

**YANGON UNIVERSITY OF ECONOMICS  
MASTER OF PUBLIC ADMINISTRATION PROGRAMME**

**A STUDY ON FIRE AND ALLIED PERILS INSURANCE  
PREMIUM RATING  
(CASE STUDY ON HLAINGTHARYAR INDUSTRIAL ZONE)**

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EMPA – 74 (16<sup>th</sup>BATCH)**

**OCTOBER, 2019**

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**A STUDY ON FIRE AND ALLIED PERILS INSURANCE  
PREMIUM RATING  
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This thesis submitted in partial fulfillment towards the requirements for the  
Master of Public Administration (MPA) Degree

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This is to certify that this thesis entitled “**A STUDY ON FIRE AND ALLIED PERILS INSURANCE PREMIUM RATING**” (CASE STUDY ON **HLAINGTHARYAR INDUSTRIAL ZONE**) submitted as a partial fulfilment towards the requirements for the degree of Master of Public Administration (MPA) has been accepted by the Board of Examiners.

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## **ABSTRACT**

This study aims to identify the current status of fire and allied perils insurance and analyze the premium rating on the current fire and allied perils insurance system in Myanmar. In this study, descriptive method is used with quantitative and qualitative design. A survey is conducted from 200 respondents of factories in Hlaningtharyar Industrial Zone and the key informant interviews are also conducted to the experienced persons in insurance industry. This study found that most factories purchased fire and allied perils insurance under compulsory scheme of bank loan and they consider the rate of ordinary and additional cover is high. Most respondents demanded to lower discount on total premium and additional covers. The awareness of insurance should be raised for public by insurance industry. The current premium rate is high and it needs to be calculated with actuaries on the observation of the current condition in insurance industry.

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# TABLE OF CONTENTS

	<b>Page</b>
<b>ABSTRACT</b>	<b>i</b>
<b>ACKNOWLEDGEMENTS</b>	<b>ii</b>
<b>TABLE OF CONTENTS</b>	<b>iii</b>
<b>LIST OF TABLES</b>	<b>v</b>
<b>LIST OF FIGURES</b>	<b>vi</b>
<b>LIST OF ABBREVIATIONS</b>	<b>vii</b>
<b>CHAPTER I INTRODUCTION</b>	
1.1 Rationale of the Study	1
1.2 Objectives of the Study	2
1.3 Method of Study	3
1.4 Scope and Limitations of the Study	3
1.5 Organization of the Study	3
<b>CHAPTER II LITERATURE REVIEW</b>	
2.1 Meaning and Types of Insurance	4
2.2 Terms of Insurance	5
2.3 Principles of Insurance	6
2.4 Evolution of Fire Insurance	8
2.5 Definition of Fire Outbreak and Characteristics of Fire Insurance	8
2.6 Rating or Pricing of Insurance	10
2.7 Review on Previous Studies	16
<b>CHAPTER III FIRE INSURANCE BUSINESS IN MYANMAR</b>	
3.1 History of Insurance Industry in Myanmar	18
3.2 Classes of Insurance in Myanmar Insurance Industry	20
3.3 Profile of Private Insurance Companies	20
3.4 Insurance Income and Claim in Myanmar Insurance Industry	22
3.5 Fire and Allied Perils Insurance Practice in Myanmar	26

	3.6 Reducing the Premium Rate of Fire and Allied Perils Insurance in Myanmar	30
<b>CHAPTER</b>	<b>IV SURVEY ANALYSIS</b>	
	4.1 Survey Profile of Hlaingthar Industrial Zone	33
	4.2 Survey Design	33
	4.3 Survey Results	33
<b>CHAPTER</b>	<b>V CONCLUSION</b>	
	5.1 Findings	50
	5.2 Recommendations	52
<b>REFERENCES</b>		
<b>APPENDICES</b>		

## LIST OF TABLES

<b>Table</b>	<b>Title</b>	<b>Page</b>
3.1	List of Life and General Insurance Companies (2019)	21
3.2	Share of Fire and Allied Premium in Total Insurance Premium Income of Myanma Insurance	22
3.3	Fire and Allied Perils Insurance Income and Claim Ratio of Myanma Insurance	23
3.4	Life and General Insurance Income and Claim of Private Insurance Companies	25
3.5	Short Period Rate	30
4.1	Demographic Profile of Respondents in Factories	34
4.2	Fire and Allied Perils Insurance Awareness Information	35
4.3	Reasons for not Purchasing Insurance	36
4.4	Types of Insurance	37
4.5	Purchasing of Fire and Allied Perils Insurance	37
4.6	Types of Property Insured Against Fire Risk	38
4.7	Types of Additional Cover	39
4.8	Sum Insured Value of Fire and Allied Perils Insurance	39
4.9	Degree of Worry about the Risk of Fire and Natural Disaster	40
4.10	Experiences Against Fire and Allied Perils	41
4.11	Fire Extinguishers Appliance Materials at Factory	42
4.12	Causes of Fire	43
4.13	Ways of Recovering the Loss of Fire	43
4.14	Total Amount of Premium Rate for One Year	44
4.15	Information about Rating	45
4.16	The Degree of Satisfaction with Fire and Allied Perils Insurance Policy	46
4.17	Reasons to Demand for Lower Discount on Premium Rate	46



## LIST OF FIGURES

<b>Figure</b>	<b>Title</b>	<b>Page</b>
3.1	Share of Fire and Allied Perils Premium in Total Insurance Premium Income of Myanmar Insurance	23
3.2	Fire and Allied Perils Insurance Income and Claim Ratio of Myanmar Insurance	24
3.3	Life and General Insurance Income and Claim of Private Insurance Companies	25

## **LIST OF ABBREVIATIONS**

BGSIC	Burma Government Security Insurance Company Limited
BNIC	Burma National Insurance Company
FEA	Fire Extinguishing Appliances
FRD	Financial Regulatory Department
IBRB	Insurance Business Regulatory Board
IBSB	Insurance Business Supervisory Board
MIA	Myanma Insurance Association
MIC	Myanma Insurance Corporation
NCB	No Claim Bonus
PAE	Per Area Estimated value
Rs.	Rupees
RSMD	Riot, Strike and Malicious Damage
SFSP	Standard Fire and Special Perils Policy
STFI	Storm, Cyclone, Typhoon, Tempest, Hurricane, Tornado, Flood and Inundation
UIB	Union of Insurance Board

# **CHAPTER I**

## **INTRODUCTION**

### **1.1 Rationale of the Study**

It has been so many years that insurance stands as a system that shifted the burdens people suffer. In those long days, other subject especially scientific subjects have been progressing and so does insurance, too. Today people will have to face so many difficulties if there is no insurance. There will be no doubtful that it would be great constraint to wealth.

It is inevitable that everything such as living things and non-living things in the world cannot exist permanently. To have insurance is necessary to get adequate compensation for us and our owned things that can be damaged at any time.

Insurance is a substitution system in terms of money for the risks and damages. It happens when there is an actual loss. As the world we live in is a world of potential risks, we can avoid some kind of risks sometimes and sometimes we cannot avoid. When we can avoid some risks with our awareness, we will not be suffered from damages. But if there is inevitable risks people may have to suffer and accept the risks. There is a great loss when it is unavoidable. Such kind of great loss may be caused by several reasons such as human negligence and natural disasters like earthquakes, flood, storms and volcanic eruption. If such great losses are not replaced, national economy –people’s economy, on the other hand, socio-economy life of our country will be decreased. Insurance can restore such risks and losses into normal condition. It can be seen that insurance can help partly the State in the rehabilitation of the places where the risks occur. That is why insurance plays a crucial role in a country’s socio-economy life. It needs three sectors- marine, banking and insurance in building country of economy. Banking is the business of money lending and borrowing, making convenient to get investment then exports products and imports will improve when marine line is popular. Insurance is retaining the status of

economic before loss of fire by compensating the loss occurred because of unexpected causes.

Myanmar is exposed a number of hazards, especially epidemics, floods, drought, earthquakes with extreme mortality risk, cyclones, landslides and accidental fire.

It has been paramount important to protect commercial structures from fire throughout the history. Fire poses risk in terms of safety to occupants, building integrity, business interruption and the economic health of a community. Consequently, reduction in the risk of fire for commercial buildings has been a significant goal for society, achieved through a better understanding of all the factors that contribute to fire risk. People begin to know to do something to cover the risk from fire accident. That is why insurance becomes important.

In the study of fire insurance, one can have ordinary fire insurance and besides allied perils can also be taken as add on cover. Therefore, it is known as fire insurance as well as it is called fire and allied perils insurance. Fire and allied perils insurance is concerned with firmly established government and private banks in our country. In Myanmar, the State owned Myanma Insurance and all the private insurance companies have to follow and conduct concerning with the fire and allied perils insurance as in the tariff table prescribed by the Insurance Business Regulatory Board to fix premium rating.

Premium pricing is the process of establishing premium price in an insurance system or other risk transfer mechanisms. The purpose of premium pricing in an insurance system is to provide coverage for insured against the uncertainty of financial losses. Thus, this study is conducted to analyze premium rating as one of the several reasons in fire and allied perils insurance.

## **1.2 Objectives of the Study**

The objectives of this study are as follows:

- (1) To identify the current status of fire and allied perils insurance.
- (2) To analyze the premium rating on current fire and allied perils insurance system in Myanmar.

### **1.3 Method of Study**

The descriptive method is applied for the study. Both primary and secondary data were used to fulfill the objectives of the study. Then quantitative and qualitative methods were also used for the assessment of people's willingness on fire and allied perils insurance premium rating. A survey was done on respondents of two kinds such as people who insured for their property and those who did not insure. Respondents were selected by simple random sampling method. The survey was conducted using well-prepared questionnaires.

### **1.4 Scope and Limitations of the Study**

This study mainly focused on fire and allied perils insurance premium rating in Myanmar. The secondary data used in this study was from 2013-2014 fiscal year to 2017-2018 fiscal year. The size of the sample selected for the study was 200 respondents who run their own factories and responsible persons out of 725 factories from Hlaingtharyar Industrial Zone. Key informant interviews were also made to the experienced persons who worked in insurance industry (responsible persons – 3 persons from government and private insurance companies, 2 persons from banking business, 3 persons from experienced insurance agents) and 2 main responsible persons from Supervisory Committee of Hlaingtharyar Industrial Zone and 5 owners of those factories to get the required information.

### **1.5 Organization of the Study**

This thesis is organized into five chapters. Chapter One is introduction, Chapter Two is literature review on insurance, fire insurance and the concept of rating or pricing of insurance and rating of fire insurance premium in other countries. Chapter Three covers the history of Myanmar insurance industry, current fire and allied perils insurance business in Myanmar, current practices and reducing of fire premium rating. Chapter Four presents the data analysis and discussion of survey data in Hlaingtharyar Industrial Zone. Chapter Five entails Conclusion which includes findings and recommendation drawn from the findings.

## **CHAPTER II**

### **LITERATURE REVIEW**

#### **2.1 Meaning and Types of Insurance**

“Insurance is a means whereby group of people, facing similar risks, can be club together for protection against certain financial losses. Each individual transfer his risk to the club or fund, in return for a fee or premium. The unfortunate few who suffer losses claim compensation from the fund.” (Rejda, 1987)

“Insurance is a risk transfer mechanism, whereby the individual or the business enterprise can shift some of the uncertainty of life on to the shoulders of others”. In return for a known premium, usually a very small amount compared with the potential loss, the cost of that loss can transfer to an insurer. Without insurance, there would be a great deal of uncertainty experienced by an individual or an enterprise, as to whether or loss would occur. In the early days of marine insurance, the merchants agreed to give contributions to those suffering loss after the loss had taken place. Although this practice did not fully transfer the cost of uncertainty, it merely reduced it. The insured’s premium are received by the insurer into a fund or pool for that type of risk, and the claims of those suffering losses are paid out of this pool. The primary function of insurance is to provide a risk transfer mechanism by means of a common pool into which each policyholder pays a fair and equitable premium, according to the risk of loss he or she bring to the pool. (Gordon C. A. Dickson, 1981)

Insurance is a contract between two parties called insurer and insured where the insurer undertakes in exchange for a fixed sum called premiums, to pay the insured a fixed amount of money when a certain event is happened. Insurance protects against financial loss that is arising on the happening of an unexpected event. Insurance safeguards the ones who insured against possible losses on the account of risks and perils. Insurance compensates the loss caused by the unforeseen events as financial compensation. Thus insurance, being an invisible umbrella reduces the loss

of insured in property insurance and pays the sum assured in case of the death of the life assured in life insurance.

There are two types of insurance called Life insurance and General insurance. Life insurance and General insurance are different. They vary in certain aspects. In the former the liability for the insurance company arises on the death of the insured or the maturity of the policy whichever is earlier. In other words, the insurance company has to pay money either to the insured or his legal representatives. Generally, if no damage arises, no money needs to be paid to the insured and the entire amount of premium received by the insurance company is a gain for it. Thus while the liability to pay the amount is certain for life insurance company, it is contingent for a general insurance company.

## **2.2 Terms of Insurance**

Terms of insurance are defined as in the followings-

**Insurance:** It is a mechanism for contractually shifting burdens of a number of pure risks by pooling them.

**Proposal:** The written statements on a form by a prospective insured about himself, including assets and other personal information are proposals. Falsification or Non-disclosure of information may give the insurance company ground for rescinding a policy that has been issued. Statement in the application is also used to decide on an applicant's underwriting classification and premium rates.

**Insured:** The party who covered by an insurance policy is an insured.

**Insurance company (insurer):** An organization that underwrites insurance policies is called an insurer.

**Insurance policy:** It is a written contract between an insured and an insurance company stating the obligations and responsibilities of each party.

**Insurance rate:** This is the amount charged to an insured that reflects expectation of loss for a covered risk and insurance company expenses and profit.

**Premium:** The rate that an insured is charged, reflecting his or her expectation of loss or risk is called premium. The insurance company will assume the risks of the insured (length of life, state of health, property damage or destruction, or liability exposure) in exchange for a premium payment. Premiums are calculated by combining expectation of loss and expense and profit loadings.

**Insurable risk:** This is the condition in which an applicant has met an insurance company's standards. Requirements include a loss that is (1) definable; (2) fortuitous; (3) one of a large number of homogenous exposures; and (4) carries a premium reasonable in relation to a potential loss.

**Insurance to value:** It is in property coverage, ratio of the amount of insurance to the value of an insured property. This ratio, multiplied by the amount of the loss, determines the indemnification payment. (Rubin, 1995)

## **2.3 Principles of Insurance**

Insurance contracts are complex legal documents that reflect the general rules of law. It can be examined some fundamental legal principles that are reflected in insurance contracts.

### **2.3.1 Principle of Insurable Interest**

The insurable interest is the "pecuniary interest". The principle of insurable interest specifies that the insured must lose financially if a loss occurs or must incur some other kind of harm if the loss takes place. The insured must have subject matter that can be claimed on insurable interest when it is in time of loss and damage. Insurance contracts will be invalid if the property is sold to another party without having the permission of the insurer.

### **2.3.2 Principle of Utmost Good Faith**

The contract of insurance is one in which the observance of the utmost good faith – uberrimafieds – by both the parties are of vital significance. The utmost good faith in fire insurance has two aspects – disclosure of material facts and preservation of the property insured. The insurer and the insured must furnish detailed information regarding the subject matter to be insured. The insured must disclose all the information asked truly and fully to the insurer on the subject matter of material facts. The second phase of good faith is preservation of property. Thus, the observance of good faith is necessary not only during the negotiations of the contract but throughout the term of the policy and in making claims. The insured must inform the insurer about any change after commencement of risk.



### **2.3.3 Principle of Indemnity**

Indemnity is the process of paying compensation to the insured for a loss sustained and the compensation should be such as to place him as he occupied immediately before the occurrence. The insured cannot claim anything in excess of the amount on sum insured than the actual loss sustained. The insurers undertake to make good the insured's loss by financial payment or by reinstatement or replacement so that the insured shall be fully indemnified, but this is subject to the sum insured. The law does not sanction any insurance, which would enable the insured to profit or betterment by the destruction of the thing destroyed.

### **2.3.4 Principle of Subrogation**

Subrogation means the right of one person to stand in the place of another and to avail him of the latter's rights and remedies. The insured can realize only the actual value of the loss or damage to the property according to the principle of indemnity and it follows that if the damaged property has any right against a third party regarding that property. These must pass on to the insurer. Under subrogation the insured's rights of recovery are subrogated or transferred to the insurer after settlement of a claim. Subrogation is peculiar to insurance and takes effect retrospectively from the date of loss.

### **2.3.5 Principle of Proximate Cause**

Before paying out a claim, the insurer would need to identify what caused the loss or damage to the item that is insured in order to determine whether the incident that caused the damage is covered by the policy. Sometimes when a claim occurs, the exact cause of the damage is not always clear or there may have been one or more potential causes that could have led to the damage. An insurer will use claims handlers and loss adjusters to investigate the cause of the claim and they will use their expertise to identify the "Proximate Cause" of the damage. This term relates to the cause that is the most likely reason that an incident occurred that consequentially gave rise to the loss or damage that the claimant is trying to gain compensation for.

### **2.3.6 Principle of Contribution**

The principle of contribution is also a corollary of the principle of indemnity. It provides that if more than one policy for the same property, the insured cannot recover more than his actual loss. Each policy will pay a ratable proportion of the loss based on sum insured declared in each policy. (Rubin, 1995)

### **2.4 Evolution of Fire Insurance**

In 1666, the Great Fire was broken out in London which destroyed more than 13,000 houses and displaced about 100,000 people. But, it took a couple of decades to appear the fire insurance business. Counseling board allowed a person to implement fire insurance plan/project in 1638. However, it cannot be implemented. When fire broke out in 1666, there was no one who has got fire insurance. It helped the victims by collecting money before that fire. It only solved temporarily but it could not give the victim to cover their loss. Thus people tried to find a way to cover the loss from fire. This way is the system of fire insurance. Fire insurance is only the way of covering the loss but the way of relieving future worries. In 1680, Dr. Nicholas Barbon established Fire Office and it received brick building and timbered houses. Phoenix symbol is used and renamed it Phoenix Fire Office. There were three categories concerning the risks such as Common Insurance, Hazardous Insurance, and Doubly Hazardous Insurance. The first category covered brick and stone buildings that were not used for hazardous trades. The second category covered timber and plaster buildings or brick and stone buildings that were used for housing hazardous trades. The final category covered timber and plaster buildings that were used for hazardous trades and all premises of sugar bakers, distillers, china and glass manufacturers and other dangerous trades. After World War II, insurance business had improved as well as industrial business at the same time.

### **2.5 Definition of Fire Outbreak and Characteristics of Fire Insurance**

In fire insurance policy, the meaning of fire has three requirements as follows-

- (a) There must be actual ignition and there must be flames. Heating or fermentation unaccompanied by ignition is not enough. Therefore if a property situated near an ordinary source of heat is damaged by excessive heat radiated but is not actually ignited, the damage is not within the definition of fire within the policy.

- (b) There must be something on fire which ought not to be on fire as arson.
- (c) The fire must be accident or fortuitous in its origin as far as the insured is concerned. In other words, it must not be willful or intentional on the part of the insured or caused with the insured's connivance. However, a fire caused by the negligence of the insured will not prevent the insured from claiming under the policy. (General Insurance , 1999)

### **2.5.1 Characteristics**

A person with a limited interest in a property or goods may insure them to cover not only his own interest but also the interest of others in them. Under fire insurance, owner, mortgagee, pawnee, pawn broker, official receiver or assignee in insolvency proceedings, warehouse keeper in the goods of customer, a person in lawful possession e.g. common carrier, wharfing, commission agent are insurable interest in the subject matter. Properties that are covered in fire insurance policy are - building, plant & machinery, equipment's & accessories, stocks: (Raw Material, Finished Goods, in process, in trade belonging to wholesaler, manufacturer and retailer, furniture, fixtures and fittings respectively). A fire insurance policy cannot be assigned without the permission of the insurer and it will be voidable when it happens the loss. The policy-holder and the insurer must disclose all the material facts known to them in good faith. The contract specifies the maximum amount on sum insured which is agreed to by the parties at the time of the contract in which the insured can claim in case of loss.

Fire insurance is a contract under which the insurer agrees to indemnify the insured for the financial loss when the insured suffers due to destruction of or damage to property or goods, caused by fire during a specified period in return for a consideration (premium). The loss which is caused by fire must be ascertained. The insurer is liable to compensate for the actual amount of loss not exceeding the maximum amount fixed under the policy. Losses caused proximately by fire are covered in fire policies. The term loss by fire is interpreted liberally. Nothing can be covered under a fire policy if the fire is caused by a deliberate act or arson of the insured. In such cases the insured is liable to criminal prosecution. Fire policies generally contain a clause providing that upon the occurrence of fire the insured must notify immediately the insurer to salvage the remainder of the property and determine the extent of the loss. Insurance companies keep experts to examine the actual value

of the loss. The policy may be avoided if the property on the ground is fraud. Fire insurance policy is usually made for from one week to one year. The fire insurance policy can be renewed according to the terms of the policy when it is on its due date.

### **2.5.2 Causes of Fire**

Fire is caused by two types of hazard, “Physical” and “Moral”. Physical hazard refers to the inherent of fire in the property, which may occur due to inflammable nature, construction, artificial lighting and heating, lack of extinguishing apparatus use of the property etc. Moral hazard depends upon the man and physical hazard depends on the property. The property may be on fire by the owner or by any person with his willingness; the fire waste may be increased due to the lack of sense of duty and carelessness. Sometimes, when market-prices are going down the owner can willingly set fire on the property and gain from the payment of insurance money. Moral hazard exists when the property is destroyed with the willing of the property owner.

## **2.6 Rating or Pricing of Insurance**

An insurance rate is the price per unit of insurance. It is the price charged for each unit of protection or exposure. Like any other price it is a function of the cost of production. However in insurance unlike other industries, the cost of production is not known when the contract is sold and it will not be known until sometime in the future when the policy has expired. (Vaughan J. Emmett & Therese V., 1999)

The fundamental difference between insurance pricing and the pricing function in other industries is the price for insurance that must be based on a prediction. The process of predicting future losses and expenses and allocating these costs among the various classes of insurance is called rate making. (Rejda, 2001)

A second important difference between the pricing of insurance and pricing in other industries arises from the fact that insurance rates are subject to government regulations. This is because insurance is considered to be vested in the public interest. Virtually most insurance regulators of various countries enact laws imposing statutory restraints on insurance rates. These laws require that insurance rates must not be excessive, must be adequate, and may not be unfairly discriminatory. Thus, rate making goals can be classified into two categories – regulatory objective and business objectives.

**Regulatory objective**-The goal of insurance regulation is to protect the public. In general the rate charged by insurers must be adequate, not excessive and not unfairly discriminatory.

**Business Objective**- Insurers are also guided by certain business objectives in designing a rating system. The rating system should also meet simplicity, stability, responsiveness and encourage loss prevention.

### 2.6.1 Premium Rating in Property and Liability insurance

There are three basic rate making methods-

(a) **Judgment Rating:** Judgment rating means that each exposure is individually evaluated and the rate is determined largely by the underwriter's judgment. When the loss exposures are so diverse and a class rate cannot be calculated or when credible loss statistics are not available, this method is used. Judgment rating is widely used in ocean marine insurance and in some lines of inland marine insurance.

(b) **Class Rating:** Most rates used today are class rates. Class rating means exposure with similar characteristics are placed in the same underwriting class and each is charged the same rate. The average loss experience for the class as a whole is reflected by the rate charged. Class rating is based on the assumption that future losses to insured's will be determined largely by the same set of factor. The major advantage of class rating is that it is the various rates are published in a rating manual. Class rating is widely used in fire and homeowners insurance, life and health insurance. There are two basis methods for determining class rates called pure premium method and loss ratio method. These are-

(i) **Pure premium method:** The pure premium can be determined by dividing the dollar amount of incurred losses and loss adjustment expenses by the number of exposure unit.

$$\text{Pure Premium} = \frac{\text{Incurred losses and loss adjustment expenses}}{\text{Number of exposure units}}$$

The final step is adding a loading for expenses, underwriting profit and a margin for contingencies. Commissions, initial

underwriting expenses, overhead expense and premium tax are included in typical expenses. The expense ratio called expense loading is a percentage of the gross rate. Expense ratio is that proportion of the gross rate which is available for expenses and profit. The final gross rate can be determined by dividing the pure premium by 1 minus the expense ratio.

$$\text{Gross Rate} = \frac{\text{Pure Premium}}{1 - \text{Expenses Ratio}}$$

- (ii) **Loss Ratio Method:** Under the loss ratio method the actual loss ratio is compared with the expected loss ratio, and the rate is adjusted accordingly. The actual loss ratio is the ratio of incurred losses and loss adjustment expense to earned premium. The percentage of the premiums that is expected to be used to pay losses is the expected loss ratio.

$$\text{Rate Change} = \frac{\text{Actual loss ratio} - \text{Expected loss ratio}}{\text{Expected loss ratio}}$$

- (c) **Merit Rating:** Merit Rating is a rating plan by which class rates (manual rates) are adjusted upward or downward on individual loss experience. Merit rating is based on the assumption that the loss experience of a particular insured will differ substantially from the loss experience of other insured's. Thus class rates are modified depending on individual loss experience as increase and decrease.

- (i) **Schedule rating:** Schedule rating based on the assumption that certain physical characteristics of the insured's operation will influence the insured's future loss experience. Thus, in schedule rating the physical characteristics of the exposure to be insured are extremely important. Schedule rating is widely used in commercial fire insurance for large industrial plants, large commercial office buildings and apartment houses and similar structures. Each building is individually rated based on the

construction, occupancy, protection, external exposure and maintenance.

- (ii) **Experience rating** is where the insured's own past loss experience enters into the determination of the final premium. It is superimposed on a class-rating system and adjusts the insured's premium upward or downward, depending on the extent to which his or her experience has deviated from the average experience of the class.
- (iii) **Retrospective rating** is a self-rated program under which the actual losses during the policy period determine the final premium for coverage subject to a maximum or minimum. After the policy period has expired to reflect actual losses incurred, a deposit premium is charged at the inception of the policy and then adjusted. (Rejda, 1987)

### **2.6.2 Premium Pricing of Fire Insurance in India**

In India, under fire insurance policy, in addition to fire, other perils are also included and the policy is known as "Standard Fire and Special Perils Policy" (SFSP). In the Package of 12 Basic Perils in India; Accidental, Direct, External are covered and Inherent features, Natural phenomenon, Existing Defects are not covered under SFSP policy. The perils specified in the fire policy are: Fire (accidental Fire, Own Fermentation, Natural Heating, Spontaneous Combustion, Undergoing Heating or Drying Process, Burning of Property by the order of Public Authorities), Lightning, Explosion / Implosion, Aircraft Damage, Riot, Strike and Malicious Damage (RSMD), Storm, Cyclone, Typhoon, Tempest, Hurricane, Tornado, Flood and Inundation (STFI), Impact Damage, Subsidence and Landslide including Rock Slide, Bursting and/or overflowing of Water Tanks, Apparatus and Pipes, Missile Testing Operations, Any Leakage from Automatic Sprinkler Installation, Bush Fire.

- (a) **Rating schedule for fire insurance in India** – (i) Dwellings, Offices, Hotels, Shops etc. are minimum 0.50 to maximum 1.80 rate Rs. per mille for building and minimum 0.50 to maximum 3.80 rate Rs. per mille for contents. (ii) Industrial / Manufacturing Risks are minimum 1.50 to maximum 15.00 rate Rs. per mille. (iii) Utilities located outside the compounds of industrial/ Manufacturing Risks are minimum 1.00 to

maximum 3.00 rate Rs. per mille. (iv) Storage risks outside the compounds of industrial/ Manufacturing Risks are minimum 1.00 to maximum 17.00 rate Rs. per mille and (v) Tank farms/ gas holders outside the compounds of industrial/ Manufacturing Risks are minimum 2.00 to maximum 5.00 rate Rs. per mille.

- (b) **Rates to be charged for additional covers** - (i) the rate for Spontaneous combustion are varied from 0.25 minimum to 1.00 maximum Rs. (applicable) according to the classification of the stored materials based on sum insured of relative commodity. (ii) For boiler explosion it has to buy specific boiler insurance. (iii) The rate for impact damage due to insured's own rail/ road vehicle, fork lifts, cranes, stackers and the like and articles dropped there from is 5% of policy rate based on policy sum insured.(iv) The rate for forest fire is minimum Rs. 5 per milled based on specified sum insured.
- (c) **Premium Rate Reduction** - Though STFI and RSMTD perils are covered in the Standard Fire and Special Policy (SFSP), it is permissible to exclude STFI and / or RSMTD perils. The reductions in premium rate for such exclusion areas are: Dwellings, Offices, Hotels, Shops etc (STFI 0.15%, RSMD 0.10%) reduction excluding, Industrial / Manufacturing Risks, Utilities located outside the compounds of industrial/ Manufacturing Risks, Storage risks outside the compounds of industrial/ Manufacturing Risks (STFI 0.25 %, RSMD 0.10%) reduction.
- (d) **Fire Extinguishing Appliances Discount** - This kind of discount is granted by the insurer if the efficacy of the fire extinguishing system and its full compliance with the rules of the committee is submitted by the insured. The discount rate is varied according to the type of installation as Hand Appliances & Trailer Pumps/ Fire Engines (2.5%), Hand Appliances & Hydrant System (5%), Hand Appliances & independent Sprinkler / Fixed Water Spray System (7.5 %), Hand Appliances + Hydrant System & independent Sprinkler/ Fixed Water Spray System (10 %) discount. (India, 2001)



### 2.6.3 Premium Pricing of Fire Insurance in Cambodia

In Cambodia, premium rating for fire insurance is granted on the class of construction of the buildings. Construction of the buildings is classified as (i) Class A Construction- External Wall: Brick, stone, concrete, metal or other fire resistant materials, Upper floor: Concrete, metal or wood less than 20%, Column: Concrete or metal, Roof and Roof frames: Concrete, metal, tile, galvanized sheet (ii) Class B Construction- External Wall: Brick, stone, concrete, metal or other fire resistant materials with wood less than 50%, Upper floor: Concrete, metal or wood between 20% to 50%, Column: Concrete, metal, partly wood with metal or concrete, Roof and Roof frames: Concrete, metal, tile, galvanized sheet and (iii) Class C Construction - All other construction not confirming to Class A and Class B construction.

If the buildings are not separated by the prescribed separation, the rate will be of the same class buildings. If the classes of the buildings are not the same, the premium rate will be the rate of higher risk building.

- (a) **Rating schedule for fire insurance in Cambodia** - Annual premium rates per cent for basic policy cover (i.e. Fire, Lightning and domestic explosion only) is applicable to Buildings, Contents and Rent unless otherwise stated. Tariff rates are classified into 27 categories and hazards are as low, medium and high then the class of the buildings is stated as Class A, B and C respectively.
- (b) **Rates to be charged for additional covers** - The minimum rates for the additional perils are Aircraft (0.001%), Earthquake and Volcanic Eruption (0.005%), Explosion (0.015%), Flood (0.050%), Hail (0.001%), Hurricane, Cyclone, Typhoon, Windstorm (0.010%), Impact Damage (0.002%), Riot & Strike (0.030%), Smoke (0.010%), Spontaneous Combustion (0.010%), Subsidence and Landslip (0.050%), Vandalism & Malicious Damage (0.015%), Water Damage (0.010%) respectively.
- (c) **Fire Extinguishing Appliances Discounts** - The FEA discounts are only applicable to the basic Fire, Lightning and domestic explosion rate. (i) The allowance for internal appliances (Portable Extinguishers, Hydraulic Hose Reels or Internal Hydrants with small bore hose, Internal Hydrants with independent water supply, Dry Riser, Wet Riser, Automatic Fire Alarm and Detection Systems) are cumulative and are subject to maximum of 15%. (ii) The allowance for external appliances (Mobile Power Driven

Fire Pump, are cumulative and are subject to a maximum of 15%.  
(Cambodia, 2014)

## **2.7 Review on Previous Studies**

Nahum Biger from Faculty of Administrative Studies, York University, Toronto and Yehuda Kahane from Faculty of Management, Tel-Aviv University, Israel did a research “Risk Considerations in Insurance Rate Making” (1992). This paper examined insurance pricing and its regulation in the context of efficient capital markets. Starting with an aggregated model and generalizing results reported recently in the literature about “proper” underwriting profit, the paper turned to disaggregation of the model with insurance lines. The main result was that no unique set of rates existed that regulators may impose to avoid disturbing market equilibrium. Preliminary empirical evidence presented showed that the “systematic risk” of underwriting profits approached zero in most lines. Thus an intuitive solution for underwriting profit rates in these lines equal to minus the riskless interest rate, was reasonable.

Another research is “A Survey of Fire Rating Practices in the Kenya Insurance Market” carried out by Stephen Maina Githiga from Faculty of Commerce, University of Nairobi (2009). The researcher identified the perils and factors that affect rating of fire insurance and the practices adopted by insurance firms underwriting fire risks in a competitive environment. The survey was carried out among all insurance companies who underwrite general business including fire. The main findings of the survey were that fire rating was affected to a very large extent by explosion perils, earthquake perils, storm and flood perils, collision and impact perils, riot and strike perils, subsidence and ground heave perils and malicious acts perils. The findings also revealed that the industry has suffered substantial losses totaling to over 4.7 billion shillings in the last decade as a result of fire and that fire rating practices were not standardized.

Linn Maung (2014) conducted a research “Study on Prospect and Potential of Myanmar Life Insurance”. In this study, the researcher identified the current status of life insurance and analyzed the current life insurance system in Myanmar. Then he explored ways for the development of life insurance business in Myanmar. Individual perception, organizational structure, lack of actuary and old laws and procedures were pointed out as barriers and constraints to development of Myanmar life insurance. It

has been highlighted that Myanmar's life insurance is left far behind those of some countries in the Asia and Pacific region. It has been found out that people's trust in life insurance industry is much needed and current life insurance system is not incentive and present life insurance is a hard market.

While the research fields of these studies are fully related researches concerning with insurance from another countries and our country. There is no previous study pertaining to fire insurance premium rating in our country, Myanmar. This is the reason why this research was carried out on this subject.

## **CHAPTER III**

### **FIRE INSURANCE BUSINESS IN MYANMAR**

#### **3.1 History of Insurance Industry in Myanmar**

After lower Myanmar was under the British colonial rule, foreign insurance companies began to invest for their interest in Myanmar. The number of insurance companies increased about (110) during 1897 to 1940 and these companies ran different kinds of insurance business throughout the whole country. Two Myanmar national-owned insurance companies emerged into the market - Burma National Insurance Company (BNIC) and The Burma Government Security Insurance Company Ltd (BGSIC) in 1938. After independence since 1948, another two insurance companies People's Insurance Company Limited and Burma Fire and General Insurance Company Limited owned by Burmese citizen emerged again and handled general insurance business only. Burma National Insurance Company (BNIC) was nationalized in 1951 and transformed into the Union of Insurance Board in 1952 (UIB) was fully state owned. UIB managed life assurance only during 1952 to 1957. Life insurance is compulsory for government employees and handled by the government since 1953. Other insurance companies were prohibited not to run life insurance business in 1957 by Life Insurance Prohibition Act. In 1959, government prohibited the conduct of general insurance business by other companies except by UIB. Union Insurance Board (UIB) monopolized all areas of insurance business. Compulsory Reinsurance Act was enacted in 1961. (Hla, 1966)

In 1975, Insurance Business Law was enacted and Myanmar Insurance Corporation (MIC) was formed under the Ministry of Planning and Finance. In 1989, the Ministry of Planning and Finance reformed as the Ministry of Finance and Revenue and MIC was renamed as Myanmar Insurance in 1993. In 1993, the "Myanmar Insurance Law" was enacted with the new economic system and state-owned insurance organization. "The Insurance Business Law" was enacted in 1996 and "The Insurance Business Rules" were issued in 1997 in Myanmar.

Under the insurance business law (1996) and according to chapter (3), The Ministry of Planning and Finance has reformed the Insurance Business Supervisory Board (IBSB) "Insurance Business Regulatory Board" (IBRB) in 2016, comprising of the following persons:- the Ministry as the chairperson and an officer from the Financial Regulatory Department as the secretary and the members are from the Office of the Attorney General, the Office of the Auditor General, the Directorate of Investment and Company Administration, the Internal Revenue Department, the Central Bank of Myanmar, and suitable citizen insurance experts. Myanmar Insurance Association was established in 2017 October (17). MIA is the association whose members are all insurance companies licensed under Myanmar Insurance Business Law. It is a body representing all the insurance companies and responsible for cooperation and coordinating with its members for orderly development of the insurance industry.

Myanma insurance plays a role of reinsurance business among internationally reputable companies. Reinsurance is to share the risk, to fulfill the client's needs of adequate insurance cover and to gain foreign currencies. Excess of loss treaty has been made for Fire and Allied Perils Insurance, and Marine Insurance. Facultative reinsurance is also made for some specified risks. Various insurance covers like Comprehensive Motor Insurance, Term Life, Money, Property Damage and Business Interruption, Personal Accident, Hospitalization, Public Liability, Comprehensive General Liability, deductible buy-back etc, are reinsuring by means of 100% ceded. Myanma Insurance accepts the co-insurance proposals of private companies. With the co-insurance programme instructed by the Insurance Business Supervisory Board (IBSB) of Myanmar, private companies shall co-insure their Fire and Allied perils Insurance risks in excess of KS.500 million and Comprehensive Motor Insurance risks in excess of Ks 300 million. Under this co-insurance programme, Myanma Insurance takes 50% of sum co-insured and other private companies will accompanied in this programme for 10% placement. This co-insurance programme makes new companies to gain business development and safe guarding them against the burden of huge loss. Co-insurance programme creates a good cooperation and provides insurance contribution.

Myanma Insurance trained insurance agents and issued license before 2017 to have a smooth and easy relationship between the insured (insured person) and the insurer (insurance company). Since 2017, FRD has trained and appointed individual

agents. Insurance agents are also helpers for the development of insurance business. Insurance agents have been rendering insurance services for some specified classes of insurance and they are not allowed to render insurance services for some kinds. Private companies may appoint those licenced insurance agents. Licenced individual agents are allowed to work for all companies.

### **3.2 Classes of Insurance in Myanmar Insurance Industry**

There are two types of insurance called Life insurance and General insurance. Then each type of insurance which is again classified into many classes is described in the Appendix Table (A-1).

### **3.3 Profile of Private Insurance Companies**

In 2013 May, 3 life insurance companies, 9 composite insurance companies are allowed to operate insurance business with licences. According to the permit of insurance products, paid up capital amount are different. The required paid up capital amount for Life Insurance companies is kyats 6 billion and the capital amount for Non–Life (or) Composite Insurance companies is Kyats 46 billion and USD 500000 in foreign currency to do the insurance business.

Foreign insurance companies which well realized the market potential of insurance in Myanmar have established insurance representative branches in this country before Myanmar national-owned insurance companies were allowed to run insurance business. During 1995 to 2019, 33 foreign insurance representative branches have been opening. Three Japanese insurance companies: Tokio Marine& Nichido Fire Insurance Co.,Ltd, Sompo Japan Nipponkoa Insurance Inc, Mitsui Sumitomo Insurance Group Co.,Ltd are permitted to operate 7 classes of insurance business ( industrial all risk, contractor’s / erection all risk, comprehensive motor insurance, property insurance, fire and allied perils, cash in safe/ cash in transit insurance, ocean marine cargo insurance, bilee’s liability insurance) with temporary license in Thilawa Special Economic Zone since May 2015.

In 2018, IBRB announced that foreign insurance companies were permitted to do operations their 100% wholly-owned subsidiary and joint venture with local companies. Private insurance companies have to resubmit the licenses of composite insurance and then they have to apply for life insurance license only and general insurance license respectively under the instruction of IBRB. All local insurance

companies have been granted permission to begin their operations with two kinds of insurance license since April 2019. The companies which have two kinds of insurance license can be seen in the table below.

**Table (3.1) List of Life and General Insurance Companies (2019)**

No	Life Insurance Companies		General Insurance Companies
1	Aung Myint Moh Min Life Insurance Co., Ltd	1	Aung Thitsa Oo General Insurance Co., Ltd
2	Aung Thitsa Oo Life Insurance Co., Ltd	2	Ayeyar Myanmar General Insurance Co., Ltd
3	Ayeyar Myanmar Life Assurance Co., Ltd	3	Excellent Fortune General Insurance Co., Ltd
4	Capital Life Insurance Co., Ltd	4	First National Insurance (General) Co., Ltd
5	Citizen Business Insurance Public Co., Ltd	5	Global World Insurance Co., Ltd
6	Excellent Fortune Life Insurance Co., Ltd	6	Grand Guardian Insurance Holdings Public Co., Ltd
7	First National Insurance (Life) Co., Ltd	7	IKBZ General Insurance Co., Ltd
8	Global Life Insurance Co., Ltd	8	Young Insurance Co., Ltd
9	Grand Guardian Life Insurance Co., Ltd		
10	IKBZ Life Insurance Co., Ltd		
11	Young Insurance (Life) Co., Ltd		

Source: Insurance Business Regulatory Board

An announcement in which five foreign life insurance companies - AIA Company Limited, Chubb Tempest Reinsurance Limited, Dai-ichi Life Insurance Company Limited, Manufacturers Life Insurance Company, and Prudential Hong Kong Limited which were granted to commence their business operations of 100% wholly-owned subsidiary was made by the Ministry of Planning and Finance on the date of 5 April 2019 as Announcement No. (2/2019).

### 3.4 Insurance Income and Claim in Myanmar Insurance Industry

State owned Myanmar Insurance and private insurance companies of income and claim from 2013-2014 FY to 2017-2018 FY are described below.

#### 3.4.1 Myanmar Insurance

Total premium of Myanmar Insurance, the ratio of total premium income and the income of fire and allied perils insurance, the ratio of income in fire and allied perils insurance and its claim from fiscal year 2013-2014 to 2017-2018 are described in the following tables.

The following Table (3.2) is the Share of Fire and Allied Perils Premium in Total Insurance Premium Income of Myanmar Insurance.

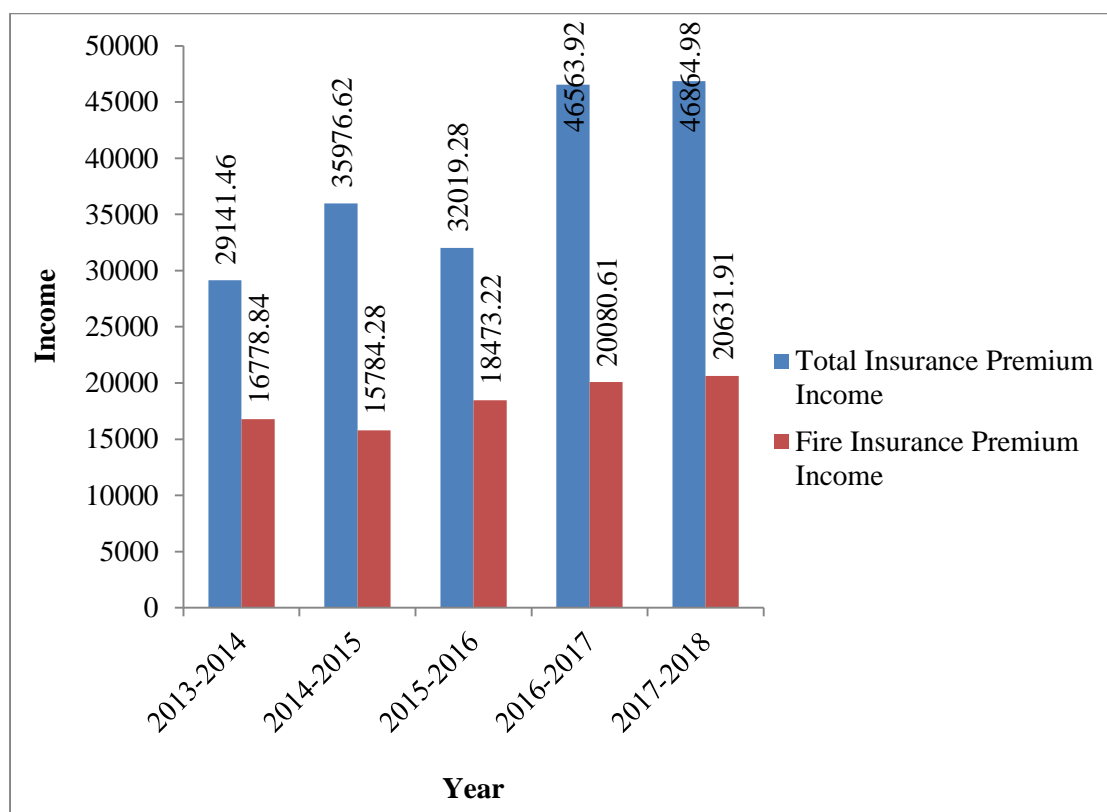
**Table (3.2) Share of Fire and Allied Perils Premium in Total Insurance Premium Income of Myanmar Insurance**

Fiscal Year	Total Insurance Premium Income (Ks Million)	Fire and Allied Perils Insurance Premium Income	
		(Ks Million)	Ratio
2013-2014	29,141.46	16,778.84	57.57%
2014-2015	35,976.62	15,784.28	43.87%
2015-2016	32,019.28	18,476.22	57.69%
2016-2017	46,563.92	20,080.61	43.12%
2017-2018	46,864.98	20,631.91	44.02%

Source: Myanmar Statistical Yearbook 2018



**Figure (3.1) Share of Fire and Allied Perils Premium in Total Insurance  
Premium Income of Myanmar Insurance**



Source: Table (3.2)

In the above figure, total premium income in state owned Myanmar Insurance is gradually increasing year by year and so does fire and allied perils insurance premium income. The premium income of fire and allied perils insurance is 45% of total income of premium of all kinds of insurance in 2016-2017 fiscal year.

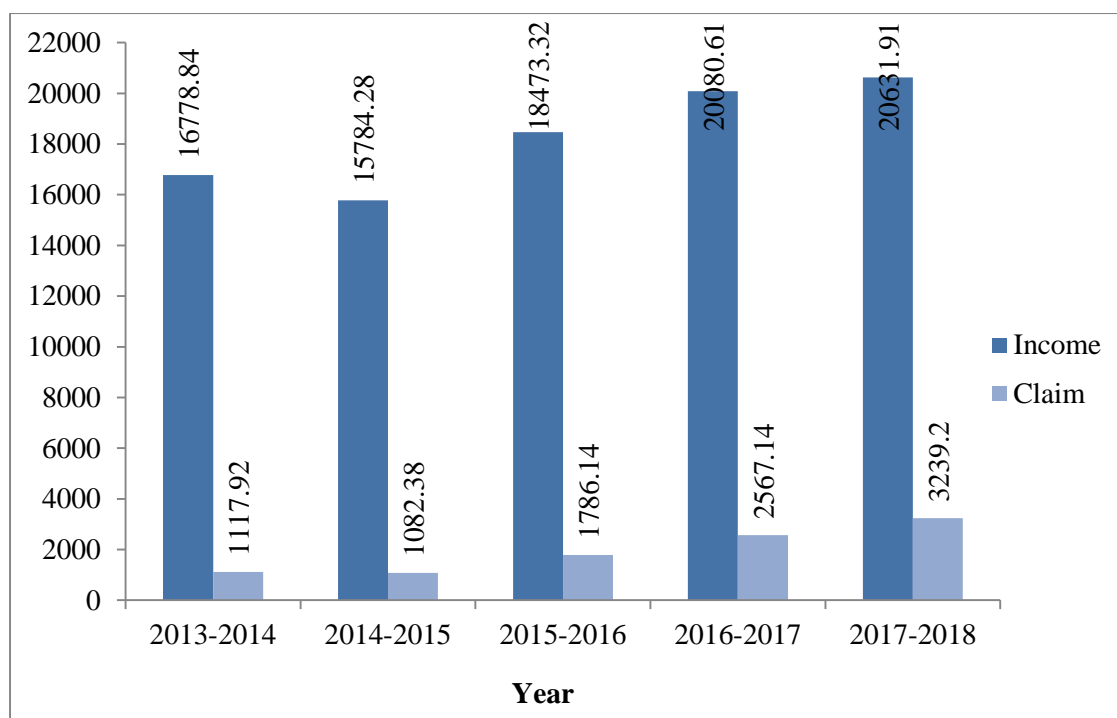
**Table (3.3) Fire and Allied Perils Insurance Income and Claim Ratio of Myanmar Insurance**

Fiscal Year	No. of Policy	Income (Ks Million)	Claim (Ks Million)	Ratio
2013-2014	35143	16,778.84	1,117.92	6.66%
2014-2015	32280	15,784.28	1,082.38	6.85%
2015-2016	35888	18,473.32	1,786.14	9.66%
2016-2017	32985	20,080.61	2,567.14	12.78%
2017-2018	40143	20,631.91	3,239.20	15.69%

Source: Myanmar Statistical Yearbook 2018

The ratio of fire and allied perils insurance income and claim of Myanmar Insurance is described in the above table.

**Figure (3.2) Fire and Allied Perils Insurance Income and Claim Ratio of Myanmar Insurance**



Source: Table (3.3)

According to the above figure, the income of fire and allied perils insurance gradually increases and the claim also increases. But the claim ratio is about 15% of premium income. Thus it is found that claim ratio is excellent.

### 3.4.2 Private Insurance Companies

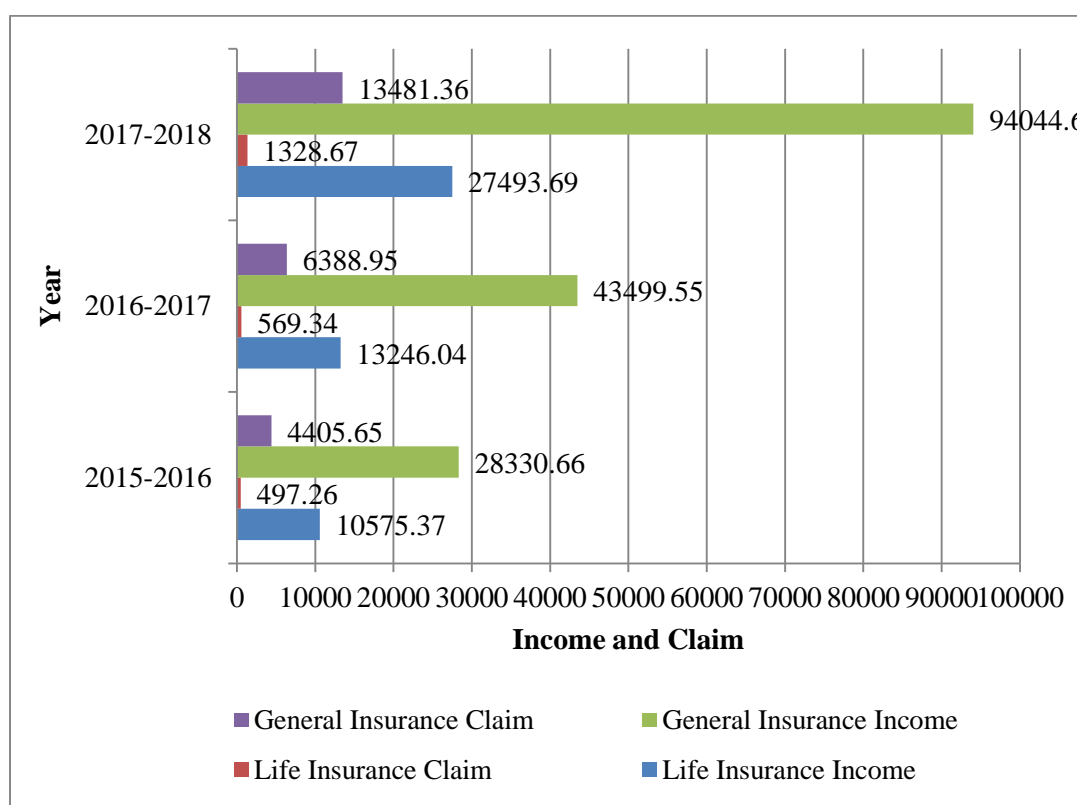
The following table is the comparison between total premium income of all private companies in life insurance claim and general insurance claim from the fiscal year of 2014-2015 to 2017-2018.

**Table (3.4) Life and General Insurance Income and Claim of Private Insurance Companies**

	2015-2016	2016-2017	2017-2018
<b>Life Insurance Income</b>	10,575.37	13,246.04	27,493.69
<b>Life Insurance Claim</b>	497.26	569.34	1,328.67
<b>General Insurance Income</b>	28,330.66	43,499.55	94,044.60
<b>General Insurance Claim</b>	4,405.65	6,388.95	13,481.36

Source: Myanmar Statistical Yearbook 2018

**Figure (3.3) Life and General Insurance Income and Claim of Private Insurance Companies**



Source: Table (3.4)

As the percentage of total premium of all private insurance companies during fiscal year 2016-2017, fire insurance policies amounted for 43%, followed by life insurance (25%), comprehensive insurance (23%), travel (7%) and marine (1%) respectively. Cash-in-transit and fidelity insurance products each accounted for less than 1% of total premium.

### **3.4.3 The Condition of Insurance Market at 2017**

Myanmar's 54 million -strong population is almost completely uninsured. Life insurance penetration is 0.01% and general insurance penetration is 0.08%. The income of insurance in GDP is below 1%. (Research, 2019)

### **3.5 Fire and Allied Perils Insurance Practice in Myanmar**

In Myanmar, fire insurance business was stated on 1<sup>st</sup> July 1957. Fire insurance is to provide the loss in rebuilding of state-owned, cooperative, joint-venture, private building, tools /equipment's/materials, goods and furniture damaged by fire and other perils.

#### **3.5.1 Subject matter of insurance**

The insured things are movable things, unmovable buildings, machinery, stocks and furniture. It cannot be received if it is not clearly described the things that are difficult to fix the value and the things which can be fired conditionally. Such things are: (i) Temporary assured things, (ii) Gold, silver and precious gems (iii) Invaluable handiworks (iv) Antique work of art (paintings, sculptures) (v) Saving cheque, loan confidential, contracts, stamps, money, treasure bond (vi) Charcoal and (vii) Explosive things.

#### **3.5.2 Sum insured and insured value**

It means the value of the proposed things to be insured. However, it must not be less than the real current value of the insured things. If the sum is less than it must have to be, the insured is responsible for it.

The insurable value must be the real value. It has to be inspected the current value of the buildings and its selling price when the buildings are insured. The construction value of the building is carefully inspected. The market value/ price of the place of the buildings will not be considered. Per Area Estimated value (PAE) is calculated and then it was accepted. In receiving/accepting of furniture, machinery and stocks, detailed list, evidence of value and photo evidence are needed.

### 3.5.3 Underwriting and filling proposals

The person who wants to insure have to propose with the given proposal. It needs to fill completely the facts described in the proposal. It must have to fill carefully the facts described in the proposal.

- (a) The situation of the buildings has to be described fully. Besides the situation of the buildings has to be clearly completed in the sketch showing situation of building at the back of the proposal.
- (b) There are 4 classes of buildings as: First Class (Roof – zinc, fire proofing, brick veneer / Wall – metal frame, brick wall / Floor – concrete floor), Second Class (Roof – zinc, fire proofing , brick veneer /Wall – zinc, wood frame, brick wall, cement wall, iron / Floor – concrete, wood), Third Class (Roof -zinc, fire proofing / Wall – timbered, bamboo, brick veneer / Floor –concrete, earth, timber) and Fourth Class ( Roof – dani, thatch, bamboo, wood / Floor – any way / Floor - concrete, earth, timber)

### 3.5.4 Survey

Making survey is the main task in fire insurance receiving. The tasks are to check whether the name and address of the insured in the proposal are right or wrong, whether the types of buildings and the layers described in the Loss Assessor Report are right or wrong, the completion of the situation of the building with the sketch showing situation of building at the back of the proposal, the occupation of the future-insured building (living house, shops and godowns), the sum insured expressed in the list for the future-insured building, furniture, machinery, raw materials and their product with the current price in the market, the use of fire in the building, fire extinguishers to protect fire, whether auto-extinguish apparatus are installed or not, combustible rubbish, whether waste are put away systematically, the condition of the adjacent area, if cover for expected perils is taken, such perils can become or not, and whether things are kept systematically or not, whether the value of the insured things and its number are right or wrong according to the in- and- out list of the things in godown if the insured building is some kind of godown.

### **3.5.5 Fixing of premium rate**

When fire and allied perils insurance premium rate is fixed, it is calculated on the class of building, its occupancy, the term of the building and its adjacent building in accordance with the table of the premium rating prescribed by IBRB. According to the first class of building, if the insured building is not situated near the building which is in the lower class of buildings within 25-50 ft, the premium rate is fixed and collected based on the ordinary building class and its occupation. If the first class building is situated near the lower class building, the premium rate is averaged by combining two of the ordinary building rate and the rate of the building next to it.

### **3.5.6 Fire and Allied Perils Cover**

There are two kinds of covers such as ordinary basic covers and additional covers in standard fire policy. Ordinary basic covers are types of losses which are covered by standard fire policy as accidental fire, contagious fire (it is burnt from spark), loss or damage due to lighting, loss or damage due to explosion of home-used gas, goods spoiled or property damaged by water or other used to extinguish the fire, breakage of goods in the process of their removal from the building where fire is raging (e.g damage caused by throwing furniture out of window), pulling down of adjacent premises by the fire brigade in order to prevent the progress of flame, loss by breakage of roof, floor, wall due to fire break-out, loss or damage of the things or property in the house of fire break-out while they are piling outside.

Other perils that are not covered in ordinary covers can be extended as additional on covers. But it cannot be covered as specific insurance. It can be covered together with basic fire insurance. The value of the properties must be in the line with as the basic fire insurance. Such kinds of add on covers are – (1) Riot fire, Strikes damage including fire and Malicious Damage (RSMD), (2) Aircraft Damage, (3) Impact Damage, (4) Subsidence and landslide, (5) Earth-quake fire and Fire and Shock damage caused by Earth-quake, (6) Explosion, (7) Spontaneous Combustion, (8) Storm, Typhoon, Hurricane, Tempest, (9) Flood and Inundation, (10) Burglary, (11) War risk.

### **3.5.7 Fire insurance policy and declaration policy**

The basic thing is accepting insurance policy carefully in fire insurance policy. After accepting the policy, the policy is issued based on the facts that are from the policy when premium is given from the insured.

There should be declaration policy for insurance of goods in godowns, issuing, interests, and reducing is usually. That can be bought according to the desire of the insured.

### **3.5.8 Renewal and Endorsement**

The continuation of coverage can be referred as renewal in the context of insurance. The insured extends their contract with the insurance company to continue their current coverage for a specified period. The insurance company typically invites the insured to renew the policy near the end its term.

An endorsement can be issued at any time after purchasing insurance. It can be used to provide additional benefits and cover or to impose restrictions. Subsequently, an endorsement can implement any amendments regarding policyholders' documents such as change of name, change of address, increase and decrease of sum insured, taking additional cove or not etc.

### **3.5.9 No Claim Bonus (NCB)**

No Claim Bonus (NCB) is a reward or discount which is given by an insurer to an insured for making no claims during the policy term. NCB can be accumulated as a discount on the premium over years. 25% of NCB discount can be given on the premium of first year.

### **3.5.10 Fire insurance claim**

If the loss of fire occurs during insured period which is in accordance with the policy, the real loss will be indemnified with its actual value. Indemnified amount will be in actual cash, repairing and replacement.

- (a) **Total loss** – a situation in which insured property are completely destroyed. At that time the claim will be fully indemnified as in current value if the insured has purchased fire and allied perils insurance at the current value.

- (b) **Partial loss** – a situation in which insured property are partially damaged but not completely destroyed. At that time the claim will be partially indemnified not total sum insured amount.

### 3.5.11 Insurance term and Short Period Rate

Insurance term may be 10 days to one year. The premium is calculated and adjusted for buying short period insurance, increasing insurance value and reducing it, increasing insurance cover value and reducing it and then amending the premium rate. The rate is calculated as in the following table if the insurance term is short period.

**Table (3.5) Short Period Rate**

Sr. No.	Insurance Term	Collected Rate (total premium for one year)
1	10 days	1/8
2	15 days	1/6
3	1 month	1/4
4	2 month	3/8
5	3 month	1/2
6	4 month	5/8
7	6 month	3/4
8	Above 6 month	As the total premium rate

Source: Myanma Insurance

If the insurer or the company wants to cancel of the fire insurance contract during the fire insurance policy is alive, the insurer must inform the insured and they have to un-earn the premium by calculating the days.

### 3.6 Reducing the Premium Rate of Fire and Allied Perils Insurance in Myanmar

The rate of fire insurance in Myanmar was used from UIB phase to MIC phase. It was called as Fire and Engineering Department. The former rate was repaired on 1<sup>st</sup> April 1990. The rate was divided in two kinds: Yangon Premium Rate and Local Premium Rate for other states and divisions.

The premium rate was reduced again on 16 September 1991 in the announcement (5/91) from MIC. That rate was amended for four cities – Mandalay, Mawlamyine, Patheingyi and Sittwe including Yangon in the same rate and another rate



was amended for the other states and divisions. If government staffs have bought fire insurance for their dwelling houses, the premium rate is reduced based on the classes of dwelling houses as first class (0.08%), second class (0.10%), third class (0.30%) and fourth class (0.50%) than public. Premium rate for ordinary cover which is collected based on the classes of the buildings in terms of sum insured 100 Kyats is described in the Table (A-2) of Appendix. The comparison of additional cover between 1990 and 1991 is described in the Appendix Table (A-3).

The additional cover rate was reduced again on 1<sup>st</sup> November 2001 in Announcement No. (1/2001) from Myanmar Insurance.

Myanmar Insurance made the announcement of (020/2002) on 30<sup>th</sup> September 2002 expressed that the rate of other states and divisions must be the same as the rate of Yangon and other four cities passed in 1991 announcement.

The total premium rate of (5) additional covers in fire and allied perils insurance must be cost (0.46%) of rate. But it was reduced to (0.30%) when the following (5) additional covers were taken at the same time in the announcement (009/2005) issued on 30<sup>th</sup> June 2005 from Myanmar Insurance.

- (a) Riot, Strike and Malicious Damage combined with the following perils (Including Air Craft Damage, Impact Damage, Forest fire, Subsidence and Landside, Damage by falling or branches & object therefrom)
- (b) Earthquake Fire, Earth-quake shock.
- (c) Explosion.
- (d) Storm, Typhoon, Hurricane, Tempest, Cyclone.
- (e) Flood and Inundation.

The premium rate of ordinary cover for the government staff was the same as the rate for the public that was announced again in the Announcement No. (011/2003) on 5<sup>th</sup> January 2003.

The fire and ordinary cover rate of Myanmar Insurance Business that was amended in 2002 was reduced again in Announcement No. (014/2007) on 1<sup>st</sup> January 2008. 16 kinds of building occupancy in dwelling house and similar buildings, 12 kinds of occupancy in godown, 11 kinds of occupancy in selling shops and 83 kinds of occupancy in factories/ workshops are described into 4 classes of buildings: First, Second, Third, and Fourth. The rate is not different between Yangon and other cities like before. The insured can take 8 kinds of add-on cover.

Before IBSB issued private insurance companies business licences to operate, ordinary fire insurance rate and the rate of add-on cover are fixed on 18 May 2013. 17 kinds of building occupancy in dwelling houses and similar buildings, 12 kinds of occupancy in godowns, 12 kinds of occupancy in selling shops, 87 kinds of occupancy in factories/ workshops are depicted into 4 classes: First, Second, Third and Fourth. Then 11 kinds of add-on cover can be taken.

The fire and allied perils premium rating has now been practicing as in the tariff table in 2013. State owned Myanma Insurance and all private insurance companies have to follow this tariff table. 2008 repaired fire and allied perils insurance premium rating and 2013 new-issued fire and allied perils insurance premium rating are compared in the following table. The premium rate is calculated based on sum insured 100 Kyats. In the Table (A-4) of Appendix, the comparison of ordinary cover of fire insurance in terms of 30 occupancies which is extracted from out of all kinds of occupancies in Myanmar between 2008 and 2013 is shown.

The insured person can choose the kinds of additional cover they want to insure. The premium rate of additional cover is calculated as in the description of tariff table for additional cover described in the Appendix Table (A-5).

## **CHAPTER IV**

### **SURVEY ANALYSIS**

#### **4.1 Survey Profile of Hlaingtharyar Industrial Zone**

The survey area is Hlaingtharyar Industrial zone which was established in 1995 February 15 with the aims to improve national economy through industrial sector, to increase job opportunities and income of local people and to develop local economy and social status. This industrial zone is situated on the eastern bank of Hlaing river, Shwe Than Lwin Industrial Zone in the west, Paing Hlaing river in the south and Yangon-Pathein Road in the north. The zone area is 1401.98 acres. There are (698) large enterprises, (21) medium enterprises and (6) small enterprises and then total number is 725.

#### **4.2 Survey Design**

In this study descriptive method was used in determining whether there is awareness about fire insurance and premium rating. A convenience sampling method was used to select the respondents. The survey questions were well structured questions. The number of respondents who were asked to answer survey questions was 200 respondents who are the owners and responsible persons of 200 out of 725 factories. After collecting data from 200 respondents through sample survey, descriptive analysis has been used to analyze data. The list of these factories was described in Appendix (A-6).

#### **4.3 Survey Results**

To achieve the identified aim and objectives of this study, an extensive study was carried out at the industries of Hlaingtharyar industrial zone. This chapter therefore presents analyzed results of the research conducted on 200 respondents from

large enterprises. The analyzed data is presented in tables in frequencies and percentages where applicable.

### 4.3.1 Demographic Profile of Respondents

In this study, survey information on the basic characteristics of the respondents is essential for the interpretation of the findings presented in this chapter. The specific characteristics of these respondents are presented in the presentations and discussions that follow.

**Table (4.1) Demographic Profile of Respondents in Factories**

<b>Sr. No.</b>	<b>Characteristics of respondents</b>	<b>Number of respondents</b>	<b>Percentage</b>
<b>1</b>	<b>Gender</b>		
	Male	182	91%
	Female	18	9%
<b>Total</b>		200	100%
<b>2</b>	<b>Age of respondents</b>		
	21-30	8	4%
	31-40	56	28%
	41-50	128	64%
	51-60	8	4%
	Above 61	-	-
<b>Total</b>		200	100%
<b>3</b>	<b>Level of formal</b>		
	High school	2	1%
	Graduate	166	83%
	Post graduate	22	11%
	Other	10	5%
<b>Total</b>		200	100%
<b>4</b>	<b>Role of respondents in industries</b>		
	Owner	36	18%
	In charge	164	82%
<b>Total</b>		200	100%

Source: Survey Data, 2019

The demographic characteristics of 200 respondents were presented in Table (4.1). 91% of respondents were male and 9% was female. This brings to focus the gender issues as far as the kinds of job taken up by the different genders at the

industries. From the findings, respondents 91% were male. This fact describes that only male can perform well in factories.

Among the respondents, the majority 64% can be seen in (41-50) age group. This was followed by the age group of between 31 and 40 (28%). And the least age groups (21-30) and (51-60) were 4% respectively. And there is no one in the age group of above 60.

According to survey data, 83% of the respondents were graduates, 11% were post graduate and 1% had finished high school and other was 5%.

The respondents' role in industries was analyzed. Majority 82% of the core respondents were in-charge of industries and 18% were owners.

#### 4.3.2 Fire and Allied Perils Insurance Awareness Information

The information about fire and allied perils insurance awareness is described in the following table.

**Table (4.2) Fire and Allied Perils Insurance Awareness Information**

Particulars	Well-know	Fairly know	Not know
How much do you know about fire and allied perils insurance?	36 (18%)	164 (82%)	-
Do you know 25% of annual premium for one year is reduced as no claim bonus when there is no claim during one year insurance term?	41 (20.5%)	156 (78%)	3 (1.5%)
Do you know the claim will be calculated in portions of the current value of insured item if your sum insured value is lower than the current value?	43 (21.5%)	154 (77%)	3 (1.5%)

Source: Survey Data, 2019

Table (4.2) shows about the information of fire and allied perils insurance awareness. Among the respondents only 18% well knew about the fire and allied perils insurance. Respondents 82% knew fairly about the insurance. Then 20.5% of respondents knew that 25% of premium for one year is reduced as no claim bonus within one year of fire and allied perils insurance term. Most 78% respondents fairly knew and 1.5% did not know anything about it. 77% of respondents fairly knew that

the claim will be calculated in portions of the current value of insured item if sum insured value is lower than the current value. Only 21.5% knew well and 1.5% did not know at all. This shows most people need awareness about insurance.

**Table (4.3) Reasons for not Purchasing Insurance**

<b>Sr. No.</b>	<b>Reasons</b>	<b>Respondents</b>	<b>Percentage</b>
1	Think that fire and allied perils insurance is not much needed.	4	2
2	Don't know well about fire and allied perils insurance.	-	-
3	Fire and allied perils insurance premium rate is high and such a big part of our income will be paid.	-	-
4	We are able to protect against fire risk.	4	2
5	Not easy to purchase insurance	-	-

Source: Survey Data, 2019

There are some respondents who do not purchase fire and allied perils insurance at all. They expressed their reasons of not purchasing insurance as in the above table. 2% of respondents did not purchase fire and allied perils insurance because they think that fire and allied perils insurance is not much needed and, 2% responded that they are able to protect against fire risk.

### 4.3.3 The Insured Condition of Factories

The insured condition of factories is described in the following tables.

**Table (4.4) Types of Insurance**

<b>Sr. No.</b>	<b>Types of insurance</b>	<b>Respondents</b>	<b>Percentage</b>
1	Life insurance	-	-
2	Health insurance	-	-
3	Travel insurance	-	-
4	Group life insurance	13	6.5
5	Personal accident insurance	22	11
6	Fire and allied perils insurance	196	98
7	Motor comprehensive insurance	36	18
8	Marine insurance	-	-
9	Other	-	-

Source: Survey Data, 2019

Although there are many types of insurance people can purchase, there are some types of insurance most respondents bought as in the above. Among different types of insurance, 98% of respondents bought fire and allied perils insurance, 11% bought personal accident insurance, 18% bought motor comprehensive insurance and 6.5% respondents bought group life insurance respectively. It can be seen that industries mostly purchase fire and allied perils cover. Textile factories and food and beverage factories mostly purchased personal accident insurance. Textile factories and hazard goods godowns again purchased group life insurance for their employees.

**Table (4.5) Purchasing of Fire and Allied Perils Insurance**

<b>Sr. No.</b>	<b>Particulars</b>	<b>Respondents</b>	<b>Percentage</b>
	<b>If you have bought fire and allied perils insurance, state the reason.</b>		
1	Knowing the benefits of purchasing insurance	33	16.8
2	Compulsory bank Loan	142	72.4
3	Both	21	10.7

Source: Survey Data, 2019

The table depicted the information and the reasons of purchasing fire and allied perils insurance policy, the kinds of things they insured. 16.8% of respondents purchased fire and allied perils insurance because they knowing the benefits of purchasing insurance. 72.4% respondents purchased fire and allied perils insurance because they took compulsory bank loan. 10.7% purchased fire and allied perils insurance because they wanted to purchase themselves and they took compulsory bank loan.

**Table (4.6) Types of Property Insured Against Fire Risk**

<b>Sr. No</b>	<b>Types of Property</b>	<b>Respondents</b>	<b>Percentage</b>
1	Buildings	169	86.22
2	Machinery	6	3.06
3	Goods	27	13.78

Source: Survey Data, 2019

The kinds of things the respondents insured are buildings (86.22%), goods (13.78%) and machines (3.06%). According to the survey data, most of the respondents purchased fire and allied perils insurance than other types of insurance. The reason they purchased fire insurance was only because of they took loan from bank for their business. Just like the amount of bank loan they take, they have to provide land and buildings as the collaterals. Then they purchased fire and allied perils insurance for goods such as raw materials and finished goods in their own way to cover the risk.



**Table (4.7) Types of Additional Cover**

Sr. No	Types of additional cover	Respondents	Percentage
1	Riots, Strikes, Malicious Damage (RSMD)	46	23.5
2	Aircraft damage	-	-
3	Impact by road vehicles	-	-
4	Subsidence and landslide	-	-
5	Earthquake fire and earthquake shock	44	22.4
6	Various storms	40	20.4
7	Floods	8	4.1
8	Explosion	4	2.0
9	Spontaneous Combustion	6	3.1
10	Burglary	-	-
11	War risk	-	-

Source: Survey Data, 2019

There are many types of additional cover but the respondents bought some of them with fire and allied perils insurance according to the survey data. Respondents 23.5% bought Riots, Strikes, Malicious Damage (RSMD) cover, 22.4% bought earthquake fire and earthquake shock cover, 20.4% bought various storms cover, 4.1% bought cover for floods, 2.0% for explosion and 3.1% for spontaneous combustion.

**Table (4.8) Sum Insured Value of Fire and Allied Perils Insurance**

Sr. No	Particular	Respondents	Percentage
	<b>Do you purchase fire allied perils insurance for your factory, building, machines, goods in actual value or not?</b>		
1	Full current value	71	36.2
2	Below current value	125	63.8

Source: Survey Data, 2019

Table (4.8) stated sum insured value of fire and allied perils insurance. Majority of the respondents 63.8% purchased fire and allied perils insurance for the buildings in their factory below current value. Only 36.2 % bought with full current value. Among them, the insured mostly purchased fire and allied perils in full current value for their goods and stocks.

**Table (4.9) Degree of Worry about the Risk of Fire and Natural Disaster**

<b>Sr. No</b>	<b>Particular</b>	<b>Respondents</b>	<b>Percentage</b>
	<b>Express your degree of worry concerning with the risk of fire for your factory</b>		
1	Extremely worry	122	61
2	Very worry	38	19
3	Worry	30	15
4	Not worry	10	5
	<b>Express your degree of worry concerning with the risk of natural disaster for your factory</b>		
1	Extremely worry	26	13
2	Very Worry	42	21
3	Worry	62	31
4	Not Worry	70	35

Source: Survey Data, 2019

In Table (4.9), it is described about the respondents who worry the risk of fire and natural disaster. The respondents 61% extremely worry, 19% very worry and 15% worry while 5% of respondents do not worry concerning with the risk of fire for their industry. Then 35% of respondents do not worry about the risk of natural disaster that can make their industry in ruin while the respondents 31% worry about it. 21% of respondents very worry about the natural disaster and only 13% of respondents extremely worry.

#### 4.3.4 Experience against Fire and Allied Perils

The following tables described about the experience against fire and allied perils.

**Table (4.10) Experiences against Fire and Allied Perils**

<b>Sr. No</b>	<b>Particulars</b>	<b>Respondents</b>	<b>Percentage</b>
	<b>Have you ever experienced fire outbreak yourself or in your community?</b>		
1	Experienced ourselves	2	1
2	Our community	18	9
3	Not experienced	180	90
	<b>Do your employees know how to handle fire control materials?</b>		
1	Well know	194	97
2	Fairly know	6	3
3	Not know	-	-
	<b>Is there any fire prevention plan that is drawn?</b>		
1	Yes	200	100
2	No	-	-
	<b>Are there any training given by fire brigade department and examinations about fire risk in your factory? If so, how are they conducted?</b>		
1	Regular	200	100
2	Sometimes	-	-
3	Not at all	-	-

Source: Survey Data, 2019

The experiences of respondents concerning with fire and allied perils outbreak are shown in the above Table 4.10. 90 % respondents did not experience fire outbreak. Respondents 9% experienced fire outbreak in their community, but only 1% respondents experienced fire outbreak themselves. Respondents 97% respond that their employees well knew how to handle fire control materials while 3% of respondents' employees fairly knew. 100% of respondents responded that they had drawn fire prevention plan. There were trainings given by fire brigade department and

examinations about risk in respondents' factories. 100% respondents replied that fire trainings are given regularly.

**Table (4.11) Fire Extinguishers Appliance Materials at Factory**

<b>Sr. No</b>	<b>Fire Extinguishers Appliance Materials</b>	<b>Respondents</b>	<b>Percentage</b>
1	Water	200	100
2	Sand	161	80.5
3	Fire hook/fire beater	63	31.5
4	Fire extinguisher	200	100
5	Automatic alarm system	120	60
6	Automatic sprinkler	67	33.5
7	Water pump/fire engines	101	50.5
8	Smoke detector	58	29

Source: Survey Data, 2019

Table (4.11) is about the fire extinguishers appliance materials respondents have in their factory. 100% of respondents replied that they had water and fire extinguishers. Respondents 80.5% had sand at their factory. Respondents gave the replies that they had automatic alarm system (60%), water pump and fire engines (50.5%), automatic sprinkler (33.5%), fire hook and fire beater (31.5%) and smoke detector (29%).

**Table (4.12) Causes of Fire**

<b>Sr. No</b>	<b>Causes</b>	<b>Respondents</b>	<b>Percentage</b>
1	Negligence	200	100
2	Home-used and business gas explosion	151	75.5
3	Lighting and thundering burns	48	24
4	Wire shock	200	100
5	Spontaneous fire after reaction	41	20.5
6	Other	34	17

Source: Survey Data, 2019

Respondents' answers for the causes of fire are stated in Table (4.12). Respondents 100% replied that fire broke out because of negligence and wire shock. 75.5% responded that home-used and business gas explosion made fire break out. Respondents gave the answers that fire broke out because of lightning and thundering burns (24%), spontaneous fire after reaction (20.5%) and other (17%).

**Table (4.13) Ways of Recovering the Loss of Fire**

<b>Sr. No</b>	<b>Ways of recovering the loss of fire</b>	<b>Respondents</b>	<b>Percentage</b>
1	Getting bank loan	16	8
2	Loan from friends	44	22
3	Loan from family and relative	23	11.5
4	Claim from insurance company	196	98
5	Having own enough money	52	26
6	Other	10	5

Source: Survey Data, 2019

According to the survey data, how respondents can relieve from the loss of fire is described in Table (4.13). Respondents 98% would relieve from the loss of fire by asking claim from insurance company. 26% respondents would use their own money to cover the loss. 22% respondents would borrow loan from their friends and 11.5% from their family and relatives. Respondents who would get bank loan for relieving were 8% and 5% of respondents would make relieving by using other ways.

### 4.3.5 Rating

The findings of the fire and allied perils insurance premium rating are shown in the following table.

**Table (4.14) Total Amount of Premium Rate for One Year**

Sr. No.	Occupancy	Total industries	The number of insured industries	The number of respondents who give answer	10-20 (Kyat Lakh)	20-30 (Kyat Lakh)	30-40 (Kyat Lakh)	40-50 (Kyat Lakh)	50-60 (Kyat Lakh)	60-70 (Kyat Lakh)	70-80 (Kyat Lakh)	80-90 (Kyat Lakh)	90 above (Kyat Lakh)
1	Textile Factory	26	26	20	5	8	1	6	-	-	-	-	-
2	Food and Beverage Factory	23	23	18	4	11	3	-	-	-	-	-	-
3	Household goods	29	27	18	2	2	4	-	4	3	3	-	-
4	Construction raw materials	14	14	10	-	3	-	3	1	-	1	2	-
5	Electrical goods	3	3	3	-	-	3	-	-	-	-	-	-
6	Forestry Products	6	6	3	-	3	-	-	-	-	-	-	-
7	Chemicals	7	7	5	-	-	-	-	3	2	-	-	-
8	Paper and stationary/ printing	8	8	3	-	3	-	-	-	-	-	-	-
9	Industrial raw materials	6	6	3	-	3	-	-	-	-	-	-	-
10	Cold Storage	6	6	4	-	2	-	2	-	-	-	-	-
11	Bean grain mill	16	16	11	2	8	1	-	-	-	-	-	-
12	Godowns (hazard goods)	24	22	12	9	-	3	-	-	-	-	-	-
13	Godowns (non hazard goods)	32	32	29	5	-	2	9	6	2	4	1	-
	<b>Total</b>	<b>200</b>	<b>196</b>	<b>139</b>	<b>27</b>	<b>41</b>	<b>19</b>	<b>20</b>	<b>14</b>	<b>7</b>	<b>8</b>	<b>3</b>	<b>-</b>

Source: Survey Data, 2019

The above table shows the total premium rate for one year in buying fire and allied perils insurance policy. The respondents have to pay premium based on the premium of the buildings they buy fire and allied perils insurance for as in the table respectively. Most factories have to pay 1 million Ks. to 5 million Ks. of total premium for one year. The factories which have to pay the insured premium of 5 million Ks. and above 9 million Ks. for one year are household goods, construction raw materials factories, chemical factories and non-hazardous goods pertaining to the amount of sum insured, the class of buildings and the occupancy of the buildings and the adjacent area.

**Table (4.15) Information about Rating**

<b>Sr. No</b>	<b>Particulars</b>	<b>Respondents</b>	<b>Percentage</b>
	<b>Give your opinion on the premium rate of fire insurance in ordinary cover as an insured.</b>		
1	Premium rate is too high	165	84.2
2	Premium rate is fair	31	15.8
	<b>Give your opinion on the premium rate of fire insurance in additional cover as an insured.</b>		
1	Premium rate is too high	161	82.1
2	Premium rate is fair	35	17.9

Source: Survey Data, 2019

The information of fire and allied perils insurance premium rating on ordinary cover and additional cover is described in Table (4.15). Respondents 84.2% expressed their opinion that the premium rate was too much in ordinary cover and only 15.8% replied that the rate was fair. Respondents 82.1% responded that the premium rate of additional cover was also too much and only 17.9% replied that the rate was fair.

**Table (4.16) The Degree of Satisfaction with Fire and Allied Perils Insurance Policy**

<b>Sr. No.</b>	<b>Particular</b>	<b>Respondents</b>	<b>Percentage</b>
	<b>Are you satisfied with fire insurance policy you have bought?</b>		
1	Very satisfied	12	6.1
2	Satisfied	23	11.7
3	Neutral	86	43.9
4	Dissatisfied	75	38.3
5	Very dissatisfied	-	-

Source: Survey Data, 2019

Whether the respondents were satisfied with the fire and allied perils insurance policy is stated in the above Table (4.16). Most respondents 43.9% gave the answer of neutral about their satisfaction of fire and allied perils insurance policy they had purchased. Only 38.3% respondents were not satisfied with it. The other respondents 11.7% satisfied while only 6.1% was very satisfied with the fire and allied perils insurance policy.

**Table (4.17) Reasons to Demand for Lower Discount on Premium Rate**

<b>Sr. No</b>	<b>Conditions</b>	<b>Respondents</b>	<b>Percentage</b>
1	Near Fire Brigade Department	191	97.4
2	Having enough water to put out fire	180	91.8
3	Near river and streams	28	14.3
4	No crowd	14	7.1
5	Having enough fire extinguishers	189	96.4
6	Having automatic sprinklers	122	62.2
7	Having smoke detector	109	55.6

Source: Survey Data, 2019



Table (4.17) is about demanding discount on premium rate by observing environmental conditions. The respondents 97.4% wanted to reduce the premium rate as their factory was situated near Fire Brigade and as 14.3% respondents lived near river and streams as well as 91.8% of respondents who had stored enough water to put out fire were expecting to reduce the rate. Again 7.1% respondents showed their interest of reducing the premium rate as their place was not crowded. The other respondents (96.4%), (62.2%) and (55.6%) replied that they had fire extinguished system like automatic sprinklers, smoke detectors, etc at their factories and they asked for discount.

#### **4.3.6 Key Informant Interview of Fire and Allied Perils Insurance Premium Rating**

A key informant interview is conducted to obtain vital information about fire insurance premium rate, insurance industry and banking services to provide opinions and perspectives of the key respondents. In this study, key informant interviews are qualitative in depth interviews with 15 persons – 5 factories owners, 2 main responsible persons from Supervisory Committee of Hlaingtharyar Industrial Zone, and 3 persons from government and private insurance companies, 2 persons from banking business, 3 persons from experienced insurance agents who know what is going on in this insurance industry. The compilations of the findings of 15 key informant interviews are shown as follows. The questions of the key informant interview are stated in Appendix (C).

#### **Part (A) – Notes on answers by owners and responsible persons from Supervisory Committee of Hlaingtharyar Industrial Zone**

Most factories have purchased fire and allied perils insurance because of bank loan and only a few are insured without bank loan. Mostly the premium for the whole year has to pay from 1 million Ks. to 9 million Ks. based on the amount of sum insured, the class of buildings and the occupancy of the buildings and the adjacent area. Even the premium rate of ordinary cover is high, the premium have to pay a lot when it takes account on adjacent area. Fire Brigade Department always has checked the factories before construction and after construction whether the factories follow the standards instructed by Fire Brigade Department. The Department regularly checks however, some factories again assemble smoke detectors, alarm and automatic

sprinklers in order to protect the risk of fire themselves. This industrial zone has its own five fire fighting vehicles. Factory owners demand to reduce the rate on total premium if there is excellent firefighting system. In the case of additional cover, if someone takes additional three or more additional covers, it should also be reduced than its total premium.

**Part (B) – Notes on answers by experienced persons of government and private insurance companies**

Most people like fire and allied perils insurance out of various kinds of insurance. The total income of fire and allied perils insurance becomes 43% of overall total premium income various kinds of insurance. Nearly 70% of the insured are those who purchased fire and allied perils under the compulsory scheme of bank loan. The basic rate is calculated according to the classes and occupation of buildings and taking account on adjacent risk by way of average. But, the rate is apparently higher than other countries. For the sake of people's interest, the premium rate of fire insurance was reduced appropriately since 1990. If the reduction has to be conducted in the current time, the calculation should be made with the help of insurance actuaries. Though fire and many kinds of natural disasters happen, the claim is low indemnified as there are few people who purchase fire and allied perils insurance. People have purchased fire insurance under current value and so the claim is indemnified under current value than the value of actual loss. This makes the loss for our country and also for individual loss. The industries will cease its production if they are lost because of fire. At that time there may not be regular profit. Thus it may be experienced of loss of profit. The causes of few people have purchased fire and allied perils insurance are having no awareness, less per capita income, few distribution channels, and the lack of trust. Thus the awareness of fire and allied perils insurance should be raised for public interest by cooperating insurance companies with each other in government and private.

**Part (C) –Notes on answers by responsible persons from banks**

If someone wants to get bank loan, he/ she has to put unmovable property (land, buildings, etc) as collateral. Assessor fixes current value and force sale value. Most banks give 40% of current value as bank loan. The person who wants to take bank loan has to put his unmovable and movable property as collateral and these

collaterals are to be insured. Under the principle of insurance, the bank and the owner of collateral are named as insured. From insurance point of view, the insured should take insurance with actual value of collateral. But banks allow their customer to insure only to cover the loan.

**Part (D) – Notes on answers by insurance agents**

There are so many accidental cases and so people mostly purchase motor comprehensive insurance. They do not have the awareness of fire and allied perils insurance and most people complain about the rate of fire and allied perils insurance premium is high and the frequency of fire outbreak is low. The rate of ordinary cover should be reduced and there should be discounted when three or more additional covers are taken with fire and allied perils insurance. Then it should be again when there is excellent firefighting system.

## **CHAPTER V**

### **CONCLUSION**

This chapter provides the conclusion and recommendations drawn from the findings to explain the current status of fire and allied perils insurance and premium rating system.

#### **5.1 Findings**

In this study, it was found that the fact that the least age group (21-30) was 4% showed young people needed to know much about fire and allied perils insurance. Among the respondents, most respondents are graduates who have little knowledge of fire and allied perils insurance. Few people well know about fire and allied perils insurance.

The respondents to the question of 25% of annual premium for one year is reduced as NCB when there is no claim during one year insurance term are in most percentage group that shows they fairly know about it. There are a few people who do not know at all about it. Majority of the respondents fairly know that the claim is calculated in portions of the current value of insured item if their sum insured value is lower than current value and few people well know about it. There are a few people who do not purchase fire and allied perils insurance for their factory. The reasons for not purchasing fire insurance are they think that fire and allied perils insurance is not much needed and they are able to protect against fire risk.

The types of insurance among different types of insurance are group life insurance, personal accident insurance, fire and allied perils insurance and motor comprehensive insurance. Among these types of insurance, fire and allied perils insurance is the type of insurance most people purchase. Majority of the respondents purchased fire and allied perils insurance because they wanted to take bank loan. Few respondents among those who purchased fire and allied perils insurance took some types of additional cover. These additional covers were four kinds Riots, Strikes, Malicious Damage (RSMD), earthquake fire and earthquake shock, various storms and floods. Majority of the respondents purchased fire and allied perils insurance for

the buildings in their industry below current value. Only a few respondents purchased with full current value. Among them, the insured mostly purchased fire and allied perils in full current value for their goods and stocks.

In this study, it was found out how much the respondents worried about the risk of fire and natural disaster. Most respondents extremely worried concerning with the risk of fire for their factories while very few respondents did not worry about the risk of natural disaster that can make their factories in ruin. The experience of respondents against fire and allied perils was also found out. Majority 90 % respondents did not experience fire outbreak. Respondents 97% responded that their employees well knew how to handle fire control materials while a few of respondents' employees fairly knew. 100% of respondents responded that they had drawn fire prevention plan. There were trainings given by fire brigade department and examinations about risk in respondents' factories. 100% respondents replied that fire trainings are given regularly. Majority of the respondents had fire extinguishers appliance materials at their factories. Most respondents had automatic alarm system, automatic sprinklers, water pump and fire engines at their factories while a few respondents had smoke detectors. Respondents 100% replied that fire broke out because of negligence and wire shock. The other causes of fire respondents gave were home-used and business gas explosion, lightning and thundering burns and spontaneous fire after reaction.

It was found out how respondents could recover from the loss of fire. Majority of respondents would recover from the loss of fire by asking claim from insurance company while a few respondents would use their own money to cover the loss. Few respondents would borrow loan from their friends, their family and relatives. Respondents who would get bank loan for recovering were only a few. The total premium respondents had to pay for one year varied from 1 million Ks. to 9 million Ks. and above. The factories which have to pay the insured premium of 5 million Ks. and above 9 million Ks for one year are household goods, construction raw materials factories, chemical factories and non-hazardous goods concerning with the amount of sum insured, the class of buildings and the occupancy of the buildings and the adjacent area.

Most respondents 84.2% expressed their opinion that the premium rate was too high in ordinary cover and only 15.8% replied that the rate was fair. Respondents 82.1% responded that the premium rate of additional cover was also too high and only

17.9% replied that the rate was fair. Most respondents 43.9% gave the answer of neutral about their satisfaction of fire and allied perils insurance policy they had purchased. Only 38.3% respondents were not satisfied with it. The other respondents 11.7% satisfied while only 6.1% was very satisfied with the fire and allied perils insurance policy.

This study also found out the reasons to demand for lower discount on premium rate by observing environmental conditions. The respondents 97.4% wanted to reduce the premium rate as their factory was situated near Fire Brigade and as 14.3% respondents lived near river and streams as well as 91.8% of respondents who had stored enough water to put out fire were expecting to reduce the rate. Again 7.1% respondents showed their interest of reducing the premium rate as their place was not crowded. The other respondents (96.4%), (62.2%) and (55.6%) replied that they had fire extinguished system like automatic sprinklers, smoke detectors, etc at their factories and they asked for discount on total premium. According to the key informant interview, owners and responsible persons from Hlaingtharyar Industrial Zone Supervisory Board answered that if someone takes additional three or more additional covers, it should also be reduced than its total premium. Again experienced persons of government and private insurance companies advised that if the reduction has to be conducted in the current time, the calculation should be made with the help of insurance actuaries.

## **5.2 Recommendations**

Most insured persons has compulsorily purchased fire and allied perils insurance because of bank loan. There are a few insured persons who purchase fire and allied perils insurance themselves as they want to cover hedge the fire risk. This is because there is little awareness in fire and allied perils insurance and people think that fire and allied perils insurance is not much needed and they are able to protect against the fire risk. The awareness of insurance and its benefits should be raised for the sake of public interest by cooperating insurance companies with each other in government and private. A few additional covers are taken as the insured mostly consider that there may be minor loss because of natural disasters and the rate on additional cover is high. When there are natural disasters, people suffer from loss of property. The insured demand to discount the total premium if three or more

additional covers of fire and allied perils insurance are taken. Thus, there should be discount on the total premium.

The insured mostly purchase fire and allied perils insurance against the sum insured that is lower than the current value of the property. Insurance companies indemnify the claim as the amount of sum insured. In the case the loss cannot be fully covered as the actual value. Insured persons should purchase fire and allied perils insurance just as the current value. Factories have assembled the firefighting system as directed by the fire bridge department and they assemble fire extinguisher appliance materials such as sprinklers, smoke detectors, water pumps, and fire engines in their own way at their factories in order to protect against fire risk as far as they can. The total premium should be discounted for the fact that the factories assemble fire insurance appliances in accordance with the instructions. The current premium rate of basic covers and additional covers in fire and allied perils insurance system should be calculated with actuaries on the observation of the current condition in insurance industry.

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## APPENDIX - A

**Table (A-1) Types of Insurance Product**

<b>Life</b>		<b>General</b>	
1	Endowment Life Insurance (a)Government Services Personal Life Insurance (b)Army Personal Life Insurance* (c)Short Terms Endowment Life* (d)Education Life Insurance* (e)Student Life Insurance*	1	Motor Insurance (a)Third Party Motor Liability Insurance (b)Comprehensive Motor Insurance*
2	Term Life (a)Group Life Insurance* (b)Seamen Life Insurance (c)Shore Job Life Insurance (d)Snake Bite Insurance* (e)Sportsmen Life Insurance* (f)Farmer Life Insurance*	2	Fire and Allied Perils Insurance*
3	Health Insurance*	3	Inland Marine Cargo Insurance*
4	Critical Illness Insurance*	4	Overseas Marine Cargo Insurance*
5	Micro Health Insurance*	5	Marine Hull Insurance*
6	Travel Insurance*	6	Aviation Insurance
7	Highway Express Special Travel Insurance*	7	Ship Owner and Operator's Liability Insurance
		8	Tiger Fishing Barge Owner's Liability Insurance
		9	Oil and Gas Insurance
		10	Engineering Insurance (a)Contractor's All Risks Insurance (b)Erection All Risks (c)Electronic Equipment Insurance (d)Machinery Insurance
		11	Cash in Safe Insurance*
		12	Cash in Transit Insurance*
		13	Fidelity Insurance*
		14	Deposit Insurance
		15	Credit Guarantee Insurance
		16	Workmen's Compensation Insurance
		17	Comprehensive General Liability Insurance
		18	Miner's Liability Insurance
		19	Health Insurance*
		20	Critical Illness Insurance*
		21	Micro Health Insurance*
		22	Travel Insurance*
		23	Highway Express Special Travel Insurance*

Source: IBRB

**Note:** The types of insurance which are described in the symbol of “\*” are allowed to be operated by private insurance companies.

**Table (A-2) The Comparison of Premium Rating in Ordinary Cover of Fire Insurance between 1990 and 1991 based on Sum Insured 100 Kyats**

Sr. No	Occupation	Year	First Class	Second Class	Third Class	Fourth Class
1	<b>Dwellings</b> (a) Yangon (b) Other State and Division <b>Dwellings</b> (a) Yangon and Other (4) Cities (b) Other State and Division	1990   1991	0.45  0.60  0.28 0.40	0.60  0.90  0.40 0.60	1.80  1.80  1.20 1.20	3.30  3.30  2.00 2.00
2	<b>Godown</b> (1) Non-hazardous goods (a) Yangon (b) Other State and Division (2) Hazardous goods (a) Yangon (b) Other State and Division <b>Godown</b> (1) Non-hazardous goods (a) Yangon and Other (4) Cities (b) Other State and Division (2) Hazardous goods (a) Yangon and Other (4) Cities (b) Other State and Division	1990      1991	0.40  0.60  0.70 0.90  0.24 0.40  0.44 0.60	0.60  0.90  0.90 1.20  0.40 0.60  0.60 0.80	2.10  2.10  2.40 2.40  1.40 1.40  1.60 1.60	3.30  3.30  3.90 3.90  2.00 2.00  2.35 2.35
3	<b>Industries</b> <b>Biscuit factories</b> (1) Yangon (2) Other State and Division <b>Biscuit factories</b> (1) Yangon and Other (4) Cities (2) Other State and Division	1990   1991	1.20  1.20  0.80 0.80	1.50  1.50  1.00 1.00	2.40  2.40  1.60 1.60	3.90  3.90  2.35 2.35

Sr. No	Occupation	Year	First Class	Second Class	Third Class	Fourth Class
4	<b>Breweries</b>	1990				
	(1) Yangon		-	-	-	-
	(2) Other State and Division		-	-	-	-
	<b>Breweries</b>	1991				
	(1) Yangon and Other (4) Cities		0.40	0.60	0.80	1.80
	(2) Other State and Division		0.48	0.60	0.80	1.80
5	<b>Cinema</b>	1990				
	(1) Yangon		1.05	2.25	4.20	6.30
	(2) Other State and Division		1.50	2.25	4.20	6.30
	<b>Cinema</b>	1991				
	(1) Yangon and Other (4) Cities		1.00	1.48	2.80	3.00
	(2) Other State and Division		1.80	1.48	2.80	3.00
6	<b>Clinic</b>	1990				
	(1) Yangon		0.85	1.15	2.50	4.05
	(2) Other State and Division		1.00	1.50	2.50	4.05
	<b>Clinic</b>	1991				
	(1) Yangon and Other(4) Cities		0.56	0.76	1.64	2.40
	(2) Other State and Division		0.64	1.64	1.64	2.40
7	<b>Ice and soft drinks factories</b>	1990				
	(1) Yangon		0.60	0.72	1.80	3.30
	(2) Other State and Division		0.90	1.20	1.80	3.30
	<b>Ice and soft drinks factories</b>	1991				
	(1) Yangon and Other (4) Cities		0.45	0.65	1.40	2.90
	(2) Other State and Division		0.60	0.80	1.40	2.90
8	<b>Leather Factories</b>	1990				
	(1) Yangon		0.60	0.90	2.10	3.30
	(2) Other State and Division		0.90	1.20	2.10	3.30
	<b>Leather Factories</b>	1991				
	(1) Yangon and Other (4) Cities		0.40	0.60	1.40	2.00
	(2) Other State and Division		0.60	0.80	1.40	2.00

Sr. No	Occupation	Year	First Class	Second Class	Third Class	Fourth Class
9	<b>Oil Mills</b>	1990				
	(1) Yangon		1.20	1.50	2.70	3.90
	(2) Other State and Division		1.20	1.50	2.70	3.90
	<b>Oil Mills</b>	1991				
	(1) Yangon and Other (4) Cities		0.80	1.00	1.80	2.35
	(2) Other State and Division		1.00	1.50	1.80	2.35
10	<b>Oil Mills (veg)</b>	1990				
	(1) Yangon		1.50	1.80	3.00	4.50
	(2) Other State and Division		1.80	2.10	3.30	4.50
	<b>Oil Mills (veg)</b>	1991				
	(1) Yangon and Other (4) Cities		1.00	1.20	2.00	2.90
	(2) Other State and Division		1.40	1.40	2.20	2.90
11	<b>Pharmacy</b>	1990				
	(1) Yangon		0.90	1.20	2.70	3.60
	(2) Other State and Division		0.90	1.20	2.70	3.60
	<b>Pharmacy</b>	1991				
	(1) Yangon and Other (4) Cities		0.60	0.80	1.80	2.15
	(2) Other State and Division		0.60	0.80	1.80	2.20
12	<b>Print</b>	1990				
	(1) Yangon		0.90	1.20	2.40	3.90
	(2) Other State and Division		1.20	1.50	2.40	3.90
	<b>Print</b>	1991				
	(1) Yangon and Other (4) Cities		0.60	0.80	1.60	2.35
	(2) Other State and Division		0.80	1.00	1.60	2.35
13	<b>Restaurant</b>	1990				
	(1) Yangon		0.75	1.05	2.40	3.90
	(2) Other State and Division		0.90	1.35	2.40	3.90
	<b>Restaurant</b>	1991				
	(1) Yangon and Other (4) Cities		0.48	0.68	1.60	2.35
	(2) Other State and Division		0.60	0.88	1.60	2.35

Sr. No	Occupation	Year	First Class	Second Class	Third Class	Fourth Class
14	<b>Rice Mills</b>	1990				
	(a) brick (wall),Zinc (roof)		-	1.56	-	-
	(b) wooden/zinc (wall), zinc (roof)		-	-	1.80	-
	(c) Dani (roof)		-	-	-	2.70
	<b>Rice Mills</b>	1991				
	(a) brick (wall),Zinc (roof)		-	1.04	-	-
15	<b>Rubber factories</b>	1990				
	(1) Yangon		0.90	1.20	1.50	3.00
	(2) Other State and Division		0.90	1.20	1.50	3.00
	<b>Rubber factories</b>	1991				
	(1) Yangon and Other (4) Cities		0.48	0.60	1.00	1.80
	(2) Other State and Division		0.60	0.80	1.00	1.80
16	<b>Saw Mills</b>	1990				
	(a) zinc/ brick veneer (roof)		-	-	1.05	-
	(b) Dani/ thatch (roof)		-	-	-	2.85
	(c) engine or boiler inside the building		-	-	-	3.10
	<b>Saw Mills</b>	1991				
	(a) zinc/ brick veneer (roof)		-	0.68	-	-
17	<b>Saw Mills Godown</b>	1990				
	1. zinc/ brick veneer (roof)		-	-	0.75	-
	2. Dani/ thatch (roof)		-	-	-	2.55
	<b>Saw Mills Godown</b>	1991				
	1. zinc/ brick veneer (roof)		-	0.48	-	-
	2. Dani/ thatch (roof)		-	-	0.88	1.50

Sr. No	Occupation	Year	First Class	Second Class	Third Class	Fourth Class
18	<b>Soap Factories</b>	1990				
	(1) Yangon		1.20	2.40	3.90	5.10
	(2) Other State and Division		1.20	2.40	3.90	6.00
	<b>Soap Factories</b>	1991				
	(1) Yangon and Other (4) Cities		0.80	1.60	3.00	3.10
	(2) Other State and Division		0.80	1.60	2.60	3.60
19	<b>Vest Factories</b>	1990				
	(1) Yangon		0.75	1.05	2.10	4.80
	(2) Other State and Division		0.90	1.50	2.40	4.80
	<b>Vest Factories</b>	1991				
	(1) Yangon and Other (4) Cities		0.80	1.00	1.80	2.35
	(2) Other State and Division		1.00	1.50	1.80	2.35
20	<b>Shop</b>	1990				
	(1) Hazardous goods					
	(a) Yangon		1.05	1.35	2.70	4.50
	(b) Other State and Division		1.20	1.80	2.70	4.50
	(2) Non-hazardous goods					
	(a) Yangon		0.75	1.05	2.40	3.90
	(b) Other State and Division		0.90	1.35	2.40	3.90
	<b>Shop</b>	1991				
	(1) Hazardous goods					
	(a) Yangon and Other (4) Cities		0.68	0.88	1.80	2.70
	(b) Other State and Division		0.80	1.20	1.80	2.70
	(2) Non-hazardous goods					
(a) Yangon and Other(4)Cities		0.48	0.68	1.60	2.35	
(b) Other State and Division		0.60	0.80	1.60	2.35	
21	<b>Shop of saw woods</b>	1990	0.90	1.35	2.40	3.90
		1991	0.60	0.88	1.60	2.35
22	<b>Workshop</b>	1990				
	(1) Yangon		0.90	1.20	2.70	3.60
	(2) Other State and Division		0.90	1.20	2.70	3.60
	<b>Workshop</b>	1991				
	(1) Yangon and Other (4) Cities		0.60	0.80	1.80	2.15
	(2) Other State and Division		0.60	0.80	1.80	2.20

Source: Myanma Insurance



**Table (A-3): The Comparison of Premium Rate in Fire Insurance of Additional Cover between 1990 and 1991 based on Sum Insured Kyats 100**

<b>Sr. No</b>	<b>Additional Cover</b>	<b>1990</b>	<b>1991</b>
1	Burglary (a)First class (b)Second Class ( class rate of buildings) (c)Third Class ( class rate of buildings) (d)Fourth Class( class rate of buildings)	0.60 - - -	0.25 0.50 0.75 1.00
2	Cyclone ,Storm , Typhoon , Tempest , Hurricane	0.30	0.20
3	Deterioration	0.12	0.08
4	Earthquake Fire (a)Yangon (b)Other cities Earthquake Fire (a) Zone (1) Sittwe , Kyaukphyu , Thandwe, Daewi, Myeik (b) Zone (2) other cities	0.25 0.35 - -	- - 0.06 0.20
5	Earthquake Shock (a) Yangon (b) Other cities Earthquake shock (a) Zone (1) Sittwe, Kyaukphyu, Thandwe, Daewi, Myeik (b) Zone (2) other cities	0.30 0.35  	   0.20 0.24
6	Explosion	0.30	0.20
7	Flood and Inundation	0.30	0.20
8	Spontaneous Combustion	0.12	0.08
9	Riot ,Strike and Malicious Damage (a)Dwellings ,School ,Office , Hospital ,Bank (b)Production and Selling building	0.12 0.25	0.08 0.20

Source: Myanma Insurance

**Table(A-4):The Comparison of Premium Rating of Fire and Allied Perils Insurance between 2008 and 2013 based on Sum Insured 100 Kyats**

Sr. No	Occupation	Year	First Class	Second Class	Third Class	Fourth Class
1	Biscuit Factories	2008	0.80	1.00	1.60	2.35
		2013	0.56	0.70	1.12	1.65
2	Breweries	2008	0.40	0.60	1.20	1.80
		2013	0.38	0.57	1.14	1.71
3	Cable Manufacturing	2008	0.80	1.60	2.00	3.00
		2013	0.56	1.12	1.40	2.10
4	Capsule Manufacturing	2008	0.44	0.80	1.60	2.00
		2013	0.31	0.56	1.12	1.40
5	Cement Factories	2008	0.80			
		2013	0.56			
6	Cigar and Cigarette Manufacturing	2008	0.80	1.00	1.60	2.35
		2013	0.76	0.95	1.52	2.23
7	Condensed Milk Factories ,Milk Pasturing Plants and Dairies	2008	0.40	0.60	1.20	1.80
		2013	0.28	0.42	0.84	1.26
8	Cosmetic Products	2008	0.80	1.60	2.00	3.00
		2013	0.56	1.12	1.40	2.10
9	Dwellings / Office	2008	0.28	0.40	1.20	2.00
		2013	0.20	0.28	0.84	1.20
10	Electronic Goods Manufacturing / Assembly	2008	0.48	0.68	1.40	2.00
		2013	0.34	0.48	0.98	1.40
11	Electric Lamp Manufacturing	2008	1.00	1.60	2.00	3.00
		2013	0.70	1.12	1.40	2.10
12	Fertilizer Manufacturing	2008	0.68			
		2013	0.48			
13	Glass Fiber Manufacturing	2008	0.80			
		2013	0.56			
14	Hazard Godown	2008	0.44	0.60	1.60	2.35
		2013	0.31	0.42	1.12	1.65
15	Hotel	2008	0.36	0.48	1.20	2.00
		2013	0.34	0.46	1.14	1.90

<b>Sr. No</b>	<b>Occupation</b>	<b>Year</b>	<b>First Class</b>	<b>Second Class</b>	<b>Third Class</b>	<b>Fourth Class</b>
16	Ice Factories	2008	0.45	0.65	1.40	2.00
		2013	0.45	0.58	0.92	1.38
17	Metal / Tin printers	2008	0.68	0.88	1.60	2.70
		2013	0.48	0.62	1.12	1.89
18	Non Hazard Godown	2008	0.24	0.40	1.40	2.00
		2013	0.17	0.28	0.98	1.40
19	Oil Mills	2008	0.80	1.00	1.60	2.35
		2013	0.56	0.70	1.12	1.65
20	Paint Factories	2008	1.00	1.60	2.00	3.00
		2013	0.70	1.12	1.40	2.10
21	Paper and Cardboard	2008	0.60	0.80	1.60	2.00
		2013	0.51	0.64	1.02	1.53
22	Plastic Goods Manufacturing	2008	0.80	1.60	2.00	3.00
		2013	0.56	1.12	1.40	2.10
23	Polyester Film Manufacturing	2008	0.80	1.60	2.00	3.00
		2013	0.72	0.90	1.44	2.16
24	Press	2008	0.60	0.80	1.60	2.00
		2013	0.56	0.70	1.12	1.65
25	Rice Mills	2008	0.80	1.00	1.60	2.35
		2013	0.56	0.70	1.12	1.65
26	Rubber Factories	2008	0.80	1.60	2.00	3.00
		2013	0.56	1.12	1.40	2.10
27	Rubber Goods Manufacturing	2008	0.40	0.60	1.40	2.00
		2013	0.33	0.41	0.66	0.99
28	Soap Manufacturing	2008	0.80	1.60	2.00	3.00
		2013	0.56	1.12	1.40	2.10
29	Textile Mills	2008	0.80	1.00	1.60	2.35
		2013	0.56	0.70	1.12	1.65
30	Weaving	2008	0.80	1.00	1.60	2.90
		2013	0.56	0.70	1.12	2.03

Source: IBRB

**Table (A-5): The Comparison of Additional Cover between 2008 and 2013 based on Sum Insured 100 Kyats**

<b>Sr. No</b>	<b>Additional Cover</b>	<b>Year</b>	<b>Rate</b>
1	Air Craft Damage	2008	-
		2013	0.10 %
2	Burglary	2008	1. First Class 0.25% 2. Second Class 0.50% 3. Third Class 0.75% 4. Fourth Class 1.00%
		2013	1. First Class 0.25% 2. Second Class 0.50% 3. Third Class 0.75% 4. Fourth Class 1.00%
3	Earth- quake fire Earth – quake shock	2008	0.10 %
		2013	0.10%
4	Explosion	2008	0.10%
		2013	0.10%
5	Flood and inundation	2008	0.10%
		2013	0.10%
6	Impact Damage	2008	-
		2013	0.10%
7	Spontaneous combustion	2008	0.08%
		2013	0.08%
8	Storm, Typhoon, Hurricane, Tempest, Cyclone	2008	0.20 ( building, furniture , machine, goods) 0.25 (goods which can be destroyed easily in water)
		2013	0.20 (building, furniture , machine, goods) 0.25 ( goods which can be destroyed easily in water)

<b>Sr. No</b>	<b>Additional Cover</b>	<b>Year</b>	<b>Rate</b>
9	Subsidence and landslide	2008	-
		2013	0.10%
10	Riot ,Strike and Malicious Damage Riot ,Strike and Malicious Damage	2008	0.06% Include 1. Air Craft Damage 2. Impact Damage 3. Forest Fire 4. Subsidence and Landslide 5. Damage by falling trees or branches and object there from
		2013	0.06%
11	War Risk	2008	0.10%
		2013	0.10%

Source: IBRB

**Table (A-6) Kinds of Factory Occupancy**

<b>Sr. No</b>	<b>Kind of Occupancy</b>	<b>Total</b>	<b>Respondents</b>	<b>Percentage</b>
1	Bean grain mill	55	16	8
2	Chemicals	25	7	4
3	Cold storage	22	6	3
4	Construction raw materials	48	14	7
5	Electrical products	11	3	2
6	Food and beverage factory	81	23	12
7	Forestry products	20	6	3
8	Godowns (Hazard goods)	83	24	12
9	Godowns (Non-Hazard goods)	113	32	16
10	Household goods	102	29	15
11	Industrial raw materials	21	6	3
12	Miscellaneous	25	-	-
13	Paper and stationary /Printing	29	8	4
14	Textile Factory	90	26	13
	Total	725	200	100

Source: Survey Data 2019

## APPENDIX - B

### Survey Questionnaire

#### “A Study on Fire and Allied Perils Insurance in Terms of Premium Rating”

To have more interest in fire and allied perils insurance business and this study is carried out to be the premium rate that public can purchase fire and allied perils insurance. I want you to participate. Anyone can answer as there is no need to describe.

#### Section A: Background Information

1. Gender: Male [        ]        Female [        ]
2. Age:  
[        ] 21-30        [        ] 31-40        [        ] 41-50  
[        ] 51-60        [        ] Above 60
3. What is your highest level of formal education?  
[        ] High school [        ] Graduate    [        ] Post graduate  
[        ] Other
4. What is your role in this factory?  
[        ] In charge    [        ] Owner

#### Section B: Awareness of fire and allied perils insurance

5. How much do you know about fire and allied perils insurance?  
[        ] Well know    [        ] Fairly know    [        ] Not know
6. Do you know 25% of annual premium for one year is reduced as no claim bonus when there is no claim during one year insurance term?  
[        ] Well know    [        ] Fairly know    [        ] Not know
7. Do you know the claim will be calculated in portions of the current value of insured item if your sum insured value is lower than the current value?  
[        ] Well know    [        ] Fairly know    [        ] Not know
8. If you have not bought fire and allied perils insurance, state your reason.  
(More than one answer is possible.)  
[        ] Think that fire and allied perils insurance is not much needed.  
[        ] Don't know well about fire and allied perils insurance.

- ] Fire and allied perils insurance premium rate is high and such a big part of our income will be paid.
- ] We are able to protect against fire risk.
- ] Not easy to purchase insurance

### **Section C: The Insured Condition of Factories**

9. Describe the types of insurance you have bought for your factory.

- ] Life insurance
- ] Health insurance
- ] Travel insurance
- ] Group life insurance
- ] Personal accident insurance
- ] Fire and allied perils insurance
- ] Motor comprehensive insurance
- ] Marine insurance
- ] Other

10. If you have bought fire and allied perils insurance, state the reason. (More than one answer is possible.)

- ] Knowing the benefits of purchasing insurance
- ] Compulsory bank loan
- ] Both

11. What kind of property have you insured?

- ] Buildings     ] Machinery     ] Goods
- ] Furniture     ] Electronics

12. Choose additional cover that you have bought with fire and allied perils insurance for your in factory.

- ]        Riots, Strikes, Malicious Damages (RSMD)
- ]        Aircraft damage
- ]        Impact by road vehicles
- ]        Subsidence and landslide
- ]        Earthquake fire and earthquake shock
- ]        Various storms
- ]        Floods



- Explosion
- Spontaneous combustion
- Burglary
- War risk

13. Do you purchase fire and allied perils insurance for your factory building, machines, goods in actual value or not?

- full current value     below current value

14. Express your degrees of worry concerning with the risk of fire for your factory.

- Extremely worry     Very worry     Worry
- Not worry

15. Express your degrees of worry concerning with the risk of natural disaster for your factory.

- Extremely worry     Very worry     Worry
- Not worry

#### **Section D: Experience against Fire and Allied perils**

16. Have you ever experienced fire outbreak yourself or in your community?

- Ourselves     Our community
- Not experience

17. State fire extinguishers appliance materials that you have used for your factory? (More than one answer is possible.)

- Water
- Sand
- Fire hook/ fire beater
- Fire extinguisher
- Automatic alarm system
- Automatic Sprinkler
- Water pump/ fire engines
- Smoke detector

18. Do your employees know how to handle fire control materials?

- Well know     Fairly know     Not know

19. Is there any fire prevention plan that is drawn?  
 Yes  No
20. Are there any training given by fire brigade department and examinations about fire risk in your factory? If so, how are they conducted?  
 Always  Sometimes  Not at all
21. Why did most fire break out in Hlaningtharyar Industrial Zone? (More than one answer is possible.)  
 Negligence  
 Home-used and business gas explosion  
 Lightning and thundering burns  
 Wire shock  
 Spontaneous fire after reaction  
 Other
22. Which way will you use to recover the loss of fire?  
 Getting bank loan  
 Loan from friends  
 Loan from family and relatives  
 Claim from insurance company  
 Having own enough money  
 Other

### **Section E: Rating**

23. Do you know total amount of premium rate for one year if you have purchase fire and allied perils insurance policy?  
 1,000,000 Ks – 2,000,000  
 2,000,000 Ks – 3,000,000  
 3,000,000 Ks – 4,000,000  
 4,000,000 Ks – 5,000,000  
 5,000,000 Ks – 6,000,000  
 6,000,000 Ks – 7,000,000  
 7,000,000 Ks – 8,000,000  
 8,000,000 Ks – 9,000,000  
 Above 9,000,000 Ks

24. Give your opinion on the premium rate of fire and allied perils insurance in ordinary cover as an insured.
- Premium rate is too high
- Premium rate is fair
25. Give your opinion on the premium rate of fire and allied perils insurance in additional cover as an insured.
- Premium rate is too high
- Premium rate is fair
27. Are you satisfied with fire and allied perils insurance policy you have purchase?
- Very satisfied       Satisfied       Neutral
- Dissatisfied       Very dissatisfied
28. What is your opinion about the reasons to demand for lower discount on premium rate when there are following conditions? (More than one answer is possible).
- Near Fire Brigade Department
- Having enough water to put out fire
- Near river and streams
- No crowd
- Having enough fire extinguishers
- Having automatic sprinklers
- Having smoke detector

## **APPENDIX - C**

### **Questions for Key Informant Interview**

#### **Part (A) – Questions for Responsible persons from Hlaingtharyar Industrial Zone and owners of factories**

1. Have you purchased fire and allied perils insurance for your factory?
2. How much have you paid the total premium in average for the whole year?
3. Is the premium rate you have insured high or low? Why?
4. How do you assemble the fire extinguishing system?
5. What is your opinion on the fire and allied perils insurance premium rate?

#### **Part (B) – Questions for experienced persons of government and private insurance companies**

1. What kinds of insurance policies are popular among people?
2. How is the fire and allied perils insurance premium calculated?
3. How will you conduct to reduce if the rate is too much for our community?
4. Explain about the condition of claim payment.
5. Why do few people purchase fire and allied perils insurance?

#### **Part (C) – Questions for responsible persons from banks**

1. How is bank loan and insurance related?
2. How will the value of fire and allied perils insurance be defined for bank loan borrowers as banks?

#### **Part (D) – Questions for insurance agents**

1. What kinds of insurance have you sold as an agent? Why?
2. What do you recommend about fire and allied perils insurance?