Appendix A

Questionnaire A

Insured/ Insurance Seeker (Corporate)

This questionnaire has only ten questions. It doesn't require referring to data or reports. Responses will be used for academic purposes only.

Organization's Business Area ----------------------

1. What types of Insurance coverage your organization has? (can select more than one)
   a) Own physical losses due to various perils
   b) Others physical losses due to some act of your organization
   c) Employee Insurance (Health/ Life etc.)
   d) Director and Officers Liability

2. What is the most important reason of opting for Insurance? (Select one)
   a) In case of any disaster, Insurance will help in getting back to normal
   b) Getting Insured improves the credential of the organization
   c) It is mandatory, we have no choice
   d) Insurance will help in minimizing the chances of disaster and loss due to that

3. While choosing an Insurance option, how much weightage you give to following factors? (Against each factor write any number between 1 and 5, I being very low and 5 being very high)
   a) Reputation of the Insurer in Claim management
   b) Their value addition in risk management
   c) Their underwriting approach
   d) Representative from the Insurer

4. Are following documents asked for during underwriting? (Write Y for yes and N for No against below options)
   a) Documents related to Organizations establishment
   b) Documents related to organizations financial condition
   c) Documents related to operations, planning etc.
   d) Proposal form

5. Whom do you depend on for suggestions about the steps for minimizing chance of any peril and loss due to that? (Select one)
   a) Our internal resources
   b) Insurance partners (Insurers)
   c) External departments/ agencies dealing with these perils

6. In your opinion what is the purpose of filling the proposal form? (Select one)
   a) Provide required information for risk assessment
   b) It is a legal initial document
   c) It is expression of interest in getting insured

7. Are you made aware about some of the top reasons of Claim Denial? (Rate it on 1 to 5 scale. One being low and 5 being high)

8. Do you think that there should be some mode of premium payment other than money? (Select one)

   a) Oh sure
   b) May be
   c) Probably not
   d) No

9. What are the good qualities of an Insurer? (Rank these options from 1 to 5. 5 being the best and 1 being the least good among the given options)
   a) Timely and proper claim settlement
   b) Helping in understanding risk
   c) Customer friendly underwriting
   d) Transparency
   e) Simple proposal form

10. What characteristics are detrimental to the quality of an Insurer? (Rank these options from 1 to 4. 4 being most detrimental and 1 being least among the given characteristics)
    a) Lengthy proposal form
    b) Complex policy document
    c) Rigid underwriting
    d) Lack of understanding of organization specific risks

Appendix B

Questionnaire B

Insured/ Insurance Seeker (Individual)

This questionnaire has only ten questions. It doesn't require referring to data or reports. Responses will be used for academic purposes only.

Profession ----------------------

1. What types of Insurance coverage you have? (can select more than one)
   - e) Own physical losses due to various perils
   - f) Others physical losses due to you
   - g) As the need be like travel/ marine
   - h) Health/ Life

2. How did you know about your Insurance requirements? (Select most appropriate one)
   - a) From friends and relatives
   - b) From insurance companies
   - c) From my employer
   - d) Self understanding

3. While selecting an insurance option, what would you prefer?
   - a) An Insurance product/ Comprehensive coverage product
   - b) A basic insurance with provision of add-ons

4. Do you know the top few reasons of claims denial? Yes/ No

5. Information asked in various forms/ documents related to Insurance are
   - a) Appropriate
   - b) Too lengthy
   - c) Short

6: You will like to go for Insurance as (Select one)
   - a) An investment tool
   - b) A risk management tool
   - c) For tax saving
   - d) For helping others

7: You feel the need of insurance most when
   - a) You travel abroad
   - b) You need major medical attention

    c) You feel certain type of risk more such as earthquake, flood etc.
    d) Moving household items in transfer/ relocation

8: How can the frequency of claim denial be minimized? (Can select more than one)
    a) Listing top reasons of denial in its documents
    b) Relaxing the conditions
    c) Listing top reasons of denial at important places like Hospitals etc.
    d) Need not be minimized

9: While choosing an Insurance option, how much weightage you give to following factors? (For each factor assign a value from 1 to 5, 1 being very low and 5 being very high)
    a) Reputation of the Insurer in Claim management
    b) Premium to be paid
    c) Customized service design
    d) Representative from the Insurer

10: Do you think that there should be some mode of premium payment other than money? (Select one)

 a) Oh sure
    b) May be
    c) Probably not
    d) No

Appendix C

Questionnaire C

Insurer/ Insurance Professionals

This questionnaire has only ten questions. It doesn't require referring to data or reports. Responses will be used for academic purposes only.

1. What documents/ information you use in underwriting risk? (Score 1-5). Extent of use increasing from 1 as low to 5 as high.
   a) Proposal form
   b) Underwriting guidelines
   c) Operational documents of customers
   d) Past experience
   e) Published information in magazines/ journals

2. Information Technology is being extensively used in your organization for (score 1-5, Extent of use increasing from 1 as low to 5 as high)
   a) Automating operational activities
   b) Report generation
   c) Data analysis
   d) Communication
   e) Underwriting and product design

3. Is there any change in underwriting practices post IT implementation in last 2 years? (1-4) 1 means low and 4 means high.

4. Is there any change in data analysis and reporting practices post IT implementation in last 2 years? Rate it between 1 and 4. 1 means low and 4 means high.

5. Is there any change in operational systems like policy administration, claims handling etc. post IT implementation in last 2 years? Rate it between 1 and 4. 1 means low and 4 means high.

6. In designing Insurance products, rate the use of following on a scale of 1 to 4. 1 means low and 4 means high.
   a) Scientific techniques
   b) Past knowledge and experience
   c) Use of internal data
   d) Use of external data

7. In underwriting risks, rate the use of following on a scale of 1 to 4. 1 means low and 4 means high.
   a) Analytical techniques

      b) Past knowledge and experience
      c) Negotiation
      d) Pre set guidelines

8. Your opinion about adequacy of data asked in the proposal form. (Opt one of the given options)
      a) Should be shortened
      b) Is appropriate
      c) Is inadequate. More should be asked

9. Do you make your customers aware of top reasons of claims denial before entering into Insurance contract? Yes/ No.

10. What steps are taken to reduce the percentage of denied claims? (Select one)
      a) Relax the conditions
      b) Improve customers awareness
      c) We normally try to deny the claim if possible
      d) It is a normal process, nothing worth mentioning done in this regard.

Appendix D

Synopsis of The Research

"A Critical Study of Risk Management in Insurance Sector in India"

A synopsis presented to Jharkhand Rai University

in the partial fulfillment of the thesis requirement for the degree of

Doctor of Philosophy in Management

Under the Supervision of

Dr. Amar Nath Jha

By

Girijesh Pathak

Jharkhand Rai University, Ranchi

August, 2014.

Introduction

Insurance is one of such services, which extends its scope to every section of the society. From richest to poorest, from big corporate to small individual entrepreneur, from space research to agriculture — take any walk of life, insurance adds lots of value to it by helping in managing the risk. Formulating strategy for different segments of society and for different risk management needs involves lots of data acquisition, automation of workflow and intelligent analytics. This research activity is a part of broader work that aims at developing a strategy model for Insurance service in India and experiment with that to build intelligent features for strategy formulation. This research work will look into the gap related to understanding and meeting the Insurance needs and also the role of Insurance companies as complete risk partners. This research work requires proper understanding of insurance needs, insurance management practices in India and business intelligence techniques so that an effective model for strategic Insurance management can be built meeting the objectives of this work.

Statement of Problem

Insurance service in India is mostly based on the concept of charging premium amounts to cover certain risks and pay claims in case the risky incidence being covered actually happens. There are various practices to underwrite the risks, evaluate the loss and compute the claim amount payable. But still, issues of underinsured and over insured need to be handled more carefully. Similarly, Insurance services need not remain confined to premium collection and claim payment. Insurance can add value as complete risk management partner. Further, there has been significant advancement in use of analytical techniques in recent past due to rapid progress in affordable computational capabilities. The conventional Statistical Techniques related to hypothesis testing in common research works are useful in testing pre-stated hypothesis based on data collected for this purpose.The same data can be further mined to get more valuable and hidden patterns. Thus some of the latest data mining techniques can be used in this research work.

Review of Literature

The Indian Insurance Industry offer Insurance service to individuals and corporate clients under two broad categories – Life Insurance and Non-life Insurance. There are twenty four Insurance organizations offering Life Insurance services including the public sector Insurance company 'Life Insurance Corporation of India". Similarly there are twenty eight Non-life insurance companies including the public sector companies. Life Insurance Companies provide insurance services to cover life and health of insured by offering various policies with different terms and conditions and coverage. Some of such policies are – Accidental death and dismemberment insurance, Dental insurance, Disability insurance, Term life insurance etc. These insurance products can focus fully on insurance or may combine insurance and investment both. Premium in pure insurance products are generally lesser than insurance investment products.

Similarly, Non-life insurance companies have various insurance products such as – Business insurance, Residential insurance, Transport/ communication insurance etc. Bond insurance, Protection and indemnity insurance, Directors and officers liability insurance, professional liability insurance etc are some of the policies related to Business insurance. Property insurance, Lenders mortgage insurance, Project insurance, Flood insurance, Earthquake insurance, Home insurance, Title insurance etc are some of the residential insurance products. Motor insurance, Marine insurance, Aviation insurance, Travel insurance, Satellite insurance etc are examples of Transport/ communication insurance. In spite of this, the Insurance penetration measured in terms of ratio of premium to GDP is going down and is just about 4%. Financial inclusion of masses and reaching to the unreached are major challenges for the Insurance organizations.

Objectives of the Study

First objective of this study 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.

Significance of the Research

Insurance industry in India is passing through a highly dynamic phase because of emergence of new areas for Insurance and opening up of insurance market in many ways. This research is very timely and has high significance as it can provide some important lead in making the Insurance service more complete for the Insurance service seekers. This research also intends to use data mining technique and expect to get some hidden valuable pattern in addition to testing the hypothesis.

Hypothesis of the Study

To meet the set objectives in this study, following hypothesis are 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.

Research Methodology

In this research work, we plan to use few concepts that are relatively new and are capable of finding hidden valuable patterns from the data. This will enable us to go beyond hypothesis testing and see some more values in the data if they exist. A brief information about these techniques is given below.

Statistical hypothesis tests are good at testing a Null Hypothesis and help in accepting or rejecting the hypothesis. However, the data may have some more valuable hidden patterns that can be found out using data mining techniques. It is proposed to use A priori Algorithm for mining Association Rules that can find strong association between two behaviors based on data. It is expected that the hypothesis of this research work will emerge as strong association. A Priori Algorithm evaluates all possible patterns for the desired strength. The number of

possible patterns increases exponentially and can become unmanageable if the number of data items is not kept low. Hence Ten Questions Questionnaires (TQQ) will be designed and used to collect the data. TQQ are questionnaires with 10 questions only. It offers many advantages such as; helps in maintaining the focus, respondent can respond with greater accuracy as the time required is less, chances of getting response is high, makes application of advanced techniques feasible with existing computer facilities etc. Different TQQ will be used to collect data from Retail Insurance seekers, Corporate Insurance seekers and Insurers. This research is focused around understanding of Insurance needs and the practices followed by Insurers towards risk management. Hence, the design of questionnaires will be based on information collected through interviewing sufficient numbers of Insurers and Insured. Alternatively, we can also use nonparametric statistical tests to test the hypothesis as the data to be collected in this research will mostly have outliers and limits of detection.

Tentative Chapterization of Research Work

The Thesis is likely to have following Chapters:

Chapter 1: Introduction

Chapter 2: Review of Literature

Chapter 3: Research Methodology

Chapter 4: Questionnaires and Data Mining Parameters

Chapter 5: Results and Conclusions

Chapter 6: Scope for Further Work

Chapter 7: Bibliography

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