Fundamentals of Insurance

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Chapter 1: Risk

Learning Objectives - At the end of this chapter, the reader would be able to

- Understand the meaning of risk in the context of finance and insurance,
- Categorize risks in the broad risk categories,
- Introduction of concepts of risk management and how insurance becomes a part of risk management by organizations.

Definition

Risk is a commonly used word in our everyday lives. Any undertaking or transaction that may have an adverse impact on us is a risk. For the purpose of definition -"Risk is the potential of loss (an undesirable outcome, however not necessarily so) resulting from a given action, activity and/or inaction. The notion implies that a choice having an influence on the outcome sometimes exists (or existed). Potential losses themselves may also be called "risks". Any human endeavor carries some risk, but some are much riskier than others."

The loss that is being referred to here can be any loss, like, a personal loss (death of a family member), physical loss (loss of a body part due to accident), financial loss (loss of property in a flood), professional loss (losing a job) etc.

If we strictly talk in terms of business, the potential loss is usually measured in terms of money. Now, there are various risks that a business may face. These risks may also vary from business to business. But, broadly, risks can be classified as below:

Types of Risks

Risks can be classified in two broad categories. They are as follows:

Pure Risks

Pure risks are static risks. This means that the outcome or result of such an event would always result in either a loss or no loss. Basically, there is absolutely no possibility of a profit in a pure risk. Static risk results are always adverse or neutral, but never beneficial. Sudden deaths due to accident, injury leading to disability, damage to property due to fire, lightning etc are all outcomes of pure risks. An individual driving a vehicle may suddenly meet with an accident. So, driving a vehicle is a pure risk which the driver chose to undertake.

Such pure risks are insurable risks. Such risks in which there is no scope for the insured to make profit are insurable.

Speculative risks

When an outcome of a risk can be either profit or loss, it is termed as speculative risk. This is very close to gambling in which, there are chances of making profit on the money used for gambling or chances of losing the money. Other example of this can be investing in stock market. There may be a possibility of making profit on the money invested or there are chances of losing money on the investment.

Insurance does not take care of such speculative risks. This is because insurance cannot be given for risks which have a possibility of generating profit. Principally, the insured cannot make profit out of an insurance policy. Insurance can only be provided for fortuitous events.

With this background, there can be further classification to the types of risks. The types of risks mentioned below are a combination of both speculative and pure risks.

External risks

Such risks which are induced by factors outside the organization are termed as external risks. Factors such as government regulations, interest rates, natural events or catastrophes etc. are outside the control of the organization and hence are classified under external risks.

Internal risks

Such risks which are inherent in the company are known as internal risks. Factors such as employees, recruitment policies, liquidity and cash flow etc. are all very common examples of internal risks which a company has to manage for its smooth day to day operations.

These external and internal risks can also be classified into the following heads:

1. Financial risks – This risk is induced by both external and internal factors in an organization. The risks which are related to financial factors like interest rates, credits, liquidity and cash flows, foreign exchange rates etc. are known as financial risks. A simple example to explain such a risk would be as follows- It is a common practice in a trading company to work on credit basis. There are credit cycles for customers and vendors. This means, that after receipt of payment from one customer (customer may be given a date within which the payment has to be made), payment to one vendor is made (here also a date is fixed for payment). The risk in this case can be that if a customer fails to pay to the company till the date the payment is due to company's vendor, the vendor will charge a penalty/additional interest to the company. This leads to some financial loss to the company. The company can choose to recover this loss from the customer who delayed the payment or can choose to bear the loss depending on its circumstances.

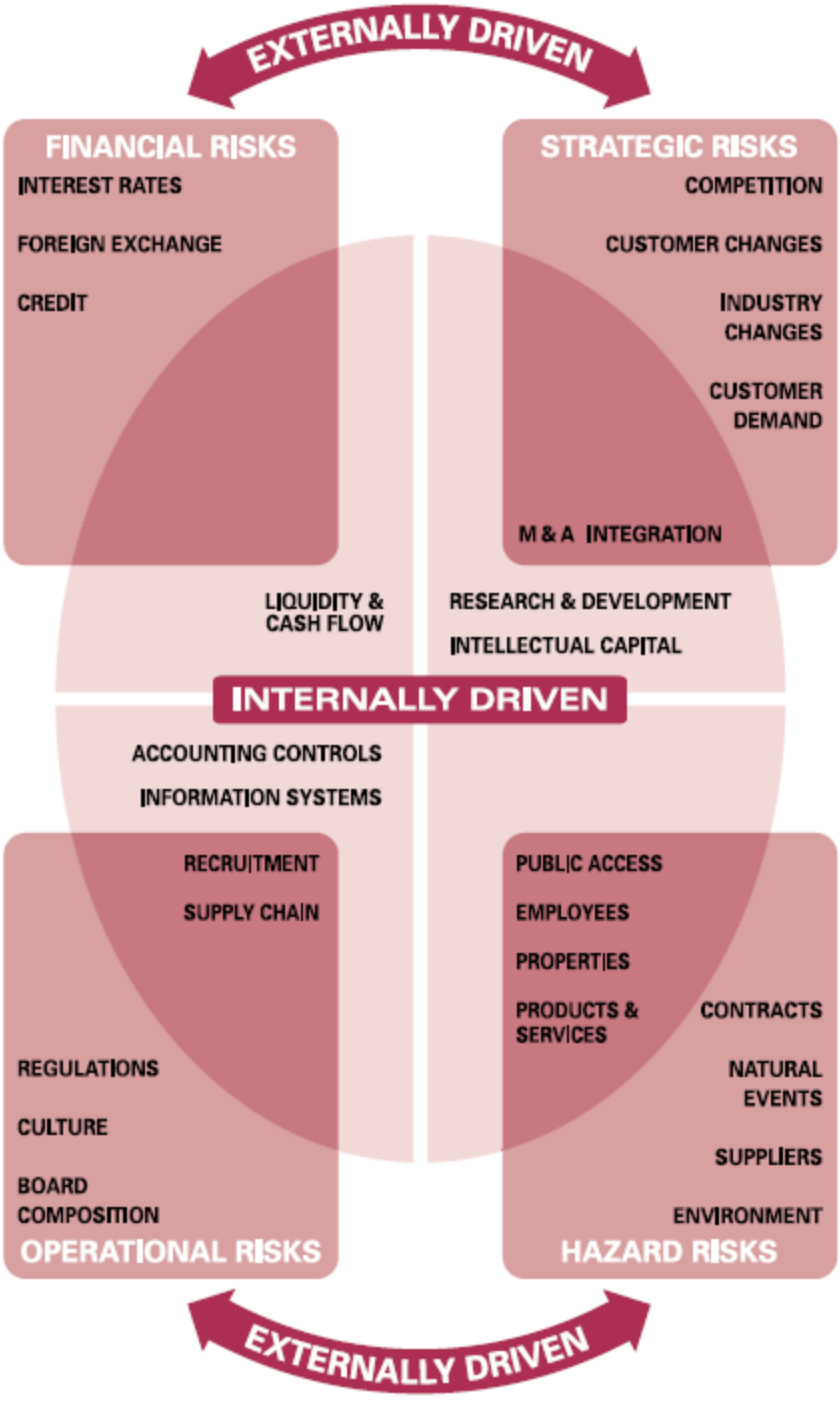
2. Operational risk – The risks faced by businesses in their day to day operations are termed as operational risks. These again may be different for different businesses but they are also affected by both external and internal factors. These include outdated or faulty IT systems, interruptions to supply chain, inaccurate or disorganized book keeping, cultures. For example- if a company chooses to employ an outdated IT system, for its assembly line, to save costs, it can lead to slow and inefficient production, which

in turn can lead to business loss. However, this potential business loss may be lesser than the cost to employ the latest technology. Hence, the company decides to take this risk of employing a reasonably outdated IT system.

3. Strategic risks – As the terms suggests, these risks can have significant impact on the company's business. Such risks are associated with the competition in the market, strategy developed to beat the same, changes in the industry as a whole, changes in customer preferences, mergers & acquisitions etc. Such risks are difficult to foresee and hence their management is also tricky. For example, if a company decides to launch a new product as a strategic move to capture a new consumer market, it is a risk till the new product is established in that market.

4. Hazardous risks – All events which cannot be controlled by the company in any way and the occurrence of which leads to losses are known as hazardous risks. Events like natural disasters, environmental hazards, accident of employee or worker, product developed leading to an environmental hazards are some examples of such risks. Even though such events are occurring by chance, and are not much in control of the company, these can be managed by the company. These can be managed to the extent of covering the monetary loss to the company if one or more such events occur.

   There are some factors, however, which are driven by both external and internal environment. The below diagram explains very clearly the common external and internal factors along with such overlapping factors.


EXTERNALLY DRIVEN
FINANCIAL RISKS
INTEREST RATES
FOREIGN EXCHANGE
CREDIT
STRATEGIC RISKS
COMPETITION
CUSTOMER CHANGES
INDUSTRY CHANGES
CUSTOMER DEMAND
M & A INTEGRATION
LIQUIDITY & CASH FLOW
RESEARCH & DEVELOPMENT
INTELLECTUAL CAPITAL
INTERNALLY DRIVEN
ACCOUNTING CONTROLS
INFORMATION SYSTEMS
RECRUITMENT
SUPPLY CHAIN
REGULATIONS
CULTURE
BOARD COMPOSITION
OPERATIONAL RISKS
PUBLIC ACCESS
EMPLOYEES
PROPERTIES
PRODUCTS & SERVICES
CONTRACTS
NATURAL EVENTS
SUPPLIERS
ENVIRONMENT
HAZARD RISKS
EXTERNALLY DRIVEN

Risk Management

Now that we have understood the various risks an organization faces, it would not make sense if we do not know what to do with this information. Hence, an introduction to the concept of risk management is presented below.

Risk management is a method to manage the above mentioned organization wide risks in a manner so as to minimize or nullify the impact of these risks. Basically, it is a combination of methodical steps which identifies each and every risk an organization faces and gives a solution to deal with such risks. However, not every risk mentioned above can be managed.

Objectives of risk management

As already explained above risk management plays an important part in any organization. Following are its main objectives:

1. It provides a framework to ensure that future activities can take place in a consistent and controlled manner.
2. It provides structured understanding of business activity, volatility and project opportunity/threat which improves decision making, planning and prioritization.
3. It helps to identify and reduce volatility in non-essential areas of business.
4. It helps in contributing to more efficient allocation of capital and resources, thus increasing operational efficiency and leading to cost saving.

Risk management process

Risk management process is a very lengthy process and it involves continuous monitoring and up gradations. It is also a highly complex process. However, broadly, we can enlist the entire process in four major steps:

1. Identify: As mentioned above, every organization is subjected to different kind of risks. It is in this step that the identification of various risks faced in the organization is done.
2. Assess: Once the identification of risks is done, it is important to assess the risks on the basis of its impact to the business and its probability of occurrence. There are many methods to asses all the risks listed out in the previous stage. We will not delve into the detail of all such methods as it is out of scope for this literature. However, the crux of all the methods is to map each of the risks' likelihood of occurrence and its impact on the organization. If the likelihood of occurrence of risk is high and impact is also high, some controls are needed to manage such a risk. On the other extreme, if the impact of a risk

is very low and the likelihood of occurrence of that risk is also very low, then it would be safe to ignore such risks totally.

3. Plan: This stage analyses the risk probability and its impact listed in the previous stage. The decision to add controls to manage the (unacceptable) risk or ignore the risk (acceptable risk) actually happens in this stage. After this, the costs to apply/increase controls to manage the risks are calculated and as per this they are prioritized. Acceptable risks need to be monitored always to ensure that it doesn't crossover to the other side to become unacceptable.
4. Implement: The objective of this stage is to develop cost effective options for treating the unacceptable risk. There are four methods:
    a. Avoiding the risk – Refers to methods which ensures that activity (ies) which is likely to trigger the risk is not undertaken at all.
    b. Reducing the risk – There are two ways to handle this – Either control the likelihood of occurrence of this risk or control the impact of the risk if it occurs. Likelihood of occurrence can be controlled by preventive maintenance, quality assurance and management etc. Impact of the risk after it occurs can be controlled by having a backup plan or contingency planning, separating the activity or resources etc.
    c. Transferring the risk – This strategy involves transferring the risk to another party by means of insurance contract or partnership/joint venture. Actually, this is more of a risk sharing mechanism as in every contract or partnership, some stake of risk has to be borne by the organization itself. However, such methods will help in controlling the impact of the risk after its occurrence.
    d. Retaining the risk – The organization may decide to retain the risk, i.e in the eventuality of the risk occurring, the organization is ready to bear the consequences. Also, it takes no measures to avoid this risk specifically.

Insurance as a method of risk management and its importance in the economy

As mentioned above, insurance is used as a method of risk management in organizations. It would not be wrong to say that it is a very popular method of risk minimization used by the companies worldwide. It is a method to transfer the risk of a company to another body known as an 'insurer' or 'insurance company'.

Insurance is triggered when the risk occurs, i.e the insurance contract comes into force when the event against which insurance was taken comes into play. This event would lead to monetary loss to the 'insured' company. After satisfying all the conditions of the insurance contract, it is the insurance company's job to make good this loss of the insured company or the insured individual.

Like businesses hedge their financial risks, plan effectively for operational and strategic risks, similarly, they seek insurance for hazardous risks. All risk falling under the category of hazardous risks can be covered by insurance. However, these hazardous risks can be classified as 'Preferred', 'standard' and 'non- standard risks'. As the name suggests, insurance companies would like to insure 'preferred' and 'standard' risks. The treatment of 'non-standard' risks would be somewhat special and would be subjected to higher amount of scrutiny by the insurance underwriter. It is very popular for large and small organizations to seek insurance as a method of risk management for all such risks 'happening by chance'.

Since insurance is a method of risk management, it forms a very important part of the economy. It can be said that insurance supports the businesses by protecting them against accidents or any fortuitous events. By paying a small sum as "premium' insured companies can put their mind at rest and not fear the financial consequences in the event of such accidents.

If we take a loss which can be very specific to a company only, like an accident of a machine operator while he was operating the machine. Such an incidence leads to permanent handicap of the operator. In such a case, the company stands to lose an employee's services, however, this loss cannot be measured in monetary terms. But the financial loss to the company would be to the extent of compensating the worker and his family. It may not be a big deal for an organization to make this one time compensation. However, in many industrial sectors, such accidents are waiting to happen, i.e. nature of work is such that accident can happen anytime. Of course the magnitude may vary. It may not always be as severe as mentioned in the above example. But, it will obviously lead to a financial bearing on the company. So, the company may decide to insure itself against such risks. This is a very simple example.

Now, let us take another example. A soft drink company has launched a new flavor, after consuming which lots of people have complained of feeling sick. The obvious loss to the company would be that it would have to recall the existing stock in the market and dispose it. Apart from this, it would also lead to huge lawsuits in case some consumer decides to sue the company. Legal battles are very expensive (even for large companies) and lengthy as well. If

such a company is not insured against such a risk, it won't be a surprise that the company became bankrupt fighting its legal battles. Insurance is important up to this extent.

With these two examples, I think it should be reasonably clear how insurance fits into the overall scheme of things. For a prosperous economy, it is necessary for the industrial sector to flourish, which can be aided with the help of insurance.

With the help of insurance, companies can put to rest some of their worries and concentrate on their other important operations.

This was a very brief introduction to risk management as we have limited scope in this literature to read about this topic. However, if you wish to read about risk management in detail, you can refer to the following links –

http://www.theirm.org/publications/documents/Risk_Management_Standard_030820.pdf

http://gnedenko-forum.org/Journal/2010/022010/RTA_2_2010-09.pdf

Chapter 2: Insurance

Learning Objectives: At the end of this chapter, the reader would be able to

- Know the common insurance terminologies,
- Brief history of insurance,
- Know seven most important Principle of Insurance.

Concept of insurance

Insurance is a contract. By the simplest definition given by Investopedia, “insurance is a contract (policy) in which an individual or entity receives financial protection or reimbursement against losses, from an insurance company. The company pools clients' risks to make payments more affordable for the insured.”

In a very raw sense, insurance is a method of making good a loss against which insurance was taken. This making good of loss is achieved by pooling in sums of money from various people/companies and making the payment of loss through this shared pool of money. Every individual would like to protect their valuables. Insurance is a method to protect such priced possessions. As already discussed in detail, insurance is a method of risk management used by organizations. The concept of insurance can be clarified by a very simple doodle shown below:

Insurance as a contract

Insurance is a contract because it is a legal document and can be produced in court of law. Like a contract, there are two parties – the insured and the insurer, who undertake a business deal. The insurer takes the responsibility of indemnifying the insured against peril(s) named in the contract up to the extent specified in the contract, for specified amount of time. For this

service, the insurer charges the insured a certain sum of money. Such a legal contract is called a 'policy'.

In layman's language, a policy document will contain all the details about the agreement that has occurred between the insured and the insurer. It will list out conditions under which insurance would be applicable, the events which will trigger the contract, the duration of time for which this agreement would be valid (usually policies are yearly policies), the sum of money paid by the insured, all other legal terms (clauses, deductibles etc. which will be explained later on).

Some Common terminologies

1. Premium – The agreed sum of money paid by the insured to the insurer for accepting the risk with the promise that in case of loss, payment will be made against which this payment was made.

2. Peril – It can be defined as the risk against which insurance is taken. For e.g., if fire insurance is taken by an office building, it means that in case of a fire in the building, the insurance policy has to be actioned. 'Fire' is the peril here. Similarly, earthquake, theft etc. are all perils against which insurance is taken. These are also referred to as 'insured perils'.

3. Risk underwriting - It is a common practice to use the term underwriting or phrase 'writing the risk'. Every risk is analyzed for the potential loss that can be generated by it. Accordingly, insurance companies charge premium from the insured. This is known as underwriting the risk. So, the process of accepting/rejecting a risk and if risk has been accepted, then at what terms (premium and other terms), is known as risk underwriting.

4. Claim – Any loss against the policy is a claim. It becomes admissible in case of a loss, if all conditions under the insurance contract has been satisfied. Claim amount is the amount of payment to the customer for covering the loss that the customer has made due to the peril.

5. Subject matter insured – The item or the person getting the insurance cover or for whom the protection is sought for is known as subject matter insured. For e.g., in life insurance, the person whose life is getting insured is the 'subject matter' or 'subject matter insured' here.

6. Sum Assured – This is the amount (in monetary terms) of cover provided in an insurance policy. It is a pre-decided amount which the insurer pays the insured in case of a loss.

7. Beneficiary – This is very specific to the life insurance sector. A beneficiary is the person receiving the policy benefits in case of death of the life assured. The person on whose

life the insurance has been taken out chooses his/her beneficiary while taking the policy.

Characteristics of Insurable risk

Not all risks are insurable. Following are the characteristics of insurable risk

1. Pure risks- As explained in the above section, speculative risks cannot be insurable. Only pure risks can be insurable. The event leading to loss must occur by chance i.e it should be a fortuitous event and it should never result in profit to the insured.
2. Loss must be quantifiable – The loss resulting from all insurable risks must be quantifiable and should be measurable in monetary terms as well as time. The death of the family's provider is a personal loss to the family members, but the grief cannot be quantified. The income loss to the family due to death of this provider can be quantified and hence insurance is provided against this risk.
3. The rate of loss must be predictable – The number and timing of losses should be predictable to some extent.
4. Loss must be significant – The loss should be financially significant to the insured. There are a lot of administrative costs associated with managing a single insurance policy and this cost is added to the premium. If the amount of premium (known as cost of premium) to be paid by the insured is lesser than this cost, it would make the insurance premium very costly. Hence, the cost of insurance should be justifiable for the insured.
5. Must be legal and not against public policies – The risk against which cover is sought must be a legal activity. If a business wants to insure itself against certain losses, the business should be legal and benefits cannot cross the boundaries of providing benefits which may be illegal. The benefits should not override any benefits.
6. Loss must not be catastrophic to the insurer – The loss should not be so big that it leads to catastrophic financial damage to the insurer. Sometimes, losses are so huge that in order to pay claims for such huge losses, the insurer becomes insolvent.
7. Loss exposures must be large and homogeneous – To generate a trend for prediction of losses, there should be enough exposure number of losses and homogenous risks are to be grouped together. This is required for establishing adequate premium levels for insuring such risks.

History of insurance

Insurance has its roots in China. 7000 years ago, Chinese people used to live in groups to fight against danger from wildlife, theft from nearby thieves, hunt and gather food together. These were ancient methods of protecting against daily risks.

In 5000 B.C, Chinese traders would trade their goods in ships/boats as they had to travel by sea. Hence, to protect their goods from the sea, they used to distribute their goods in different boats. So, if one boat sank, all the goods of one trader would not sink and get destroyed with the ship, but some of the goods of all the traders would get destroyed. This way, the loss of one trader would be limited. However, these were informal ways of insuring against risks.

In around 4000 – 3000 B.C, concept of 'bottomry' contracts became a common practice in Greece, Babylon and amongst Hindus. As per this 'bottomry' contracts, merchants were given loans with the benefit that if the goods were lost in the sea, the loan would not have to be repaid. Claims, if any would be paid out from the interest amount earned on the loans. So, in effect, merchants used to pay the interest amount to save them from the risk of making a loss if their goods are lost at sea. Such practice was also limited to the local areas.

The first form of formal insurance on a very large scale started at Edward Lloyds coffee house in London. Back in 17th century, this coffee house was a hub of traders, who would come in and enjoy some good coffee. These traders who would be travelling around the world for their work would exchange information about shipping. Soon, through these discussions, Edward Lloyd encouraged traders with good information to start providing 'marine insurance' by collecting money from other traders to protect their goods against risks at sea. Soon this concept became popular as almost all traders felt the importance of this insurance. In 1734, Thomas Jemson, published a journal by the name of Lloyd's List. He used Lloyd's name because by this time, this name had at an instant connect with the audience who would be interested in such a journal. This journal gets published regularly even today.

So, the first formal contract of insurance where insurance was evaluated as a risk and premium was collected to insure the risk was started at Lloyd's coffee house, now known popularly as 'Lloyds of London'. The first form of such insurance was marine insurance, which will be explained in subsequent sections of this literature. Lloyds of London still houses member insurance underwriters (now underwriters for other products like fire and property etc.) who transact their insurance business from here. However, Lloyds itself does not transact any business.

Principles of Insurance

As mentioned above, insurance is a contract enforceable in a court of law. Hence, it is governed by some universal rules and regulations known as principle of insurance. There are seven principle of insurance which are very important to understand. For an insurance contract to occur and get actioned in a court of law, these seven principles or conditions must be satisfied, otherwise the contract of insurance is not valid. These principles also help us understand the rights and obligations of the party to this insurance contract, the legal environment and other important features of insurance contract. Let us look at each of the principles in detail:

Principle of Utmost Good Faith (Uberrima Fides)

It is the primary principle of an insurance contract. The principle of utmost good faith urges the customer to disclose all 'material' information to the insurer at the time of buying the policy. The word 'material' here means any information that may have even the slightest impact on the outcome of risk for which insurance is being sought. At the time when the policy is being bought, the customer is required to inform everything that is 'material' very honestly to the insurance company. This is only because, insured does not know of the property or the person (in case of life or health insurance) for which the insurance cover is sought. Now, it may be valid to say that insurer can do inspection of the risk like property inspection or medical checkup for health insurance. But, these tests and inspections may not give the history, like history of past claims etc. If full information is not given by the insured customer or if the information has been misrepresented, the insurance contract becomes invalid. This means that insured customer cannot force the insurance company to pay the claim in case of loss. Also, in such case, the insured company also has to return the premium to the customer.

Here, it would be reasonable to point out that the reverse is also true. This means that the insurance company also has to inform everything about the policy to the customer. Details of the risks that will be covered, up to what extent they will be covered, duration of coverage, availability of discount etc. However, this cannot be challenged by the customer in court of law. It is obligatory for the insurance company to mention all the conditions on the face of policy document and it is recommended that the customer reads the policy document beforehand. It would be apt to use the phrase 'let the buyer beware' here.

Principle of insurable interest

The principle states that a person or organization paying the premium for buying the policy must have 'insurable interest' in the property or life insured. Having insurable interest means having pecuniary (transactions involving money) interest in the risk that is to be insured. The word 'pecuniary is most important here. The person seeking the insurance must be benefitted by the existence of the property and incase of loss, should be financially responsible for the

loss. Needless to say that this insurable interest should be lawful and not illegal by any means. If there is no insurable interest, the contract is not valid and cannot be challenged in court. So, it would be valid here to state that you may want to insure The Taj Mahal but that is not possible because of lack of insurable interest.

Here, life insurance policies take a deviation. This means that insurable interest in policies insuring life exist when the relationship between the person who is seeking life insurance and the person who is getting insured is a blood relation, marriage, adoption, contractual relation or statutory duty. In these insurance policies, an insurable interest should exist at the time of taking the policy.

Principle of Indemnity

This is an important principle from the perspective of underwriting. It simply states that insurance should always be a contract of indemnity and nothing more. An insurance should only indemnify the insured. In insurance, 'to indemnify' means to put the insured in the same monetary position as the insured was before the loss occurred. This implies that no insured can make profit out of any insurance policy. Also, the insured cannot take insurance for any speculative gain or gambling.

It is a difficult to task for underwriters to calculate this amount of indemnification. There are various methods for different insurance products to calculate the amount at the time of writing the policy. This amount actually forms the basis for deciding the quantum of premium as well. Here again, life insurance works in a different manner. There is some difference in calculating this amount in case of life insurance. It is very difficult to *indemnify* the loss of a human being. For the purpose of calculating premium amount in these policies, some standard statistics is applied. So, this principle is not strictly valid for life insurance policies.

Principle of Subrogation

This is a corollary to the principle of indemnity. It states that when the insurer has agreed to pay for the losses, i.e compensate the insured for the loss, then in that case, the ownership rights of such property shifts to the insurer. This principle is applied in all contracts of indemnity. Hence, this is not applicable for life insurance policies. This is an extension of principle of indemnity because it doesn't allow the insured to make profit out of insurance. Once, ownership rights of property are transferred to one insurer, the same cannot be transferred to another insurer. This prevents the insured to buy multiple insurance policies for same chunk of risk and hence make any profit from insurance.

The right of ownership is, however, transferred only after the insurer has accepted to make the claim payment. The insurer before actually making the payment for settlement of the claim

takes a letter of subrogation (LOS) from the insured. This LOS states that the property and/or goods against which the claim is getting paid now legally belongs to the insurer and the insurer can choose any method of disposal/or other treatment for the same. This is also an important concern for the insurer from the point of view of making claims payment. This can be explained with the help of a simple example. Suppose there are two trucks loaded with cargo, moving along in opposite directions. The first truck collides with the second truck causing damage to the truck as well as the cargo. Now, the second truck's insurance company will have all the rights of subrogation on the cargo and the truck (if both the truck and cargo are insured by the same insurer). The insurer will indemnify the second truck owner of the loss of the truck and the cargo. But, the insurance company will recover this payment from the first truck's owner, as the accident was caused by the first truck. It may be possible that the first truck is insured by a different insurer, in which case it will the first truck's insurance company which will ultimately have to bear the loss of this whole accident.

Principle of Contribution

This is the second corollary to the principle of indemnity. It states that if a risk is insured by different insurers, then the total compensation cannot exceed the loss amount. The compensation amount will be shared amongst the insurers. In another arrangement, one of the insurers can make the full payment of claim to the insured and recover the claim amount from other insurers. The compensation amount paid by different insurers is in the same proportion in which insurance premium was paid. This also applies to indemnity contracts where the insured has chosen to insure with multiple insurers.

However, here only the loss amount is divided and other terms of the policy are somewhat ignored. To avoid this, usually, there is one policy document which contains the terms and conditions and these are negotiated and fixed by the *lead* insurer. The contribution or the share of each of the other insurers are listed out on the policy copy and this policy document becomes the master policy for that risk. No other terms given by any other insurer, outside this policy document would be valid. This situation arises, when the risk is too large to be covered by a single insurer. Sometimes, the risk may be very large, which means that in the event of a loss, the loss amount may be so huge that it may wipe out the entire insurance company. In order to protect itself, and share the risk amongst other insurers, the insurance company invites other insurance companies to participate in this risk. This way underwriting expertise of two or more insurance companies can be put together to establish a better pricing and/or better policy terms for this big risk. This may also happen in the case where other insurance companies want a *'piece of a very large cake',* when they cannot afford to *'eat the whole cake by themselves'.* In this case, a piece of risk for their revenue. So, this type of arrangement can prove to be a win- win situation for all stakeholders.

Principle of Proximate Cause

This principle is actioned when a loss occurs due to a series of events or by a series of causes. It is very common for a loss to occur due to a series of events. It may be possible that loss due to one of these events may be insured while other cause or event may not be insured. To decide the liability of the insurer in case of such a loss, the nearest event or the most effective event due to which the loss happened is looked at. Hence, the nearest or the proximate cause is the event which triggered the loss in the first place and it decides whether loss is payable by insurance company or not.

This becomes slightly complicated to determine. However, to explain it further let's take some simple examples.

1. If a person meets with an accident and gets injured. He is taken to a hospital for treatment where he develops some infection, which results in the person's death. This loss would not be payable under the personal accident policy as the infection was the proximate cause of his death and the accident was remote cause.
2. A house that is insured for simple fire policy collapses due to an earthquake and catches fire. In this fire policy, earthquake peril is not covered. Hence, this claim is not payable under the fire policy as earthquake is the proximate cause which is not covered under the policy.
3. A cargo loaded on a trailer is insured against accident to the carrying conveyance. The roof of the trailer bangs against the trunk of a tree and meets with an accident and the cargo gets destroyed. In this the proximate cause of loss to the cargo is truck hitting the roof with the tree trunk. This is a case of pure negligence by the truck driver. Hence, the claim for the loss of cargo would not be payable as the proximate cause is not an insured peril.

Principle of Loss Minimization

This principle puts some accountability of insured property or any other subject matter on the insured. The insured in all circumstances must act as if uninsured. This means that the insured should take all the precautions to protects its property and goods from perils. In the event of any peril, say fire, the insured should try to save the property and goods that are insured to as much extent as reasonably possible, so that the loss payment by the insurance company is minimized. The word reasonable is used here because the insured is not supposed to endanger his own life of the life of his employees to minimize this loss.

In the true sense no insured would like its property or goods to be damaged, just for the sake of claiming insurance. Apart from the financial loss, other contingent losses would be production stoppage, delayed deliveries which would affect the future profits of the company. Apart from

this, if the claim amount is high, it would make the claim history next year adverse. This in turn would lead to higher insurance premiums in the future.

Chapter 3: Insurance Products

Learning Objectives: At end of this chapter, the reader would be able to

- Categorize all insurance products under the broad heads
- Briefly understand the concept and coverages under each of the products.

There are various insurance products which provide coverage from various risks. We use a lot of products for ourselves as well and hence such products need no introduction. However, introduction to insurance would be incomplete without knowing the basic insurance products available in all markets. All insurance products can be classified broadly in two categories:

1. Life Insurance
2. Non –life Insurance
    a. Personal insurance – Health, Auto, homeowner's policy
    b. Commercial – Property (or fire), marine, casualty & liability, engineering insurance policies

There is also another way in which insurance products can be classified:

Individual and Group Insurance

Individual and group insurance are types of insurance. Insurance products like life insurance and health insurance have individual and group covers.

Individual insurance is, as the name suggests, insurance taken by an individual. This means that there is a single insured person for whom the benefits will be underwritten separately and the premium will also be based on the individual's characteristics. The claims for such a policy would also be treated separately and hence the claim history will be on the individual's name. The insurer will have greater flexibility to choose the coverage.

Group insurance is insurance taken by a group. It covers all or specified members belonging to particular community or group. For the purpose of understanding this concept, let us take an example of a company who has taken health insurance for its employees. Here, the insured would be the company, with each of the employees as its members of the plan. The premium for such insurance is paid by the company. This premium would be based on the entire group's statistical data and claim history of the group. All the premium negotiation and claims handling is done by the company and the members have to interact with a designated authority of a company. This is much cheaper than the individual insurance and hence very popular.

All the basic insurance products under each of the above categories are explained below.

Life Insurance Policy

As it is commonly known, life insurance policy provides protection to the dependents of the life insured after the insured's death. It promises to pay a sum of money at the time of the policy holder's death to the person or persons selected by him or her. These persons are known as the beneficiaries. Most people buy life insurance to protect someone who depends on them from financial losses caused by their death. That "someone" could be the nonworking spouse and children of a single-income family. It could be the wife or husband of a two-income family. It could be an aging parent. It could be a business partner or a corporation.

"Specific exclusions are often written into the contract to limit the liability of the insurer; for example claims relating to suicide, fraud, and war. The cost or premium on life insurance decides the type and kind of coverage under a life insurance plan."

Also, life insurance policies are an important feature of an individual's investment plans. In essence, life insurance is an umbrella for a personal financial plan. Adequate life insurance acts as protection for the financial goals one has already achieved, and it can also help one to attain unfulfilled financial goals. Policy provisions in life insurance policies are very flexible and provide many options to the policyholder and policy beneficiaries with dual benefit of investment earning and protecting dependents after death of policy holder. Based on this, let us look at the basic classification of life insurance policies:

Temporary Insurance

This consists of only one type of policy i.e term insurance. It provides life insurance cover for a specified duration of time. In this policy, the premium gives protection in the event of death only and no other loss. Hence, it is also termed as 'pure' form of life insurance. There are just three aspects to this type of policy – amount of protection in monetary terms or the death benefit, the premium that is paid by the policy holder and the length of coverage (duration/term). The premium is calculated on the basis of insured's age, current earnings and other expected financial needs of the policy holder's dependents in future.

Permanent Insurance

These type of policies remain active till the policy matures or till the time the insured fails to pay the premium on the due date of premium payment. The policy cannot be cancelled by the insurer for any reason whatsoever, except of course when a fraud has been detected. There are four basic types of permanent insurance policies:

Whole life coverage

Whole life insurance policies provide death benefit cover for the entire lifetime for a level premium. It also gives investment benefits. This type of policy pays a fixed, stated amount of money on the death of the insured and some fixed part of the premium is used by the insurance company to generate cash values through various investments made by the insurance company. However, this is not as beneficial as other saving plans.

Universal life coverage

This type of permanent insurance bundles the benefits of a term insurance cover with a money market investment. This guarantees a market rate of return. In this, the amount of death benefit and the cash value that can be obtained is flexible. It means that the insured can choose to vary the amount of death benefit. The death benefit can be increased from level to the extent the cash value of the investments increase. The cash value is increased when insurance companies make prudent investments using insured's money, paid as premium.

ULIPs

Unit linked insurance plans (ULIPs) combines the benefit of life insurance cover with that of investment returns from mutual funds. Part of the premium amount is invested in equities or debt funds and the rest of the premium is used for covering death benefits. Here, the returns as cash value are not at all guaranteed as these returns will be completely driven by the market conditions and performance of the funds in the equity market in which the money has been invested.

Endowment Policies

Endowment plans also combine the death benefit provided in life insurance cover with that of returns from fixed income products. Obviously the returns in such policies are much lower as compared to ULIPs.

Annuities & Disability Income

Here annuities refer to stream of regular income received on retirement. The annuity amount that is to be received upon the retirement can depend on the options chosen by the insured. This is clubbed with another benefit of disability, in which the insured is be able to receive a regular stream of income in case the insured gets permanently disabled.

Variable and Fixed Life Annuity

The annuities which pay the insured (annuitant) in fixed amount or in amounts that increase by a fixed amount of percentage are known as fixed annuities.

However, if the amount of annuities that is to be paid to the annuitant, are impacted by the performance of specific investment funds (to which these annuities are tied), they are not fixed. If the investment fund has generated higher returns, higher amount of annuity is paid in that period. The reverse is also true if the investment fund has performed below market expectations. Such type of annuities are known as variable life annuities.

Apart from these basic covers of life insurance policies, there can be other covers known as riders like rider for accidental death or the critical illness rider. For the sake of offering various products in the market, insurance companies bundle a lot of such benefits into a single product. The premium calculation is done as per the benefits provided to the insured. As a rule of thumb, premiums increase with the increase in age.

Non-Life Insurance Policies

The insurance cover other than life is covered in this section of non-life insurance policies. In life insurance the subject matter insured is life of the insured while in non-life insurance, the subject matter is anything other than human life. This covers many products like health insurance, auto insurance in the personal lines domain. In the commercial lines domain, this includes fire insurance, property and casualty insurance, marine insurance and other miscellaneous insurance like engineering insurance. In this literature, all these types of products will be discussed briefly from an introductory point of view.

Health insurance

A health insurance policy seeks to cover expenses incurred for medical treatments, consultations, surgeries, hospitalizations, medicines and similar such things. This is a very broad topic with large number of products having various covers. In this literature, the aim is to provide an introduction to health insurance and the types of health insurance products that are available.

A health insurance policy is a contract between an insurance company providing health insurance cover and an individual or the individual's sponsor. A sponsor can be the individual's employer or it can be any other organization that the individual is legally a part of. The insurer issues plan for the sponsor or the individual member which spells out all the benefits that would be covered in the policy. A typical health insurance policy indemnifies the insured for the either some or all of the following expenses:

- Doctor consultation fee
- Any hospitalizations
- Surgical procedures
- Disability coverage
- Accidental death
- Medicines
- Wellness covers like maternity costs, specific treatments

The insurers have tie ups with various providers of the medical facilities like doctors, hospitals and other specialists. The insured have an option to either choose these providers for their treatments or have their own set of providers. This depends on the plan that the insured has opted for. Whatever be the case, the insured is reimbursed of the cost incurred for the treatments mentioned in their plans. Coverage amount is limited to the policy sum assured.

Nowadays health insurance is not just limited to insurance. It is rather a complete health care program which takes care of all healthcare and wellness needs of members. Third party administrators (TPAs) are a vital link in the entire process of health insurance. TPA processes

the claims and performs other administrative services on behalf of the insurance providers. They enable the processing of "cashless claims" for the members and the insurance carriers.

Auto insurance

Auto insurance covers the insured from expenses arising out of accident(s) that have happened to/by the vehicle. The insurance company pays for the repair and other expenses of damaged vehicle in the event of an accident. This is the most basic cover for auto insurance. Some other covers for auto insurance also cover the following expenses:

- Personal injury in case of accident to vehicle.
- Bodily injury to others
- Bodily injury caused by third party vehicle which may or may not be insured
- Damage to someone else's property.

Many regulators make it compulsory for drivers or vehicle owners to compulsorily buy motor insurance for covering losses to third party. Hence, this type of auto insurance is compulsory in most countries.

Auto insurance is normally one of the largest product portfolio in volume terms in an insurance company offering wide range of insurance products in the market.

Marine Insurance

It is the most ancient form of insurance. Marine insurance provides coverage for covering any losses to cargo in transit and losses to ship's hull due to any accident or any other fortuitous loss. So, marine insurance broadly has two types of products – marine cargo insurance and marine hull insurance.

Marine Cargo Insurance

Marine cargo insurance insures good in transit. This transit can be via road, rail, sea or air. Marine cargo policies provide end to end coverage of all the goods in transit. It is a very common for industries to take out marine cargo policies for protecting themselves against risks of losses of goods in transit. These companies may use all modes of transportation for distributing their goods in the market. For the purpose of exports and imports, companies use cargo ships and airplanes as mode of transportation for their cargo. For domestic movements, they may use rail and road. So, a comprehensive marine policy provides complete coverage of goods from the starting point, which may be the company premises or the seller's premises to the buyer's premises. In this journey, the goods may use all modes of transport- like from company premises to seaport or airport, it may use road and rail transport. On reaching the seaport/airport, the cargo would be loaded on to a cargo ship or cargo plane and taken to the destination seaport/airport. Such a cargo may be subjected to myriad risks in this entire journey

like damage due to accidents, burglary, theft, fire, earthquake or any other natural or accidental perils. Hence, marine cargo policy is very essential for such a company.

Marine cargo insurance is a contract between the insurance company and either the buyer or the seller or the cargo owner who takes out the marine policy. The ownership of cargo changes as per the terms of sale between the buyer and seller as the transit happens.

Marine cargo policies are generally of two types:

- Single transit policy – Such a policy cover starts when the transport of goods start from the starting point and the policy cover gets over as soon as the good reach the destination. Such policies also have defined time duration; say 15 days or even up to three months. So, the policy cover may end at the expiration of this period as well. So, in such a policy, the cover gets over when the goods reach their destination of policy duration gets over, whichever occurs earlier. Such policies are also taken out by individuals for transportation of their own goods in case of shifting homes. Premium for such policies is paid only once when the policy is issued. In such cases, these policies are issued by cargo companies or courier companies, who are involved in the business of shifting goods or sending parcels from one location to another, in conjunction with some licensed insurance carrier.

- Annual Policy – This policy is a comprehensive cargo policy which provides end to end cover for all the cargo and for all modes of transport used. Such policies are taken out for commercial use and are taken by companies which require to transport their goods from one location to another which are a significant distance apart. They are usually taken for a time duration of a year, after the expiry of which these policies can be renewed. Premiums are either paid upfront for the whole year or paid in some installments. The policy cover can also get over if the premium paid has been exhausted. The sum insured fixed in the policy keeps getting utilized with each cargo transport. When the entire sum insured mentioned in the policy gets exhausted, the cover gets over. So, the insured has to pay the premium before the exhaustion of sum insured. Such policies are also known as ‘declaration policies’ also wherein value of each cargo movement is recorded as single declaration in the policy.

Marine Hull Insurance

Marine hull insurance specifically covers the hulls of cargo ships from damage during the transits. It is also extended to cover insurance of other ships, yachts and other sea vessels against physical damage. Marine hull insurance requires a lot of specialist underwriting skills and hence not all insurance companies offer this type of insurance.

Hull insurance policy is a contract between the insurance company and the ship-owner. Hull insurance is taken by the ship-owners for their ships to protect themselves against third party claims. Apart from the hull, such policies are also extended to provide cover to the internal

machinery of the ship, tackle of the ship, passenger fittings, equipment, boats and stores. Following perils are covered in all hull insurance policies:

1. Perils of the seas, rivers, lakes, or other navigable waters.
2. Fire, explosion - "explosion" as intended by the policy covers not only explosion on-board the ship but explosions elsewhere as well.
3. Violent theft by persons from outside the vessel
4. Jettison
5. Piracy (similar to violent theft)
6. Breakdown of or accident to nuclear installation or reactors - these refer to machinery installed in the ship as part of its propulsion mechanism
7. Contact with aircraft or similar objects falling therefrom, land conveyance, deck or harbor equipment or installation
8. Earthquake, volcanic eruption, lightning

Following losses caused by the above listed perils are covered:

1. Accidents in loading, discharging or shifting cargo or fuel;
2. Bursting of boilers, breakage of shafts or any latent defect in the machinery of hull;
3. Negligence of the master, officers, crew or pilots;
4. Negligence of repairers, provided such repairers are not an assured under the policy; and,
5. Barratry of master, officers or crew

Marine hull insurance broadly has the following two types of policies:

1. Voyage Policy – This type of policy covers the vessel for one voyage. This can be analogous to the single transit policy of cargo insurance.

2. Time Policy – This type of policy covers the vessel for a particular time duration. Usually, this time duration is of one year.

Marine policies also have marine liability insurance which are special covers offered to stakeholders of marine and cargo handling industry. They provide covers to ship operators, courier service providers and other such providers who have the responsibility of safely transporting someone else's cargo or vessel.

Engineering Insurance

This category of insurance is also strictly for commercial purposes. The policies for this type of insurance covers various risks arising at the time of execution of any engineering project(s) or commercial equipment installations. There are broadly four types of engineering insurance policies:

Contractor's All Risk (CAR)

Whenever any construction happens, be it for construction of housing society or a factory, it is prone to several risks. These risks are as follows:

1. Natural calamities like earthquake, landslide etc. that may result in entire structure collapsing.
2. Any theft or burglary of equipment at the project site.
3. Risk of fire due to short circuit or any such fortuitous event.
4. Risk of staff and workers meeting with an accident at the project site.

These policies, popularly known as CAR policies, insures buildings and civil engineering projects against actual physical damage or destruction of the work in progress including equipment and machinery within the job site and third party liability.

Erection All Risk (EAR)

It is common for large industries to get new equipment and machineries installed on regular basis. However, such installations are prone to huge risks like the following:

1. Natural calamities like earthquake, landslide etc. that may result in total loss of equipment
2. Risk of fire due to short circuit or any such fortuitous event.
3. Risk of staff and workers meeting with an accident at the time of installation.
4. Third party losses that may occur as a result of faulty installation.

These policies provide coverage for the above mentioned risks. Many times with CAR policies, EAR policies are also bundled and they are taken by the principal of the project. The principal is the owner or main sponsor for funding the project.

Electronic Insurance

It insures all types of electronic equipment used at the project or construction site. This can include equipment like computers, communication equipment, radiation equipment, security equipment etc. It protects against damages caused due to any natural calamity or theft and/or burglary, negligence etc.

Machinery Breakdown

It covers any sudden breakdown of construction or building machinery used for erection. It can also be extended to cover loss of profit as a result of this breakdown.

Fire Insurance

As the name suggests, this provides protection against damages caused by fire and allied perils. The policy provides protection to all commercial establishments like offices, shops, factories, warehouses and any other commercial establishments.

Following perils come under the ambit of allied perils:

1. Earthquake fire and shock
    a. Earthquake fire – Covers the insured property against damages or loss caused by fire resulting from an earthquake.
    b. Earthquake shock – Covers the insured property against damages or loss caused by earthquake.
2. Typhoon and flood
3. Riot and strike
4. Bursting and overflow of Water tanks, apparatus or pipes
5. Extended coverage endorsement – this is a package which covers all other perils like explosion, aircraft, vehicle and smoke.
6. Burglary and theft

There is an option for the insured to choose from the various covers under this policy. Protection against damages caused by fire is the basic cover. Rest all are add on covers and the insured can obtain each of these add on covers by making payment of additional premium.

For individual insurance for homes, lot of bundled policies are available in the market. They provide protection to individual homes against all of the perils mentioned above. Such type of policies are also known as 'homeowner's insurance.'

Property & Casualty Insurance

Property and casualty insurance is the insurance that protects against property losses to businesses, homes or car and/or against legal liability that may result from injury or damage to the property of others. This type of insurance can protect a person or a business with an interest in the insured physical property against losses. The key words to note here are bodily injury and property damage of any third party. Hence, this provides a comprehensive cover to individuals or commercial establishments against any legal liability that may arise from bodily injury or property damage to others. There are various covers provided under this insurance:

1. Auto Insurance – Any physical bodily injury and/or property damage arising out of any accident caused by an individual's vehicle due collisions, fire or any other natural calamity is covered under this. This also covers the legal liability arising out of any such event.
2. Homeowners Insurance - This covers direct and consequential loss and/or any legal liability resulting from damage to the property itself, loss or damage to personal property, and liability for unintentional acts arising out of the non-business, non-automobile activities of the insured and members of that insured's household.
3. Product liability – This covers the legal liability arising out of any bodily injury and/or property damage arising out of selling or consumption of product manufactured by the company. The company manufacturing or distributing such a product can take such a

cover and insurer would have to pay for damages and legal costs for fighting lawsuit(s) if same has been filed. However, the liability should arise due to any fortuitous event resulting in faulty product.

4. Directors and officers liability – This is the same as above with the only difference that it covers a company from legal liability arising out of any negligent actions of directors and officers of that company.

In a business, there can be various sources where third party legal liability may arise. Hence, insurance companies offer comprehensive policies bundling various such legal liability covers into a single policy. Such policies are customized based on the company's requirement and business.

Chapter 4: Insurance Practice

Learning Objectives: At the end of this chapter, the reader would be able to

- Briefly understand the stakeholders of the business of insurance,
- Understand the life cycle of a policy and some common wordings used in any insurance policy,
- Know the external stakeholders of insurance market as a whole,
- The internal departments of any insurance company.
- Concept of premium and claim calculations

This section will deal about the entire business of insurance, the policy life cycle, the stakeholders of all insurance business, other theoretical concepts like premium calculations and claims. However, in this literature, some of the sections would be up to the introductory level only. They will be elaborated with respect to separate lines of businesses in further courses.

Business of insurance

Types of insurance companies

Insurance companies can be classified by the products they sell or in the way their capital is structured. Insurance products can be broadly classified into two – life insurance and non-life (also known as general) insurance. The insurance companies are also known as life insurance companies or general insurance companies.

It is important to discuss the other classification in detail here because of its complexity. There are four types of insurance companies.

1. Stock insurance company – This is like a normal 'public limited company' where the capital is generated by selling shares in the stock market. The shareholders are the owners of the company. In return for the shareholder's investment, such an insurance company pays dividends or the shareholder has capital gain due to increase in share price. The stockholders may or may not own the policies of the company and hence the insurers have the onus of protecting shareholder as well as policyholder's interests.

2. Mutual Insurance Company – Such a company is formed 'mutually' by the policyholder's money. So, effectively, the owners of these companies are the policyholders. These type of companies are not traded in the stock market. "The kinds of mutual insurance companies vary according to how premiums are collected from policyholders and how dividends are paid out to policyholders. Advanced premium mutual insurance companies collect a premium from policyholders at the beginning of the term of

insurance. The insurance company then returns as a dividend any amounts of the premium not required to cover losses and expenses. There also are assessment mutual insurance companies that require policyholders to pay for losses and expenses once those costs of insurance are determined."

Sometimes, a perpetual mutual insurance company will be formed which requires each policyholder to make a one-time premium payment which, because of the prospective length of the term of insurance, is likely to be a substantial amount of money. Finally, there are factory mutual insurance companies that provide loss prevention services for factories once those factories meet various safety and construction standards."

3. Changing structure – When a mutual insurance company 'demutualizes' to become a stock insurance company, or when a sock insurance company buys all the outstanding shares to become a mutual insurance company, it is known as changing structure. The flexibility in the way of generating revenue, leads to changing structure.

4. Product incentives – A mutual insurance company in which products are incentives for policyholders comes in this category. A mutual insurance company designs and sell products which are beneficial to the policyholders. These specialized products are viewed as incentives given to policyholders. "For life insurance companies, this means that whole life insurance which pays dividends may be favored over the normal life insurance which does not."

Policy Lifecycle

Like any service, insurance policy also has a lifecycle which is important to understand if one wants to work with this sector. It is described briefly as below. It is described briefly because all the elements in the lifecycle will get covered in the subsequent parts of this literature.

1. RFP/Proposal stage – This is the first stage where the company receives a proposal or popularly known as RFP (request for proposal). This is sent by the customer and it contains all the details of the risk. The proposals can be sent directly by the customers or through their intermediaries (will be described in subsequent sections). Whatever, be the case, based on this document insurers decide if they are willing to write this risk or not. If yes, then at what price.

2. Quotation – Once RFP has been received, it will be analyzed to determine the frequency and impact of the risk mentioned in the RFP. Accordingly, a quotation containing premium amount and other terms will be prepared. This is also known as 'underwriting the risk'.

For the insurers, it is a common practice in this stage, to question the clients (referred to as proposer after RFP is sent) further on the risk, before submitting the quote to the proposer. This is done to ensure that insurer's understanding of the risk is same as that of the proposer. For some products like fire insurance of large manufacturing plants, most insurers mandate a *plant inspection* by risk engineers. This is done to get a better idea of risk. For such products, quotes are prepared with the data in RFP as well as the risk engineer's inspection report.

3. Premium negotiation – As already mentioned above, premium is the payment made to the insurance company for covering the risk. It may be possible that the insurer, being a business concern has quoted a price higher than expected to the proposer. Here, the proposer feels that the price is too high or some of the terms are too rigid. This leads to a stage of negotiation where proposer has a right to bargain the amount of premium with the insurer. The proposer may be able to justify its own reduced premium amount citing loss control measures that it has taken from its own end. For e.g- using good packing material for their goods in transit is a type of loss control measure (the proposer here is seeking marine insurance, i.e insurance for transportation of its goods). The insurer may or may not agree to revise the initial quote and the proposer may or may not accept this quotation.

4. Premium payment and held cover letter – Once the proposer and the insurer have mutually agreed on the terms, proposer makes the payment of premium to start the cover. The insurer as the acknowledgement of premium issues 'held cover letter' or 'binder letter'. This binder states that risk cover has started from the date of receipt of premium from the customer (from here on customer becomes insured/assured) as per the terms agreed in the quotation. Also, till the time the policy is generated (there may be some time lag between premium payment and policy document generation), this held cover letter acts as a policy document and can be produced in case a loss occurs before receipt of policy document.

5. Policy document generation and dispatch– This is the stage where the policy document gets generated. The policy copy is printed as per the policy wordings given on the held cover letter or the quotation provided to the customer. It contains all the terms and conditions of the insurance contract with the customer. Along with the premium amount, this will have all the legal clauses and other terms within which the insurance contract is bound. These terms vary with the types of products and will be discussed in the advance courses. Once the policy document is generated, it gets dispatched to the insured or the intermediary, whatever be the arrangement between them.

6. Other setups and training to insured– Once policy has been generated, it is the duty of the insurance company to make the assured aware of the systems that are in place for

managing the policy. There are various applications which can be used by the insured to manage their policy. These applications are run and operated by the insurer. Such systems help the client in viewing policy terms, lodge a claim, check claim status, other services like generation of insurance certificates (specific to some products) etc. The insurer must ensure that if such applications exist for the assured, the access of the same is provided to the assured and the assured is trained to use this system. This will benefit the insurer as well as the insured in the long run.

7. Other Services – There are myriad services which the insurer has to take care of, if requested by the insured. Claim servicing is the most important as this is known to be the true test of insurance policy and insurer. In today's competitive market, where the product offerings are more or less the same, service is a major differentiator. This will also be the basis of decision for the insured, whether the insured would want to renew the policy for the next policy term, with the same insurer or not.

The policy life cycle ends when the policy expires, which is also the end of the policy period. Sometimes, the insured decides to pay the premium in fixed installments. In such cases, the policy gets terminated if the insured fails to pay the next installment that is due. For some products, the policy sum insured (value for which policy is taken) gets exhausted. The insured has to make the premium payment at the time this happens, failing which, the policy gets terminated. It may be possible for the insurer to renew the policy in such a situation. In any case, the previous policy gets terminated.

Policy Wordings

Every product of insurance will have different policy wordings. But there are some sections which are common to all insurance policies. We will discuss some of these common sections here.

1. Insured name & address – This is the full name of the insured and the address for communication. It is mandated by regulations of some countries to use the same name in the policy document by whom the payment has been made. For e.g.- if the policy is taken for XYZ Ltd., the payment should also be made by XYZ Ltd. Even sister concerns or parent companies cannot make payment on behalf of XYZ Ltd. In India, this is an important regulation keeping in mind the aspects of money laundering.
2. Policy duration – This is not valid for life insurance policies as they are valid for lifetime. However, for other products under non-life insurance, all policies are issued for specific duration which has to be mentioned under this section. After the expiry of this period, the policy also gets expired. It has to be renewed with payment of fresh premium. Usually, non-life insurance policies are valid for one year. However, in products like

travel insurance, some marine insurances etc, the period may be less than a year. Generally, the policy period does not exceed a year.

3. Sum Insured/Assured – As mentioned in the beginning sections, this is the amount paid in case of a valid claim. This holds true for life insurance policies and it is specifically known as sum assured. For non-life insurance policies, this is referred as sum insured. In such policies, this sum insured is the basis for making the claim payment. This means that the total sum insured would be payable only in case of a total loss, but in case of partial loss, the insurer will indemnify the insured up to the extent of partial loss only. It can be understood as the maximum limit of indemnity. This amount is mentioned in the policy document in the currency in which it will be payable.
4. Premium – The premium amount is also clearly mentioned in the policy document. It is the corresponding amount that is paid for the amount of sum insured mentioned in the policy. If the total annual premium is not paid in one go, i.e there is partial payment of premium (applicable for non-life products like marine insurance) the sum insured on the policy document is also only up to the extent of premium paid.
5. Deductible and other terms – This is one terms which we has not been introduced as yet. It is applicable for non-life insurance policies. It is the most important component after the premium amount in policy price. It is an amount for which insured is responsible in case of loss. This amount is decided by the insurer by analyzing the risk and is put in the quotation. It is mentioned as a lump sum amount or as a percentage of loss amount. It is also commonly known as 'excess'. Excess is given in the policy to put some onus of risk on the insured and to minimize very small loss. Other terms are the other contract terms like legal clauses and conditions which are applicable to the insurance contract. These vary from product to product and hence will be dealt with in specific courses.
6. Declarations – 'Declarations' are valid for some of the non-life insurance policies like stock insurance, marine cargo insurance, engineering insurance and some health insurance policies. Declarations are provided by the insured on the basis of which, the SI in the policy keeps getting used up. On the basis of these declarations, fresh premium has to be paid for replenishing the sum assured before it gets exhausted. The policy document under this section mandates the format and frequency of declarations that has to be submitted without fail.

Insurance Market

Till now we have only studied about the insurer and the insured, but there are other stakeholders in the insurance industry as well. As a part of insurance industry we should know about the other stakeholders as well. Let's discuss them one by one.

1. Intermediaries - As the name suggests intermediaries are the link between the insurers and the insured. They are organizations or persons who have fairly good knowledge about the various insurance products offered by the various insurance companies in the market. As per the need of the customer, these intermediaries suggest the various products. Apart from this, intermediaries also assist the insurance company in servicing the clients. They help in exchange of information and documents at the time of claim settlement as well.

   In return for the business placed to the insurance company and other servicing provided to the client, these intermediaries charge commissions from the insurance company. These commission amounts are charged as a percentage of premium received from the customer. There is a set minimum and maximum limit on the amount of commission specified for each product. The insurers are obligated to pay the minimum commission to the intermediaries and not exceed the maximum limit of commissions set for that product.

   Intermediaries can be broadly classified into two types –

   1. Brokers – Brokers work as individuals as well as large broking houses. Usually, brokers are seen as organizations as it is too much work to handle for a single person. Brokers are aware of all the products available in the market and they can accordingly advice the customers about choosing the right insurer. They also help the customer in negotiating premium and other policy terms like excess with the insurer. Hence, brokers have a lot of influence in deciding the placement of the policy. The negotiation in fact promotes the insurance companies to remain competitive in their products and pricing. This ensures maximum customer satisfaction and healthy competition amongst insurance companies.

      The commission, they charge from the insurance company is call 'brokerage'. Even though brokers cannot be held legally irresponsible for any misrepresentation of facts to the insurer from the customer's side, it is their moral and ethical duty to ensure that all material information provided by the customer in the RFP stage is correct.

Brokers cannot promote one insurance company over another on the basis of the higher brokerage that they will get from one of the insurance companies. It is their duty to guide the client correctly. Insurance is a highly regulated market. Brokers are also governed by regulators and hence they also have specific guidelines within which they have to work.

2. Agents – One major difference between agent and broker is that agent can be affiliated to only one company. This means that an agent will be licensed to sell products of only one insurance company which has paid for its license. Agents are like external sales people of an insurance company. The only difference is that agents are not on insurance company's payrolls. They also get commission on the basis of amount of premium placed to the insurance company.

   The agency sales team of insurance companies identifies persons who have the ability to sell insurance products or are already have a network of potential clients for insurance company. They then train these peoples on their product offerings & customer preferences. Post this training, agent licensing is done by the insurance company. These agents are then guided by these sales people to sell the products in the market. Like brokers agents also help in servicing the clients.

   Agents can also be classified into two types – Tied Agents and Independent Agents.

   1. Tied Agents – Tied agents are the broad category of agents which are tied to a single insurance company and sell the offerings of that insurance company in the market. They are on the same lines as explained above.
   2. Independent Agents – These agents, unlike tied agents, are not tied to any particular insurance company and are authorized to sell products of multiple insurance companies. At this point, a very genuine question arises in mind as to what is the difference between an independent agent and a broker. Brokers have higher duty of identifying the most suitable product for the client, which is available in the market, adequate pricing of this etc. However, an independent agent's role is restricted to that of an administrative role only.

2. Risk Inspectors/Risk Engineers/Surveyors – This is specific to non-life insurance only. These people are qualified people appointed by insurance company to conduct inspection of manufacturing plants or construction sites etc. Their job is

to do this risk inspection and present their report on the potential dangers and caution that can be taken while insuring such a risk. They also advice the insured to take some loss mitigation or loss control measures post their inspection. On the basis of this risk inspection report, insurance company decides the premium amount and other terms.

3. Claim Surveyors – Claim surveyors come into picture in the event of a loss. They are appointed by the insurer to determine the admissibility of a claim, the amount of loss that has incurred and the insurer's liability in this loss. Admissibility of claim refers to a situation when the loss that has happened is a chance event and is within the policy wordings of claim payment. These surveyors are actioned as soon as the loss is reported to the insurance company, so that the surveyor gets a chance to assess the exact circumstances in which the loss has occurred and save some salvage (goods or property which is yet not damaged and can be usable or made usable) so that insured's loss is minimized. The surveyors charge a survey fee from the insurance company based on the complexity of the survey and the time required to do the survey.

4. Third party providers – Third party providers are mostly for products like health insurance. Hospitals, doctors and other medical facilities like pathology labs etc come under the ambit of third party providers. They have tie ups with insurance companies to provide medical services to the insured people. There are other providers also like those that enable services like processing claims for the customers in cashless manner etc. They are known as TPAs (third party administrators).

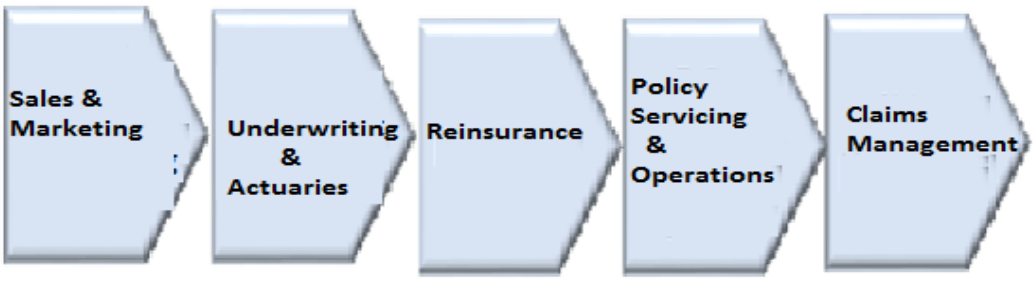
   Some insurance companies have tie ups with some banks to sell insurance. Basically, banks are used as another channel for selling the insurance policies. These banks also come under the ambit of third party providers and the product is known as 'bancassurance'.

   Auto insurance is also another product of insurance, very popularly known as vehicle insurance. Insurance companies also have tie ups with automobile dealers, like they have with banks. So, this is also another channel for selling insurance and comes under the ambit of third party providers.

Structure of an Insurance Company

Like any company, providing services, insurance company also comprises of various core departments who work together to run the business of insurance. Each insurance company would have a 'corporate office' or 'head office'. Depending on the size of the company, this can also be divided in regions known as 'regional offices'. Since insurance business requires physical presence of offices to generate business, they have offices in various cities known as branch offices. These branch offices are managed by a single person known as 'branch head' and all the lines and verticals in the branch report to the branch head. The branches are responsible for getting the business for the company and each branch head is the driver for his/her own branch. A typical branch office consists of various functions like sales, underwriting, claims and operations. These branches can also manage sub branches which only have sales functions and some basic operations functions. These sub branches assist their parent branches in securing additional business from remote locations.

Let us discuss briefly some the functions served by each of the departments in any insurance company.



Sales & Marketing

As all the readers might be aware, this department is responsible for the business development of the company. It is usually run as a team and each of the team members are bound by some

sales targets of premiums (usually set for a month or year). The objective is to achieve the target premium for the month/year. In insurance, since there are a wide number of products and channels, so sales team can be structured in various ways. For e.g. - there can be a separate team handling agents and another team for handling brokers. One team for handling bancassurance, another for handling automobile dealers and other such arrangements. So, based on the size of the company and their product offerings, the sales team is structured.

Marketing department is a broader role and this department has the responsibility for corporate image, managing marketing campaigns and media communication. In an insurance company, this department is also involved in the process for new product design. It is this department's job to identify the demand for new product in the market and propose the same to the underwriting and actuaries department who do the technical assessment of product design.

Underwriting & Actuaries

These are the core function of an insurance company and is a very vast topic in itself. However, in this section it would help to look at the basics of this function. As we have understood in the previous sections, underwriting is the process of risk analysis, the decision to take the risk or not and if yes, then at what terms and conditions. Actuaries also have a similar role, but the only difference is that many companies do not have actuaries. In life insurance companies, actuaries perform the job of an underwriter.

An underwriter is the executive performing the above mentioned functions in an insurance company. So, it is the onus of the underwriter to understand and price the risk correctly. If a very 'bad risk' is accepted or as we commonly say 'underwritten', the insurance company can run into huge losses. Even if the risk is not so bad but it is not priced correctly, still the insurance company can run into huge losses. Also, the underwriter should be prudent to not reject the 'good' risks. A 'good' risk can be understood as a risk which doesn't have the potential to run into huge losses and such a risk has the potential to make money for the insurance company. Misunderstanding a 'good' risk for a 'bad' one can also lead the company to lose out on potential earnings. So, it is a tight rope situation for an underwriter.

This is the major role of an underwriter. However, there are some other important responsibilities of an underwriter. An underwriter is required to provide his/her inputs at the time of policy processing. It is the underwriter's duty to ensure that policy wordings are technically correct as well as easily understandable by the customers. Hence, at the time of policy processing, in case of any discrepancy, it is the underwriter's duty to clarify the same.

Another important input provided by the underwriter is during the time of claims. At the time of claim settlement, the underwriter has to give approval of premium adequacy in the when

the loss occurred. The approval conditions varies from product to product. So, an underwriter has to check these conditions and accordingly give approvals for claim processing. In case of any discrepancy in policy terms and conditions, at the time of claim processing, it is the underwriter's duty to sort the same with the claims processing executives.

Apart from these functions, it is sometimes required out of underwriters to attend sales meeting with the client and support the sales staff in any technical queries raised by the client.

Actuaries in insurance companies are responsible for development of various risk categories for a particular product and with the help of statistical tools and models, develop trends, reasons for loss and quantum of loss. This enables the fixation of premium for that risk. They deal with huge amount of data for establishing such trends.

For non- life insurance companies, actuaries aid the underwriters in development of various premium raters which are used for premium calculation. Not all non-life insurance companies can afford to employ dedicated actuaries for their own company. Hence, they hire actuaries as consultants on need basis.

Reinsurance

This may or may not be a separate department in an insurance company. In many companies this is combined with the underwriting & actuaries department. The reinsurance department or executives are supposed to determine what risk has to be ceded and up to what extent. Accordingly, treaties are finalized with the national reinsurers and other reinsurers.

Operations

This department is responsible for processing all the policies in the system. It is their duty to ensure that the policy underwritten is compliant with all the regulations and process the policies within the given timelines. The policies are then printed, bound and then dispatched to the intermediary and customer depending on the mandated arrangement.

This department also contains other functions like cashiering, reception etc for branch and sub branch offices.

This is generally a very big department in any company as all the policy processing, printing and dispatching happens here. A lot of manual efforts are involved at the level of checking for regulatory compliances. Hence, large strength in this department is justified.

Claims

As understood, this department is responsible for processing and disbursing claims against losses incurred by policyholders. As soon as a claim is registered it is assigned to a claims

executive based on his/her expertise. The claim rejection/settlement then becomes this executive's responsibility. The executive gets in touch with the client and understands the kind of loss that has been incurred. Most of the times, a surveyor is required to be deputed as soon as loss is intimated to establish the extent of loss and any salvage. This is more common for commercial lines claims. So, the claim executive assigns this surveyor based on the availability and expertise of the surveyor. This is how the claim settlement process starts. The claims executive sends out the list of documents that needs to be submitted by the client and which would be required to establish the loss and the indemnity amount. Once it is established that claim has to be settled, the claims executive calculates the indemnity amount payable to the customer based on surveyor's report, documents submitted by the client and policy mandates. Meanwhile, the claims executive also has to take approval from underwriters of that policy for premium adequacy. After receiving a go –ahead from the client on the claim amount, claim is sent to the finance department for processing the claim. Once, the payment is made, the payment cheque is either dispatched to the customer directly or in case of wire transfer, payment is directly credited to customer's account.

The claims department is also bound by various regulations like maintenance of a lot of documents in original, timely settlement of claims etc.

Finance & HR

Like any other organization, insurance companies also have these verticals. Finance and Human Resources departments are mostly present in head offices or regional offices whatever be the case. They are not present at the branch level. They serve their standard functions with some exception detailed below.

Finance has the additional responsibility of disbursing claims amount and receipts of salvage along with its regular function of managing company accounts. All processed claims come to finance department for clearance. It also takes care of the proceeds from selling salvages in any loss. Along with this, the finance department disburses the brokerages and commissions for the brokers and other intermediaries.

Compliance, Legal & Reporting

In most companies this department is either merged with the finance department or is a separate department. The main duty of this department is to ensure that all policies and products are compliant with all the regulations of the country/state the company operates in.

Legal department of an insurance company operates in the same manner as for any service company. This department comprises of lawyers who ensure that company is legally compliant from all aspects. They also take care of any lawsuits filed by any consumer or any lawsuits filed against the policyholder. So, this comes under the ambit of providing service to the client.

A lot of reporting is also required by the regulators for this. Hence, this department also has to take care of this aspect. They have to ensure that all the reports and standards maintained by the company are prepared and filed well within time. It is very crucial as failure to perform such duties can lead to huge lawsuits and in extreme cases, cancellation of permissions to conduct business.

IT

Insurance company heavily relies on its IT infrastructure for its operations. The IT department is responsible for procuring and setting up the requisite applications and aid in maintenance of the same. The executives of this department ensure smooth running of IT systems of the company. Sometimes, the services of this department is outsourced to IT companies rather than insurance companies running and maintaining the department on its own.

Concept of Premium and Premium Calculations

As discussed in the initial sections, premium is the payment made by the insured to the insurer in return for the protection the insurer will provide in the event of occurrence of insured peril. This is a very basic definition to understand the concept of premium. After the occurrence of insured peril, the amount of payment to the insured is subject to the policy terms and conditions. So, it would be wrong to say that after the payment of premium, the insured is free from all the responsibilities. Almost all insurance policies in the policy contract promise to 'share' the loss amount with the insured. The premium calculation is also done on this basis. This means that the insured also bears the loss to some extent. This arrangement is made to put the responsibility of the risk on the insured as well. The insured has to exercise all means to ensure that loss does not occur and if it has occurred, it is controlled to the maximum possible extent.

The insurers use the premium collected by a lot of insured to pay the claim of a single or a set of insured customers. "Insurance premiums are made up of different parts, including the cost of estimating, collecting and managing the premiums, the cost of paying the claims, taxes, levies, duties, reinsurance costs, the profit margin and the cost of the insurance company administering the insurance cover, and the cost of insuring the particular valuable." (LOMA). The income received by way of premiums from the insured is put to use by the insurer by investing the money in capital market. This is to make use of the lump sum amount of money obtained in the form of premium. So, based on the strategy employed by the finance department of the insurance company, these incoming funds are invested for different durations so as to have optimum utilization of these funds. Such investment income can be used for paying claims occurring today and future claims.

The premium calculation is done by determining the probability of occurrence and the cost of claims. A claim is an event that will occur in future and hence it is very challenging to determine its cost. A higher risk would lead to higher amount of loss and hence would equate to higher amount of premium. Not every insured has the same amount of coverage. So, a broader coverage would entail higher premium.

As already mentioned in the above sections, premium calculation is done by the underwriters (for non-life insurance companies) or actuaries (for life insurance companies) of the insurance company and this differs from product to product. So, the underwriter has to ensure that the amount of premium charged from the customer reflects the amount of the customer's risk. The detailed premium calculation for each of the products cannot be covered here. However, the basic concepts governing premium calculations will be discussed in this section.

The most important task in this stage is arriving at the premium rate. Once premium rate is arrived, the premium calculation is a simple multiplication of this rate (usually expressed as a percentage) and the sum insured. Hence, if a simple mathematical formula is to be given, it can be expressed as follows:

Premium amount = [Premium rate (if expressed in %)* Sum insured]/100

Premium rate calculation is an onerous and the most important task of an underwriter. However, a lot of premium calculation decisions are taken on the basis of underwriter's experience. An underwriter with years of experience in underwriting certain set of risks will be more capable to tell the adequate premium to be charged for those set of risks. These underwriters need not make elaborate calculations to arrive at the premiums.

Technically, each product has its own set of premium components and the premium rate calculation of each component is different. There are raters for most insurance products. Even in the same product, it will differ with the type of coverage. These raters are prepared by actuaries with the help of complex statistical data. These raters categorize the risks covered in the products on various levels and provide the base premium rates for each of these levels. These base rates are expressed as a percentage. So, from the raters, the rates of each of the components is noted down and added together. This would give the composite or the base rate for the total risk. This rate, if multiplied with the sum insured would give the non-discounted premium the customer would have to pay. Let us take a very simple example to understand the calculation better.

Calculation of fire policy premium

For a fire policy, the coverage to be provided is fire and earthquake. Fire policy raters are based on rates of different occupancies. For example, base rate of office would be different from that of a warehouse. For the sake of this calculation, let us take the rate for a small office. The rate for this is 0.1 (expressed as 1/1000). Raters for earthquake covers are generally divided into earthquake zones. These zones are geographical zones. So, based on the location of this office, the zone has to be identified and the rate of that zone has to be applied. Let us take this rate to be 0.2 (expressed as 1/1000). So, on adding both the rates, the total rate come out to 0.3 (expressed as 1/1000).

The sum insured is usually given by the customer. Like, here, the customer will give the depreciated market value of the office infrastructure and the depreciated market value of all the items in that office (like tables, chairs, computers, water cooler etc). The underwriter also has to ensure that this value seems correct. If the sum insured is more than the actual value, it will be as over valuation and the premium charged will be more while the payment at the time of claim may not be upto the same extent. This is the concept of over insurance (discussed in the later section of this literature).On the other hand, if the sum insured is less than the actuals, it may be under valuation and the premium charged from the customer may be less than the actual cost of claims. This is known as under insurance (discussed in the later section of this literature). Let us say that the sum insured in this case is 1 million.

The premium will now be calculated as the total premium rate defined above multiplied by the sum insured provided by the customer and verified by the underwriter. On putting the values determined above in the premium formula as below,

Premium = 0.3/1000 * $1 million = $300

This is the base premium. This premium can be reduced up to the extent of discounts provided by the insurance company. This discount is expressed as a percentage of the total base rate. There are various parameters to finalize the discount percentage. One of the most important parameter is the previous loss history for this particular customer. A good or zero loss history would qualify the customer for a huge discount in the base rate. Other parameters like the installation of adequate firefighting devices like fire extinguishers, sprinkler systems, use of earthquake resistant construction material etc or use of fire proof material would qualify the customer for additional discount. There are other small parameters like the type of items in the office, type of constructions (open electric cables would have a higher chance of short circuiting and catching fire) that would determine further discount. This discount is usually fixed on the basis of prevailing market conditions and the underwriter experience. So, suppose the customer would qualify for 90% discount in the rate, then the rate applicable would be 0.03/1000. Hence, the premium amount would be reduced to just $30.

Fire policies have a lot of add on covers. The above example just states one add on cover of earthquake. Similarly, there are covers for other perils also like burglary, theft, advanced loss of profit etc. Based on the option(s) chosen by the customer, the premium rate of each of these add on covers has to be determined and added to the base rate to give the total premium rate that would be applicable.

Calculation of Car insurance premium

Car insurance is a part of automobile insurance. Car insurance premiums are set based on the following factors:

1. The make/brand of the car, year of manufacture – Different insurance companies have different standards of underwriting car insurance. This may mean that some of the companies may have a policy to not underwrite cars which are over 20 years old. Or they do not write cars of particular brands as their repairs may be very expensive. This is largely true for very high end brands.
2. What use the vehicle is put to – Personal/family use cars are less risky as compared to cars which are used for commercial purposes like as a taxi. They are more prone to accidents and damages than family cars.
3. Main driver's age, sex, driving experience and accident or traffic conviction record – Speeding convictions is a very serious consideration for the insurance company. A driver who holds such a conviction record would be liable for higher premiums as the risk increases with such a driver driving the car to be insured. Drink driving convictions are

also taken very seriously by the insurers. Drivers having served for such an offense may find it difficult to even obtain an insurance cover. Even if they manage to obtain an insurance, the coverage may be restricted or higher premiums may be applicable for certain fixed number of years.
A driver who is middle aged is considered less risky than the one who is very young or who is extremely old.

4. Who else would be driving the vehicle – what would be the frequency of such use. The premium would increase with multiple drivers.
5. Past claims record – Gives an idea of the propensity of the vehicle to meet with accidents and would also give an idea about the present condition of the vehicle. In case of no claims, the customer would also become eligible for 'no claim bonus' benefit. The premium is likely to reduce with such a bonus.
6. City in which the vehicle will be driven – The chances of the car meeting with an accident is higher in an overcrowded, congested city as compared to a small town where traffic is minuscule. Hence, the premium payable for driving a car in the city is more than that in town.

Mostly these parameters are asked by the customer in case of a fresh customer. In case of renewal, this data is available with the insurance company's database. The customer has to give all the information correctly, without hiding anything. It is also the duty of the customer to give details about any outstanding claims pending to be settled by the current insurer.

Once all these details are obtained by the customer, car insurance premium is calculated automatically based on these values. Car insurance policies are largely 'pre-underwritten'. This means that premiums are strictly based on the above parameters. The values of above parameters is fed in the premium calculator and the premium that is payable by the customer is generated automatically. This premium calculator works on raters that is prepared by actuarial data and is fed in the system beforehand. The values fed into the system obtained from above are then compared with this rater and premium is determined automatically. The company underwriters then have an option of further discounting this premium.

For car insurance premiums, the actuaries build very complex raters for determining premiums that take into account as many factors (that affect the car claims) as possible to include. They are constantly building new raters and/or updating the old ones to take into account any new factor (s)/ additions to the existing factors that may influence car insurance claim.

As discussed in the above two examples, each insurance product would have different parameters to determine the rate of premium and the actual premium payable by the

customer. These parameters are technical parameters that go into raters/premium calculators for determining the exact premium rate. However, there are some non-technical parameters which are common across all products and the topic of premium calculation would be incomplete without the introduction of these parameters.

Policy deductible

This is not applicable for life insurance policies. This is not strictly a non-technical parameter for premium calculation as such but premium quotation is incomplete without this component and premium cannot be calculated without considering this component. Insurance deductible can be defined as that portion or amount of loss that has to be borne by the insured. Some responsibility or ownership of the loss has to be fixed on the insured else there would be no incentive for the insured to ensure no loss. Hence, a deductible is always incorporated in all insurance policies. This also takes care of the very small losses which become non payable as these claim amounts are within the deductibles. This keeps the claim history of the client free from very small insignificant claims and hence keeps it cleaner.

There are different types of deductibles for different products. However, most commonly, deductible are fixed at some percentage of loss amount. Say, if deductible is 10% of loss amount, then the indemnity amount that would be payable to the insured would be the total loss amount minus the component for deductible.

Deductibles are fixed in conjunction with the premium. Like in case of very bad claim history, premium as well as deductible can be hiked, even though the base rate is the same as last year. In case of very good loss history or no losses at all, both premium and deductible can be reduced. Such call are taken by the underwriter of that policy. The underwriter cannot fix the premium without considering the deductible component for that policy. Sometimes, the underwriter also gives options of various premium + deductible combinations to the customer. The customer can then choose or negotiate on these premium and deductible combinations.

Market Competitiveness

Gone are the days of few insurance players in the market having limited product offering and it was the customer's duty to chase the insurance company for acceptance of policy. With so many players in all markets of insurance with myriad products and covers, it becomes difficult for the insurers to sell these products and covers to the customers.

Price, in such a scenario becomes a very important selling point as insurance customers are highly price sensitive. By price, it is meant the insurance premium that will be charged by the customer. Premium as discussed above is calculated keeping various factors in mind. However, it becomes very challenging for underwriters to fix such a premium that will be competitive in the market. In case of commercial insurance, it is common for companies to invite policy

quotations for a single policy/cover from various companies. The policy is usually then placed by the company that provided the smallest quote. The underwriter, in order to place the policy, has to ensure that the price is competitive. This is the biggest challenge in fixing a premium for the policy because the underwriter has to be aware about the current rates that are usually given for the risk in question by its competitors.

Hence, it is safe to conclude that this is a very big factor in fixing the premium for a policy. A company may have huge standards in underwriting and a lot of advanced technology for calculating the premium technically but a poor marker knowledge can be total deal breakers for such an insurance company. That is why, nowadays, applications that maintain historical data of a customer are becoming very popular amongst insurance companies. Such softwares help the companies keep track of customer and customer's policy even when this policy is not on the company's books.

Concept of Claims

As discussed above, claim is the indemnity amount that the insured can claim under the insurance policy. It is the true test of an insurance policy. At the outset, the process of claims calculation may seem easy as it just has broadly 4 steps:

1. Establish the loss
2. Establish the admissibility of the loss
3. Establish the indemnity amount
4. Make the claim payment.

However, claims calculation of mostly all types of claims is a very tedious process, but obviously it has to be done to establish and pay the correct claim amount to the policyholder. A lot of customer experience is based on the customer's claim experience, hence claim servicing has to ensure proper customer service.

Claims process has been discussed in the above sections and this process is largely the same across insurance companies and countries across the globe. So, this section would largely concentrate on the technical aspects of insurance claims and claims calculations.

Types of insurance Claims

The most common categorization of insurance claims is 'short tail claims' and 'long tail claims'. This categorization is based on the time period of the claim.

1. Short term claims – Short term claims are those claims that are expected to be known and settled within a short duration of time i.e say within 12 months. Such claims are easier to identify as the time period is limited, hence forecasting within a short time frame is simpler. The nature of such claims is also easier to determine. These are most common types of claims occurring for products such as marine cargo policies, car insurance, and property insurance.

2. Long tail claims – As the name suggests this is the complete opposite of short term claims. Such claims can extend to three to four years and hence very difficult to forecast. If the claims are spread out during such a large time frame, it is difficult to determine the nature of such claims also. Sometime such claims can also come even when the insured is not on the books of insurance company, hence it becomes very difficult to track such claims also. Such claims are common for casualty insurance, liability insurance, medical insurance and life insurance.

Claims are paid through the common pool of money which has been collected by its customers by way of premium. Insurers have to account for all such claims in their accounts as they have

to ensure that they have the enough money to pay for claims that will occur after some years and hence this becomes very important.

Claims are only payable to the insured who has paid for the premium. This is specifically true for commercial insurance policies where some regulations do not allow claim to be paid to some sister companies also if the premium for that policy, has been paid by the parent company. In case of life insurance, this is obviously different because claim is paid after the death of the life insured. So, the claim amount in such a case is paid only to the nominee specified in the policy. In case of some health insurance policies, like floater policies, claims are made for dependents covered in that floater policy. Basically, it is clearly documented in the policy copy before the occurrence of loss, as to whom the claim will be payable to.

Insurance companies have to maintain reserves for their long term claims. However, estimating the amount of long terms claims in a year accurately is a big challenge for the insurers. This is because of the nature of such claims and the uncertainty associated with such types of claims. However, insurers have to make a provision of reserves for such claims. The insurers make use of statistical tools and past experience for setting aside this reserve amount.

Claim Admissibility

Claim admissibility is the process in which the insurer's claim executive determines whether the claim is payable or not. This basically requires the occurred loss to be within the policy terms and conditions, i,e the loss has to happen on action of insured peril and the premium for such a loss has been paid for by the insured. Additionally, the policy term should be valid. This means that the loss should occur within the time period the policy is valid and not expired.

Policy terms and conditions are usually very extensive and hence this section becomes very complex. It requires a lot of technical expertise of the claims executive to view the loss against the background of policy terms and conditions and determine whether the claim is admissible or not.

This can be further explained with the help of a very simple example – suppose a simple mediclaim policy covers hospitalization for 4 days. An insured having such a policy has been hospitalized for a period of 5 days and lodges a claim under this. As per the policy terms, the insured is entitled for hospitalization claim of 4 days only and not 5 days. Hence, here it can be said that the entire claim is not admissible. The insured will get the hospitalization benefit for only 4 days and not for all 5 days.

Let us discuss another example to clarify this – A company manufacturing finished lumber has taken out a fire insurance policy for its warehouse where it stores its finished product. The finished product catches fire and the company lodges a claim under its fire policy. The insurer's claim department investigates the cause of this fire and finds out that one piece of lumber has

caught fire due to self-combustion and then it spread to the rest of the material. This peril (self-combustion) is usually not covered in the fire policy and it is not covered for this case as well. Hence, this claim is not admissible under this policy and the insurer can refuse to pay such a claim to the insured.

Determination of Claim Amount

The amount that is payable to the customer is not the actual loss amount. The loss amount will be reduced by the deductible. The actual claim paid by the company would also be reduced by the amount received from salvage.

Once it is declared that the claim is admissible, the actual loss amount has to be determined. There are different methods for different products. For life insurance it is easy as the claim amount would be the sum assured of the policy. However, this gets a bit complicated with other insurance products. Mostly the basis of valuation that is fixed at the stage of proposal is used at the time of claim calculation. Say for simple fire policy, if it is mandated that cost of repairs would be paid in case of partial loss and when there is a case of total loss, the market value of the goods would be paid, the insurance company would have to make good the loss up to this extent in both the scenarios. This amount is generally determined by the surveyors. The surveyors assess the actual loss and the cause of loss. Based on the surveyor's initial report, the claims executive investigates the admissibility and the amount of loss that is payable.

The amount obtained above would be reduced by the deductible amount. The claims executive also determines any salvage amount. Salvage amount is the amount in monetary terms that can be recovered by selling off the scrap/ waste that has been generated due to the loss. This salvage is recovered by the insurance company. The insured has to hand over the scrap to the insurer and the insurer has to find suitable buyers to sell off this scrap and recover this amount. Hence the total loss borne by the insurer would be reduced by the amount recovered from selling off this salvage. Again, identification of suitable buyers for different types of scraps and getting a good price for this scrap is not an easy job.

Chapter 5: Additional Concepts of Insurance

Learning Objectives: At the end of this chapter, the reader would be able to

- Know other relevant concepts of insurance at the introductory level, like reinsurance, over insurance, under insurance and coinsurance.

Reinsurance

Reinsurance is insurance that is purchased by the ceding company/reinsured from the reinsurer. Reinsurance is just a way of minimizing the risks associated with the issued policies by transferring the risks to a third party insurance company i.e. reinsurer. In simple words, we can call reinsurance as "Insurance of Insurers".

Generally the ceding company buys coverage from the reinsurer for the risks such as natural catastrophes like earthquakes, flood, hailstorm etc. as these risks can cause a loss amount which is unbearable by the ceding/insurance company.

The Reinsurer is a reinsurance company/a third party who issues the reinsurance policy to the reinsured. Reinsured/ceding company is the insurance company who sells the original policy to the policyholder/customer. The original policyholder is the party who purchases the original policy from the insurance company/reinsured.

It's a contract of Indemnity, which becomes effective only after the insurance/ceding company has paid to the policy holder. The reinsurance policy covers the risks/liability associated with the original policy issued. The coverage provided by the reinsurance policy cannot be greater than the coverage of the original policy. When reinsurance clause is there, the premium paid by the insured is shared between the reinsured and the reinsurer.

Reinsurance helps an insurance company in the following manner:

- **Risk Transfer**: The risks/liability involved gets shared between the reinsured and the reinsurer.
  Example: If the original policy is insured for $100,000 and it's reinsured for $50,000 by the reinsurer. The insurer and the reinsurer will provide coverage for $50,000 each, hence sharing the risks/liability involved.

- **Arbitrage**: The Insurance Company make good profit by purchasing insurance from the reinsurer in less premium amount than what was paid by the policy holder.
  Example: Suppose the policyholder pays $5000 annual premium for a certain policy to the insurer. The insurer reinsures this policy by paying $4000, hence making a profit of $1000.

- **Solvency Margins**: The Insurance companies are able to accept more new clients after transferring their risks to the reinsurer and also avoid the need to raise an additional capital.

- **Reinsurer's expertise**: The Insurer may want to utilize the reinsurer's expertise to underwriting in order to finalize an appropriate premium for any specialized risk or any big risk.

- **Creating a manageable and profitable portfolio of insured risks**: The insurer is able to create a balanced, manageable and profitable portfolio of risks after sharing the risks with reinsurer. This also makes insurer margins more predictable.

Some of the top Reinsurance companies in US are – Swiss Re, Munich Re, Berkshire Hathaway Reinsurance Group etc.

Types of Reinsurance

There are various types of reinsurance contracts. The criteria for determining the type of reinsurance is largely dependent on the type of insurance product for which reinsurance is sought.

Facultative Reinsurance

This type of reinsurance contract is negotiated separately based on the individual analysis of the situation and facts of each insurance policy. The underwriting for this type of reinsurance is done individually for each risk. The ceding company purchases this reinsurance for insufficiently covered risks or unusual risks. Expenses such as underwriting and personnel costs are high for this type of reinsurance as these are individually administered and underwritten.

Example: Consider an insurance policy involving a cargo ship which is insured for amount say $800, 0000. The primary insurer submits to reinsurer only if the primary insurer does not have the capacity for this insured limit/it's an insufficient covered risk for the insurer. If the reinsurer agrees to provide the coverage then a contract is signed.

Treaty Reinsurance

This reinsurance involves signing of a contract/treaty between the reinsured and the reinsurer. This contract passes the risks to the reinsurer for all policies (bulk of policies) and not just one particular policy. In this, the reinsurer accepts reinsurance of all contracts within the scope (known as "obligatory" reinsurance). Treaty policies are more general than facultative policies as it includes general potential liability rather than a specific enumerated risk.

Example: For all open marine cargo policies written, 10% of the premium would be ceded.

Retrocession Insurance

Retrocession is a practice when reinsurance companies involve some other reinsurer to spread their risks more widely and to limit their losses. The company who accepts providing coverage to reinsurer is called as "retrocessionaire" and the company who applies for reinsurance in order to protect itself against losses is called as "retrocedant".

This type of insurance covers areas prone to natural disasters like earthquake, hurricanes, and flood etc. where more damage to property is likely to occur. For example, if an earthquake causes widespread damage to property like homes, automobiles and lives, the losses incurred can be unbearable for a single insurer or even can go bankrupt without retrocession.

Over Insurance

Over insurance arises in a situation in which the policy holder/insured buys coverage for more than the actual/replacement value of the risk/property insured. It is basically a situation in which the coverage amount exceeds the actual loss amount. This poses a moral hazard to the insurers as the insured can make a false claim to benefit from a loss incurred and may result to a fraud.

As per the insurance principle of indemnity, no insured should be benefitted after the claim reimbursement. Hence, this situation violates the Insurance Indemnity Principle.

Over Insurance can occur in any type of Insurance – Auto Insurance, Health insurance, Life Insurance etc. In disability Insurance the insured can exaggerate symptoms in order to benefit financially from a false disability status. The insurers have designed some safeguards to overcome this situation. In group health insurance, the benefits paid by the primary and secondary carriers to the Insured is through the coordination-of-benefits. Let us look at few examples to understand this:

Example: -

Fire Insurance: Assume a factory and its machineries are insured against all risks for $500,000. It is subsequently destroyed in a fire, but the cost to replace those, amounts to $400,000. The factory owner/policyholder will be benefitted by an amount of $100,000 as the claim for the incurred loss will be paid based on the insured amount-$500,000.

Example

Health Insurance: Assume a policy holder is insured in two different health policies for $100,000 each and met with an accident which amounted to $80,000. The policyholder submits for claim amount $80,000 to both the insurers, as the premium amount for both the policies were paid. The policyholder will be benefitted after receiving the claim amount from both the

policies. Hence, health insurers have introduced an arrangement called as coordination-of-benefits (arrangement in which multiple payments for the same claim under two or more policies are discouraged).

Under Insurance

It's a situation in which the policy holder/insured buys coverage for less than the actual/replacement value of the insured item (home, auto, jewelry etc). Under Insurance is also called as condition of average or principal of average. This insurance will result in financial loss to the policy holder if the replacement value of the insured item is more than the amount insured, as the claim for the incurred loss will be paid based on the insured amount.

We will try to understand under insurance in case of building and cargo insurance below.

Examples:

Building Insurance: Assume a building and its contents are insured against all risks for $500,000. It is subsequently destroyed in a fire, but the cost to replace those amounts to $600,000. The building owner will have to make up the difference of $100,000 as the claim for the incurred loss will be paid based on the insured amount-$500,000.

Cargo Insurance: Assume a sailing cargo ship carrying cargo was insured for only $3000, 000 but its total cargo value was $6000, 000. Suddenly, in order to save the ship in storm, a proportion of the cargo had to be thrown which resulted in a huge loss for the cargo owners. But If the ship would have been insured for the correct amount-$6000, 000, the cargo owners would have been saved from the incurred loss.

Under Insurance results in paying less premium but the loss incurred from a claim is much more than the lower premium amount paid. Underinsurance may be caused by many factors, ranging from a failure to update a policy in a timely manner to an underestimate of reconstruction or replacement value.

In case of Home Insurance, failure to report new construction costs or a decision not to purchase sufficient insurance due to cost could also lead to underinsurance problems. In US, state courts have held that it's the responsibility of homeowners to properly insure their property (equal to the replacement cost).

The best way to overcome this situation (under insurance) is to review the sum insured in each of the policies at least annually and inform the insurer in case of any change in the sum insured.

Coinsurance

Coinsurance is the splitting/spreading of risks among the multiple parties i.e. insured and the insurer. It means that the risk can be shared amongst various insurers. Also, the risks can be

shared amongst insurer and the insured. This type of arrangement is used in all policies -health, property, marine insurance etc.

Health Insurance:

Coinsurance here would mean the fixed percentage of the costs covered which need to be covered by the insured after the deductible is met.

Example: Consider a plan with 70/30 coinsurance, $300 deductible. This means the insured will need to pay 30% of the total covered costs, once the deductible is met, and the insurer will be paying the remaining 70%. Today, most employers have switched from co-pay plans to coinsurance plans to reduce employee-benefit costs as prescription drugs and medical expenses have increased a lot.

Property Insurance:

Coinsurance is a penalty imposed on the insured by the insurer for mis-representation of the value of tangible property or business income. The penalty is imposed as per the terms within the policy and the amount under reported.

Example:

The actual cost of house is $1,000,000 has an 80% coinsurance clause but is insured for only $750,000. Since its insured value is less than 80% of its actual value, when it suffers a loss, the insurance payout will be subject to the underreporting penalty. For example: It suffers a $200,000 loss. The insured would recover $750,000 ÷ (.80 × 1,000,000) × 200,000 = $187,500 (less any deductible).

In this example the loss to the insured in terms of underreporting penalty would be $12,500.

Marine Insurance

In marine insurance, it is common practice to have multiple insurers for single policy or risk. The lead insurer does all the negotiation and policy preparation. The lead insurer is determined by the percentage share of premium and risk. The insurer having higher percentage of risk and hence the premium is the lead insurer. The other insurers are the co-insurers.

Chapter 6: Regulations in Insurance Industry

Learning Objectives: At the end of this chapter, the reader would become aware of the

- Concepts of insurance regulations
- Some of the existing insurance regulations of various countries

Regulations are rules/acts written by the concerned authority that have legal bindings and it is obligatory that the operators of that industry follow them. The fundamental purpose of creating regulations is to protect consumer's interests and ensure financial solvency of insurance companies.

Reasons for Regulatory Intervention in insurance

Information asymmetry and adverse selection - The information imperfections may result in the complete breakdown of markets. Adverse selection is the insurer's inability to distinguish and separate the good and bad risks. This will increase the policy premium price and reduce the coverage.

Insolvency of insurance companies – Insolvency of insurance companies refers to a situation in which an insurance company would not be able to take care of its short term liabilities, which includes its claims. For the purpose of understanding, it can be equated to bankruptcy to some extent. The regulators define a solvency margin for the insurers which has to be strictly adhered to. This would limit the insurers to write only those risks which they can manage. Also, this will check the competitive behavior of insurance companies, in which they are capable of reducing the premiums to dangerous levels, which will ultimately lead to insolvency of insurance company.

Catastrophe risk and limited risk pooling potential --- In case of catastrophes like war and natural disasters like earthquakes, storms the huge loss incurred may be unbearable for the insurer and may declare itself as bankrupt as the insurer had limited risk appetite.

Today, almost all the countries have an insurance regulatory body in place. The various functionalities of every regulatory body are:

- Protect the interests of consumers concerning terms and conditions of policy, claim settlements, enrollment.
- Promote efficiency, transparency and set high standards of integrity within the industry.
- Regulates investments and profit-margins of the insurance companies.
- Organize consumer awareness programs on latest products, trends in insurance.

- Specify the code of conduct for intermediaries such as agents, brokers, surveyors, assessors etc.
- Set standards for maintaining book of account, policy statements, quarterly / annual reports.
- Licensing of companies and intermediaries such as agents, brokers, surveyors.
- Should come forward in case of any disputes between consumers and intermediaries.
- Monitor the minimum coverage provided, premium tariffs and other charges levied on the consumers.
- Specify the minimum percentage of the premium amount to be spent in providing benefits to the consumers.
- Specify the minimum financial capability for any company to enter into insurance business.

Some Existing Insurance Regulatory Bodies:

IRDA (Insurance regulatory and development authority) is an autonomous and apex regulatory body created in year 2000 which regulates the insurance industry in India.

Mission: "To protect the interests of the policyholders, to regulate, promote and ensure orderly growth of the insurance industry and for matters connected therewith or incidental thereto."

NAIC (The National Association of Insurance Commissioners) is the U.S. standard-setting and regulatory support organization created in year 1871 and governed by the chief insurance regulators from the 50 states, the District of Columbia and five U.S. territories.

Mission:

- Protect the public interest;
- Promote competitive markets;
- Facilitate the fair and equitable treatment of insurance consumers;
- Promote the reliability, solvency and financial solidity of insurance institutions; and
- Support and improve state regulation of insurance.

PRA (Prudential Regulation Authority) and **FCA** (Financial Conduct Authority) are the regulatory bodies of UK created in 2013 which are responsible for regulation of all financial services firms.

Mission of PRA:

- To promote the safety and soundness of banks, building societies, credit unions, insurers and investment firms
- To secure protection for policyholders

Mission of FCA:

- Maintain and ensure the integrity of the market
- Regulate financial services firms so that they give consumers a fair deal
- Ensure the financial services market is competitive

Chapter 7: Insurance Fraud

Learning Objectives: At the end of this chapter, the reader would learn

- About insurance frauds like types of frauds, causes and consequences of fraud
- Some general methods of detecting insurance frauds

Insurance fraud occurs when someone knowingly obtains some benefit or advantage which they are not entitled to receive or someone knowingly denies some benefit that is due and to which someone is entitled to receive. Fraudulent claims account for a major portion of all claims received by insurers, and cost billions of dollars annually. Insurance frauds are very diverse, and can occur in all areas of insurance – auto, health, life, workmen compensation et al.

In the insurance Sector, fraud particularly occurs in the area of claims, which is the most challenging task for the insurers to identify. It is difficult to differentiate between the true/false claims. All Insurance companies prepare themselves to accept fraud incidences and include the losses due to frauds as one of the costs of doing business. However, the companies have to ensure that these losses should be to the extent that they can be managed and are within reasonable limits. One of the challenges related to fraud is how one identifies them and measures the real cost of fraud. For an insurer, the exact cost of insurance fraud is difficult to estimate because much of it goes unreported.

Cause of Frauds

The main motive behind the fraud is to inflate the loss amount and gain financially. Over Insurance sometimes gives straight opportunity of fraud as the Insured amount is more than the actual value. Insurers end up in paying more claim amount than the actual loss amount and hence the policy holder gains financially. Insurance Fraud takes many forms like the following:

- A car owner and a body shop worker agree to inflate the auto damage claim and share the "profit."
- A factory owner falsely claims that his factory was burglarized and machineries were stolen.
- A doctor inflates the medical bill for services that were not provided.
- A driver stages a fake accident, and unscrupulous doctors and lawyers help "handle" associated medical claims and lawsuits.

Classification of Frauds

Hard fraud: Hard fraud occurs when someone intentionally claims for the loss amount due to constructed incidents such as theft, fire etc. which is covered by their insurance policy. Policy owners take help of criminals in committing this type of fraud.

Soft Fraud: Soft fraud occurs when policy owner claims for the amount more than the loss amount by exaggerating the claim bills. For Ex: - when involved in an auto accident, the insured person claims for more amount than the actual loss incurred. This is also called as opportunistic fraud.

Types of Frauds

Life Insurance: The policy holder may fake death in order to claim the insured amount.

Health Insurance: In Health Insurance, frauds can be committed by both member and provider. Member fraud includes mis-representation of data while enrollment, hiding the coverage from some other policy in order to gain financially etc. Provider fraud includes inflating the hospital bills by performing the unnecessary diagnosis and treatment, keeping members admitted for more duration etc.

Auto Insurance: The policy holder may fake accident/collision, traffic death due to an accident etc. in order to make a false and inflated claim.

Property Insurance: The policy holder can make use of over insurance and make a false claim for loss amount more than the actual property cost.

Impact of Fraud

The impact of fraud is on both policyholder and the insurer. The policyholders have to pay more premiums as insurers pass on their losses and the insurer have to bear the losses incurred due to fraud.

It can also lead to stricter regulations imposed by the governments to keep frauds in check.

Consequences of Fraud

In most countries, fraud is a criminal offense with punishment up to some years in prison along with some monetary penalties imposed.

As per Health Insurance Portability and Accountability Act (HIPAA) in US, fraud is declared as a criminal offence liable to imprisonment of over 10 years including some financial penalties based on the nature of fraud.

Detecting Insurance Frauds

Identifying fraudulent claims can be done by computerized analysis or referred to investigators. Since the number of submitted claims is too high, it's very difficult to analyze each claim for symptoms of fraud. Insurers nowadays use computerized fraud systems for further analysis. Most of the countries have created fraud bureaus for fraud investigations.

The traditional approach was to detect frauds after the payment is made. This approach was improvised and some new strategies were applied to detect frauds before and raise flag for any suspicious claim and normally process the unsuspicious claims.

There is a need of advancement in analytical and data-mining technology to combat frauds. Data-mining programs, which scan many insurance claims, have been improved by the consolidation of insurance industry claims databases, such as ISO's ClaimSearch, the world's largest comprehensive database of claims information. Systems that identify anomalies in a database can be used to develop "rules" that enable an insurer to automatically stop claims. An insurance technology expert said that this approach has produced 20 to 50 percent reductions in fraud loss for some insurers.

In US, the Health Insurance Portability and Accountability Act (HIPPA) of 1996, focusses on rooting out fraud in federal programs such as Medicare, also impacts private healthcare. Almost all the states have set up fraud bureaus (some bureaus have limited powers, and some states have more than one bureau to address fraud in different lines of insurance).

Some facts on Frauds in US

- During the period 2008 to 2012, property/casualty fraud alone amounted to about $33 billion each year.
- The Federal Bureau of Investigation said that healthcare fraud, both private and public, is an estimated 3 to 10 percent of total healthcare expenditures.
- Based on U.S. Department of Health and Human Services' Centers for Medicare and Medicaid Services' data for 2010, healthcare fraud amounted to between $77 billion and $259 billion.

Recent Developments in United States:

- The National Insurance Crime Bureau (NICB) says that as of February 2013, U.S. insurance companies had processed 250,500 claims for vehicles damaged as a result of Hurricane Sandy. New York insurers reported the most claims (150,000), followed by New Jersey (60,000), Connecticut (8,000), Maryland, (5,500) and Massachusetts (5,000). The remaining 22,500 claims were reported by an additional 10 states and the District of Columbia. The NICB warns that many Sandy damaged vehicles have been reconditioned

and may be sold to unsuspecting consumers. See also Background, Auto Insurance Fraud section below.

- Estimates of insurance fraud vary. A report released in April 2013 by **Aite** Group estimates property/casualty insurance fraud totaled $64 billion in 2012, based on interviews with PC industry executives and fraud organizations. By line, auto insurers suffered the greatest hit, at $26 billion, followed by homeowners multiple peril, at $14 billion, and workers compensation, with $8 billion in fraud. Other lines showed less than $4 billion in fraud. Aite says that insurance fraud will grow to $69 billion in 2013 and to $80 by 2015.

Questionable insurance claims rose by 16 percent from 100,201 in 2011 to 116,171 in 2012, according to the National Insurance Crime Bureau (NICB).

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Questionable Claims, by insurance type in 2011 – 2012.

Rank	Type of insurance	2011	2012	Percent change, 2011-2012
1	Personal automobile	69,219	78,024	12.7%
2	Personal property: homeowners	11,887	17,183	44.6
3	Workers compensation (1)	3,470	4,459	28.5
4	Commercial automobile	3,092	3,554	14.9
5	Commercial and general liability	2,571	2,650	3.1
6	Personal property: other	1,090	2,651	143.2
7	Commercial property: commercial multiple peril	698	941	34.8
8	Commercial liability: business owners	387	464	19.9
9	Personal property: fire	488	411	-15.8
10	Commercial property: business owners	325	406	24.9
	Total questionable claims	**100,201**	**116,171**	**15.9%**

(1) Includes employers' liability.

Source: National Insurance Crime Bureau.

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