

MOTOR VEHICLE LOSS AND DAMAGE CLAIM

Mentor name: Prof. Anand D.G. Donald

Candidate name: Punam P. Deogade, Prerna D. Parkhi, Samruddhi M. Thawari, Darshana D. Mankar

Department of Computer Technology Rajiv Gandhi College of Engineering Research and Technology, Chandrapur.

Abstract : In India the insurance industry is in its growth stage. It consists of 58 insurance companies of which 24 in life and 34 are non-life insurance. The Non-life Insurance companies which cater to motor insurance business presently utilize different trend models to forecast paid claim amount. Motor Insurance Claim amount prediction is one of the most difficult tasks to accomplish in financial forecasting due to the complex nature of data points. The main objective of this study is to determine a reliable time series forecasting model to predict own damage (OD) claim amount of motor insurance data in India from 1981 to 2016.

Key-Words: Insurance, vehicles, motor insurance, policy, etc.

1. INTRODUCTION : In the past few years, the motor insurance sector in India has heavily suffered based on motor own damage claim from a commercial motor vehicle concerning the viability of the insurance companies and also due to promoters continuously infusing additional capital to maintain solvency. Also, the long-term claims intimation, the trend of courts in awarding more desirable reimbursement, non-cooperation of insured in declaring claim settlement and non-flexibility

of courts in claim dealing with, are some of the issues faced by the industry. Model evaluation and Forecasting the time series statistics is essential in fields like Insurance, Finance, and Agriculture, etc.

A claim under a motor insurance policy could be -

* For personal injury or property damage related to someone else. This person is called a third party in this context.

* For damage to your own, insured, vehicle. This is called an own damage claim and you are eligible for this if you are holding what is known as a package or a comprehensive policy.

Third Party Claim
In a third party claim, where your vehicle is involved, You need to ensure that the accident is reported immediately to the police as well as to the insurance company.

Own Damage Claim
In the event of an own damage claim, where your own vehicle is damaged due to an accident, you must immediately inform insurance company and police, wherever required, to enable them to depute a surveyor to assess the loss. Do not attempt to move the vehicle from the spot without informing the insurance company.

They may have to send a surveyor for on the spot checking.

Thereafter shift the vehicle to repair garage & another surveyor will inspect your vehicle. If your policy provides for cashless service, which means you do not have to pay out of your pocket for covered damages, the insurance company will pay the workshop directly.

Theft

If your vehicle is stolen, you must inform the police and the insurance company immediately. In addition you must keep the transport department also informed.

Claim

If your vehicle is stolen, you must inform the police and the insurance company immediately. In addition you must keep the transport department also informed.



Need for the Study:

In India Motor Insurance is made compulsory for all vehicles used whether for commercial or personal use. The driving attitude of motorist in India is still put to question with respect to the enormous motor risk they are exposed to. The risk cannot be averted but loss occurring due to certain risk can be distributed among the agreed person by averages of Insurance. As

per the study done by various researchers in the insurance sector, it is clear that study in the motor insurance is very limited. The areas like customer's awareness, perceptions and satisfaction towards motor insurance are not studied in depth it is the need of the hour to concentrate on such areas. It is also necessary to find out the perception of the policyholders towards motor vehicle insurance.

2. Objectives of the Study : The general objective of this study was to compare the prices and services of public and private insurers on the motor insurance practice in the public and some selected private companies and to assess its implication on customer satisfaction. The **specific objectives of this study are:** To assess the basic factors of competition between the private insurers and the public insurer, the Ethiopian Insurance Corporation. § To explore the factors those cause delay in claim handling and settlement in both the public and private insurers. § To compare the bureaucracies of the private and the public sectors under which the clients are expected to pass so that customer satisfaction can be judged from it.

3. Significance of the Study :

The study seeks to analyze the performance of motor insurance in public and private insurers and their effect on customer satisfaction. In this particular case, it was believed that the study would have the following specific significances. § It briefly explains the importance of motor insurance and enhances the knowledge of the customers. § It depicts the extent of customer satisfaction with existing motor insurance operational practices. § It reveals the effect of

centralization in prompt claim settlement and flexibility of premium discounts between the public and private companies. § It will be used as a lesson and creates opportunity for detail and subsequent research on the same area.

4. Literature Review : Literature Review
Nowadays, most people choose various insurance policies to protect themselves and their properties. Due to different reasons, people pursue for several insurance types according to variations available such as property, health, medical and car insurance. Car insurance is generally imposed by the authority for those who own and drive vehicles and was established in the early 1900s, and has been applied since then. It is now mandatory in most residences around the world. Also in Ethiopia, it is compulsory when buying a car with a loan to buy a comprehensive insurance which can compensate for potential loss or damage to the car as well as any damage incurred to others. In addition, most of the companies in the world today are using different marketing strategies to attract new clients and successfully differentiate from other competitors, and compete with rivals by raising their market shares and increasing profitability. They invest in marketing, sales, distribution, research and development, and other functional departments to meet customers' needs better. Some companies use defensive strategies to protect their current customers (Roberts and Lotayif , 2006) [5]. Although other marketing strategies are also beneficial, research demonstrates that defensive strategies can be more worthwhile because it brings higher profit for companies than strategies focusing on market share

expansion or cutting cost. Thus, companies within the insurance field such as other areas must pay particular attention to this matter to achieve long lasting relationships with customers and keep them. Customers are clearly more pleased with high quality service, and when a company gains the customers' satisfaction, profitability is ensured hence, assessing their relationship can be beneficial for the managements in the companies. Obviously, one of the basic sources of competitive advantage between companies to attract customers is the price of goods and services, in our insurance industry case, premium. However, unlike price, there are many quality issues which can be improved and stretched over time to attract customers by satisfying them. The service quality theory is considered one of the most debated subjects in service literature (Ooi, et al., 2011) [6] since it lacks agreement when it comes to describing and defining service quality (Gupta, et al., 2005) [7]. Service quality is a focused evaluation reflecting the customer's perception of specific service dimensions including reliability, responsiveness, assurance, empathy, and tangibility (Zeithaml & Bitner, 2003) [8]. Furthermore, Customer satisfaction is one of the main areas of interest in marketing, business and the academic world (Tikkanen & Alajoutsijau, 2002) [9]. In today's changing world, developed economies are becoming service oriented, meaning that customer impressions play a critical role in this field. A company delivers services to customers, while overall customer attitude towards the company is defined in the relationship between service quality and customer satisfaction. Different

research was done on the positive relationship between service quality and customer satisfaction. In other words, if service quality decreases quickly, customer satisfaction declines dramatically and if service quality grows radically, customer satisfaction rises rapidly too. Some researchers have tested the inspiration of service quality and customer satisfaction. An assessment model suggested by Shararehet al. (2012) [10] emphasizes on the relationship between perceived service quality, customer satisfaction and interest in purchasing. This research shows that customer satisfaction is an intervening variable of service quality and repurchases interest. In other words, service quality influences customer satisfaction, and customer satisfaction affects repurchase interest. In addition, Zeithaml et al., (1996) [11], documented that behavior trends demonstrate the effect of service quality on customer satisfaction.

5. Research Methodology:

5.1 Research Design -

Research Design is a process of steps used to gather and evaluate information in order to increase understanding on an essential topic. It consists of three steps, namely posing a question, collecting data to answer the question, and presenting an answer to the question (Creswell, 2009) [13]. The research design for the current study refers to a qualitative form. This research concentrates on the comparative analysis of public and private insurance companies, and uses descriptive research design. The study has employed descriptive research design so as to describe comparatively since it is a comparative study of

public and private insurers concerning their services which directly affects customer satisfaction. The study was conducted on Ethiopian Insurance Corporation and private insurance companies operating as branches in Mettu Town. Among the private insurance companies currently operating, three companies with relatively long years of rendering service were considered for the reason of having more clients. These are Awash Insurance Company, Nyala Insurance Company and Oromia Insurance Company.

5.2 Study Population and Sampling Technique -

The study population consisted two segments. The first segment consisted employees and management of the companies under study and the second segment consisted the customers of the companies. As the study focuses on motor insurance, in the first segment, all employees and management engaged in underwriting of motor insurance, handling motor claims and sales of motor insurance constituted the population of the study. There were 25 employees in Ethiopian Insurance Company; 10 employees in Awash Insurance Company; 8 employees in Oromia Insurance Company and 6 employees in Nyala Insurance Company. The total number of population of employees is therefore 49. Consequently, census method was used as their number is less and did not create difficulty on data collection, analysis and further in order to make the study complete. In addition to these, in the second segment, conveniently selected 40 clients (voluntary clients) that have motor insurance with these insurers were considered and made part of the sample. Convenience sampling was used for

this group of respondents because voluntary response was given priority.

5.3 Sources of Data -

The study is based on both primary and secondary data. The primary data was gathered by employing questionnaires and interview. Self-administered questionnaires were distributed to be answered by employees and clients as per requirement of the questions included in the questionnaires. In addition, interview was made with managers as supplementary. The goal of the study was to provide information primarily out of raw data. After data gathering was completed it has been edited to detect errors or omissions and cross checked to verify consistency with other respondents. Then the data was grouped based on their similarity for easy handling. Raw data was transformed into a format that is easy to understand and interpret. Calculations of average and percentage were made for the purpose of summarizing data. Finally the task of interpretation and a report describing the result has been done. The secondary data was used for establishing research backgrounds and collected from books, magazines, journal articles and the web.

6. Benefits of Insurance:

As per Motor Vehicle Act, a Third Party insurance is compulsory and you must purchase one whether you buy a new or a used vehicle. You may purchase a comprehensive cover as well.

The former type of insurance protects you against financial and legal liabilities towards a third party. On the other hand, A

comprehensive insurance policy provides cover to your vehicle against damage due to accident, fire, theft, cyclone, flood etc. Along with this cover, it covers any third party liability. Here are five major insurance benefits.

6.1 Damage or loss to insured vehicle : In case your vehicle is damaged due to an accident, fire, or self ignition, you are protected. Furthermore, if the vehicle suffers losses due to burglary or theft, strikes, riots, or terrorism, your insurance policy covers these. Another benefit of insurance is that it covers loss or damage while in transit by rail, inland waterways, air, road, or lift.

6.2 Personal accident cover: Another advantage of insurance is that it offers personal accident cover for a pre-determined amount. Personal Accident cover provides protection against permanent total disability, Death due to an accident. Furthermore, this cover can be taken for other passengers on unnamed basis (maximum as per the vehicle's seating capacity) for a pre-determined amount under the insurance policy.

6.3 Large network of garages : HDFC ERGO Car Insurance maintains a large network of garages across the country. This ensures you receive cashless services in all these locations, in case the need arises. This feature makes it convenient to avail of repair services in case of any damage to your vehicle.

6.4 Third party liabilities : If your is involved in an accident that results in damage or loss to the property of any third parties, it is covered under the insurance. Furthermore, if you face any legal liabilities in case of

any bodily injury or death of a third party, your insurance protects *you* against the same.

6.5 No claim bonus : One of the major advantages of having insurance is the no claim bonus (NCB). Customer is eligible for this benefit for every claim-free year. This may be available as a discount on the premium, which makes insurance even premium, which makes insurance even more affordable.

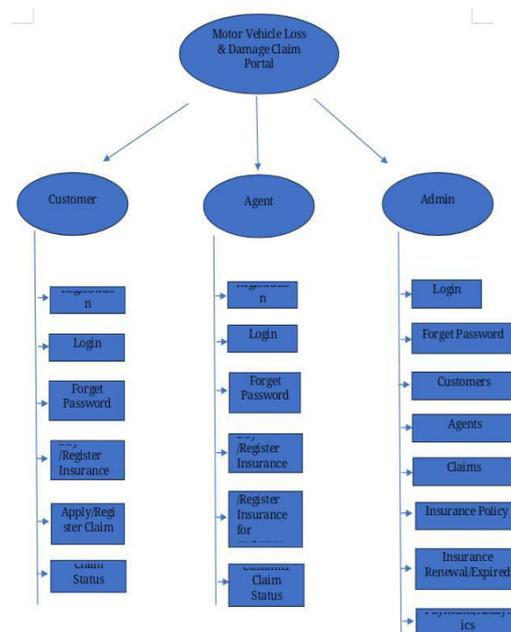
7. Modules Overview:

Vehicle insurance management system has many modules and sub-modules. Here’s a brief introduction to the main modules of this project:

- **Login Form:** Admins and customers can use their respective log in forms to log in to the system providing user id or security details such as username and password.
- **Existing Records:** All existing records in the system database can be viewed, modified, and deleted by the admin. Further, records of similar type can be added in respective corners of the system.
- **Motor Insurance Records:** This module contains vehicle insurance details that are provided by the user while purchasing the vehicle. The records here contains information regarding motor details, total years of insurance, amount paid, etc.
- **Motor Search:** Based on registration number, insurance number, vehicle

number, or customer details, the administrator can search for records previously stored in the database.

- **Motor Report:** With this module, a report containing insurance details can be generated in a file and sent to the customer in printed form.
- **Setting Module:** Basic system settings such as user id (username and password), layout, profiles, etc. can be changed by the admin.



8.conclusion and future scopes :

Effectiveness, efficiency, and reliability are the key aspects that make this web-based vehicle insurance management system very useful for vehicle insurance management . The proposed project is very flexible to handle new modules and features as per user requirements in future. It can also be integrated with other systems such as vehicle tracking system, vehicle information management system,

vehicle registration system, etc. This present study is aimed to apply a reliable forecasting model to predict the own damage claim amount in Motor Insurance Segment in Insurance companies of India. Due to the complex nature of data, uncertainty occurrence of the insurance claim, sustained economic growth and ongoing disputes over tariffs, forecasting the own damage claim amount accurately will be beneficial for the insurance .

9. References :

- [1] Modi, Manisha S. A comparative performance study of General Insurance Public Sector Companies of India, thesis PhD, Saurashtra University. 2011
- [2] GCA Dickson Risk and Insurance: The Chartered Insurance Institute, UK. 2001.
- [3] UNCTAD. Customer satisfaction for investment development; UNCTAD. 2008.
- [4] Birritu - Bi - monthly Bulletin published by the National Bank of Ethiopia (various years) EIC annual Reports (various years) 5. Roberts, Lotayif AM, Factors that affect the selection of defensive marketing strategies: evidence from the Egyptian banking sector. Journal of American Academy of Business, 2006; 4:152-158.
- [6] Ooi K, Abdul Rahman T, Lin BTBI, Yee-Loong CA. Are TQM practices supporting customer satisfaction and service quality? Journal of Services Marketing, 2011; 410- 419.
- [7] Gupta A, McDaniel J, Herath S, Quality management in service firms: sustaining structures of total quality service. Managing Service Quality. 2005; 15:389.
- [8] Zeithaml V, Bitner M, Services Marketing: Integrating Customer Focus across the Firm. 2003.
- [9] Tikkanen H. Alajoutsijau K. Customer Satisfaction in industrial market: opening of the concept. Journal of business and industrial marketing, Volume 2002; 17:25.
- [10] Sharareh, Mansouri Jajae, Fauziah Binti Sheikh Ahmad Evaluating the Relationship between Service Quality and Customer Satisfaction in the Australian Car Insurance Industry. 2012.
- [11] Zeithaml V, Bitner M, Services Marketing: Integrating Customer Focus across the Firm. 1996.
- [12] Bolton R, Drew J, Linking customer satisfaction to service operations and outcomes. Service Quality: New Directions in Theory and Practice. 1994, 173-200.
- [13] Creswell J. Educational research