Chapter 1

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1.1 Introduction to Insurance Service

Insurance is a financial service that aims to manage the risk of those who are exposed to or are likely to be exposed to various kinds of risks. It has a rich history in India and is regulated by regulatory body. Insurance is of various types and is mostly guided by the key principles of insurance. A brief introduction to the history of insurance in India, principles of insurance,
types of insurance, components of insurance regulations in India, distribution channels of insurance, grievance redressal mechanism and role of data analytics in insurance are being given here.

1.1.1 History of Insurance in India

At present, Insurance service in India has mainly two variants – Life Insurance and Non-life (General) Insurance. Life Insurance is mainly related to insuring human life under various terms and conditions whereas General Insurance can be related to motor insurance, marine insurance, project insurance, agriculture insurance, cyber insurance, property insurance, health insurance etc. and may be covering various risks like flood, fire, earthquake, terror and so on. Insurance today, touches the life and activities of every individual, organizations and establishments in India. It evolved through various phases and it has a very old and glorious history.

Practice of Insurance has its mention in some of the ancient writings in India such as Manusmrithi by Manu, Dharmasastra by Yagnavalkya and Arthasastra by Kautilya. The practice is described as pooling of resources during normal time and redistributing them in case of calamities. This is the basic foundation of Insurance. It evolved in India over various periods of time drawing features from insurance practices of different countries (mostly England). However, Oriental Life Insurance Company established in 1818 at Calcutta was the first insurance company established in India.

Madras Equitable started life insurance business in 1829 at Madras Presidency. But the first significant push in insurance business happened with the enactment of British Insurance Act in 1870. Bombay Mutual and Oriental started their insurance business in 1871 and 1874 respectively in the Bombay Residency. Then in 1897, another company named Empire of India started its business. However, the business was mostly dominated by foreign insurers like
Royal Insurance, Liverpool, Albert Life Assurance etc. They did very good business in India. The first statutory act to regulate the life insurance business in India came in 1912 as The Indian Life Assurance Companies Act.

Government of India started publishing results of Insurance companies in India in 1914. In 1928, appropriate changes were made in Insurance act to enable Government of India to collect statistical information related to life and general insurance business done by Indian and Foreign Insurance companies in India. Major amendments were done and some comprehensive provisions were made in the Insurance Act in 1938 to protect the interests of the insured and have effective control over Insurers activities.

Number of Insurance companies increased by 1950. There were tough completions among insurers. Unfair trade practices started becoming frequent. By an ordinance issued on 19th January 1956, Government of India nationalized the life Insurance sector. Thus, Life Insurance Corporation was established that absorbed 16 foreign insurers, 154 Indian insurers and 75 Provident societies.

Though, some insurance kind of practices related to non-life insurance were seen during industrial revolution and subsequent sea-faring trade right back in 17th century, the first formal general insurance establishment in India was set up in 1850 at Calcutta as Triton Insurance Company Ltd. However, India Mercantile Insurance Ltd. set up in 1907 was the first to transact various kinds of general insurance business. Code of conduct for fair conduct and sound business practices were required. Hence, General Insurance Council was constituted as a wing of Insurance Association of India in 1957. It subsequently framed the code of conduct for general insurance in India. In 1968, Tariff Advisory Committee was set up and also the Insurance Act was amended to include provisions for regulations of investments.
The General Insurance Corporation of India was formed in 1971 but it started its operations in 1973 with the nationalization of this business. The General Insurance Business was nationalized in India with effect from 1st January 1973 by passing an Act in 1972. As a result, 107 insurers in general insurance business were amalgamated into four companies namely, the United India Insurance Company Ltd. the New India Assurance Company Ltd., the Oriental Insurance Company Ltd. and the National Insurance Company Ltd.

The Government of India set up Malhotra committee in 1993 to propose reforms in the Insurance sector. In its recommendations submitted in 1994, it proposed to allow private sector to do business in Insurance sector. Foreign companies too were permitted to enter Indian Insurance market either by floating an Indian company or as a joint venture with an Indian company. This triggered the reopening of Insurance sector in India and lead to a substantial expansion in Insurance business.

The Insurance Regulatory and Development Authority of India was constituted in 1999 as an autonomous body. Its main functions were to regulate and develop the Insurance industry in India. It wanted to increase competition in Insurance business for the benefits of customers and insurance service as such. It invited application for registration of Insurers in August 2000 that opened up the market significantly. Up to 26% ownerships were allowed to foreign companies registering in this business. IRDA has the powers to frame various regulations under Insurance Act 1938 to carry the Insurance business and protect the interests of the policyholders. Since the year 2000 and after opening of the Insurance sector in India to Private Players, it has framed several regulations to make the Insurance Business what it is today.

IRDA prepared a roadmap for de-tariffing of general insurance business with effect from 1st January 2007 resulting in increased seriousness towards scientific underwriting and better risk management practices. It has increased competition among insurance companies, has provided
various alternative solutions to various insurance needs of people, has created scope for innovative approaches towards risk management and thus have made Insurance Organization go for usage of advanced technology and data mining techniques.

As on January 2017, there are 24 Life Insurance Companies, 29 General Insurance Companies and 2 Reinsurers registered in India.

1.1.2 Principles of Insurance

Insurance is defined as equitable transfer of risk of loss from one entity to another, in exchange for a premium. It is based on underlying principles of cooperation and service. But, instead of leaving many options open, it makes things binding as a legal contract between the two parties. Hence, if an insurer decides to insure one or multiple risks of an insurance seeker, it enters into a contract with him under defined terms and conditions. These are agreed by both the parties and hence they are bound to behave according to the contract. Any violation of that can make the contract void and can lead to penal action and arbitration.

The main objective of insurance is to provide some financial security and protection to the insured against any future uncertainties. Insured should respect this safe financial risk cover and never misuse it. Trying to create any profit opportunity by reporting some false information is breach of trust and contract.

Hence, in Insurance, there are certain risks that should be insurable by the insurer, there are terms and conditions under which the risk can be insured, the party exposed to those risks should agree to get insured under the given terms and conditions, the two parties should enter into the contract and meet all the contractual obligations.
There are various ways the principles of insurance are presented. But, one of the most convenient way to present them is in the form of following 7 principles.

a) Principle of Uberrimae fidei (Utmost Good Faith): This is the most important principle of insurance and the most basic one too. According to this, the insurer and the insured agree to enter into contractual relation according to the set terms and conditions, and sign the contract in utmost good faith or trust or belief.

The insured party voluntarily disclose all the important information related to the risks being covered. Any false information or hiding any important information can result in contract being void. This is violation of principle of utmost good faith. Depending on the severity of violation of this principle, the claim become unpayable or the contact get cancelled or any other action may be initiated in accordance with the prevailing law. For example, in health insurance, an insured should willingly disclose the existing diseases and past medical history. If the insured falls sick and claim arises as per the provisions of the contract and if it is found that some related information was kept hidden by the insured at the time of taking the policy, then the claim gets rejected on this ground.

Similarly, all the inclusions, exclusions, excesses and various terms and conditions should be made known to the insured by the insurer in writing before signing the contract. Any claim arising as per the provisions of the contract should be processed in utmost good faith and no unnecessary conditions should be put to delay or deny the claim. Such actions, if proved, can lead to payment of the claim with compensation. Frequent repetition of such incidences may lead to strict actions including huge penalties, warning and even suspension of license for doing insurance business.

b) Principle of insurable interest: According to this, the person going for insurance must have some interest in the object being insured. That means, he should be getting benefitted if the
object exists or should be under some loss if the object gets harmed or even seize to exist. There should be some financial loss involved then only the interest is insurable. The claim amount payable depends on the estimation of the financial loss.

For example, a person having a car has insurable interest in the car because he gets benefitted in terms of comfort, convenience etc. that can be converted to money equivalence. However, if he sales the car during insurance period, this interest is lost. Hence the insurance contract too becomes void.

Even in life insurance, though the life of an only earning member in a family may be invaluable to the family, his life is an insurable interest and the sum assured of his life depends on various factors that may reflect his worth to the society in monetary terms.

c) Principle of Indemnity: According to this principle, the insured is given a security or guarantee that he will be compensated against the arising loss due to the covered risks or perils. It also says that the claim amount or the compensation cannot exceed the financial loss amount. No insured should be making profit through insurance. This principle is also a guarantee against the loss and in strict sense it means that the insured will be brought back to his financial position prior to the accident by the insurer through payment of claim amount. Though, this kind of guarantee cannot be applicable in the case of life insurance.

These principles are the basic principles of insurance and work in combination to formulate the provisions of the contract. The principle of indemnity, in simple terms, is a guarantee to compensate against the financial loss and in no case the claim amount can exceed the amount of loss. Mostly, some compulsory excesses are applied to reduce the probability of fraudulent claims. Also, if there is no loss due to any accident to such items that are insured against those kinds of accidents, then too the claim doesn’t arise. For example, if a property is insured by a
fire insurance policy and fire breaks in that property. But that is controlled in time and no financial loss happens. Then in this case, the claim doesn’t arise.

d) Principle of Subrogation: The literal meaning of subrogation is substitution of a person or a group of persons by others in case of any debt or insurance claim. The principle of subrogation is one such basic principle on which the insurance concept works. According to this, if the damage happens due to an act of a third party, the insurance company can make that party compensate the full or part of the claim amount payable to the insured. That is, the responsibility of paying the claim amount gets subrogated to the party that has caused the damage.

In such cases where any third party is involved in the damage, the claim is usually paid by the insurance company to the insured. But, it also takes the right to legally claim the compensation from the party responsible for the damage. It gets such claims settled in full or in part through the legal process. For example, if a person meets an accident due to negligence of another party and gets hospitalized. He gets the claim from his insurer as per the provisions of his accident or health insurance. At the same time, the insurer also sues the person or group responsible for the damage and can legally get the compensation from him.

Principle of subrogation is interpreted in another way. According to this, the insurance company takes the possession of the property or goods after paying the claim in case of complete loss. For example, if a car meets an accident and gets damaged to the extent of complete loss, the insured person of the car gets the claim amount against the complete loss as per the provisions of the policy. But, after that the insurance company gets the possession of the car and sales the car as scrap or in whatever way they can get maximum compensation.

e) Principle of double insurance: According to this principle, the same object can be insured by more than one insurer for the same risks or different risks. Or other way, the insured can go for
multiple insurance of the same object for the same risks or different risks. But the total claim amount cannot exceed the amount of actual loss.

For example, suppose a property is insured against damage due to flood by three different insurance companies. And it gets damaged due to flood during the insurance period and claim happens. In this case, the assessment of loss will be done by the insurers and the agreed claim amount will be contributed by the three insurers. That is why this principle is also called principle of contribution.

f) Principle of loss minimization: This principle makes the insured take the necessary steps to minimize the loss in case of insured risk. It should not happen that the insured doesn’t take any precautionary measure to avoid the risk and minimize the loss after getting the insurance contract.

For example, if an insured property catches fire, then the person concerned should take all the measures to minimize the loss like calling the fire brigade, attempting to minimize the spread of fire etc. It should not happen that he just waits for the complete damage thinking that the property is under insurance. If such evidences are found then the claim amount can be reduced or claim may even be denied.

g) Principle of proximate cause: This principle of insurance is useful in such situations where there may be multiple causes for the damage resulting into financial loss. If all the causes have been insured, then the case remains simple and the claim is processed in favour of the insured. However, if one or more causes of the accident has not been insured then there may be a tendency at the insurer level to deny the claim on the reason that the cause of the accident has no insurance coverage. Hence, according to the principle of proximate cause, the nearest cause of accident is to be considered in claim processing. If the nearest cause is insured, then the claim is processed in favour of the insured.
For example, if in a ship base, hole builds up because of damage caused by rats and due to that water gets into the ship and the ship sinks. The ship may not be insured against damage due to rats but it is normally insured against filling of water and sinking. In this case, the nearest cause of sinking of ship is filling of water in it. Hence, the claim become payable. The claim cannot be denied on the ground that ship sank due to rats and there has been no insurance coverage against that.

Thus, the above seven principles of insurance provide general guidelines about what can be insured under what conditions, what responsibilities the insured and insurer have, how they need to honour the contract and help in major way in preventing any misuse of insurance by any party.

1.1.3 Types of Insurance

There are various types of insurance in India to meet varied needs. They are mostly categorized into two categories – Life insurance and General insurance or non-life insurance. Life insurance, as the name indicates insures the life of human beings. Anything other than this can be insured using non-life insurance products. Though, the basic principles of insurance remain similar in life and non-life insurance, they are significantly different in terms of actuarial practices, legal aspects and various terms and conditions.

Insurance service is an ever-growing service. With time, new risks keep emerging, some of them get intensified and people exposed to that feel the need of risk mitigation. Thus, in insurance service, another type gets added. For example, Cyber risk was non-existent a decade back. But, as the digital revolution happened, social media, B2B, B2C and all such concepts emerged that made the use of computers and cyberspace almost essential in business and normal living. Now, every individual is exposed to cyber risk in one way or other. People or
organizations using computers are now concerned about their cyber liability. These are new risks and are quite tricky for a common man to understand.

a) Life Insurance: Life insurance service insures the life of the policy holder against the death. Since, the life insurance market is quite competitive in India with over 20 life insurance companies operating, there are various types of products available with variations in terms in duration of insurance, benefits to the insured or his beneficiaries, frequency of premium payment etc. A life insurance policy can be for the whole life or for a fixed term. A policy for whole life is called whole life policy in which the life of the person is insured for whole of his life. On his death, the sum assured or the corpus is paid to the beneficiary of the deceased. The policy holder pays premium throughout his life as per the pre-decided frequency. In this the validity of policy in terms of the time is not defined. Contrary to this, in term policy of life insurance, the term is fixed. The life of the person is insured for a fixed tenure. He has to pay the premium as per the frequency specified in the life insurance product. In case of death of the policy holder during the insured period, the sum assured called the death claim amount is paid to the beneficiary. But, if the insured survives the insurance period then no amount is payable.

Term insurance is the most basic life insurance type which is a pure insurance and there is no component of investment or maturity. Hence, the premium amount too is quite less compared to other types of life insurance.

Endowment plans are other types of life insurance in which maturity benefits too are there in case of the insured person surviving the insurance term. Like term life insurance, this too is for a fixed insurance period. Premium is paid by the policyholder as per the specified frequency in that product. The sum assured or death claim amount is paid to the beneficiaries in case of death of the insured person during the insurance period. If he survives the insurance term, then to the maturity claim is paid to the policy holder. This insurance has an investment component too. Insured person considers the insurance and also the investment benefits of such life
insurance products and accordingly choose the term and sum assured. The premium amount to be paid in this type of life insurance product is much higher than the premium payable in a pure term insurance. This is because, in this, claim is payable in any case whether it is a death claim or a maturity claim. Since endowment life insurance is a combination of insurance and investment, the return in case of maturity is lesser than pure investment products because it is covering the life risk as well. Also, the premium is higher than a pure insurance product because there is maturity claim as well.

In addition to these, there are two more common types of life insurance which are to a large extent variation of the endowment plans. Unit linked insurance plans (ULIP) are insurance cum investment plans in which the policy holder has the options of getting his money invested in investment products from a list of such products available in the market. At the same time, he gets his life insured too for the selected term. The value of the investment portfolio is based on the net asset value (NAV), hence the return from these plans are subject to the market risks. Thus, these are insurance plans and the investment part is very much similar to the mutual funds. Another variant is money back life insurance policies in which the entire amount payable (sum assured and other benefits) at the end of maturity are paid at different intervals of time in different ratios. In case of death of the insured during the insurance term, the balance unpaid amount is paid as death claim.

In India, Insurance is still seen by individuals as such financial products that pay them money in return to the amount they invest. Pure insurance premium can be low as they are in term insurance plans, but the expectations as investment return make the premium higher. There are more such products than pure insurance products.

b) Non-life insurance or General insurance: General insurance can insure anything other than life. The nature of risks they have to cover are quite varied and accordingly there are varied
types of general insurance. General insurance can be broadly categorized into three types – Property insurance, Personal insurance and Liability insurance. This categorization is based on what is being insured.

Property insurance is to insurance risks on property. It can be fire, theft, burglary etc. One can get the house and the belongings in that insured against various risks. A manufacturing organization getting the plant, machinery, raw materials etc. insured against flood, fire, earthquake, theft and burglary comes under property insurance. Project insurance, motor insurance and marine insurance are so specialized that they are consider different types of general insurance. But they too are insuring the property under special situation. Project insurance usually refers to insurance of projects like launching of satellite, construction of bridge, organizing some mega event etc. Project has a set of interrelated activities that has to be completed to finish the project. Projects have clearly defined start time, end time and various milestones between the start and finish. Project insurance provide various risk coverage to the material, machinery and infrastructure involved in the project. Various liabilities too can be included in the insurance either by clubbing all the coverages in one policy or by issuing different policies.

Motor too is a kind of property only, but its insurance has some different dimensions than the common property insurance. It involves damage to the third party, own damage and all other risks like fire, theft etc. There can be some add-on services like on road assistance in case of accident, zero depreciation and so on. The decisions related to premium, loss assessment and claim processing need different considerations than the conventional property insurance. Third party insurance for motor is mandatory in India as per the law. This insures the policy holder against any liability arising due to loss to a third part due to accident. It means that if a car with third party insurance hits a person walking on a road due to which the person suffers financial loss in treatment or otherwise, then the claim arising due to this is payable under third party
insurance. However, the damages to the car cannot be claimed if the car is not insured against own damage. The comprehensive motor insurance covers own damage, compulsory third party damage, and some compulsory accident coverage to the driver. One can opt for some add-on services by paying more premium or can get the premium reduced by opting for higher excess. Many car dealers and service centres have tied-up with insurance companies to provide cashless repair experience in case of claim. Customer has to pay only the compulsory amount or excess and the rest of the expenses is settled with insurer through claim.

Marine insurance too insures property but it covers the risks during transit. When goods are moved from one location to another by any transport media like road (truck, containers), rail, air (air cargo, carriers), sea (ship, carriers), it is exposed to greater risks than when stationed at one place. These risks are covered by marine insurance policies. Marine insurance covers goods, freight, cargo and other interests against loss or damage during transit. Movement of good can be within national limit or it can be to international destination. Parties involved in such activities that require movement of goods can go for various marine insurance options depending on their requirements. They can choose from open cover, open policy, annual policy or special voyage policy.

There are few general insurance types that come under personal insurance. For example, health insurance, travel insurance and accident insurance. Though one insurance can include various types of insurance like travel insurance can include delay in flight and loss of baggage, but these three insurances look more personal in nature than anything else. Health insurance can be for a person or for a family or may be for a group insurance taken by organization for its employees or can be a part of some Government scheme. Since the cost of medical care has gone quite high in recent past, and many life style diseases are becoming common, it is quite difficult for individuals to meet the cost of a decent treatment on his own. Hence, Government of India, State Governments and various private and public organizations are encouraging
health insurance by providing various supports. For example, many organizations opt for group medical insurance schemes for their employees and their families and also share major part of the insurance premium. Premium amount may depend on number of persons and their ages or it may be simply on the total sum assured. Many healthcare service providers are offering cashless facilities to public by collaborating with insurance service providers. A person getting treatment under such schemes need to pay only the minimum excess amount and rest of the expenses are directly settled with insurers. Again, the expenses being covered depend on the provisions in the policy. The country has seen fast increase in health insurance sector in terms of number of policyholders and the premium collection, as the health insurance service providers in collaboration with health care service providers and intermediaries like third party agencies (TPA) are offering seamless health care experience to the individuals covering in almost cashless way various expenses starting from prehospitalization to posthospitalization care. In several foreign countries health insurance is mandatory for its citizens or temporary visitors with a stay longer than a specified number of days. In India, there is no such compulsion from the Government side, but health insurance is practically necessary for all. Hence, to encourage people for this, various tax benefits are provided on premium paid for self and dependents.

Travel insurance is another type of insurance that is a personal insurance. In which, a person can get certain risks involved in travel insured by paying the premium amount. The insurance remains valid for the travel period only. Foreign travel insurance mostly covers the risk of delay in flight, baggage delivery, lost baggage, accident during travel and stay, medical expenses etc. under certain terms and conditions and excesses. In domestic travel too, airlines have tied-up with insurance service providers to cover some of the risks for the passengers who opt for them by paying a small premium. Recently, Indian railway have started providing accident cover to passengers. Many corporate organizations have policies to take travel insurance for their
employees travelling abroad on official work. Travel insurance is becoming quite popular in India because of alerts and offerings at the time of bookings of ticket, however, its excesses and exclusions keep the probability of claim quite low. That is why some of the travel insurance products practically cost nothing to the insured. There is another type of personal insurance called in which a person can get insured against any accident. These accident insurance plans are now integrated with bank accounts, credit cards etc. If a person opens an account in a bank, then he may automatically get accident insurance of some sum assured as the bank might have tied-up with insurance service providers for this purpose and might have made it a part of their banking products.

There is another type of general insurance called liability insurance. These insurance products are specially designed for covering the liability risk towards the third party. For example, a doctor providing treatment has liability to compensate the patient or his relatives if some damage happens to the patient due to some error by the doctor. He can take liability insurance by paying a premium and get his liability insured. The claim if any arising, is settled with the patient by the insurer. An employer has the liability towards his employees if due to work requirement they are exposed to risky situations. This becomes important in factories, mines, construction sites etc. Officers and directors of the companies are liable to third parties if they face some damage due to errors from them. So, there are Directors and officer’s liability insurance, errors and omissions liability insurance, professional liability insurance, public liability insurance, product liability insurance, employee liability insurance, cyber liability insurance etc.

Cyber risk has emerged as one of the greatest risk of modern time because of extensive use of digital devices in networked way. It is possible to extensively damage several systems spread over the entire globe from a remote location. Though, cyber security measures are taken, still the risk remains. Sometimes, an innocent act of a person due to lack of knowledge can harm
the computer system of others. The act causing the damage might have been initiated in some other country while the damage happens in some other country. So, the laws of multiple countries get involved in this. Even the extent of damage can be quite extensive. All these make the insurance of cyber liability quite complex. But, cyber liability insurance too is now in high demand and offers good opportunity to insurers if they design smart cyber liability products.

Agriculture insurance too form a part of the general insurance. This focusses on agriculture and related activities. It is also given a more general name rural insurance. Farmers can get their crop insured against draught, flood or various risks that can damage the crop. The sum assured, concluding the reasons of damage of crop and assessing the loss are quite technical. For example, rain is required for proper harvest. However, excess rain or deficient rain can damage the crop. Establishing that the damage to crop happened due to excessive or deficient rain could be quite tricky. Even, estimating the crop yield on the basis of growth of the plants at various stages require specialized skill. Therefore, there is a dedicated insurance organization known as “Agricultural Insurance Corporation of India” focussing purely on agriculture insurance.

Since, general insurance or non-life insurance deals with huge risks that can involve claims of extremely high amount, it becomes a big risk for the insurer itself. An aeroplane crash can result in claim of billions of Rupees. Fire in a high-rise building housing several offices can result in varieties of claims of astronomical amount. Major earth quake, landslide, flood etc. all have the potential to inflict huge damage to the insured and in turn huge claim liability for the insurer. Insurance is a mechanism of risk mitigation for the insured. But the risk taken by the insurer too is quite high and they need to mitigate that. Hence, there is reinsurance that is used by insurance service providers to mitigate the risks that they have taken by insuring their clients against their risks. So, in addition to life insurance and non-life insurance, there is reinsurance as well for which insurance companies are the clients. General Insurance Corporation of India (GIC Re) is a major public sector reinsurance company in India.
Thus, there are several types of insurance to meet different needs of risk management. Non-life insurance can insure anything other than life while life insurance covers only the life of human beings. As risks to life and non-life keep changing with developments and other factors, the insurance service is an ever-growing service. Hence, innovation in terms of products, combining insurance with investment, combining insurance with other services etc. frequently seen in insurance service. Since, individuals look for return from the premium they pay, the products that combine insurance with investment or other services tend to look more attractive to them than pure insurance product.

1.1.4 Key components of Insurance regulations in India

Insurance being a financial service, has been influencing the life of every individual right from the beginning. It’s most important principle “being utmost good faith” and it also involves huge amount of financial transactions based on various estimates and conditions, hence, regulations by an independent regulatory body is a highly-needed activity for smooth functioning of insurance services.

For this purpose, Insurance Regulatory Development Authority of India (IRDAI) is the main regulatory body. It was constituted under the Insurance Regulatory and Development Authority Act 1999, and derives its powers from the Insurance Act 1938 (as amended). It regulates all such entities that do business related to insurance including insurance service providers and intermediaries like brokers, insurance agents, surveyors, third party agencies, and loss assessors.

It is necessary to establish office and branches as fully licensed local body in India for any insurance company to do insurance business in India. Foreign direct investment (FDI) is permitted under Indian laws to the extent of 49 per cent of equity share capital of an Indian
insurance company and insurance sector intermediaries. Though the limit on FDI is decided by the Government of India and the Foreign Investment Promotion Board (FIPB), foreign investment in Insurance business in India is subject to approval by IRDAI. Department of financial services (Ministry of Finance), Government of India and IRDAI have determined that it is necessary to have the ownership and control at all time with the resident Indian entities for all such insurance companies operating in India that has foreign investment in it. Prior approval is needed from IRDAI for all such share transfers that exceeds one percent of the paid-up equity capital of an insurance company. If the shareholding of the transferee is likely to exceed five percent of the paid-up equity capital of an insurance company, then also a prior permission is required from the IRDAI. There are different minimum paid-up capital requirements for Insurers, Reinsurers, direct brokers, reinsurance brokers and composite brokers to start their insurance related business in India.

In India, many insurance companies are promoted by private sector banks. If there is any foreign direct investment in such banks that are owner of Indian insurance company, then such investments need prior approval from Reserve Bank of India (RBI) in consultation with IRDAI. There are regulations related to risk based capitals that require insurers and reinsurers to maintain an excess of value of assets over liabilities by not less than 50 percent of the minimum capital the insurer or reinsurer is required to have. Insurance policyholders interest are protected by IRDAI by their Protection of Policyholder’s Interest Regulation, 2002. Corporate governance guidelines for insurance companies require every company to have policyholder protection committee that will ensure that various compliance issues are addressed to, policyholders are properly made aware about the insurance products and their interest are taken care.
Another important regulatory aspect is related to outsourcing. Core activities of insurance that can affect the corporate governance, policyholder’s protection, solvency and revenue flow of the insurer cannot be outsourced. However, certain supportive activities to the core activities of insurance can be outsourced as per the specified risk management principles set by IRDAI in their outsourcing guidelines. There is a comprehensive list of activities that cannot be outsourced such as underwriting, product design, enterprise risk management (ERM), claims decision, fund management, bank reconciliation, complaints handling, compliance with anti-money laundering, know your customers (KYC) etc. However, supporting activities like data collection and analysis for underwriting purpose, premium collection, cheque pick-up/dispatch, forensic analysis, recovery agent, negotiations for third party claims etc. can be outsourced.

IRDAI also collects strategically important data related to insurance business in India and provides relevant information in public domain. They publish IRDA Journal that contains articles/papers relevant to insurance industry and also contain data related to performance of the various insurance organizations in the country. In addition to regulating the insurance business, they also take the responsibility of keeping the general public aware about insurance and provide such information through public media that can safeguard them against being victim of any likely fraudulent activity.

Insurance service in India has great potential of growth and the competition too is quite demanding. Insurance companies keep coming out with lucrative offers to customers specially in the retail insurance segment, many of them may not serve any purpose related to risk management. They may set wrong expectations for the customers as if the chance of getting claim is high, or the claim amount can easily exceed the premium paid, or potentially high risk getting covered with low premium, or return may look attractive etc. But, the finer points like exclusions and excesses that might be even hidden go against the expectations of the customers.
For example, a motor insurance add-on may promise to pay the conveyance expenses to the insured for the period an insured car remains under repair after a valid accident. The extra premium charged for this add-on may be quite less making the customer feel this quite attractive. But, the finer points may be related to restrictions on number of days that may be quite low and also the maximum amount per day on some imposed excess amount. To prevent such insurance products or add-ons that can misplay with the customers, IRDAI has made it compulsory to get them approved before launching them for the customers.

Thus, insurance business in India is mainly regulated by IRDAI. Department of financial services, Ministry of finance, Government of India and Reserve bank of India too influence the insurance business through their policies as they are all part of financial services and have their impact on each other.

There are some self-regulated organisations such as Surveyors Institute IIISLA, Institute of actuaries of India (IAI), Insurance brokers association of India IBAI and Insurance Information Bureau. They have very important roles in insurance service in India. For example, Institute of actuaries of India, maintains the standard of actuary certification according to the global standard. Insurance regulations require appointed actuary in every insurance organization. There is a huge shortage of properly qualified actuaries in the world. Various academic institutions are conducting certification courses of varied duration but to be considered a qualified actuary one has to meet the requirements set by the IAI.

1.1.5 Distribution Channels

Indian insurance industry has gone through some major changes since 1990 that has led to increase in types of distribution channels. Insurance business is done through the distribution channel. It is at the front of the insurance business that the customers see and experience
directly. For purchasing any insurance product, an individual has to interact with the distribution channel. Similarly, the insurance service providers too make their services reach to the customers through their distribution channels. There are some traditional distribution channels like direct selling or agents etc. that have been doing the business fine for the insurance organizations. As the industry grew, modern distribution channels emerged such as bancassurance. With advancement and popularity of mobile and internet technology some alternative distributions channels too have started making their mark such as online channels.

Individual agents, corporate agents, brokers and direct work site marketing are the main traditional distribution channels. Individual agents are such individuals who interact with the customers, explain them about various insurance options based on their needs, initiates the process of insurance purchase by getting the requisite form filled, collects the required documents and then interact with the insurer to get the customer insured. He serves the customers in getting the policy, updating the details, renewal of policy and such related matters. He is not a decision-making authority and works as a bridge between the insurer and the insured. A good individual insurance agent requires good understanding of insurance products, should understand the principles of insurance well, should be able to understand the needs of the customer well and maintain a good relationship with customers and insurers. Insurance companies have their own agency management systems through which they try to maintain desired standard. Individual insurance agents have remained the leading distribution channel in insurance business.

Corporate agents are also called Independent Financial Advisors (IFA). They are authorized agents of multiple insurance companies. They are individuals or group of individuals specialized in financial services. They can understand the need of the customers and accordingly suggest them the financial solutions. They have been doing good service to the customers in property and casualty insurance. They can come out with some customized
insurance products with few approved add-ons or dropping some in-built coverage to meet the requirements of the customers better. These customized services have to be finally offered by an insurer only, but these corporate agents can generate the lead and take it to a decisive situation.

Brokers act on behalf of customers. They are qualified insurance professional and certified after taking courses and examinations conducted by organizations made responsible for doing these by regulator. They understand the needs of the customers, work with them to identify the most appropriate solution for their risk management needs and help them in getting those solutions implemented. In the field of non-life insurance, brokers have been adding significant values. The reinsurance business is one such area in which this distribution channel has done quite good business. Main difference between agents and brokers are that, agents work on behalf of insurance companies while the brokers do it on behalf of customers.

Direct work site marketing is another type of traditional distribution channel. Insurance companies have their office network spread over the country. Life insurance companies like LIC of India has their branches and offices even in rural areas. In non-life insurance too, the insurers may like to do the direct work site marketing specially in case of insurance of mega projects or big corporate offices. This distribution channel has some advantages like captive customer base, high trust factor, potential to understand need based insurance etc. At the same time, it may have some challenges related to post sales service, cost effectiveness etc. Strategic use of technology can be helpful in making it cost effective as some of the services can be quickly done at some centralized place without any impact on the response time for the customers.

As the insurance services increased its spread in the country and grew the role in risk management, some modern distribution channels emerged. Bancassurance and Micro-
insurance are two such channels. Banks have already established network in the country and their services are quite known to the public in urban as well as rural areas. They have been playing important role in the development of the public by providing saving and investment products and also providing loans of different kinds to meet the requirements. Economically poor people might not be knowing about financial services as saving or investment or insurance but they know them due to the loan facility extended to them. So, banks emerged as a major player in distribution of insurance products because of their already established reach and their relationships with the public. Also, many insurance companies are promoted by banks. It became quite convenient for them to combine the banking products and insurance products and offer them as combo to the customers. Bancassurance channel has advantages like ready customer base, high creditability, low cost channel for vanilla products, extensive reach, popularity in rural area etc. However, it has some challenges like investment required in IT systems and processes, training of their staff and making them ready for insurance selling, economic viability to take insurance as a major level, useful for selling certain types of insurance products only, likely lack of vision as bankers getting into insurance may not be very natural, lack of technical expertise etc. Nevertheless, bankers have been able to overcome these difficulties and have tasted good success as a major distribution channel for vanilla products.

Due to various initiatives taken by Government of India related to financial inclusions and reaching to unreached with financial products, rural and micro insurance have gained momentum in recent past. The unreached areas for financial inclusions are mostly in rural areas where people depend mostly on agriculture related activities or small-scale activities for their living. They can be reached through micro insurance products. That has led to emergence of another modern distribution channel that can be called micro-insurance. This channel focusses mainly on understanding the risks related to living in rural areas or being engaged in activities related to farming, small scale dairy, poultry or local livelihood etc. and works as a bridge
between the individuals and the insurers. This channel has its own challenges. The per unit transaction may be quite small. Managing the cost of operations may be difficult. Educating the likely customers, insured or beneficiaries may require a different strategy than what other distribution channels might be using. Remaining updated with the latest systems and procedures may be quite challenging. However, these challenges could be addressed to a large extent with the implementation of technology in their operations. The hardware devices and the connectivity required at the front level is quite affordable, and by connecting to the centralized system one can work at remote location as effectively as in the main office. Some of the insurance companies like Life Insurance Corporation of India has opened many satellite offices with minimal infrastructure but practically no compromise on systems, and thus they are able to reach to the unreached areas.

As the competition increased among insurance companies in India, they looked for some alternate channels for distribution of their products. This was also triggered by lack of time in urban service class people for devoting on insurance related matter. Also, daily travelling time for work related matter has increased in recent past. There are parking problems at most of the urban areas. It is becoming increasingly difficult to find mutually convenient time when the insurer and the insurer seekers can discuss on insurance options. So, some convenient and alternative channels are becoming popular that use internet, telephones or even shops.

Shopassurance is something in which a customer can get some of the formalities related to insurance buying completed at some grocery store while shopping for grocery items. Though Insurance is a legal contract between the insurer and the insured and it is not as simple as purchasing a grocery item, but the process can be initiated or lead can be generated for an insurance related transaction based on the buying pattern of the customer.
Internet and Telcassurance are other two alternative channels that have become quite popular in recent years. Telcassurance is such channel in which the insurance purchase is initiated thorough telephones. Mostly, there is some interactive voice response system (IVRS) with some user-friendly menu. A customer uses that as per his convenient time to understand various options available and if convinced can initiate the purchase process there itself. The system may even capture a lead through such process and forward that for further processing at the next step. Telcassurance is also used by insurance companies through call centres to approach to the likely customers by making calls. The leads for calls are generated through some analysis of data captured through other systems. For example, a mega store might be offering membership or loyalty programmes for its customers. Through this, they collect the master data of the customers. Transaction data gets captured through their billing systems. These data can be analysed to find possibility of a person opting for some insurance product. And, if this possibility is attractive enough for the insurers, they can use the customer contact detail to approach the customer through telcassurance. The consent of the customers for generating such leads and using the contact details are already taken at the time of offering the membership.

Internet has now become the most convenient and important source of information on almost every topic of interest of human being. Insurance companies are using this channel to provide information related to their products and processes. Customers can evaluate the options available to them as per their convenience and can initiate the process of insurance buying online. Customers can provide their insurance requirement by filling some interactive forms, can request for quote or expression of interest, can pay premium amount online, provide most of the information online, upload the documents online and can get very close to the completion of purchase process. This saves time for insurer as well as the insurance seekers. Insurance companies also use internet for some innovative marketing. Most of the websites have such cookies policies that make the users allow cookies on their system to get the best or a decent
enough browsing experience. These are used to analyse the browsing pattern of the internet user. This gives very accurate idea about the major concerns an internet user can have during that time. For example, if an internet user is frequently visiting sites containing information related to hospitals or a particular disease, then it indicates that he is concerned about his health. He may be a target customer for health insurance product. Insurance companies can use this information to advertise their products on the same page where the internet user is getting the relevant information of his interest. If he shows interest in the advertisement by clicking on that and landing on the insurers webpage, a lead gets generated. This can be converted to business depending on how much needy the person is and how well the insurer convinces him to meet his expectations. There are some innovative and effective services, for example Google Adsense, that publishes customized and content relevant advertisements on webpages. The advertiser has to pay on per click basis while the owner of the page gets paid for clicks on advertisements on his page. This makes such channels a low-cost channel for advertisements and generating leads. Since, the advertisements are content specific and dynamic, they are less of a noise and are likely to attract the visitors of the page. Most of the insurance companies in India are using such features.

Success of any insurance company depend largely on how well they design products to meet the insurance requirements of the insurance seekers and how effectively they reach to them. Both are also important in building the trust and a long-lasting relationship. Hence, all the types of insurance distribution channels – traditional, modern and alternative, have important roles to play in making insurance reach to every area of the country and thus contributing in risk management in India.
1.1.6 Grievance Redressal Mechanism

Dissatisfaction from insurance services happens when the service provider fails to meet the expectations of the customers. Dissatisfaction can take the shape of grievance if left unattended. The reason of dissatisfaction can be related to insurer or may be with the insured itself. But, whatever the case be, grievance need to be addressed and there are set guidelines by the regulators for setting up the grievance redressal mechanism.

In case of grievance, prevention is better than cure. It can be prevented to a large extent if the expectations of the customers are set right from the beginning itself. It is very important to refrain from miss-selling, make wrong promises, hide relevant information and things like that to prevent grievance. Transparency about the information, systems and procedures should be maintained. There should be proper communication all the time and some convenient communication channel should be available always. However, in spite of best of intentions from both sides, sometimes things may not go as per the expectations, or the interpretation of situation may go wrong resulting in dissatisfaction and subsequently taking the shape of grievance. Sometime, few actions are taken intentionally and grievance forms. Since, Insurance not only involves finance but it also deals with risks at the customers’ level. To prevent, misuse of such services by insured as well as insurer, there are published grievance redressal mechanisms and benchmarks have been set for every step involved in such mechanisms.

Insurance Regulatory and Development Authority of India had issued regulations related to protection of policyholders’ interest in the year 2002. Further to those regulations, in the year 2010, it also issued guidelines for grievance redressal by insurance companies in India. These guidelines included minimum timeframes and uniform definitions and classifications with respect to grievance redressal by insurance companies.

As per the guidelines issued by IRDAI,
“A “Grievance/Complaint” is defined as any communication that expresses dissatisfaction about an action or lack of action, about the standard of service/deficiency of service of an insurance company and/or any intermediary or asks for remedial action.

On the other hand, an Inquiry and Request would mean the following:

Inquiry: An “Inquiry” is defined as any communication from a customer for the primary purpose of requesting information about a company and/or its services.

Request: A “Request” is defined as any communication from a customer soliciting a service such as a change or modification in the policy."

According to this, every insurer shall have grievance redressal policy duly approved by their board and filed with IRDAI. They shall also have a senior management officer designated as Grievance officer. Also, every office other than the Head/Corporate/Principal office should have a grievance officer.

According to the guideline, every insurer shall have a system of procedure for receiving, registering and disposing of grievances in each of its offices. They can plan their own turn-around-time for various activities but they should adopt minimum time frame for some of the specified activities in the guideline. For example, insurer should send written acknowledgement to the complainant within three working days of receiving the grievance. The acknowledgment shall also contain the name and the designation of the officers assigned to handle the complaint and should also include the procedure to be followed for grievance redressal along with the timeline. If the insurer is able to resolve the complaint within three days of receiving, it may communicate the resolution along with the acknowledgement. If the grievance is not resolved within three working days, then the insurer shall resolve it within two weeks of receipt of the complaint and send a final letter of resolution.
If the insurer is not able to resolve the grievance within two weeks but instead sends a response that redresses or rejects the complaint, then it should provide sufficient reasons for it and also should inform the complainant about how he can pursue it further in case he is dissatisfied with the response. The insurer shall also inform in his response that the complaint can be considered closed if the complainant doesn’t reply within eight weeks of receiving the response.

Any failure to follow the above guidelines and turnaround time by the insurer can result in penalties by the regulator. A grievance shall be considered closed in following situations:

i) the request of the complainant has been acceded fully by the insurance company,

ii) the complainant has accepted in writing the response given by the insurer,

iii) the complainant fails to reply within eight weeks of receiving the response from the insurer, and

iv) the grievance redressal officer certifies that the company has discharged its contractual, statutory and regulatory obligations related to the case and closes the complaint.

The guideline also mentions that every insurer shall implement such software that automates the grievance receiving, redressal and disposal system; stores related data and prepares reports as required related to the redressal system from time to time. Also, the grievance redressal procedure shall be made available to the public through the insurers website, office, documents etc.

IRDAI has also launched an Integrated Grievance Management System (IGMS), which is a kind of grievance redressal monitoring tool for the regulator. A complainant should register his complain in this system. It automatically categorises the complaint in appropriate category as per the pre-specified rules. It generates triggers for the stakeholders of the grievance redressal workflow related to that complaint. It follows the set procedure of the insurer and generates
alerts according to the turnaround time specified in the redressal process. The system is a kind of workflow automation that automatically triggers actions as per the specified rules and captures data related to the progress of the work. IGMS also enable generation of reports related to grievance redressal based on various criteria like status, nature of complaint, ageing, or such parameters that are defined in the system. Thus, it creates a centralized repository of grievance related data of all insurers, provides a standard platform to all insurers to resolve policyholder’s grievances and also works as a control and monitoring tool for IRDAI.

Also, the Government of India has created an insurance ombudsman scheme for individual policyholders to get their complaints settled out of court in efficient, cost-effective and impartial way. At present, there are 17 insurance ombudsmen located in different parts of the country. An individual can submit his grievance in writing to the ombudsman of the area under which the branch of the insurer related to the complaint lies or the complainant residence location lies. He can do this in person or through his representative. An individual can approach ombudsman if he has already approached the insurance company and his complaint was either rejected, or not resolved to the satisfaction, or not responded to it at all for 30 days. Also, the policy should have been taken as an individual and the claim amount including claimed expenses should not exceed Rupees thirty lakhs.

Complaint to the ombudsman can be related to delay in settlement of claim beyond the turnaround time, dispute related to premium amount, dispute related to terms and conditions in the policy, non-issuance of policy even after receiving the premium or any violation of rules from the insurer side.

Ombudsman acts as a mediator and recommends based on the facts related to the dispute. If the recommendations are acceptable as full and final settlement by the insured, then the insurer is informed accordingly and they should comply with the terms within 15 days. If a final
settlement is not reached through recommendations, then the ombudsman will pass an award within 3 months of receiving all the requirements from the complainant. The award passed by the ombudsman is binding on the insurance company. They shall comply with the award within 30 days and inform the ombudsman about the compliance.

Thus, there is a strong grievance redressal mechanism to protect the valid interest of the customers and they can have full faith on the system as the redressal process is quite transparent and is monitored through the IGMS. Also, there is another level of ombudsman where individual policyholders can get their grievance addressed if they are not satisfied with the settlement at the insurers level.

1.1.7 Role of Data Analytics

Role of data analytics cannot be overemphasized in insurance services. An insurance organization performs various activities that are typical to them. Though, they too have the functions like HR, Legal, Finance, Logistics, IT etc. which are common to most of the business or service organizations. Data analysis plays important role in all such functions.

Insurance operations typically involve underwriting risk, design of insurance products, insurance policy administration, claims processing, distribution channel management and various legal and compliance related functions. The conventional data analysis techniques that are used in preparing Management Information System (MIS) reports are anyway needed in these functions. In addition to these, various statistical distributions, multidimensional analysis, probability concepts and some advanced analytic functions too have regular usage in the insurance functions. Data mining techniques that are capable of reaching up to the hidden valuable patterns in the data and making them available to the planners and decision-makers
have gained tremendous importance in recent years due to their capabilities and advancements in computing technology.

Underwriting risk involves identifying the risks, evaluating them, deciding about risk coverage, sum assured, premium amount to be charged and various conditions like inclusion, exclusion, excess etc. Risk is measured in terms of probability. For example, for designing a health insurance product, one may require to estimate the probability of various diseases happening to get the probability of claim. If the probability is very high, such coverages may not be included in the product. If the probability is very low, it may not be attractive enough for the customers. With the probability of a policy becoming a claim policy or not a claim policy, the situation is best described by Binomial distribution. This distribution is used to find the probability of different numbers of claim policies happening during the year. The claim amount in various claims follows Normal distribution. To get idea about the likelihood of various number of claims arising in a time period of interest, Poisson distribution is quite helpful. So, number of claims, distribution of claim amounts etc. are represented by various statistical distributions. While taking decisions related to covering certain risks and the conditions under which to cover them, the probability of their happening, the sensitivity of probability with respect to changes at that stage and the distribution of severity etc. are given high weight. Also, data analytic techniques like sorting, frequency count, multidimensional analysis etc. are applied on the past data to get fair idea about the performance of product.

Insurance policy administration is related to issuing the policy, renewal of policy, making changes in the policy data as and when it is required and preparing various MIS reports for internal and compliance relate matters. Insurance companies do various analysis on policy related data that include area wise, insurance type wise, office wise, agent wise, premium amount range wise, age of the policyholder wise or any such parameter or combination of parameters wise number of policies, total premium, etc. This again, is a kind of
multidimensional analysis where the data analytics techniques play important role. These reports provide good idea to the managers about the performance of area or office or person or type of insurance etc. during certain period and help them in identifying the areas to focus or attend.

Data analytics techniques applied on claims processing data are helpful in identifying the top reasons of claims denial. Since the reasons of claim denial are anyway captured, one can count the frequency of various reasons of claim denial and get the top reasons by sorting the data in descending order of the frequency. This can further be used to make public aware about the top reasons of claim denial before purchase of policy so that necessary care is taken to reduce the frequency of claim denials. This can also help in reducing the number of grievances. Analysis of service time distribution of various components of claim processing can also be used in finetuning the turnaround time for various activities and also capacity planning of service resources. Service time distribution usually follows exponential distribution hence the analytic functions related to these statistical distributions like Binomial, Normal, Poisson and Exponential play important role in such analytic applications in insurance services. Claims related reports are also required for compliance purpose. Frequency of claims in various insurance segments and the claim amount distributions are two very important analysis that are used to plan the reserve for the claims settlement purpose.

Distribution channel management is another important activity in insurance operations that is at the front of the operation and requires careful selection of appropriate channel for different types of insurance business and insurance customers. Analysis of data related to effectiveness of various channels in improving awareness among people about insurance, generating leads, converting the leads to business, maintaining relationship, expanding the reach etc. provides important idea about what distribution channel should be strengthen or closed or expanded etc.
Data analysis techniques are also used to analyse the growth or fall of insurance business in various terms like total premium, number of policies, number of claims, total claim amount, profit, etc. area wise, company wise, insurance type wise or any other parameter wise over time. Various key performance indicators (KPI) are identified and their values are computed using analytical techniques to monitor the overall health of the insurance business.

In addition to data analysis techniques, data mining techniques too are now gaining their usage in insurance business. They are quite powerful techniques but require extremely high intensity of computation. Their applications in business have now become feasible because of affordable cost of computation. The three techniques of data mining like clustering, classification and association mining are quite useful in finding valuable knowledge from the data and applying them in making the insurance service more effective and useful for the society. Mining association rules are useful in product improvement, generating insurance leads and better understanding of customer behaviour. Clustering is used in identifying if any cluster of various entities exists based on some parameter of similarity. If so, then these clusters are formed using the data and are used in various purposes like market clustering, product targeting, launching various campaigns etc. Classification is another data mining techniques that classifies the entities based on a set of classification rules. This can be used to classify customers, agents, offices, products etc. based on suitable criteria. Classification of customers are used in customer relationship management (CRM), classification of agents is used in agent management and so on.

Insurance service is a data hungry service. Since, it serves every segment of society and is a major method of risk management of various kinds of risks, it can use data related to anything for improving its service. Converting these data to information and then to knowledge is done by the data analysis and data mining techniques. These techniques are quite powerful and depending on the vision and innovative approach of the users they can be used to create
important advantages in the services. Data mining are used in business intelligence. They can be used in insurance service to build intelligent services, self-adaptive and learning processes, fraud detection and prevention and overall intelligent risk management.

1.2 Objective of this research

Insurance penetration and insurance density in India is quite low compared to its neighbour countries and most of the developing countries. Insurance gap in terms of insurance required and sum assured too is quite high for individuals and societies. Advancement in technology and their use in day-to-day life is exposing people to new risks. Based on such observations during review of literature, this research has been undertaken with following main objectives:

1. To understand the process of insurance need determination at the insurers and insurance seekers levels. Insurance is one of the most common way of risk management for individuals, societies and corporates. Effectiveness of risk management depends heavily on how well the risks are identified, determined and insurance solutions found.

2. To understand the expectations of insured or insurance seekers from the insurers. Risk management is not about paying insurance premium amount for some insurance policies and getting the claim when risk happens. It has some other important aspects like taking measures to minimize the risks, minimizing the exposure and severity of damage if risk happens, conducting periodic risk audits, increasing awareness etc. This research work has an objective to look into the kind of role insurance seekers expect the insurers to play in their risk management.

3. The scope and role of insurance service can be so vast that it may be necessary to explore various possibilities in different functions related to risk management. Data Mining techniques are equipped to reach deep into the data and evaluate every possibility that are supported by
the data. This research work has an objective to apply data mining technique to explore through all the strong associations between various aspects of risk management while maintaining the focus on the insurance need determination and expectation of insurance seekers from the insurers.

Insurance service has a very long and rich history in the world. It is something that comes as a big help and relief during bad times. In a country like India, huge damage happens to crop, property, life and infrastructure every year due to calamities like cyclone, flood, drought, earthquake etc. Additionally, there are risks of accidents, riots, terrorism, cyber attack etc. that have potential to disturb the normalcy. These risks do damage at the mass level. Individually too, people are exposed to various risks related to life, health, property and others that can adversely affect individuals and their families. It is practically impossible for individuals or masses to recover from such setbacks and get back to normal on their own.

For every society, in all ages, this has remained a challenge to handle the calamities and recover back to normalcy. Getting financial support during recovery period helps a lot. Insurance service plays a very important role in this. In a way, disaster recovery is a mass responsibility and to bring a sense of mass responsibility towards risk management various policies have been implemented from time to time. In India, there are few insurances that are mandatory. For example, one has to compulsorily take third party motor insurance to possess and drive a car. In several countries, health insurance to certain level is compulsory.

Natural calamities keep happening and most of them are unavoidable. They bring huge losses to life and property. Government and various bodies provide lots of relief work and compensation to bring life close to normalcy. Government of India keeps coming with various programmes to manage such situations better. Many of such programmes are related to insurance. Programmes like Rashtriya Swasthya Bima Yojana (RSBY), Employment State
Insurance Scheme (ESIC), Central Government Health Scheme (CGHS), Aam Aadami Bima Yojana (AABY) and many other similar schemes by Government of India, State Governments or various bodies aim to provide some financial cushion against adverse situations an individual can face.

There are various Group Insurance Schemes, accident insurance coverage, liability insurance coverage etc. provided by employers to their employees. Banks have inbuilt different insurance features with their banking products for their clients. Various retailers have tied-up with insurance service providers to extend the risk coverage against few perils like theft, burglary etc. to the customers post sales. Airlines, railways and various transport service providers too tie-up with insurers to get different risk covers for their customers by charging very nominal amount for premium.

Government of India has taken several such steps that are aimed at encouraging people to make insurance a part of their risk management practices. Making some kind of insurance mandatory, providing tax relief on life insurance premium, providing incentives to go for health insurance, making policies for employers to share certain part of health insurance premium of employees and similar such policies are example of that.

There are various steps taken by insurance service providers to increase the insurance awareness among public. But in spite of all the efforts, the insurance penetration in India in terms of percent of GDP in insurance premium is one of the lowest among the developing countries in the world. Individuals choose insurance for tax saving purpose or if it is mandatory or if the chance of claim happening is high. Incurred claim ratio in most of the non-life insurance business is consistently remaining more than 70%. In health insurance it has been above 95% in all the previous 3 years.
There have been quite a few measures taken by Government of India and State Governments for financial inclusion of the masses and to reach to the unreached. But various studies show that people are still underinsured. This indicates that there may be some critical differences in understanding related to insurance needs among the insured, insurers and policy makers. Hence, the first objective of this study was to know about the insurance need understanding of the insured as well as the insurers. To understand the likely gap between what the insurance service needs assessment process should be and what it actually is.

According to published information on the website of Insurance Regulatory and Development Authority of India, there were 109 non-life insurance products offered by various non-life insurance companies in India during the financial year 2014-15. Similarly, 25 life insurance products were offered during the financial year 2014-15 by various life insurance companies. The number of health insurance products during the same period was 66.

While so many products were on offer, the incurred claim ratio in insurance sectors like Fire, Marine, Motor, Health, others and total (all segments) were 74.47, 72.05, 81.18, 98.43, 75.94 and 85.05 respectively in the financial year 2015-16. The incurred claim ratio is the ratio of total claim paid and the total premium collected in the same financial year presented as percent.

Insurance is an integral part of risk management practices. Some of the main approaches in risk management are – taking steps to reduce the probability of peril, taking steps to minimize the likely loss in case of peril, risk transfer through appropriate risk coverages etc. Hence, another objective in this research work was to look into the expectations and possibilities of Insurance service becoming complete risk management service.
1.3 Hypothesis in this research

This research work has mainly two objectives related to the insurance service. First one is to know about the Insurance need understanding by the Insured as well as by the Insurer. To understand the likely gap between what the Insurance service needs assessment process should be and what it actually is. The second main objective is to look into the expectations and possibilities of Insurance service as becoming complete risk management service.

To meet the set objectives in this study, following hypothesis were identified to be tested:

1. Insurers helping the likely customers (Corporate and individuals) in determining their Insurance needs can improve customer's satisfaction from the Insurance service.

2. Insurance seekers expect Insurance service to become a complete risk management service.

In the review of literature, it was observed that insurance penetration in India is quite low compared to most of the developing and neighbouring countries. Individuals are inappropriately insured in terms of the type of insurance and the sum assured. Corporate houses too have somewhat fixed pattern of insurance. Some of them may even expect to get more claim amount than the premium amount they pay for insurance, though it may involve unethical practices.

Customer satisfaction depends on few factors. One of the most important such factor is related to the customers’ expectations from the insurance services. But expectations should be realistic. In the present information age, people get information from multiple sources. Wrong information often become viral in social media and spreads quickly. Finding a right source of information to understand the risks involved in the life and profession, role of insurance in risk management, insurance practices, considerations for identifying insurance needs, expectations
related to claim amount that can be payable etc. is most of the times difficult. Quite often, people depend on wrong information coming from wrong sources because they may look attractive and they want to believe on that. In this process, the needs may get wrongly assessed to keep the plan attractive, expectations may get raised to somewhat unrealistic level, insurers or the members of distribution channel may get some good business but the customers may not get any significant value addition in terms of risk mitigation or coverage. Hence, the first hypothesis is based on the role of the insurance service provider in determining the insurance needs of the likely customers and its impact on overall satisfactions of the customers from the insurance service.

Risk management is a holistic process. In this, risks are identified and their chances are measured in terms of probability of their happening. It requires identification of various factors that can lead to the risks and assessing their level of presence in the system. Quantification of probability of some risk happening is one important part of risk management but this only measures the risk. Management part still remains left. For this purpose, looking into the sensitivity of probability or risk with respect to the changes in factors affecting the probability is quite helpful. If risk is to be managed, the probability needs to be managed appropriately. Probability gets managed by managing the factors that affects the probability of risk happening. The rate of change in probability of risk happening with respect to the changes in the contributing factors is not uniform throughout. Somewhere it is high whereas somewhere it is quite low. High rate of change means high sensitivity and similarly the low rate of change of probability with respect to changes in associated factors indicate insensitivity of the probability. It is harder to find risk management measures if the sensitivity of probability is low. In the case of high sensitivity, it is much easier to identify the measures that can be taken to reduce the probability of risk happening significantly.
The second hypothesis in this research was related to the expectation of customers from the insurance service providers related to becoming complete risk management service provider. Risk mitigation of the risks at the customer level is taken care through the insurance. But mitigating the risk may not be the most preferred way to handle the impact of risk. Reducing the probability of risk happening by taking proper risk management measures is of interest and benefit of both, the insured as well as the insurers. So, by testing this hypothesis that the insurance seekers expect Insurance service to provide a complete risk management service, this research tried to understand the expectations of customers in risk management area.

There may be different agencies that can provide important risk management services related to reducing the risks in terms of their probability of happening and the severity of impact if they happen. For example, Fire Brigade or Fire services can provide important solutions to reduce the probability of fire. They can also suggest measures to prevent spreading of fire if it happens. And, there can be such measures that minimize the damage even when fire spreads. Similarly, there are measures that can be taken to minimize the severity of loss due to earthquake. In motors, there are provisions of various safety devices that help in safe driving or parking and protection against theft etc. For the health insurance purpose, there can be various steps to reduce the probability of diseases happening or spreading. And with certain care the health expenses can be kept under control. Thus, for every peril, there are ways to minimize the probability of their happenings and also there are ways to minimize the severity of loss or damage if they happen. These are specialized knowledge related to management of various risks and there are agencies specialized in these areas. There are disaster recovery and management departments specialized in managing various disasters and recovery from them. These knowledges are used by insurance service providers as well. Some of the insurers give high weight to the risk management measures taken by their likely clients to decide about the coverages to be provided and the associated terms and conditions. They build such expertise
internally and hence, there is possibility of them becoming an effective partner in risk management. Hence, the second hypothesis of this research was to test the insurance seekers expectations related to risk management from the insurers.

1.4 Relevance of this research

This research is quite relevant and timely considering various financial inclusion drives initiated by the Government of India and State Governments of different states in recent past. Opening of Jan Dhan accounts with an objective to have bank accounts for all the eligible residents of the country; massive drive for Aadhar cards and linking the Aadhar number with bank accounts; direct transfer of benefits to bank accounts of beneficiaries; various Government supported insurance plans related to health insurance, agriculture insurance, train travel insurance, etc.; major drives and incentives for digital transactions; opening of capsule offices, mobile offices etc. with the use of handy technology and connectivity; reaching to unreached schemes etc. are some of the major initiatives of the recent past to strengthen financial inclusion in the country.

Success of any such initiative depends largely on how well it is implemented and how well it meets the requirements and expectations of the masses. This research work touches on the requirements and expectations part of insurance services which is an important component of financial inclusion. Low insurance penetration in the country indicates about gaps related to insurance awareness, insurance services, risk management, people perceived value addition through insurance etc. Some of the key factors that affect the satisfaction of customers from any service are – quality of the service, post-sales support, value for money, need fulfilment, reputation of the service provider, ease of process and few customer’s traits. Since, the key objectives of the research are to understand gaps in insurance needs understanding and the
people expectations related to risk management from insurance services, this research is quite timely to touch upon the customer’s satisfaction aspect of services.

The soothing impact of insurance services is most felt in the time of crisis or adversities. It is an important risk management tool for any economy. But, the appropriate measures related to risk management and insurance are to be taken in the normal period in proactive way. Insurance related decisions are futuristic in nature. One has to understand about the likely risks in the future, their probabilities of happening and severity, and plan about risk mitigation actions in advance. Insurance service is of no use to those who face the same peril but has not proper insurance coverage for that. Hence, the objectives of this research and formulated hypothesis in line with the objectives are quite relevant in the present context.

Customers behaviour is influenced by several factors. Since these factors keep changing, the behaviour too keep changing. For example, customers claiming against loss due to motor accident were earlier following the claim settlement process of the insurance company and were dependent on insurance office visits to know about the progress in the case. Now, they follow the process in which majority of the information they get through the website or SMS alert. Their behaviour changes if they don’t get the expected SMS alert intimating the progress in their case in time. The need of the customers, their culture, their methods of meeting their needs, their expectations from the systems that are used to fulfil their needs, their perceptions about the performance of the systems towards meeting their expectations, etc. affect the behaviour of the customers. Last two decades have witnessed rapid advancement in technology, rapid growth in number of insurance service providers, drastic changes in work environment and culture, complex competition and accordingly a complex finance and risk management system. This research work gains extra relevance in present situation as it was investigating into the needs and expectations aspect of people from a very important financial service.
Global warming and environment pollution has resulted in many natural calamities in recent past. The rate at which calamities like earthquake, tsunami, flood, cyclone, landslide etc. are causing damage to life and property has been quite significant. They disrupt the life and economy of the country. Government, voluntary organizations and public has to spend huge amount of money and time to come out from the disasters and progress towards further rehabilitation. Government of India has been evaluating various options including compulsory insurance, Government financed insurance etc. to make the process of recovery faster. There has been rapid growth in distribution channel of insurance services in recent past. Brokers, Bank assurance, agents, various intermediaries, third party service providers etc. are some of the channels that have shown their mark in recent past. Most of the natural calamities are considered to be resulting due to destructive man-made growth that are unfriendly to the ecosystem and unsustainable. Though, the awareness has increased in recent past and lots of efforts are being put in the area of sustainable growth but still the reversal of the damages done to the ecosystem has not yet started. This makes the study of expectations related to risk management from the insurance services very relevant and timely.

There has been fast emergence of some new risks that have the potential to cause severe damages. For example, terrorism and cyber risk. Innocent people with healthy life style and no fault of theirs can become victim of such risks. One cyber risk incidence can affect people and systems present at different locations at the same time. These can be executed from remote locations at multiple targets. Such risks are different than the conventional risks people were aware of for quite long. Even in case of conventional risks like health risk, the kind of diseases, the methods of treating them and the associated expenses have changed drastically in recent past. Individuals and corporate houses are looking for risk mitigation solutions to the new risks. Insurance service providers have to play a major role in this. This too makes this research related to risk management in insurance services quite relevant.