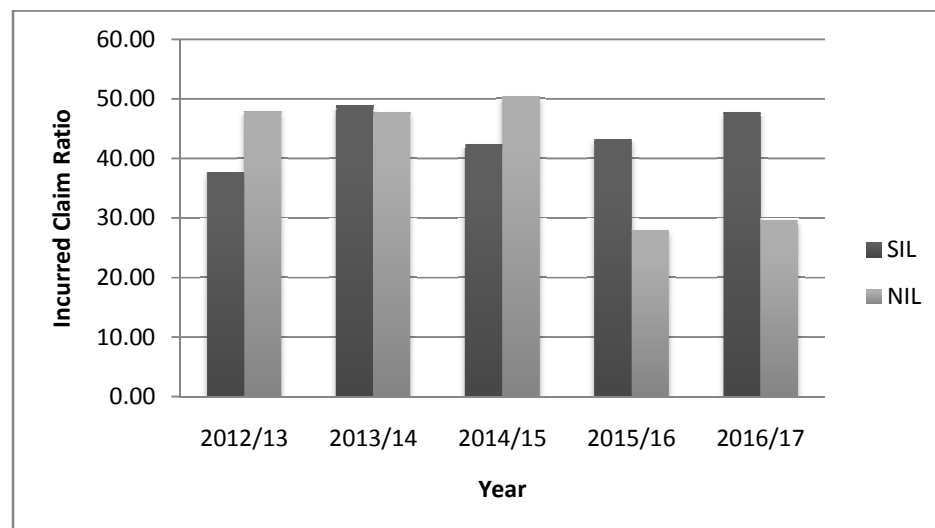
Table 4.3 Analysis of Incurred Claim Ratio

(Details in Appendix-III)

Name	2012/13	2013/14	2014/15	2015/16	2016/17	Mean	S.D.	C.V.
	(In percentage)							
SIL	37.54	48.92	42.36	43.23	47.76	43.96	4.56	10.38
NIL	47.97	47.74	50.43	27.93	29.61	40.74	10.99	26.97

Note: From Annual Reports of FY 2012/13 to 2016/17

The above table shows the incurred claim ratio of SIL and NIL. According to the table, the average or mean of SIL is higher than NIL. The table shows that the mean of SIL is 43.96 percent and NIL is 40.74 percent. Likewise, the S.D. of SIL is 4.56 percent and NIL is 10.99 percent whereas C.V. of SIL is 10.38 percent and NIL is 26.97 percent. All the factors under the table implies that SIL is more capable of claim settlement throughout the review period as there is less variation in the claim adjustment which is a good indicator for the policyholders as they get their claim settlement on time with the company's own resources. The above table is illustrated in the following diagram:



Note: From Annual Reports of FY 2012/13 to 2016/17

Figure 4.3 Analysis of Incurred Claim Ratio

The above figure shows that the incurred claim ratio for SIL is fluctuating before the April-2015 Earthquake, but after the Earthquake the ratio has gained its speed in the increasing trend. As per the data of the Insurance Board, the outstanding claim of SIL is higher because of the excess number of claimants against the policies of SIL whose result could be seen on the above figure. The increasing trend of the incurred claim ratio means that SIL is using its own earned premium to satisfy the claims of the Earthquake victims which is a good indicator for the policyholders.

On the other hand, the incurred claim ratio for NIL is also fluctuating before the April-2015 Earthquake. However on the year 2015/16 or the year after Earthquake, the ratio has been decreased due to the low claim obligation or the possibility of claim rejections.

4.3.2 Claim Settlement Ratio

Claim settlement ratio indicates the efficiency of the insurance companies to pay the claims on time against the total claims that they receive within a particular period of time. Under the claim settlement ratio, high ratio is considered as a good indicator for the policyholders because on the basis of this ratio, the policyholders could determine whether the insurance companies are capable or not to settle the claims on time or whether the policyholders have to wait to get their claim with the fear of claim rejection.

On the other hand, the insurance companies prefer low claim settlement ratio. Though high ratio will be beneficial for the company in terms of undertaking the new business from the existing and the potential policyholders but it also reflects the high claim payment on the cash flow statement of the company that reduces the profit for the company.

Table 4.4 Analysis of Claim Settlement Ratio

(Details in Appendix-IV)

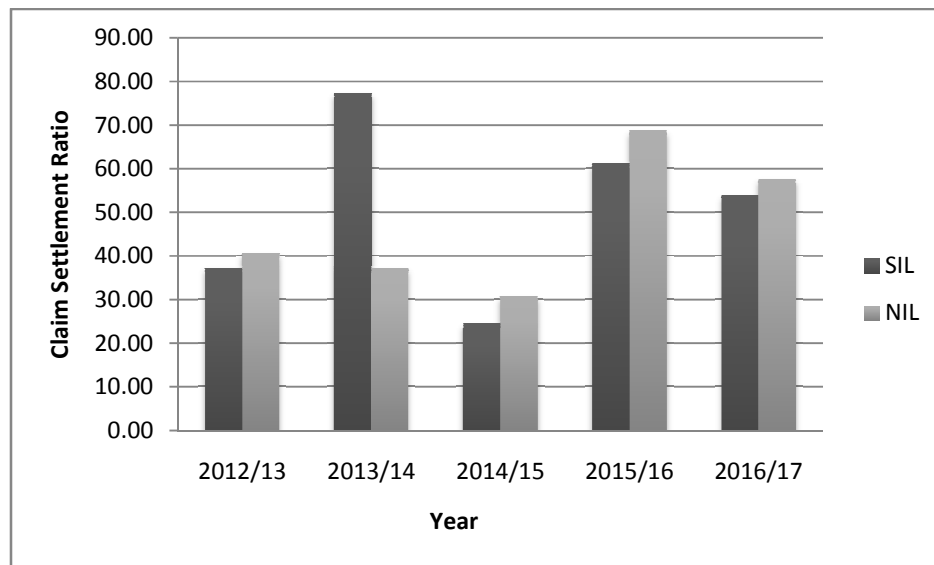
Name	2012/13	2013/14	2014/15	2015/16	2016/17	Mean	S.D.	C.V.
	(In percentage)							
SIL	37.24	77.22	24.47	61.10	53.91	50.79	20.56	40.48
NIL	40.52	37.02	30.70	68.68	57.58	46.90	15.73	33.53

Note: From Annual Reports of FY 2012/13 to 2016/17

The above table shows the claim settlement ratio of SIL and NIL. According to the table, the average or mean of SIL is higher than NIL. The table shows that the mean of SIL is 50.79

percent and NIL is 46.90 percent. Likewise, the S.D. of SIL is 20.56 percent and NIL is 15.73 percent whereas C.V. of SIL is 40.48 percent and NIL is 33.53 percent. The table clearly shows the difference between the result of mean with the result of S.D. and C.V. because of the contrast objective between the policyholder and the company. According to the concept of the policyholder, higher ratio is considered as an indicator of the sound performance as the policyholder would get the claim amount on time.

However, from the company point of view, lower ratio is considered as a good indicator because higher ratio depicts the reduction of the income for the companies. Moreover, high claim settlement ratio might create the problem for the insurance company because if claim gets high more than the premium that the company earns then there is a high probability of getting insolvent. So, the table shows that SIL is meeting its claim obligation more, especially after the April-2015 Earthquake due to which there is a huge variation between the ratios over the period. The above table is illustrated in the following diagram:



Note: From Annual Reports of FY 2012/13 to 2016/17

Figure 4.4 Analysis of Claim Settlement Ratio

The above figure shows the fluctuating trend of the claim settlement ratio of both SIL and NIL before the April-2015 Earthquake. However, the ratio of both companies has been increased drastically in the year 2015/16 which is the effect of the April-2015 Earthquake. The above figure shows that the after the Earthquake both non-life insurance companies have made their

claim settlement for the Earthquake victims on a huge basis. But the same ratio has been declined in the year 2016/17 due to the less claim liability left and also might due to the claim rejections. However, the declining trend is smaller than increasing trend of the ratio of the year of 2015/16 which depicts that still the outstanding claims of the Earthquake victims has not been settled fully and it is being settled on a certain interval of time due to which there is a variation in the ratios before and after April-2015 Earthquake.

4.3.3 Reinsurance Ratio

Reinsurance determines how much risk is transferred to the other insurance companies or the reinsurers who bear the risk on the behalf of the counter party. Likewise, reinsurance ratio depicts the claim that is received from the reinsurance companies against the total claims that the company received during the financial year. The result of this ratio can also be interpreted differently from the policyholder and company point of view. According to the policyholder, lower ratio is preferable because there will be less time required for the claim recovery from the insurance company whereas as per the insurance company, higher ratio is preferable because more reinsurance ratio means more risk is transferred to the reinsurance companies who will compensate the counter insurance companies against the huge claims resulted from the unexpected circumstances and protect from getting insolvent due to the non-meeting of the claim obligation.

Table 4.5 Analysis of Reinsurance Ratio

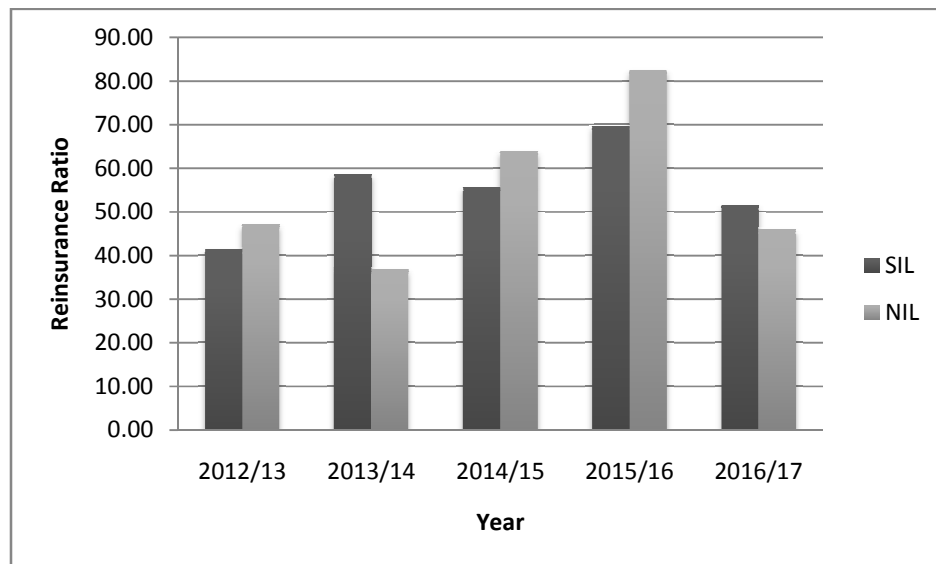
(Details in Appendix-V)

Name	2012/13	2013/14	2014/15	2015/16	2016/17	Mean	S.D.	C.V.
	(In percentage)							
SIL	41.37	58.56	55.68	69.70	51.54	55.37	10.33	18.65
NIL	47.10	36.82	63.84	82.49	45.95	55.24	18.08	32.74

Note: From Annual Reports of FY 2012/13 to 2016/17

The above table shows the reinsurance ratio of SIL and NIL. According to the table, the average or mean of SIL is slightly higher than NIL by 13 basis points. The table shows that the mean of SIL is 55.37 percent and NIL is 55.24 percent. Likewise, the S.D. of SIL is 10.33 percent and NIL is 18.08 percent whereas C.V. of SIL is 18.65 percent and NIL is 32.74 percent. The table

shows that both the non-life insurance companies are dependent on reinsurance facility because more than 50 percent of the claims has been received from the reinsurance companies throughout the year but the ratio has been rapidly increased in the year 2015/16 i.e. the year after the April-2015 Earthquake. During the year 2015/16 the ratio of SIL is 69.70 percent which has been increased by 14.02 percent and the ratio of NIL in the year 2015/16 is 82.49 percent which has been increased by 18.65 percent which indicates that NIL was much more financed by reinsurance companies though the claim obligation of SIL was higher than NIL. On the basis of constant or the dependency level toward reinsurance companies it can be concluded that SIL is stable regarding reinsurance financing than NIL. The above table is illustrated in the following diagram:



Note: From Annual Reports of FY 2012/13 to 2016/17

Figure 4.5 Analysis of Reinsurance Ratio

The above figure shows the fluctuating trend of the reinsurance ratio of both SIL and NIL before the April-2015 Earthquake since there were no any huge claims except the normal claims. But, after the year of Earthquake, the ratio has been increased for both the companies due to the large claims from the Earthquake victims. The above figure shows that over 50 percent of the total claims has been covered by the reinsurers which help the insurance companies to meet their claim obligation thus protecting the insurance companies from getting insolvent because of such greatest catastrophic. The outstanding claim of SIL is higher than NIL due to which SIL is still in

the liability to meet the claim obligation. Though the ratio has been declined in the year 2016/17 but the figure clearly shows that the proportion of declining NIL is higher than the proportion of declining SIL which indicates that NIL is now much more relaxed on depending over the reinsurance companies even after the April-2015 Earthquake whose affect is still feel by SIL and other non-life insurance companies.

4.3.4 Insurance Margin

In order to generate the extra income except from the regular business, the insurance companies also invest their residual premium money either on the government securities or place those premium money in the form of lump sum on the bank as a fixed deposits or call deposits for a certain period of time due to the time difference between the premium earned and the claim settlement. It is because there is a saying in the insurance companies that the premium once earned will not be realized sooner as a claim until some hazards occur. On the basis of this concept, insurance margin refers to the income generating capability of the non-life insurance companies from the premium or more specifically net premium that they earned during the particular period of time. Higher ratio is an indicator of the sound performance for both policyholder and the insurance companies.

Table 4.6 Analysis of Insurance Margin

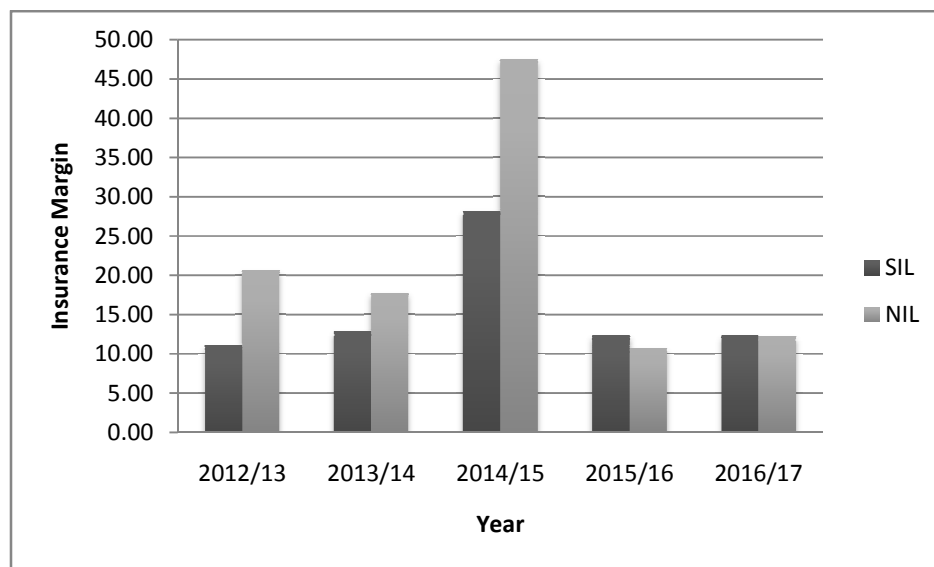
(Details in Appendix-VI)

Name	2012/13	2013/14	2014/15	2015/16	2016/17	Mean	S.D.	C.V.
	(In percentage)							
SIL	11.01	12.83	28.20	12.32	12.32	15.34	7.22	47.09
NIL	20.61	17.75	47.50	10.74	12.19	21.76	14.94	68.68

Note: From Annual Reports of FY 2012/13 to 2016/17

The above table shows the insurance margin of SIL and NIL. According to the table, the average or mean of NIL is higher than SIL. The table shows that the mean of SIL is 15.34 percent and NIL is 21.76 percent. Likewise, the S.D. of SIL is 7.22 percent and NIL is 14.94 percent whereas C.V. of SIL is 47.09 percent and NIL is 68.68 percent. From the above table, it is clear that NIL is using its premium money on different income generating investment areas which led to the growth of insurance margin as compared to SIL. The above table shows the great variation in the insurance margin of NIL as compared to SIL during the study period as the trend of NIL's

insurance margin is highly fluctuating than SIL. The insurance margin is important to both policyholders and the insurance companies because it affects the earnings capability of the companies. The table clearly shows the impact of April-2015 Earthquake on this ratio because the year after Earthquake the margin for both companies has been rapidly declined. The major impact of the Earthquake could be seen on the NIL's margin as the margin has been declined from 47.50 percent to 10.74 percent which indicates that NIL has sold or liquidate its investment portfolio to pay the claim obligation. Previous indicators also shown that NIL is less dependent on the reinsurance companies and hold the premium itself. So, the same impact has been seen on the NIL's ratio as it has to meet the claim by selling off its investment or other income generating sources. Though the ratio of SIL is also declined from 28.20 percent to 12.32 percent in the year 2015/16 but the decreasing trend is much lower than the decreasing trend of NIL. Generally, higher ratio indicates the sound performance of the company. Despite of the deviation between the result of mean with the result of S.D. and C.V. as there is a high variation in the NIL's ratio, NIL is considered as a sound performer. The above table is illustrated in the following diagram:



Note: From Annual Reports of FY 2012/13 to 2016/17

Figure 4.6 Analysis of Insurance Margin

The above figure shows the increasing trend of insurance margin of SIL and fluctuating trend of insurance margin of NIL before the April-2015 Earthquake. The Earthquake (April-2015) impact

could be directly seen on this indicator as the insurance margin of both companies has been declined drastically. Though the claim obligation of NIL is lower than SIL but its retention ratio was higher than the previous year which is earlier discussed in this chapter. Therefore, its insurance margin has been declined more than the declination of the same margin of SIL. Thus, it indicates that after the year of April-2015 Earthquake, both the companies have paid their claims by liquidating or selling off their investment securities and fixed deposits or other income generating sources through which the company were earning. Despite of the presence of reinsurance facilities, the claim for both the companies was extremely high which was not possible to cover through reinsurance only. As a result of this, both companies reduced their income generating portfolios in order to manage the claims for the Earthquake victims.

4.3.5 Return on Equity

This ratio measures the efficiency of the management in terms of earning capacity. The shareholders invest their capital in the expectation of the returns in the coming year. To consider as a better company, this ratio should be higher or should be in the increasing trend or constant without much fluctuation. This ratio is also known as return on net worth or return on capital. After the massive April-2015 Earthquake, this ratio is primarily important to judge the financial performance of the non-life insurance companies because it determines whether the investors of the capital are satisfied with the performance of the companies or not in the light of the claim's effect on the earning capacity of the companies.

Table 4.7 Analysis of Return on Equity

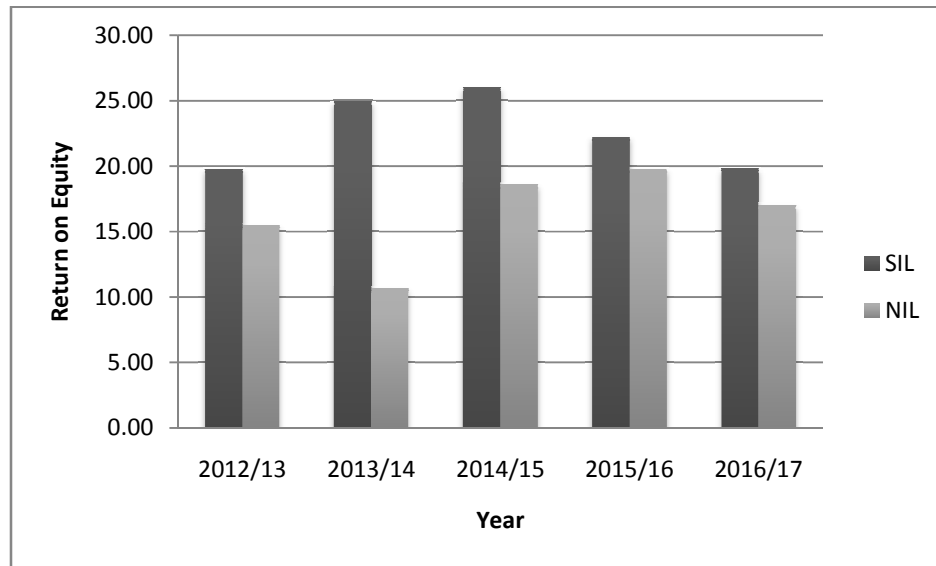
(Details in Appendix-VII)

Name	2012/13	2013/14	2014/15	2015/16	2016/17	Mean	S.D.	C.V.
	(In percentage)							
SIL	19.79	24.95	26.04	22.25	19.83	22.57	2.87	12.73
NIL	15.47	10.66	18.58	19.80	17.04	16.31	3.55	21.78

Note: From Annual Reports of FY 2012/13 to 2016/17

The above table shows the return on equity of SIL and NIL. According to the table, the average or mean of SIL is higher than NIL. The table shows that the mean of SIL is 22.57 percent and NIL is 16.31 percent. Likewise, the S.D. of SIL is 2.87 percent and NIL is 3.55 percent whereas C.V. of SIL is 12.73 percent and NIL is 21.78 percent. After the April-2015 Earthquake, the

return on equity of SIL is in decreasing trend because SIL has the highest claim than NIL but despite of this there is a less variation throughout the study period than NIL which indicates that SIL is performing better with the investor's capital without letting their expectation down even after managing the huge claims for the April-2015 Earthquake victims. The above table is illustrated in the following diagram:



Note: From Annual Reports of FY 2012/13 to 2016/17

Figure 4.7 Analysis of Return on Equity

The above figure shows the increasing trend of return on equity of SIL and fluctuating trend of return on equity of NIL before the April-2015 Earthquake. After the Earthquake (April-2015), there is a continuous declination on the ratio of SIL because of the settlements of the huge claims which led to the reduction in distributing the profit to the investors. Though the ratio of NIL has been increased in the year 2015/16 but the proportion of increment is lower as compared to the previous year. Although both companies have reinsurance facilities but reinsurance only covers the part of the total risk due to which the companies have to pay the claim from their premium that they earned during the year. Thus outflow of premium in the form of claim settlement from the company's cash flow statement ultimately reduces the profit of the company. Hence, the ratio has been declined after the Earthquake for both the companies due to the low amount of profit allocated for the investors.

4.4 Liquidity

This ratio indicates the firm's capability to pay its current liabilities within short period of time. Liquid assets include the cash, bank balance and short term investment held by the non-life insurance companies. This ratio is calculated by dividing liquid assets by current liabilities. Higher liquidity is considered as an indicator of sound performance to both policyholders and the companies because the companies do not have to sale its assets with undervalued price in order to meet the unexpected claim arise in the future like April-2015 Earthquake.

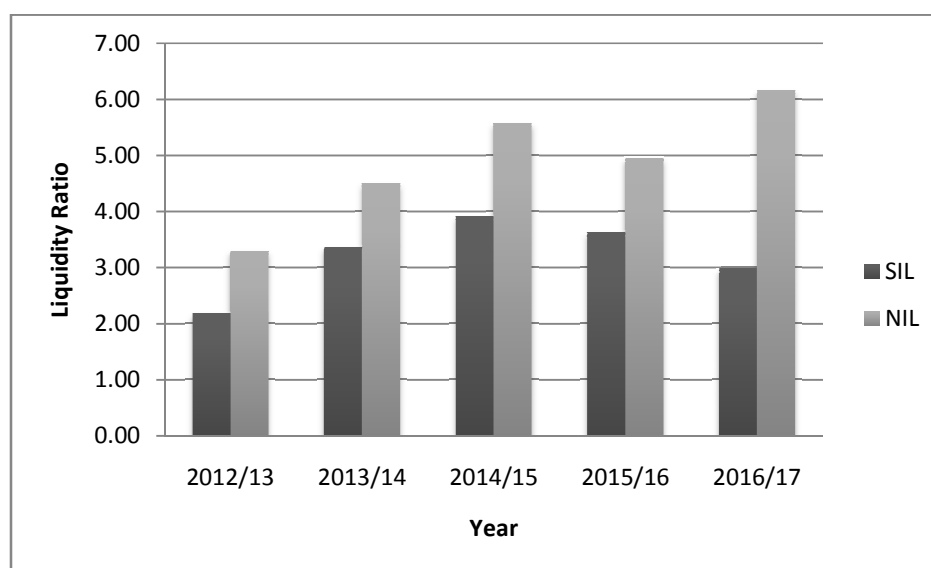
Table 4.8 Analysis Liquidity Ratio

(Details in Appendix-VIII)

Name	2012/13	2013/14	2014/15	2015/16	2016/17	Mean	S.D.	C.V. (In percentage)
	(In times)							
SIL	2.18	3.36	3.91	3.62	2.98	3.21	0.67	20.81
NIL	3.29	4.50	5.57	4.95	6.16	4.90	1.09	22.36

Note: From Annual Reports of FY 2012/13 to 2016/17

The above table shows the liquidity ratio of SIL and NIL. According to the table, the average or mean of NIL is higher than SIL. The table shows that the mean of SIL is 3.21 times and NIL is 4.90 times. Likewise, the S.D. of SIL is 0.67 and NIL is 1.09 whereas C.V. of SIL is 20.81 percent and NIL is 22.36 percent. After the April-2015 Earthquake, the liquidity of SIL and NIL is decreasing due to the impact of claim settlement. As discussed in the previous ratio, in order to meet the claim obligation both SIL and NIL has liquidated its assets which directly reduced their liquidity position. There is a variation in the of C.V. of NIL because after the Earthquake the company has retained more of its premium rather than going for reinsurance which led to the increment in the short term investment of NIL. Despite of the variation on the result of mean with the result of SIL, on the basis of mean NIL is more competitive in the claim management because it has high liquid assets than SIL. The above table is illustrated in the following diagram:



Note: From Annual Reports of FY 2012/13 to 2016/17

Figure 4.8 Analysis of Liquidity Ratio

The above figure shows the increasing trend of liquidity ratio of both SIL and NIL before the April-2015 Earthquake. After the Earthquake, there has been a declination on the ratio because both the companies were liable to meet the huge claims of the victims. Since, the outstanding claim of SIL is higher, it has to liquidate more assets to pay the claim and also call back their deposits held with other banks and financial institution. Likewise, the liquidity ratio of NIL is decreased in the year 2015/16 due to the claim settlement but the same ratio has been increased in the year 2016/17 mainly because NIL does not transfer its risk to the reinsurers. As a result of this, the company has more premium which it invests in the short term investment and increase its liquidity position for the future claim obligation if any unexpected circumstances arise.

4.5 Correlation Analysis

The correlation coefficient shows the relationship between two variables. It helps to determine whether there exists any relationship among different variables. To find out the relationship of total claims that the insurance companies pay within a financial year with net premium and reinsurance, we have computed correlation between these variables. The value of correlation coefficient (r) lies between -1 up to +1. The + and – signs are used for positive linear correlations and negative linear correlations respectively. Where, $r=1$ means perfect positive correlation between variables. Where $r =-1$ means perfect negative correlation between variables. Where

$r=0$, there is no relationship between two variables. When the value of r lies between 0.7 to 0.999 (-0.7 to -0.999) then is a high degree of positive (or negative) correlation. Similarly, when the value of r lies between 0.5 to 0.699 then there is moderate degree of correlation and when the value of r lies below 0.5 then there is a low degree of correlation. A correlation greater than 0.8 is generally described as strong whereas a correlation less than 0.5 is described as weak. The significance of coefficient of correlation (r) is tested with the help of probable error of r (i.e. P.E). If coefficient of correlation r is less than six times of probable error P.E., it is insignificant. So, perhaps there is no evidence of correlation. If coefficient of correlation r is greater than six times of probable error P.E., it is significant.

4.5.1 Correlation between Claims and Net Premium

Gross premium is the total amount that the insurance companies raise by selling its available and new insurance products either to the potential policyholders or to the existing policyholders. On the other hand, net premium is determined by the gross premium because net premium is calculated by adding gross premium, reinsurance accepted and subtracting reinsurance ceded out of it.

Table 4.9 Correlation Coefficient between Claims and Net Premium

Name	Correlation	Coefficient of Determination	P.E	6*P.E	Level of Significant (5%)
SIL	0.8779	0.7706	0.0692	0.4151	Significant
NIL	0.5449	0.2969	0.2121	1.2725	Insignificant

The above table represents the correlation analysis between the claims and net premium of the selected non-life insurance companies. The coefficient of correlation (r) of SIL is 0.8779 which indicates that there is a high degree of positive correlation between claims and net premium. Therefore, the value of coefficient of determination (r^2) is 0.7706 which suggests that about 77.06 percent of variation is predictable between claims and net premium to the SIL. The value of ' r ' is more than six times of probable error 6*P.E. (r) i.e. $[0.8779 > 0.4151]$ which reveals that the relation between claims and net premium is significant.

Likewise, the coefficient of correlation (r) of NIL is 0.5449 which indicates that there is a moderate degree of positive correlation between claims and net premium. Therefore, the value of coefficient of determination (r^2) is 0.2969 which suggests that about 29.69 percent of variation is predictable between claims and net premium to the NIL. The value of ' r ' is less than six times of

probable error $6 * P.E. (r)$ i.e. $[0.5449 < 1.2725]$ which reveals that the relation between claims and net premium is insignificant.

4.5.2 Correlation between Claims and Reinsurance Premium

Reinsurance is the process through which the insurance companies reinsured themselves with other insurance companies. Reinsurance is done in order to meet the unexpected huge claim obligation in the near future. It is very important when the claim amount is high which can easily make the insurance companies insolvent because of the non-fulfillment of the claim obligation.

Table 4.10 Correlation Coefficient between Claims and Reinsurance Premium

Name	Correlation	Coefficient of Determination	P.E	6*P.E	Level of Significant (5%)
SIL	0.8324	0.6930	0.0926	0.5557	Significant
NIL	0.7118	0.5066	0.1488	0.8930	Insignificant

The above table represents the correlation analysis between the claims and reinsurance of the selected non-life insurance companies considering the audited data of last five years. The coefficient of correlation (r) of SIL is 0.8324 which indicates that there is a high degree of positive correlation between claims and reinsurance. Therefore, the value of coefficient of determination (r^2) is 0.6930 which suggests that about 69.30 percent of variation is predictable between claims and reinsurance to the SIL. The value of 'r' is more than six times of probable error $6 * P.E. (r)$ i.e. $[0.8324 > 0.5557]$ which reveals that the relation between claims and reinsurance is significant.

Likewise, the coefficient of correlation (r) of NIL is 0.7118 which indicates that there is a high degree of positive correlation between claims and reinsurance. Therefore, the value of coefficient of determination (r^2) is 0.5066 which suggests that about 50.66 percent of variation is predictable between claims and reinsurance to the NIL. The value of 'r' is less than six times of probable error $6 * P.E. (r)$ i.e. $[0.7118 < 0.8930]$ which reveals that the relation between claims and reinsurance is insignificant.

The overall correlations between claims, net premium and reinsurance of SIL can be presented in the following table:

Table 4.11 Overall Correlation Coefficient of Claims, Net Premium and Reinsurance of SIL

Basis	Claims	Net Premium	Reinsurance
Claims	1		
Net Premium	0.8779* (0.0503)	1	
Reinsurance	0.8324* (0.0802)	0.9667** (0.0073)	1

Note: The parenthesis indicates the p-value of 2-tailed

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

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

The highest correlation has been observed to be 0.9667 between reinsurance and net premium. There is a high degree of positive correlation between claims with net premium and reinsurance. It means that whenever the net premium and reinsurance premium amount changes then the claim amount also changes in the same direction.

Similarly, the overall correlation between claims, net premium and reinsurance of NIL can be presented in the following table:

Table 4.12 Overall Correlation Coefficient of Claims, Net Premium and Reinsurance of NIL

Basis	Claims	Net Premium	Reinsurance
Claims	1		
Net Premium	0.5449* (0.3422)	1	
Reinsurance	0.7118* (0.1775)	0.9764** (0.0043)	1

Note: The parenthesis indicates the p-value of 2-tailed

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

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

The highest correlation has been observed to be 0.9764 between reinsurance and net premium. There is a moderate degree of positive correlation between claims and net premium whereas high degree of positive correlation between claims and reinsurance. It means that whenever the net premium and reinsurance premium amount changes then the claim amount also changes in the same direction.

To illustrate the changes in the net premium, reinsurance premium, net profit and liquid assets due to the April-2015 Earthquake on SIL, the following table has been presented:

Table 4.13 Percentage Change in Net Premium, Reinsurance Premium, Net Profit and Liquid Assets Before and After April-2015 Earthquake of SIL

(Details in Appendix-IX)

Indicators	Pre- (In percent)		Post- (In percent)
Net Premium	52.52	Earthquake	35.69
Reinsurance Premium	24.65		38.69
Net Profit	108.19		20.74
Liquid Assets	44.77		35.56

Note: From Annual Reports of FY 2012/13 to 2016/17

The above table shows the impact of April-2015 Earthquake on the performance of SIL by having a pre- and post- comparison of the major financial indicators. The analysis has been done by taking the data of the Earthquake year as a base year. It is found that the premium earning capacity of the company has been declined from 52.52 percent to 35.69 percent. The reason is the huge claim obligation due to which the company has been unable to carry the new policies. Likewise, the reinsurance premium has been increased from 24.65 percent to 38.69 percent which shows that the company has undertaken the reinsurance facilities after the April-2015 Earthquake more than before. Reinsurance assures that the company is being prepared to settle the huge claim in the future by transferring the risk to the reinsurance companies. Since, SIL is one of the non-life insurance companies which have the highest claim, so its affect is clearly seen on the liquid assets and net profit. As mentioned earlier, in order to meet the claims of the Earthquake victims, the company has liquidated its most of the investment due to which the earning capacity of the company declines. As a result of this, the net profit of the company has been declined from 108.19 percent to 20.74 percent and the liquidity has also been declined from 44.77 percent to 35.56 percent.

Similarly, to illustrate the changes in the net premium, reinsurance premium, net profit and liquid assets due to the April-2015 Earthquake on NIL, the following table has been presented:

Table 4.14 Percentage Change in Net Premium, Reinsurance Premium, Net Profit and Liquid Assets Before and After April-2015 Earthquake of NIL

(Details in Appendix-X)

Indicators	Pre- (In percent)		Post- (In percent)
Net Premium	20.00	Earthquake	153.41
Reinsurance Premium	25.37		82.93
Net Profit	150.24		79.05
Liquid Assets	25.72		103.92

Note: From Annual Reports of FY 2012/13 to 2016/17

The above table shows the impact of April-2015 Earthquake on the performance of NIL by having a pre- and post- comparison of the major financial indicators. The analysis has been done by taking the data of the Earthquake year as a base year. Since, the claim obligations of the NIL is lower than SIL, it has been succeeded to undertake the new policies because for the policyholders higher the claim obligation means higher will be the chance of insurance companies for getting insolvent. So, on the basis of this concept, policyholders are being attracted on the NIL policies due to which the net premium has been rapidly increased from 20.00 percent to 153.41 percent. Likewise, in order to meet the claim obligation in the near future due to such unexpected natural calamities, NIL has also taken the reinsurance facilities which can be identified with the increment in the reinsurance sectors from 25.37 percent to 82.93 percent. In the same way, the net profit of the company has been declined from 150.24 percent to 79.05 percent due to the claim obligation although it is lower than SIL. The table also shows the rapid increment in the liquid assets which depicts that the premium which the company has earned during the year is mostly invested in the short term securities due to which the liquid assets has been highly increased from 25.72 percent to 103.92 percent even after the April-2015 Earthquake.

4.6 Major Findings

This section includes the key findings of the study obtained from the analysis of the data. The major findings of the study are presented below:

1. Capital Adequacy

Under the capital adequacy, capital to total assets ratio of both companies is increasing before the April-2015 Earthquake though there is a slight variation in the ratio of SIL in the year 2014/15 as compared to the year 2013/14. However, Earthquake's impact could be seen on the year 2015/16 and 2016/17 where the ratio for both the companies is being fluctuated. The reason for the decreasing trend of the ratio is the claim settlement which resulted in the decrease in the amount of different categories of reserves that are ultimately transferred to the capital account at the end of the year than the ratio of the previous corresponding year. Likewise, the increasing trend of the ratio could be the effect of the directives issued by the Insurance Board to raise the paid-up capital by Rs. 1.00 billion in order to protect the insurance companies from getting insolvent due to the natural calamities like April-2015 Earthquake.

2. Reinsurance and Actuarial Issues

Under reinsurance and actuarial issues, risk retention ratio has been calculated. It depicts that there is a fluctuating trend before the April-2015 Earthquake on the ratio of both SIL and NIL. After the April-2015 Earthquake, though there is a slight variation on the ratio of SIL in the year 2015/16, it clearly shows that SIL has transferred its most of the risks to the reinsurance companies in the year 2016/17 as the ratio has been decreased from 48.82 percent to 46.97 percent. It also shows that the increment proportion of the ratio of SIL in 2015/16 is lower as compared to the increment proportion of the same ratio from 2013/14 to 2014/15. Similarly, after the April-2015 Earthquake, NIL, despite of transferring the risk to the reinsurance companies, NIL is keeping itself more risks with it as the ratio shows the increasing trend after the Earthquake.

3. Earnings and Profitability

a. Under the earnings and profitability, incurred claim ratio has been calculated. This ratio shows the fluctuating trend for both companies before the April-2015 Earthquake. After the Earthquake, the ratio for SIL goes on increasing which means that SIL is facing more claim obligation and settling those claims from its net premium. The same ratio kept on fluctuating for NIL even after the April-2015 Earthquake. The reason behind this is the less claim obligation on the one hand whereas on the other hand, the proportion of settling the claims is lower than the increment in the

premium amount which is clearly reflected from the difference of the premium collection and claim settlement data from the year 2014/15 to 2015/16.

b. Under the earnings and profitability, claim settlement ratio has also been calculated. This ratio shows the fluctuating trend from the year 2012/13 to 2016/17 for SIL and the decreasing trend for NIL before the April-2015 Earthquake. The ratio has been increased drastically for both SIL and NIL on the year 2015/16 by over 50 percent from the year 2014/15 which indicates that both companies received the huge claims from the Earthquake victims, thus creating the obligation to settle. From the average or mean basis, the ratio of SIL is higher than NIL which means that the company is settling the claims more efficiently and effectively without any delay.

c. Under earnings and profitability, reinsurance ratio has also been calculated. The ratio for SIL is fluctuating before the April-2015 Earthquake whereas the same ratio has been increased for NIL till the fourth year except 2013/14. After the April-2015 Earthquake, its major impact could be seen on the ratio of 2015/16 which is rapidly increased for both the companies than the ratio of 2014/15. Thus, it states that both companies have paid most of the claims through reinsurance facilities, after which the ratio of both companies has been declined in the year 2016/17.

d. Insurance margin has also been calculated to analyze the impact of April-2015 Earthquake in the income generating investment portfolio. There is an increasing trend of the insurance margin for both companies till the third year or before April-2015 Earthquake. However, margin for SIL is continuously declining whereas the margin for NIL is fluctuating after the Earthquake. Thus it indicates that during the time of fulfilling the claim obligation, both companies have liquidated most of their investment portfolio or other income generating sources due to which insurance margin has been drastically fell from the year 2014/15 to 2015/16 of both companies.

e. The return on equity of both companies has been increasing before the April-2015 Earthquake but the same return declined after the Earthquake which indicates that though the companies made the claim obligation timely but could not succeed to increase their profit as previous which led to the fell down of the return.

4. Liquidity

The liquidity ratio of both companies has been increased till the year of Earthquake. Since, the claim obligation of SIL is higher than NIL, its impact could be seen on the liquidity position of

SIL because it kept on falling after the April-2015 Earthquake. Though the liquidity position for NIL has also been fell in the year 2015/16 but it succeed to maintain the liquidity in the year 2016/17 because it has kept most of the risk itself in the form of premium without much coverage from the reinsurance due to which the short term investment of the company has highly increased at the end of the year 2016/17.

5. Correlation Analysis

In the study, claim is considered as the dependent variable whereas net premium and reinsurance are considered as an independent variable. From the correlation analysis, it is found that there exists a positive correlation between claims with net premium and reinsurance which implies that claims move in the same direction as net premium and reinsurance. The highest correlation exists between net premium and reinsurance for both SIL and NIL. Similarly, there is a moderate degree of positive correlation between the claims and net premium of NIL with the value 0.5449. Since, the value of correlation is less than significance level between the claims and net premium as well as between the claims and reinsurance the result is insignificant for NIL with both net premium and reinsurance.

CHAPTER-V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter gives a summary of key findings of the study presented according to the objectives of the study. In addition, the major conclusions based on analysis made in previous chapter are discussed in separated section of this chapter which is followed by some implication and recommendations.

5.1 Summary

The economic development of a country not only depends upon the banks and financial institutions but also equally depends on the insurance sectors. Insurance is one of the best ways for the general public and even for the institutions to get secured from the unexpected risks and events. Since, all the risks of the public and the institutions are shared by the insurance companies, they are highly exposed to the risk of getting insolvent at any particular period of time when the huge claim arise in the future due to normal hazards or from the natural calamities. That's why, after the April-2015 Earthquake, the major impact was seen on the insurance sectors, especially on the non-life insurance sectors. During the period of Earthquake effect, the non-life insurance companies were liable to meet the huge claims of the policyholders as the Earthquake had destroyed the economy of the nation. So, it was a high time for the non-life insurance companies to meet the claims of the victims on the one hand whereas on the other hand they have to raise the capital by conducting the business without any questions of getting insolvent. It is because after the April-2015 Earthquake, the Insurance Board had taken a decision against the non-life insurance companies to increase their capital by Rs. 1.00 billion in order to make the companies more competitive and increase their strength to counter the huge claims that could arise in the near future like April-2015 Earthquake. Thus, this paper is the complementary study to determine the effects of claim settlement aroused from the April-2015 Earthquake on different financial indicators of the non-life insurance companies with reference to the Siddhartha Insurance Limited and Neco Insurance Limited.

The study covers the period of latest five years from 2012/13 to 2016/17 to examine and analyze the data for interpretation. Similarly, the entire study has been divided into five different chapters.

In the 'Introduction Chapter' the general background of the study, brief of April-2015 Earthquake, insurance in Nepal, brief profile of sample non-life insurance companies, statement of the problem, objectives of the study, significance of the study and organization of the study have been described.

Literature review section included discussion on the conceptual framework on the insurance, claims procedure and reinsurance. The chapter also discussed about the journals and articles regarding the insurance companies, impact during the natural calamities and the CARMEL model adopted to examine the financial position of the insurance companies of the several authors. The chapter also included the concluding remarks that shows the necessity of conducting the present research.

Research methodology chapter explained how the data is collected and analyzed to interpret the result. This chapter discussed about the research design, nature and sources of data, population and sample, methods of analysis through the use of various financial tools and statistical tools and also the limitations of the study. For the study, the secondary data basically published annual reports have been gathered.

Presentation and analysis of the data chapter sought to fulfill the objectives of the study by presenting and analyzing the data with the help of various financial tools and statistical tools as described in the third chapter. The data are tabulated and also presented in the figure to interpret the major findings of the study in relation with the research objective.

Last chapter included the summary and conclusions on the basis of which the recommendation section presents suggestions to the studied non-life insurance companies.

5.2 Conclusions

As banks and other financial institutions, insurance sectors are also equally important for the development of the economy. Its importance could be realized after the April-2015 Earthquake where the insurance companies were liable to cover the huge losses resulted from the Earthquake. Similar to the banks and other financial institutions, insurance companies have also different financial indicators to judge their financial efficiency. In a developing country like Nepal, where the insurance sectors are not developed adequately as compared to banks and other financial institutions, in such a situation, it is interesting to know how the insurance companies

particularly the non-life insurance companies get rid from the impact of April-2015 Earthquake without any major changes in the financial indicators or the performance after satisfying the huge claim from the Earthquake victims. From the study it is found that the Earthquake has definitely left its impact on the performance of the non-life insurance companies which is being reflected from the calculation of C.V. where there is a huge variation in some of the indicators of the non-life insurance companies as compared to the same indicators before Earthquake.

The study covers the two non-life insurance companies (i.e. SIL and NIL) and their audited data for the last five fiscal years from 2012/13 to 2016/17. The available secondary data has been analyzed using various financial and statistical tools. So, the reliability of conclusion of this study is determined on the accuracy of the secondary data.

On the basis of the findings from the data analysis, the following conclusions have been drawn in line with the study objectives:

1. From the capital adequacy point of view, before April-2015 Earthquake there has been a major fluctuation in the ratio for both the non-life insurance companies which gained the stability after the April-2015 Earthquake because the companies realized the importance of increasing the capital from getting insolvent in the near future resulted from such natural calamities. However, the increasing trend of SIL is instable therefore the coefficient of variation is higher than NIL.

Likewise, from the reinsurance and actuarial point of view, it is found that there is a slight variation in the ratios between the selected non-life insurance companies which means that both companies are transferring more than 50 percent of risk to the reinsurance companies in order to be protected from the unexpected circumstances and its huge claims.

Similarly, it is found that after the April-2015 Earthquake, the earnings and profitability of both non-life insurance companies have been declined because they have to meet the huge claim obligation and since they started reinsuring the policies with the reinsurers that led the increment of re-insurance commission which is also a major factor for the reduction of the overall profit of the companies.

After the April-2015 Earthquake, the liquidity position of both non-life insurance companies has been highly affected because both the companies have liquidated most of their investments to pay their claim obligations.

2. Since both the companies were highly affected by the April-2015 Earthquake due to which huge claim obligation arose. Thus, it led to the rapid increment in the outstanding claims for both the companies whose affect is still present in the data of the companies. Though the companies have settled most of the claims but the settlement ratio is not so satisfactory to convince the policyholders regarding the sound performance of the companies because high outstanding claim is the signal of ineffective claim management procedures.

5.3 Recommendations

Based on the major findings of the study, some recommendations have been made so as to overcome some shortfalls regarding the claim management of the insurance sectors:

1. Both the insurance companies should increase their capital and reserves on the continuous basis not only as and when instructed by the Insurance Board because the capital and reserves determine the strength of the insurance companies and it also protects the companies from getting insolvent at the time of huge claim obligation if any unexpected natural calamities arise like April-2015 Earthquake.

2. The studied non-life insurance companies should maintain the desirable risk retention ratio because too high and too low ratio may affect the normal functioning of the companies. Too high ratio indicates that the companies will be unable to pay the claim on time because most of its premium amount goes to the reinsurance companies and too low ratio indicates that the company is exposing to the risk of getting insolvent if any huge claims arise in the future as there will be no any adequate coverage of the risk on the behalf of the insurance companies. Generally, the insurance companies should transfer 50 percent of its risk to the reinsurance companies because it is neither high nor low.

3. The studied non-life insurance companies should maintain the adequate liquidity to cover the claims of the policyholders without the need of selling its assets at a lower price for meeting the claim obligation so that their earnings don't get affected.

4. The regulatory body should also formulate the proper mechanism or framework regarding the claim management procedure so that the volume of outstanding claims of the insurance companies shall decrease because at the time of need, money is important to the people.

As this study is solely based on the available secondary data and has not considered the external factors like economic growth, growth of the financial system, political principles and policies and other variables except the April-2015 Earthquake, it is recommended that a detailed study is carried out to observe the claim management and its effect on the financial performance of the non-life insurance companies after the April-2015 Earthquake. More sophisticated statistical tools can be used to make findings more reliable and valid across the different aspects of the insurance industry. The study has been made by considering the two non-life insurance companies, therefore in order to reach more critical conclusion, there is a huge scope of the further studies.

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WEBSITES

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www.bsib.org.np

www.neco.com.np

www.siddharthainsurance.com

Appendix-I

Year	SIL			NIL			
	Capital	Total Assets	Ratio (X) (In %)	Capital	Total Assets	Ratio (X) (In %)	
2012/13	216,140,686.00	783,879,899.00	27.57	239,095,018.00	621,242,515.00	38.49	
2013/14	482,942,239.00	1,096,547,712.00	44.04	344,250,988.00	782,803,293.00	43.98	
2014/15	652,691,663.00	1,483,467,107.00	44.00	496,104,630.00	1,002,877,613.00	49.47	
2015/16	836,465,573.00	1,856,624,647.00	45.05	614,125,410.00	1,328,791,425.00	46.22	
2016/17	1,131,398,501.00	2,610,659,321.00	43.34	1,223,832,543.00	2,350,208,213.00	52.07	
Mean			40.80	Mean			46.04
S.D.			7.42	S.D.			5.23
C.V.			18.19	C.V.			11.36

Where,

$$\text{Capital to Total Assets Ratio} = \frac{\text{Capital}}{\text{Total Assets}}$$

Mean or Average of the Capital to Total Assets Ratio of each Year, $\bar{X} = \frac{\sum X}{N}$

Number of Observation (N) = 5

$$S.D. = \sqrt{\frac{\sum (x - \bar{x})^2}{n - 1}}$$

$$C.V. = (S.D./\text{Mean}) \times 100\%$$

Appendix-II

Year	SIL			NIL			
	Net Premium	Gross Premium	Ratio (X) (In %)	Net Premium	Gross Premium	Ratio (X) (In %)	
2012/13	273,204,484.00	601,990,927.00	45.38	183,156,082.00	412,409,193.00	44.41	
2013/14	342,918,446.00	820,109,621.00	41.81	202,967,417.00	451,514,253.00	44.95	
2014/15	469,852,221.00	972,183,905.00	48.33	231,682,430.00	531,199,997.00	43.61	
2015/16	569,217,811.00	1,165,837,980.00	48.82	427,423,425.00	907,763,715.00	47.09	
2016/17	705,823,494.00	1,502,572,367.00	46.97	746,805,112.00	1,362,303,643.00	54.82	
Mean			46.27	Mean			46.98
S.D.			2.82	S.D.			4.57
C.V.			6.10	C.V.			9.73

Where,

$$\text{Risk Retention Ratio} = \frac{\text{Net Premium}}{\text{Gross Premium}}$$

Mean or Average of the Capital to Total Assets Ratio of each Year, $\bar{X} = \frac{\sum X}{N}$

Number of Observation (N) = 5

$$S.D. = \sqrt{\frac{\sum(x - \bar{x})^2}{n - 1}}$$

$$C.V. = (S.D./\text{Mean}) \times 100\%$$

Appendix-III

Year	SIL			NIL			
	Net Claims Incurred	Net Premium	Ratio (X) (In %)	Net Claims Incurred	Net Premium	Ratio (X) (In %)	
2012/13	102,570,900.00	273,204,484.00	37.54	87,852,568.00	183,156,082.00	47.97	
2013/14	167,771,726.00	342,918,446.00	48.92	96,893,484.00	202,967,417.00	47.74	
2014/15	199,023,277.00	469,852,221.00	42.36	116,837,077.00	231,682,430.00	50.43	
2015/16	246,063,873.00	569,217,811.00	43.23	119,392,038.00	427,423,425.00	27.93	
2016/17	337,091,283.00	705,823,494.00	47.76	221,137,375.00	746,805,112.00	29.61	
Mean			43.96	Mean			40.74
S.D.			4.56	S.D.			10.99
C.V.			10.38	C.V.			26.97

Where,

$$\text{Incurred Claim Ratio} = \frac{\text{Net Claims Incurred}}{\text{Net Premium Earned}}$$

Mean or Average of the Capital to Total Assets Ratio of each Year, $\bar{X} = \frac{\sum X}{N}$

Number of Observation (N) = 5

$$S.D. = \sqrt{\frac{\sum (x - \bar{x})^2}{n - 1}}$$

$$C.V. = (S.D./\text{Mean}) \times 100\%$$

Appendix-IV

Year	SIL			NIL			
	Total Claims Paid	Total Claims Received	Ratio (X) (In %)	Total Claims Paid	Total Claims Received	Ratio (X) (In %)	
2012/13	174,943,875.00	469,729,425.00	37.24	166,082,606.00	409,829,004.00	40.52	
2013/14	404,883,079.00	524,337,608.00	77.22	153,356,474.00	414,280,634.00	37.02	
2014/15	449,082,676.00	1,835,405,419.00	24.47	323,116,607.00	1,052,530,550.00	30.70	
2015/16	812,162,055.00	1,329,280,063.00	61.10	681,802,691.00	992,690,087.00	68.68	
2016/17	695,563,383.00	1,290,272,210.00	53.91	409,169,354.00	710,636,953.00	57.58	
Mean			50.79	Mean			46.90
S.D.			20.56	S.D.			15.73
C.V.			40.48	C.V.			33.53

Where,

$$\text{Claim Settlement Ratio} = \frac{\text{Total Claims Paid During the Period}}{\text{Total Claims Received During the Period}}$$

Mean or Average of the Capital to Total Assets Ratio of each Year, $\bar{X} = \frac{\sum X}{N}$

Number of Observation (N) = 5

$$S.D. = \sqrt{\frac{\sum (x - \bar{x})^2}{n - 1}}$$

$$C.V. = (S.D./\text{Mean}) \times 100\%$$

Appendix-V

Year	SIL			NIL		
	Claims Received from Reinsurance	Total Claims Paid	Ratio (X) (In %)	Claims Received from Reinsurance	Total Claims Paid	Ratio (X) (In %)
2012/13	72,372,975.00	174,943,875.00	41.37	78,230,038.00	166,082,606.00	47.10
2013/14	237,111,353.00	404,883,079.00	58.56	56,462,990.00	153,356,474.00	36.82
2014/15	250,059,399.00	449,082,676.00	55.68	206,279,530.00	323,116,607.00	63.84
2015/16	566,098,182.00	812,162,055.00	69.70	562,410,653.00	681,802,691.00	82.49
2016/17	358,472,100.00	695,563,383.00	51.54	188,031,979.00	409,169,354.00	45.95
Mean			55.37	Mean		55.24
S.D.			10.33	S.D.		18.08
C.V.			18.65	C.V.		32.74

Where,

$$\text{Reinsurance Ratio} = \frac{\text{Claims Received from Reinsurance}}{\text{Total Claims Paid During the Period}}$$

$$\text{Mean or Average of the Capital to Total Assets Ratio of each Year, } \bar{X} = \frac{\sum X}{N}$$

Number of Observation (N) = 5

$$S.D. = \sqrt{\frac{\sum(x - \bar{x})^2}{n - 1}}$$

$$C.V. = (S.D./\text{Mean}) \times 100\%$$

Appendix-VI

Year	SIL			NIL		
	Income from Investment, Loans and others	Net Premium	Ratio (X) (In %)	Income from Investment, Loans and others	Net Premium	Ratio (X) (In %)
2012/13	30,089,290.00	273,204,484.00	11.01	37,750,622.00	183,156,082.00	20.61
2013/14	44,005,723.00	342,918,446.00	12.83	36,025,887.00	202,967,417.00	17.75
2014/15	132,507,007.00	469,852,221.00	28.20	110,058,491.00	231,682,430.00	47.50
2015/16	70,121,732.00	569,217,811.00	12.32	45,921,028.00	427,423,425.00	10.74
2016/17	86,954,051.00	705,823,494.00	12.32	91,008,759.00	746,805,112.00	12.19
Mean			15.34	Mean		21.76
S.D.			7.22	S.D.		14.94
C.V.			47.09	C.V.		68.68

Where,

$$\text{Insurance Margin} = \frac{\text{Income from Investment, Loans and Others}}{\text{Net Premium}}$$

$$\text{Mean or Average of the Capital to Total Assets Ratio of each Year, } \bar{X} = \frac{\sum X}{N}$$

$$\text{Number of Observation (N)} = 5$$

$$S.D. = \sqrt{\frac{\sum(x - \bar{x})^2}{n - 1}}$$

$$C.V. = (S.D./\text{Mean}) \times 100\%$$

Appendix-VII

Year	SIL			NIL		
	Profit after Tax	Net Worth	Ratio (X) (In %)	Profit after Tax	Net Worth	Ratio (X) (In %)
2012/13	42,781,227.00	216,140,686.00	19.79	36,978,857.00	239,095,018.00	15.47
2013/14	120,515,918.00	482,942,239.00	24.95	36,698,305.00	344,250,988.00	10.66
2014/15	169,984,016.00	652,691,663.00	26.04	92,183,701.00	496,104,630.00	18.58
2015/16	186,082,387.00	836,465,573.00	22.25	121,574,394.00	614,125,410.00	19.80
2016/17	224,392,250.00	1,131,398,501.00	19.83	208,531,771.00	1,223,832,543.00	17.04
	Mean		22.57	Mean		16.31
	S.D.		2.87	S.D.		3.55
	C.V.		12.73	C.V.		21.78

Where,

Return on Equity = $\frac{\text{Profit after Tax before the allocation of reserve and bonus}}{\text{Net Worth or Capital}}$

Mean or Average of the Capital to Total Assets Ratio of each Year, $\bar{X} = \frac{\sum X}{N}$

Number of Observation (N) = 5

$$S.D. = \sqrt{\frac{\sum(x - \bar{x})^2}{n - 1}}$$

$$C.V. = (S.D./\text{Mean}) \times 100\%$$

Appendix-VIII

Year	SIL			NIL			
	Liquid Assets	Current Liabilities	Ratio (X) (In %)	Liquid Assets	Current Liabilities	Ratio (X) (In %)	
2012/13	461,299,924.00	211,328,464.00	2.18	361,771,889.00	109,872,689.00	3.29	
2013/14	689,589,594.00	205,230,913.00	3.36	501,471,307.00	111,465,389.00	4.50	
2014/15	833,047,427.00	213,053,809.00	3.91	542,649,687.00	97,395,824.00	5.57	
2015/16	847,755,040.00	234,483,288.00	3.62	718,433,255.00	145,114,716.00	4.95	
2016/17	1,410,796,207.00	473,463,297.00	2.98	1,494,723,687.00	242,576,433.00	6.16	
Mean			3.21	Mean			4.90
S.D.			0.67	S.D.			1.09
C.V.			20.81	C.V.			22.36

Where,

$$\text{Liquidity Ratio} = \frac{\text{Liquid Assets}}{\text{Current Liabilities}}$$

Mean or Average of the Capital to Total Assets Ratio of each Year, $\bar{X} = \frac{\sum X}{N}$

Number of Observation (N) = 5

$$S.D. = \sqrt{\frac{\sum(x - \bar{x})^2}{n - 1}}$$

$$C.V. = (S.D./\text{Mean}) \times 100\%$$

Appendix-IX

Growth in Net Premium Before and After April-2015 Earthquake of SIL

Year	2012/13	2013/14	2014/15	2015/16	2016/17
Net Premium	273,204,484.00	342,918,446.00	469,852,221.00	569,217,811.00	705,823,494.00
Average of Net Premium Before and After Earthquake of Two Consecutive Years	308,061,465.00			637,520,652.50	
Growth (In %)	52.52			35.69	

$$\text{Growth before Earthquake} = \frac{\text{Amount during Earthquake} - \text{Average Amount of Preceding Year}}{\text{Average Amount of Preceding Year}}$$

$$\text{Growth after Earthquake} = \frac{\text{Average Amount of Succeeding Year} - \text{Amount during Earthquake}}{\text{Amount during Earthquake}}$$

Growth in Reinsurance Premium Before and After April-2015 Earthquake of SIL

Year	2012/13	2013/14	2014/15	2015/16	2016/17
Reinsurance Premium	328,786,443.00	477,191,175.00	502,331,684	596,620,169.00	796,748,873.00
Average of Reinsurance Premium Before and After Earthquake of Two Consecutive Years	402,988,809.00			696,684,521.00	
Growth (In %)	24.65			38.69	

$$\text{Growth before Earthquake} = \frac{\text{Amount during Earthquake} - \text{Average Amount of Preceding Year}}{\text{Average Amount of Preceding Year}}$$

$$\text{Growth after Earthquake} = \frac{\text{Average Amount of Succeeding Year} - \text{Amount during Earthquake}}{\text{Amount during Earthquake}}$$

Growth in Net Profit Before and After April-2015 Earthquake of SIL

Year	2012/13	2013/14	2014/15	2015/16	2016/17
Profit	42,781,227.00	120,515,918.00	169,984,016.00	186,082,387.00	224,392,250.00
Average of Profit Before and After Earthquake of Two Consecutive Years	81,648,572.50			205,237,318.50	
Growth (In %)	108.19			20.74	

$$\text{Growth before Earthquake} = \frac{\text{Amount during Earthquake} - \text{Average Amount of Preceding Year}}{\text{Average Amount of Preceding Year}}$$

$$\text{Growth after Earthquake} = \frac{\text{Average Amount of Succeeding Year} - \text{Amount during Earthquake}}{\text{Amount during Earthquake}}$$

Growth in Liquid Assets Before and After April-2015 Earthquake of SIL

Year	2012/13	2013/14	2014/15	2015/16	2016/17
Liquid Assets	461,299,924.00	689,589,594.00	833,047,427.00	847,755,040.00	1,410,796,207.00
Average of Liquid Assets Before and After Earthquake of Two Consecutive Years	575,444,759.00			1,129,275,623.50	
Growth (In %)	44.77			35.56	

$$\text{Growth before Earthquake} = \frac{\text{Amount during Earthquake} - \text{Average Amount of Preceding Year}}{\text{Average Amount of Preceding Year}}$$

$$\text{Growth after Earthquake} = \frac{\text{Average Amount of Succeeding Year} - \text{Amount during Earthquake}}{\text{Amount during Earthquake}}$$

Appendix-X

Growth in Net Premium Before and After April-2015 Earthquake of NIL

Year	2012/13	2013/14	2014/15	2015/16	2016/17
Net Premium	183,156,082.00	202,967,417.00	231,682,430.00	427,423,425.00	746,805,112.00
Average of Net Premium Before and After Earthquake of Two Consecutive Years	193,061,749.50			587,114,268.50	
Growth (In %)	20.00			153.41	

$$\text{Growth before Earthquake} = \frac{\text{Amount during Earthquake} - \text{Average Amount of Preceding Year}}{\text{Average Amount of Preceding Year}}$$

$$\text{Growth after Earthquake} = \frac{\text{Average Amount of Succeeding Year} - \text{Amount during Earthquake}}{\text{Amount during Earthquake}}$$

Growth in Reinsurance Premium Before and After April-2015 Earthquake of NIL

Year	2012/13	2013/14	2014/15	2015/16	2016/17
Reinsurance Premium	229,253,111.00	248,546,836.00	299,517,567.00	480,340,290.00	615,498,531.00
Average of Reinsurance Premium Before and After Earthquake of Two Consecutive Years	238,899,973.50			547,919,410.50	
Growth (In %)	25.37			82.93	

$$\text{Growth before Earthquake} = \frac{\text{Amount during Earthquake} - \text{Average Amount of Preceding Year}}{\text{Average Amount of Preceding Year}}$$

$$\text{Growth after Earthquake} = \frac{\text{Average Amount of Succeeding Year} - \text{Amount during Earthquake}}{\text{Amount during Earthquake}}$$

Growth in Net Profit Before and After April-2015 Earthquake of NIL

Year	2012/13	2013/14	2014/15	2015/16	2016/17
Profit	36,978,857.00	36,698,305.00	92,183,701.00	121,574,394.00	208,531,771.00
Average of Profit Before and After Earthquake of Two Consecutive Years	36,838,581.00			165,053,082.50	
Growth (In %)	150.24			79.05	

$$\text{Growth before Earthquake} = \frac{\text{Amount during Earthquake} - \text{Average Amount of Preceding Year}}{\text{Average Amount of Preceding Year}}$$

$$\text{Growth after Earthquake} = \frac{\text{Average Amount of Succeeding Year} - \text{Amount during Earthquake}}{\text{Amount during Earthquake}}$$

Growth in Liquid Assets Before and After April-2015 Earthquake of NIL

Year	2012/13	2013/14	2014/15	2015/16	2016/17
Liquid Assets	361,771,889.00	501,471,307.00	542,649,687.00	718,433,255.00	1,494,723,687.00
Average of Liquid Assets Before and After Earthquake of Two Consecutive Years	431,621,598.00			1,106,578,471.00	
Growth (In %)	25.72			103.92	

$$\text{Growth before Earthquake} = \frac{\text{Amount during Earthquake} - \text{Average Amount of Preceding Year}}{\text{Average Amount of Preceding Year}}$$

$$\text{Growth after Earthquake} = \frac{\text{Average Amount of Succeeding Year} - \text{Amount during Earthquake}}{\text{Amount during Earthquake}}$$

**MANAGEMENT OF PRE- AND POST- EARTHQUAKE-2015
CLAIMS AND THEIR EFFECT ON FINANCIAL PERFORMANCE OF
NON-LIFE INSURANCE COMPANIES IN NEPAL:
*A CASE STUDY OF SIDDHARTHA INSURANCE LTD. AND NECO
INSURANCE LTD.***

A THESIS PROPOSAL

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1. INTRODUCTION

1.1 General Background

In the world of uncertainty, people always seek for security of their lives and property. Due to the rapid development of economic and industrial sectors, several social and environmental changes have taken place which creates the uncertainty to human beings. Definitely no one can predict the unfortunate situation and amount of loss that could be generated with these changes. Hence, to cope with these unexpected situations insurance industry has been emerged. People live in society which is full of risks and uncertainty. Insurance is a device providing financial compensation to those who suffer from misfortune. In other words, insurance is the best means for security to human life and property from various risks. It is a kind of investment, from which one gets return only when certain loss occurred from predetermined incidents.

Insurance is defined as a form of risk management primarily used to hedge against unforeseen risks of contingent losses. It is the equitable transfer of the risks from the possibility of occurrence of losses from one person to another against a certain fixed amount of premium to the insurer on a regular interval period of time as per the terms and conditions. In Nepal, insurance business is regulated by Insurance Board (Beema Samiti). Generally, insurance companies are considered as an important part of institutional investment as they invest in corporate securities as well as other collective investment schemes which in turn produce sufficient income to meet their obligations in the form of promised insurance benefits. Normally, insurance can be categorized as life insurance and non-life insurance which is also known as general insurance.

After a massive earthquake hit Nepal in April 2015, various catastrophic were taken place in the country. During this particular period of time, the major impact could be seen on the insurance sector as they have to meet their obligations. As per the published data of Insurance Board dated 18.02.2018, the total claim to be settled by non-life insurance companies stood as Rs. 16.69 billion, out of which Rs. 12.55 billion has been settled. The current study is also related with the analysis of pre- and post- financial performance of the non-life insurance companies after the massive Earthquake of April-2015 considering the impact of claim management through the case analysis of “Siddhartha Insurance Limited” and “Neco Insurance Limited.”

1.2 Statement of the Problem

In the recent perspective regarding the development of the economy, the role of insurance industry is equal as the role of banking industry. The sound financial health of the insurance is very important as the insurance companies may declare insolvent against the predetermined clause at any particular period of time. So, it is an essential task for the regulators, investors and the insurance companies itself to have a periodic evaluation and monitoring of the financial condition of the insurance companies especially after the massive April-2015 Earthquake which had adversely affected the non-life insurance companies to a greater extent than the life insurance companies. Based on this fact, this study will try to seek the answers of the following statements relating to the selected non-life insurance companies:

1. Do the selected non-life insurance companies are been able to maintain the minimum acceptable level of financial status as before the April-2015 Earthquake throughout the review period?
2. Are the present policyholders safe in terms of their claim settlement procedures and duration after addressing the huge claims generated from the April-2015 Earthquake?

1.3 Objectives of the Study

The core objective of the study is to examine the pre- and post- financial performance of the two non-life insurance companies after the massive Earthquake of April-2015 in Nepal considering the impact of the claim settlement. The specific objectives of the study are listed below:

1. To evaluate the pre- and post- April-2015 Earthquake impact on the performance of the selected non-life insurance companies through the analysis of different ratios;
2. To evaluate the efficiency of the claim settlements of the selected non-life insurance companies before and after the April-2015 Earthquake.

2. REVIEW OF LITERATURE

A literature review is a critical and in-depth evaluation of previous research. This study summarizes the information from other researchers who have carried out their research in the similar field of study.

Ansari & Fola (2014) employed CAMEL model to analyze the variables of the life insurance companies. According to the result of this study, capital adequacy, asset quality, management efficiency, earnings/profitability and liquidity position significantly vary in private and public life insurance companies in India.

Derbali (2014) focused on the growth and profitability of the life insurance companies. According to the study, the company growth rate and age were identified which had a positive impact while company size affecting negatively the profitability of insurance companies. However, variables such as leverage ratio, tangibility and liquidity risk were identified as had no significant impact on life insurance companies' profitability.

Joo (2013) analyzed that the insurance sector has undergone significant transformation after liberalization. This is also true with Indian insurance market where insurance penetration and density is very low compared to other countries. Therefore, many foreign insurance companies were lured to make entry in Indian insurance in order to insulate positive spread from large untapped insurance market, mainly by entering into joint venture with local partners. Thus Indian insurance market after liberalization was assaulted by the pressure of globalization, competition from multinational insurance companies and lavish underwriting chase which are seen as threats as well as opportunities for insurance companies. However, entry of new players has resulted into heavy underwriting losses for Indian public and private insurers. But heavy underwriting losses had reverse impact on their solvency margins. In present study, the Insurance Solvency International Ltd. (ISI) predictors have been employed to study the solvency position of Indian non life insurers. Further, study highlights the extent of relationship between various factors and solvency of non life insurers in India by using multiple regression analysis. The result of the study has shown that claim ratio and firm size have greater impact on solvency position of insurance companies.

Gurung (2011) analyzed the performance of insurance business in Nepal through the use of simple percentage and correlation coefficient on the quantitative data. The study reveals that there were altogether 25 insurance companies viz. 8 life insurance and 16 non-life insurance and one offer both life and non-life services. They have altogether 340 branch offices in Nepal. The growth of insurance policies for both life and non-life insurance companies had been increasing and significant during the study period. Similarly, the progressive trend of premium collection

reached to 48 percent for non-life and 37.06 percent for life insurance in FY 2066/67 and contributed 1.70 percent in GDP of the economy. Moreover, the investment of insurance companies has been positive but fluctuating over the period under study. However, the correlation coefficient between total premium collection and total investment is positive with $r=0.97$ and significant as its P.E is only 0.0163. These facts reveal that the performance of insurance business in Nepal is satisfactory.

3. PROPOSED RESEARCH FRAMEWORK

The core objective of the study is to examine the pre- and post- financial performance of the two non-life insurance companies after the massive April-2015 Earthquake in Nepal considering the impact of the claim settlement based on assigned variables. The variables are classified as dependent variable and independent variable. The following framework establishes the relationship between the study variables.

Independent Variable	Dependent Variable
Net Premium	Claim
Reinsurance Premium	Claim

4. RESEARCH METHODOLOGY

Research methodology is a sequential steps to be adopted by a researcher in studying a problem with certain objectives in view. It is a planned and systematic way of dealing with collection, analysis and interpretation of facts and figures. The research methodologies used in the present study are briefly mentioned below:

4.1 Research Design

Research design is a framework that stipulates what sorts of information to be gathered from which source. This study is based on descriptive and analytical approaches. Descriptive approaches are adopted to interpret the financial performance of two non-life insurance companies. For the analytical part, statistical and financial tools are used with the help of published annual reports of the selected non-life insurance companies.

4.2 Nature and Sources of Data

This study is mainly based on the secondary data. The required data for the study are collected from the published annual reports of the selected non-insurance companies. Similarly, some data has been gathered from the website of the Insurance Board.

4.3 Population and Sampling Techniques

Out of 17 non-life insurance companies in Nepal, Siddhartha Insurance Limited and Neco Insurance Limited are taken as a sample for the study. Financial statements of the latest five years from the Fiscal Year 2012/13 to 2016/17 are taken as a sample data to study the impact of April-2015 Earthquake's claim on the financial performance of the selected non-life insurance companies.

4.4 Methods of Analysis

Specific financial and statistical tools are used to achieve the objectives of the study. The data is analyzed and evaluated on the basis of available data which later are tabulated to compare and interpret the results. Under financial tools, different ratios are used to analyze the strengths and weaknesses of the selected non-life insurance companies. Under statistical tools mean, standard deviation, coefficient of variation, coefficient of correlation, coefficient of determination and probable error are used to interpret the results of the selected non-life insurance companies.

4.5 Limitations of the Study

The study has been conducted on the basis of annual reports of selected non-life insurance companies, published and unpublished material. Therefore the strength of findings will largely depends upon the correctness of input information. Since the study has been conducted by assuming about various factors, it has following limitations:

1. The study is based on the secondary data. Thus, the result of the analysis depends upon the information published.
2. The study considers only two non-life insurance companies as a sample and real situation of other non-life insurance companies may be different.
3. The analysis covers the time duration of only five years audited data from 2012/13 to 2016/17.

5. ORGANIZATION OF THE STUDY

This study has been divided into five chapters. Each chapter has different following aspects:

Chapter I: Introduction

The introduction chapter briefly explains about the general background of the study that has been undertaken followed by the brief of April-2015 Earthquake and introduction of insurance in Nepal. It also discusses about the statement of the problem, objectives of the study, significance of the study and organization of the study.

Chapter II: Review of Literature

The second chapter reviews the articles, journals, literature and relevant researches pertinent to the study. This chapter contains conceptual framework and research review of related study by different researchers to assess the research gap.

Chapter III: Research Methodology

The third chapter describes the methods that are used to conduct the research to achieve its objectives. This chapter consists of research design, nature and sources of data, population and sample and methods of analysis that includes financial tools and statistical tools and limitations of the study for analyzing the claim management and financial efficiency of Siddhartha Insurance Limited and Neco Insurance Limited.

Chapter IV: Presentation and Analysis of Data

The study is fully based on the secondary data. This chapter deals with the presentation and analysis of data. Tables, charts along with various financial and statistical tools have been used to analyze and interpret the data.

Chapter V: Summary, Conclusions and Recommendations

This is the final chapter of the study which consists of the summary of the four earlier chapters. This chapter draws a conclusion of the study and attempts to offer various suggestions and recommendations for the improvement of the future performances of the selected non-life insurance companies.

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