

Detecting and Preventing Fraud in Insurance Claims by using Artificial Intelligence

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OPEN ACCESS

Volume: 13

Special Issue: 1

Month: March

Year: 2025

E-ISSN: 2582-6190

Citation:

Saravanakumar,
V. "Detecting and
Preventing Fraud in
Insurance Claims
by Using Artificial
Intelligence." *ComFin
Research*, vol. 13,
no. S1-i1, 2025,
pp. 161–65.

DOI:

[https://doi.org/10.34293/
commerce.v13iS1-i1-
Mar.8673](https://doi.org/10.34293/commerce.v13iS1-i1-Mar.8673)

Abstract

Insurance companies have been suffered financial losses as a result of fraudulent activities. People from Insurance industry believe that fraud exists anywhere and they are being discovered across lines of business. Fraud in insurance claim is a significant issue for insurance companies and it has gotten worse in recent years. Most of the people recognized that traditional fraud detection methods are not enough to detecting and preventing fraud claims in insurance. This paper explores the current trends in insurance sector particularly identifying fraudulent activities in claims and utilize artificial intelligence in found and protect of deceit claims. This paper highlight different kind fraud and its impacts on insurance companies and policy holder, traditional methods used to detect and prevent fraud claims and its problems and lack of capabilities associated with traditional methods, emergence of Artificial intelligence and its impacts in various sectors, emerging fraud detection method using artificial intelligence, capabilities of Artificial Intelligence based fraud detecting methods, benefits gained by using Artificial Intelligence based fraud detecting methods, future trends in insurance sector.

Keywords: Insurance, Fraud in Insurance Claims, IRDA, Artificial Intelligence, Fraud Detection Methods

Introduction

In our country, this industry has a inherent milestones. Its quite normal to passed various statements regarding this in our classical and well known classical books.

Among Indian industries this sector one of the pioneer field witnessing faster expansion. This positive enlargement of this sector insurance business can be endorsed to rising incomes and rising alertness in the business. Our country is the fifth major player in the world's rising markets, rising at a average 33% every year. In up to date years, the business has been recognising severe rivalry from other players and leads to develop new and customer oriented products.

Indian Industries faced dramatically changes after introducing New Economic Policy in 1993. Like wise Insurance industries also gained important development in this sector. Indian Insurance sector witnessed for positive faster growth in 2000 due to private players allowed in this sector. Initially Only 26% allowed for FDI, later it increased by 74%. Because of this historical initiative, private sector role in general insurance rose significantly. After this life Insurance Corporation of India face tough competition from private player like HDFC, ICICI and SBI in both life and non life products. Another important milestone moment in insurance sector is IPO of Life Insurance Corporation of India.

Market Size

Indian insurance sector has example an effective growth rate in the last twenty years influencing by the impressive non government sector involvement and an growth in efficient distribution, with considerable development in operational effectiveness.

In FY24, other then life insurance players premium income growing up by 20% year-over-year to because of increasing awareness about necessity of this products. Insurance Industry development in recent years induce by General Insurance.

As data received from Competent authority, Life insurers' new business premiums grew in last year

Life Insurance Corporation of India hold higher percentage first year premium then private sector. Other Then LIC , Major players like State Bank of India, played leading role.

Investments and Recent Developments

Indian insurance sector witnessed some important development in investment

- As data received from Competent authority, life insurers registered a improvement in acquiring new business and new business premium compared with last year.
- In the recent years, India's general insurance sector saw prominent growth, mainly influenced by health and motor insurance.
- In Years, CCI has approved some important mergers and acquisitions. These are
- Axis Bank Limited's and Max Life Insurance Company Limited.
- With in SLIH and SLIC

Insurance and Technology

- Robotic Process Automation (RPA) and AI will become a unavoidable player, driven by newer superior capabilities compared with traditional methods..
- Insurance Companies provide customer focused and time saving services in terms of automate policy servicing and claim management by using Bots.
- Most of insurance companies focused on technology based services which make convenient and customer friendly. Some of these are as following.
- Launches technology based applications to assist both customers and company.
- Partnership between ICICI Lombard and Airtel Payments bank

Fraudulent Claims in Indian Insurance Industry

In India, maximum percentage of insurance claims are genuine, and fraud claims make up around fifteen percentage in a year and this worth is about Rs 900 Crores..

Increase in number of fraud leads to insurance companies spend time and money to develop detecting fraud claims and preventing it. One Million fraudulent claims have been submitted in every year. But, very low percentage of claims has been investigated.

Kinds of Insurance Fraud

Staged Auto Accidents

Deceitful people or groups create motor accidents to use guiltless drivers and unethically obtain insurance Claims. The fraudulent create accidents with intention, then file overstated physical damage requisites, untrue assets hurt information submitted. Apart from monetary related issues common people also affected in various ways..

Overstated Claims

Policy holders occasionally paid their rightful amount that higher than what was really lost. Imaginary activities and overstated demands make burden for genuine customers.

Employees' Reimbursement Plan

Firms rarely not tell the truth about workers situation for escape from actual amount paid to insurers, leads suffered workers and genuine insurers in a unwanted situation. Some times employees develop fake accidents and damages.

Premium Distraction

It happens at the time of fake payment initiated by brokers. occurs when insurance agents make fake premium payments meant for insurance companies.

On behalf of making payment to insurance company, some corrupt agents collect money from policy holders and keep money themselves. When accidents and disasters are happens, policy holders do not have any legal right to get compensation for their loss.

Ghost Brokers

criminal agents create fake documents to the people who expecting reasonably priced coverage options. Ghost brokers use fake documents with well known and reputed companies logo and credentials. This people late recognize that their policy do not have legal right to claims for their loss.

Current Approaches in Fraud Detection

Enquiry by Employees

Peoples who are working for enquire doubtful incidents of scam. They collect information from peoples involved in the claim by interactions and material evidence. They may also visits to the place where the incidents happen. If they identifies issues, they initiate complete enquiry.

Criteria Check Method

This system go through the criteria for making payment . if it find any deviations from the criteria then automatically stop. For Example Deviated information, higher amount and geographical incidents.

Based on Previous Information

Previous incident information used to continues happening of fake claims. This kind of activities may occurred in a particular region or particular season. Identifying these similarities company take conscious activities.

Numerical Information Investigation

Fundamental and same kind of methods applied to verify symptoms of unethical activities helps to escape from the investigator. Integrating various information sources like previous activities they develop new methods.

Fraud Prevention Using AI

Automatic Anomaly Detection

Artificial skill able to overview the large amount of data and identify irregular method could lead to symptoms of unethical activities. It assist to insurers escape from fraud activities.

Artificial Data Generation

Due to unavailability or scarce of data, Artificial intelligence develop artificial data that create similar situation as fraud. It assist do develop this kind of fraud prevention methods.

Trend Analysis

Artificial intelligence enabled mechanism assist to calculate the real loss. It helps to improve claim accuracy and reduce fraud in advance

False Positive Reduction

Artificial Intelligence regularly update algorithms used. It decreases unrealistic favorable symptoms and regulating fraud identification activity. It leads to reduce wastage of resources.

Differences in Current Methods

Previously used methods influenced by demerits and these are eliminated by using technologies.

- Lack of ability to identify on time frauds,
- Manual processes
- Limited scalability
- Inflexibility
- High false positives

Advantages of using AI-based Fraud Prevention Activity

- Cost reduction in operation
- Faster claims processing
- Scalability
- Regulatory compliance
- Competitive advantage
- Better underwriting outcomes
- Data-driven AI insights

Skills of Familiar Artificial Intelligence Methods

- Able to handle large amount of a data .
- Present individual persons actual worthiness
- Integrate and evaluate both personal and public data

Future Trends

- Real-time fraud detection
- Behavioral analysis
- Collaboration and data sharing
- Focus on explain ability and transparency

Conclusion

Recent environment is witnessed to develop different kind of fraud. Insurance industry also face the same kind of situation. It is necessary to insurers always try new methods and update existing methods to prevent fraud claims as fraudulent people always change their tactics and find new ways to cheat others. In association with Artificial intelligence service providers, insurers are in the stage of transformation from traditional methods to advanced methods for escape from fraud peoples. This kind of activity not helps to escape from fraud and also helps to innovative products,

higher efficiency in operation and long term benefits in ever changed dynamic environment. Transformation from tradition to digital platforms with artificial intelligence need to associate with technical experts and that create safety avenues for both customer and insurers.

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