

A STUDY ON HEALTH INSURANCE FRAUDULENT CASES

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Master of Business Administration (MBA)

in

Hospital and Health Management

By

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Under the Supervision and Guidance of

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2024

DECLARATION BY STUDENT

I hereby declare that this dissertation titled **A STUDY ON HEALTH INSURANCE FRAUDULENT CASES** is the Bonafide record of my original research work. I declare that it has not been submitted to any other university or institution for the award of any degree or diploma. Information derived from the published or unpublished work of others has been duly acknowledged in the text.



Dr. DEEPESH VARMA

Date: 03/07/24

CERTIFICATE

This is to certify that the dissertation titled **A Study on Health Insurance Fraudulent Cases** is a record of the research work undertaken by **Dr. Deepesh Varma** in partial fulfilment of the requirements for the award of the degree MBA (Hospital and Health Management) from the IIHMR University, Jaipur under my guidance and supervision and his approach to the research study has been sincere, scientific, and analytical.

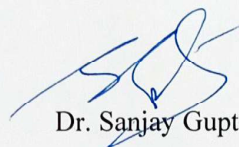


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It is my pleasure to acknowledge my appreciation to all people who stood by me during this study process.

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ABBREVIATIONS

FWA	Fraud, Waste & Abuse (department)
HIF	Health Insurance Fraud
IRDAI	Insurance Regulatory and Development Authority of India
PED	Pre-Existing Disease
R&C	Reasonable and Customary (charges)

1. INTRODUCTION

In the health insurance industry, a significant portion of claims received are fraudulent, adding unnecessary costs and legal complications.

The Insurance Regulatory and Development Authority of India (IRDAI) used and quoted the definition of insurance fraud as said by the International Association of Insurance Supervisors (IAIS), which is "an act or omission intended to gain dishonest or unlawful advantage for a party committing the fraud or for other related parties." ¹

According to an review article, health insurance fraud is defined as “an act based on deception or intentional misrepresentation to obtain illegal benefits concerning the coverage provided by health insurance”. ³

At XYZ Company, approximately 15% of the total claims received are identified as fraudulent. The company faces legal cases from both consumers and ombudsman forums, and the number of such cases has seen a 13% increase in Nov 23 to May 24 compared to the previous quarter, with 673 cases received.² Healthcare fraud presents significant financial and human costs, yet there remains a lack of agreement on its precise definition, as well as an absence of comprehensive documentation detailing its various forms and contributing factors. The aim is to discern the definition, manifestations, and influences of health insurance fraud (HIF).³

Insurance companies in the USA face annual losses exceeding 30 billion USD due to healthcare insurance fraud, a staggering figure mirrored in developing countries like India. According to the report, the healthcare sector in India suffers an estimated loss of Rs 600 to Rs 800 crores each year due to fraudulent claims. ⁴

The rising trend of litigation cases highlights the need for a comprehensive analysis to identify the root causes and develop strategies to improve the outcomes of these cases. Effective risk management practices and the protection of policyholder interests are crucial for maintaining the company's reputation and ensuring long-term sustainability.

1.1. Study Question

Fraudulent health insurance claims are one of the major problems because fraudulent claims greatly impact the health insurance industry with substantial financial losses while entailing complicated legal issues and the loss of customer trust.

How can health insurance providers effectively identify, analyze, and mitigate fraudulent claims to reduce financial losses, enhance operational efficiency, and foster customer trust?

1.2. Objectives of Study

The main study objective here is to enhance risk management and protect policyholders' interests to uphold a vibrant, sustainable, and reputable sector.

The objectives of the study are:

1. To Review the pattern, trends, and outcomes of fraudulent health insurance cases for the period of Nov 23 to May 24.
 - Analyze the frequency and distribution of fraudulent cases across different time periods within the specified duration.
 - Identify any notable patterns or trends that emerge from the data.
2. To Analyze the types of frauds and their possible reasons:
 - Categorize the different types of frauds observed during the study period, such as policyholder fraud, claims fraud, intermediary fraud, and internal fraud.
 - Understand the factors that contribute to the occurrence of fraudulent activities.
3. To Suggest alternative ways to reduce frauds:
 - Based on the findings from the analysis, propose practical and effective strategies to mitigate the risk of health insurance fraud.
 - Identify potential areas for improvement in policies, procedures, and internal controls.
 - Recommend best practices and preventive measures to enhance fraud detection and Prevention.

Rationale:

By addressing the pressing issue of health insurance fraud, this study holds significant implications for cost savings, improved operational efficiency, enhanced reputation and trust, and better risk management within the health insurance industry. Such a situation clearly points to the need for devising sound strategies that can be used in the identification, analysis and prevention of fraud. Health insurance fraud is not limited to monetary effects, and following statistics indicate that the Indian healthcare sector has lost between Rs. 600 to Rs. 800 crores annually, owing to fake claims. In addition, the IRDAI has acknowledged this as an important concern to address by using the definition of insurance fraud created by the IAIS, which defines it as “an act or omission designed to obtain an unfair or unlawful advantage for the party perpetrating the fraud or for related parties.

2. LITERATURE REVIEW

Health Insurance fraud constitutes a very big problem since it erodes the credibility of the health care sector besides leading to losses to insurers, providers, and consumers. There are many papers made which explored various aspect of the health insurance fraud issues such as its causes, how it can be detected, and how they can be prevented.

The study conducted by Mackey et al. (2020) suggested an innovative fraud detection and prevention solution based on the use of the machine learning approach and the block chain solution. The approach applied decision tree models and deployed these models in an Ethereum based smart contract as health insurance claim fraud checking rules applied in real-time during claim processing.

A study employed an evolutionary game theoretical framework comprising the health insurance fraud governance path by taking into consideration elements like moral hazard, cost of fraud, incentives to fraud, and doctor- patient conspiracy. It suggested that by increasing the stakes, raising the costs associated with fraud, and reducing moral hazards, the system can be moved closer to a point where fraud does not occur.

A study conceptualized a system that involves suppliers as well as patients and insurance companies acting as the nodes of a permissioned consortium block chain. The architecture successfully sought to preserve privacy and matching networks with conventional healthcare networks while providing safe storage of data, consensus, and smart contract-enabled claim validation.

The factors that might enable or hinder the public from reporting suspected health insurance fraud was studied by Katrice Bridges Copeland (2023). The variables which are related to general perceptions and experience in health care facilities have also been established to be important features; these include perceived severity of the consequences of reporting the matter, perceived risk after reporting the incident, sense of responsibility and duty, government transparency and perceived ability to report the matter. There are many factors that have been established to act as drivers to the extent of engaging in health insurance fraud and those that discourage it. Elements that can cause a change in fraud include auditing, monitoring, sanctions, the role of nurses, economic and politics, records on medical services, and business

factors. On the other hand, some factors that may lead to fraud may involve demographic factors, health insurance status, treatments, chronic diseases, expenses in terms of deductibles and coinsurance, provider-insurer- patient relations, information asymmetry, and poor economic status.

When it comes to insurance, Artificial Intelligence, Data Analysis, and the Internet of Things are certain technologies, which will create a positive impact on the profitability of the insurance business in India. However, there is evidence that the Indian insurance industry is struggling with fraud in the present time and has seen an increase in fraud since the COVID-19 pandemic, the old world frauds are what they are – data theft, collusion, mis-selling, fraudulent claims, etc.

The literature presents various factors of health insurance fraud and abuse, its effect on healthcare system credibility, the necessity of effective anti-fraud systems, integrated technology solutions including ML, Block chain, and data analytics, and issues of data issues, information exchange, and new fraud schemes.

A SNAPSHOT OF LITERATURE REVIEW

AUTHORS	YEARS	STUDY LOCATION	SAMPLE SIZE	SAMPLING TECHNIQUES	SALIENT FEATURES
J Xu, T Zhang, H Zhang, F Deng, Q Shi, J Liu, F Chen, J He, Q Wu, Z Kang, G Tian (https://link.springer.com/article/10.1186/s12889-023-17581-9)	2024	China	828	Online survey, snowball sampling	Investigated differences in willingness to report health insurance fraud in familiar vs. unfamiliar healthcare settings among young and middle-aged adults.
Jusheng Liu, Yuan Wang and Jiali Yu (Frontiers A study on the path of governance in health insurance fraud considering moral hazard (frontiersin.org))	2023	China	Theoretical Study	Not specified	Explored the governance path of health insurance fraud using evolutionary game theory, considering moral hazard, fraud cost, reward, punishment, bribes, and doctor-patient

					collusion.
Katrice Bridges Copeland (https://scholarlycommons.law.northwestern.edu/cgi/viewcontent.cgi?article=1532&context=nulr)	2023	United States	Theoretical Study	Not specified	Discusses the importance of trust in healthcare, the government's role in promoting trustworthiness, and the need to address fraud risks in value-based reimbursement to maintain public trust.
Deloitte	2023	India	10+ C-suite stakeholders/senior management	Not specified	Insights on insurance fraud trends, challenges, and mitigation strategies
Anokye Acheampong Amponsah, Adebayo Felix Adekoya, Benjamin Asubam Weyori (https://www.sciencedirect.com/science/article/pii/S2772662222000534)	2022	Ghana	1323 health insurance claims	Not specified	Used decision tree algorithms to extract fraud detection rules from

					claims data and implemented the rules in a blockchain smart contract for fraud prevention in healthcare claims processing.
José Villegas-Ortega, Luciana Bellido-Boza and David Mauricio (https://link.springer.com/article/10.1186/s40352-021-00149-3)	2021	United States	67 Studies	Random Sampling	The paper identifies six different definitions of health insurance fraud from the literature. Based on their analysis, the authors propose a concise definition : "Health insurance fraud is an act of deception or intentional misrepresentation to obtain illegal benefits concerning the

					coverage provided by a health insurance company.
Ramesh Kumar Satuluri	2021	India	Theoretical Study	Not specified	Examines the digital transformation in the Indian insurance industry and its impact on various aspects like sales, underwriting, claims processing, product pricing, and fraud detection. Highlights the potential cost savings and improved profitability through digital innovation
Tim Ken Mackey, MAS, PhD; Ken Miyachi, BS; Danny Fung, BS; Samson Qian, BS; James Short, PhD	2020	United States	Theoretical Study	Not specified	Proposed a blockchain framework for combatin g

(https://www.jmir.org/2020/9/e18623/)					healthcare fraud and abuse, with a focus on patient-centric claims validation and consensus mechanisms involving providers, payers, and patients. Developed a prototype using the Ethereum blockchain platform.
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3.METHODOLOGY

To undertake an investigation into the various fraudulent health insurance cases in XYZ Company. Thus, by analyzing the cases features, including the pattern and outcomes of the cases observed during the given period from November 2023 till May 2024, it was possible to outline the nature and the extent of the health insurance fraud occurring in the given organization.

To achieve these objectives, the study employs a rigorous methodological approach, involving data collection, in-depth analysis of lost legal cases, qualitative analysis, categorization of fraud types, cross-case analysis, trend analysis, and root cause analysis. The study was conducted in a structured and systematic manner, following a well-defined procedure to ensure the reliability and validity of the findings. The study procedure will consist of the following steps:

Study Setting

The present study was carried out in the XYZ Company, a health insurance firm in India. The business mainly operates in all the regions of the country, and it is largely established in most urban and metro cities.

Steps taken under the study

The study will employ a mixed-methods approach, combining quantitative and qualitative analysis techniques.

1. Data Collection:

- Obtain comprehensive data on legal health insurance cases from XYZ Company for the period of November 2023 to May 2024.
- Collect relevant data, including type of complaint, claim details, settlement/rejection reason, grade of evidence, claim amount, etc. for all legal cases lost/won at the legal, ombudsman and consumer forums during the specified period.

2. Data Preparation:

- Organize and clean the collected data to ensure consistency and compatibility for analysis.
- Remove any identifying information to maintain the confidentiality and privacy of policyholders and other stakeholders.

3. Quantitative Analysis:

- Conduct descriptive statistical analysis to examine the patterns and trends of fraudulent cases, including the frequency of different types of fraud and the distribution of cases across months.
- Conduct trend analysis to identify any significant changes or patterns in the occurrence of fraudulent cases over the specified period.

4. Root Cause Analysis:

- Ishikawa (fishbone) diagram was used to identify the root causes that contribute to the occurrence of fraudulent cases and subsequent losses in litigation.

5. Interpretation and Discussion:

- Interpret the findings in the context of the study objectives and existing literature on health insurance fraud.
- Discuss the implications of the study for the company's operations, risk management strategies, and overall claims management processes

6. Recommendations and Reporting:

- Formulate recommendations based on the study findings to address the identified issues and improve the company's approach to combating fraud and managing legal cases more effectively.
- Prepare a comprehensive study report detailing the study methodology, findings, discussions, and recommendations for presentation to the stakeholders.

3.5: Ethical Consideration

- Insure both the confidentiality and the privacy of policyholders' information as well as other confidential data.
- Ensure transparency and accuracy in reporting study findings.

3. Results

The results are presented by the study objectives. First the trends and patterns are reviewed followed by type of the misrepresentations; and the alternative ways

From November 2023 to May 2024, a total of 712 health insurance cases were analysed across three forums: In this case, there are three distinguished types of forums, that is, Consumer Forum, Legal Forum, and Ombudsman Forum. The distribution of cases was as follows: Of the total complaints received, 42. 4% related to Consumer Forum, 10. 0% to Legal Forum, and 47. 6% to Ombudsman Forum independently.

Litigation Cases	Number of cases (n)	Percentage of cases
Consumer Forum	302	42
Legal Forum	71	10
Ombudsman Forum	339	48

Table 4.1. Total number of Litigation Cases (Nov 23- May 24)

In the existing Consumer Forum, among 302 cases, 232 (76. 8%) were rejected and 70 (23. 2%) were solved. The success rate in the Consumer Forum cases was higher on the side of Insurance company which stood at 74%. There were fluctuations in the number of cases as well as the winning percentage by months. According to the given data, cases are high in March 2024, and there is a general tendency of declining winning percentages from November 2023 to April 2024, while increasing in May 2024.

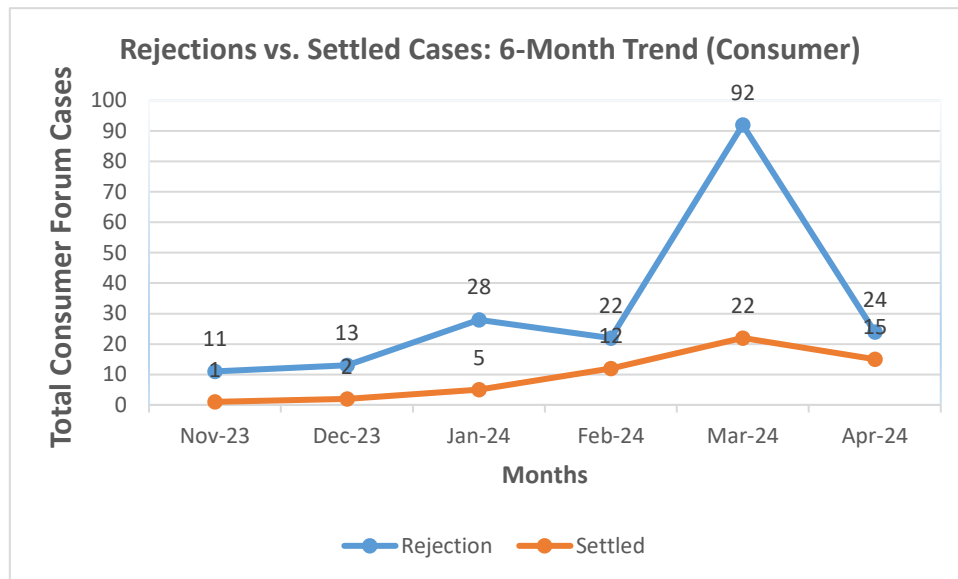


Figure 4.1. Rejections vs Settled Cases:6-Month Trend (Consumer Forum Cases)

Regarding the rejection; about 33% of the applicants' rejection was attributed to non-disclosure of the pre-existing diseases, 24% attributed to misrepresentation, 18% attributed to non-submission of documents, and 14% attributed affirmed unjustified hospitalization. Five percent of rejected claims came from non-network hospitals, for which rate tariffs were missing, hence the consideration of reasonable and customary deductions. In addition, 3% of cases were declined because they fall under policy exclusion and 1% of the cases are a sign of fraud, being death claims.

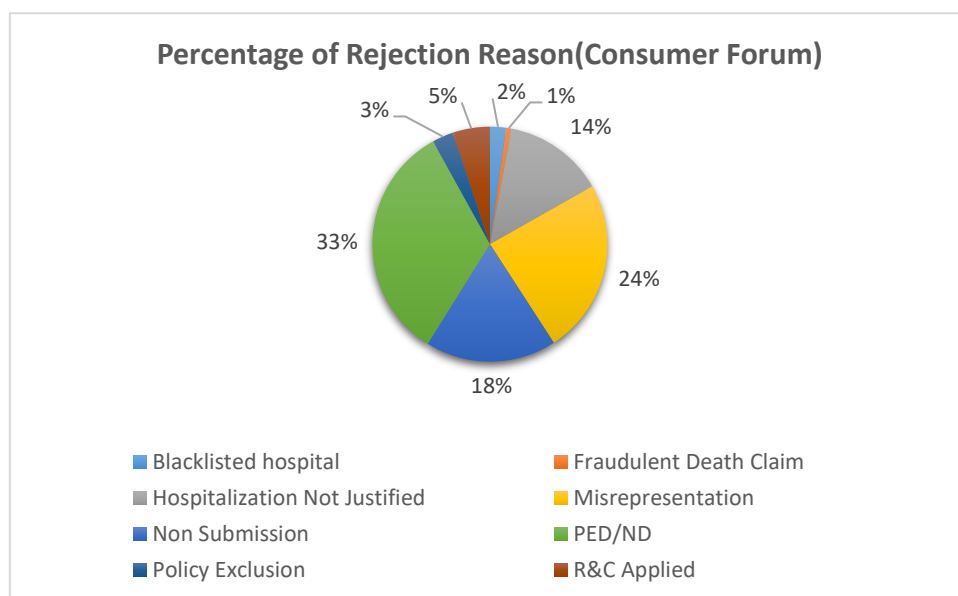


Figure 4.2. Percentage of Rejection Reason (Consumer Forum Cases)

The Legal Forum sampled 71 cases of which 66 (93. 0%) were rejected whereas 5 (7. 0%) of the cases were settled. The Insurance Company’s overall win percentage for the Legal Forum

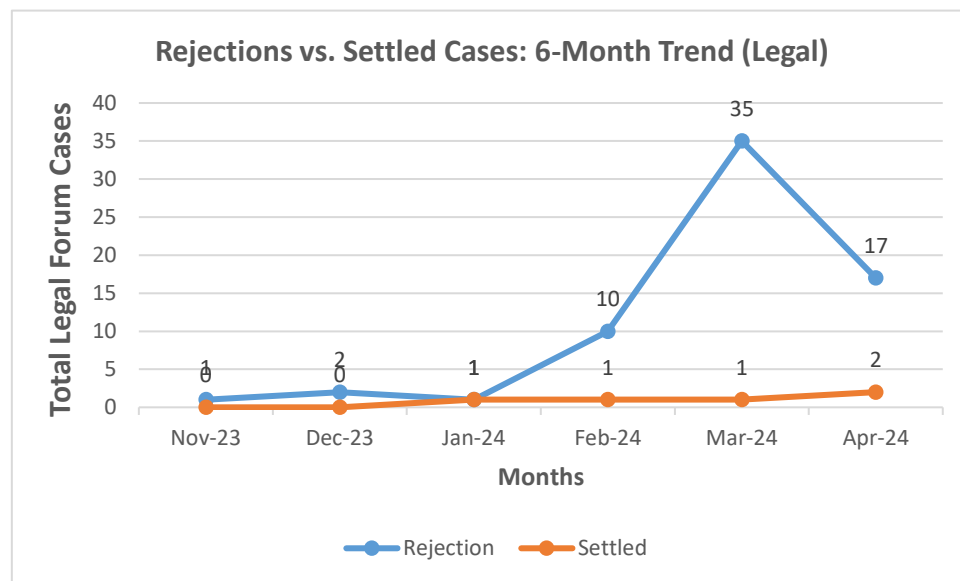


Figure 4.3. Rejections vs. Settled Cases: 6-Month Trend (Legal Forum Cases)

cases were at 87%. Specifically, cases rose from February to April 2024, with healthy winning percentages barring that in January 2024.

The reasons for rejection were as follows: 26 percent for non-disclosure of the pre-existing disease, 21 percent for unnecessary hospitalization, 19 percent for non-submission of documents and policy exclusions, 10 percent of misrepresentation, 2 percent for the rejection that met and customary charges and 2 percent for waiting period rejection.

Regarding the Ombudsman Forum, the insurance company faced a total of 339 cases. Of these, 285 cases (84.1%) were decided in favor of the company through rejection, while 54 cases (15.9%) resulted in settlements. The company demonstrated a strong performance in this forum, achieving an average success rate of 82.34%. Notably, April 2024 saw a marked uptick

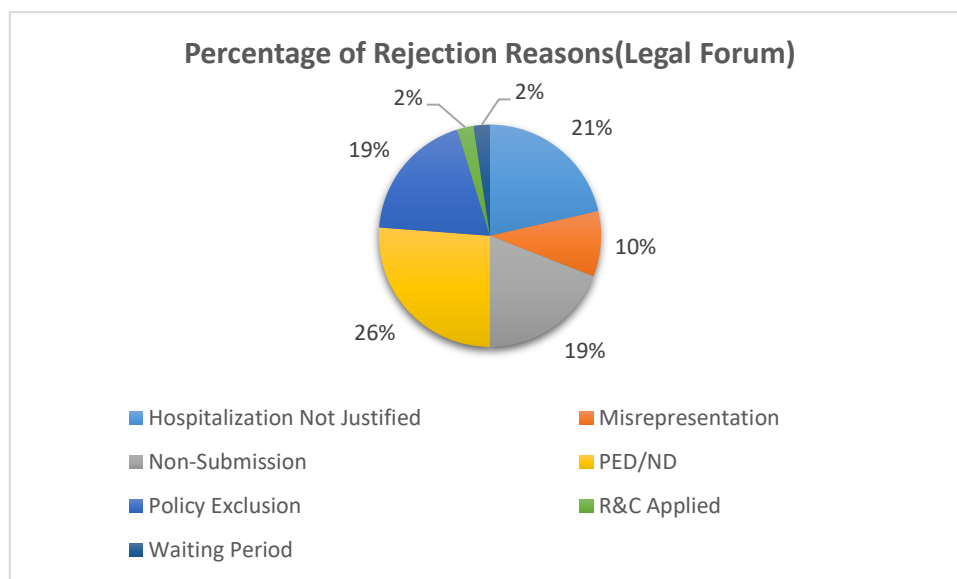


Figure 4.4. Percentage of Rejection Reasons (Legal Forum Cases)

in case volume, coinciding with the company's peak performance in terms of favorable outcomes.

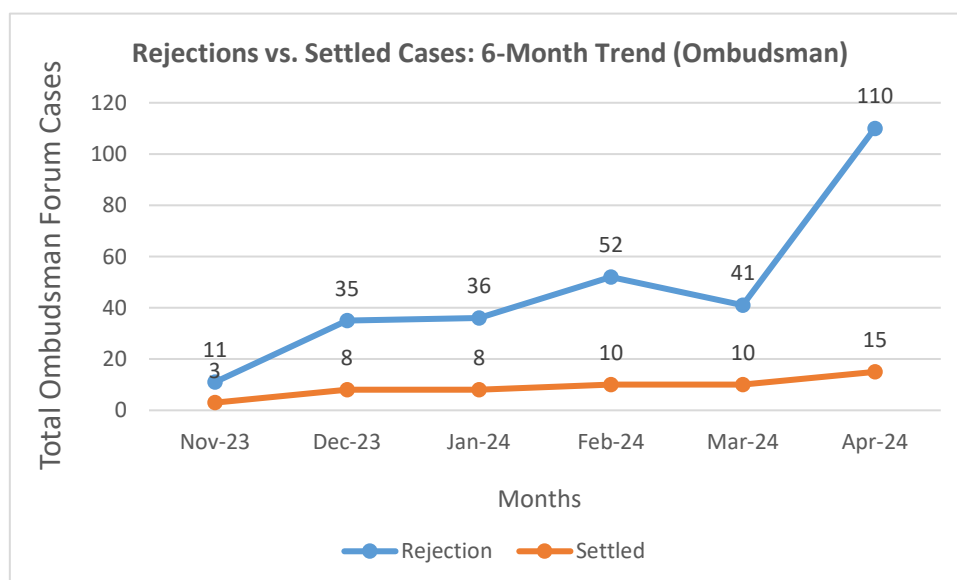


Figure 4.5. Rejections vs Settled Cases: 6-Month Trend (Ombudsman Forum Cases)

In ombudsman forum, the most frequent reason for refusing a case was their failure to reveal the pre-existing diseases (37%) this is followed by cases in which it could be justified whether

the applicant was hospitalized or not (22%). Also, misrepresentation was rejected in 15% of the cases and the non-submission of documents cases were 10%. The percentage of policy exclusion was 11%, The percentage of cases in which R&C deductions was applied was 4% then the percentage of cases which were rejected due to the waiting period was applicable (3%).

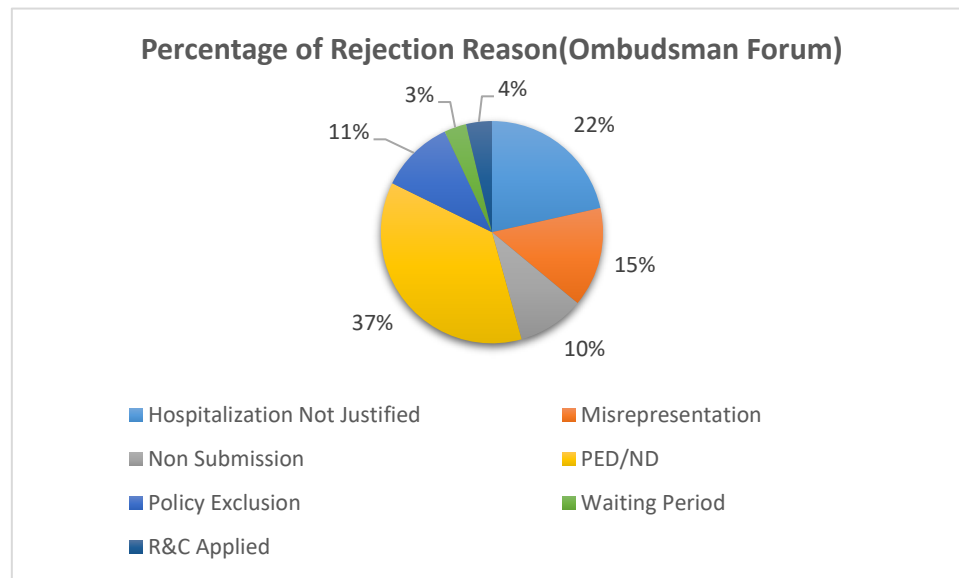


Figure 4.6. Percentage of Rejection Reasons (Ombudsman Forum Cases)

An analysis of the misrepresentation category, comprising five distinct subcategories, uncovered that inconsistencies in medical documentation were the predominant issue. These discrepancies, found in various hospital records including patient files, previous medical consultations, laboratory results, imaging studies, and medication invoices, represented 59% of all misrepresentation incidents. The next most prevalent issue, accounting for 21% of cases, involved outstanding bills reported by policyholders. Additionally, violations of hospitalization protocols were observed in 9% of instances. The remaining cases were evenly split between inaccuracies in policyholder-provided information and failure to meet the minimum 24-hour hospitalization requirement, each comprising 6% of the misrepresentation cases.

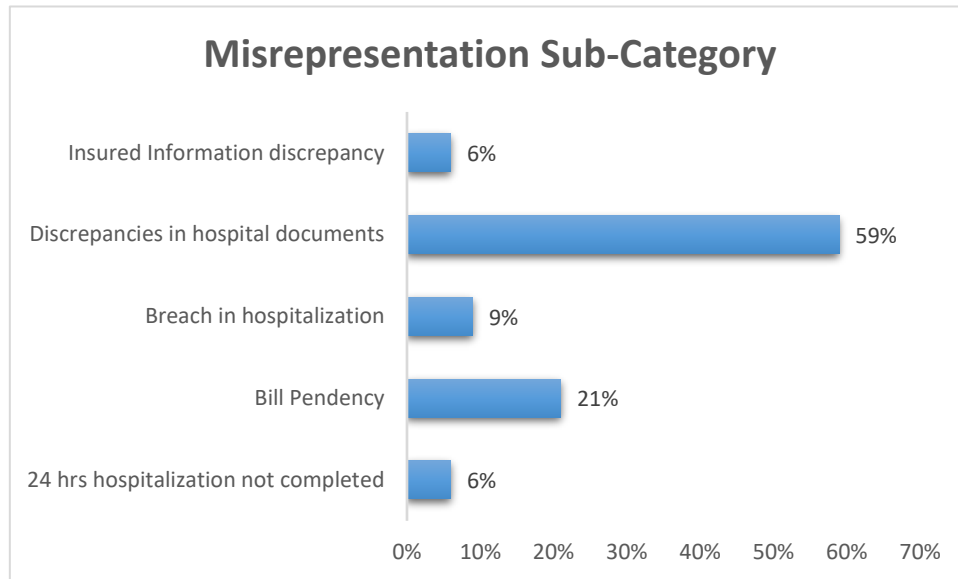


Figure 4.7. Percentage of Misrepresentation Sub-Category

Types of frauds and their possible reasons:

An analysis of the misrepresentation category, comprising five distinct subcategories, uncovered that inconsistencies in medical documentation were the predominant issue. These discrepancies, found in various hospital records including patient files, previous medical consultations, laboratory results, imaging studies, and medication invoices, represented 59% of all misrepresentation incidents. The next most prevalent issue, accounting for 21% of cases, involved outstanding bills reported by policyholders. Additionally, violations of hospitalization protocols were observed in 9% of instances. The remaining cases were evenly split between inaccuracies in policyholder-provided information and failure to meet the minimum 24-hour hospitalization requirement, each comprising 6% of the misrepresentation cases.

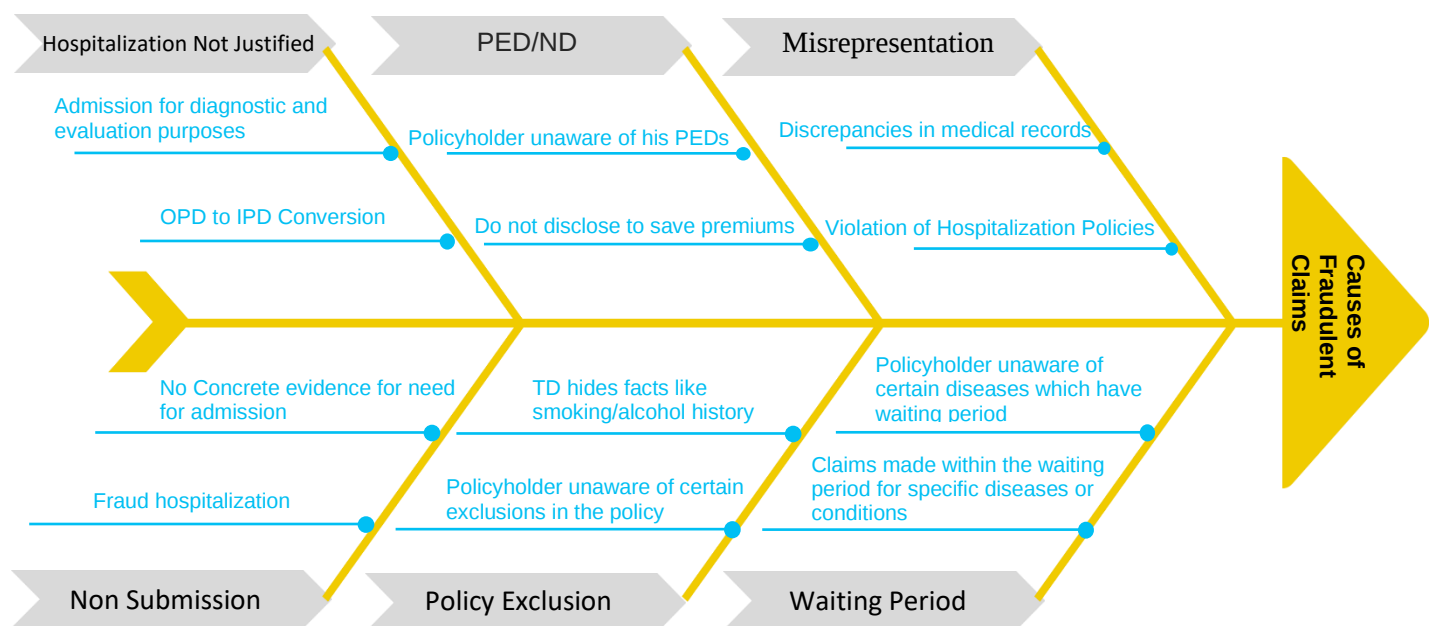


Figure 4.8. Fishbone Diagram- Causes of Fraudulent claims

Causes of Fraudulent Claims

Admission not justified:

Diagnostic/evaluation admissions: Some patients are admitted solely for tests or assessments that could be done outpatient.

OPD to IPD conversion: Outpatient visits unnecessarily converted to inpatient stays, potentially to increase insurance claims.

Pre-existing Diseases (PED) / Non-Disclosure (ND):

Unaware policyholders: Some individuals may not know they have certain conditions when purchasing insurance.

Intentional non-disclosure: Others might hide known conditions to avoid higher premiums or coverage denial.

Misrepresentation:

Medical record discrepancies: Inconsistencies in patient records that suggest inaccurate reporting.

Policy violations: Admissions that don't adhere to established hospitalization guidelines or

criteria.

Non-submission of documents:

Lack of evidence: Insufficient documentation to prove the necessity of hospital admission.

Fraudulent hospitalization: Suspected cases where admission was fabricated for insurance claims.

Policy exclusion:

Doctors omitting information: Healthcare providers may not report relevant patient history, affecting coverage.

Policyholder unawareness: Insured individuals may not fully understand what their policy doesn't cover.

Waiting period:

Lack of awareness: Policyholders may not know about waiting periods for specific conditions.

Premature claims: Attempts to claim for conditions still within the waiting period specified by the policy.

Suggested Alternative ways for fraud reduction

Despite the fact that the types of frauds mentioned, including policy exclusions and waiting period violations, represent just a partial list of fraudulent practices in health insurance, the given information also points to the necessity of the differentiated approach to the prevention of frauds. It's possible to broadly agree with the statement that the usage of big data analytics and machine learning might increase the chances of exposing fraud patterns, specifically when it comes to suspicious abnormalities in healthcare records and frequent hospitalizations without a clear medical need.

Information regarding technologies such as the blockchain may bring a tangible reduced level of documentation fraud while increasing the claim transparency level.

To ensure individuals do not violate sections of the policy unconsciously, there is a need to create elaborate policyholder education to expound on the necessity of full disclosure, repercussions of failure to meet policy terms, and various aspects of fraudulent claims.

Developing fraud prevention plans that was adjusted to the existing seasonal shifts and new types of fraud might enhance the general efforts made in the course of preventing fraud.

Improvement of integration between the claims processing software, internal fraud prevention programs, and legal teams can result in a better approach of questionable cases.

Improved relations with the medical team might help to obtain more objective reports and minimize cases when people are hospitalized unnecessarily.

Continual surveillance and assessment of how anti-fraud mechanisms are being coordinated would also reduce the organization's slow-down in responding to new fraud processes.

Implementing dynamic fraud prevention strategies that adapt to seasonal trends in claim submissions and fraud patterns could improve overall effectiveness. To address the potentially fraudulent cases, it is essential to promote integration between claims processing, fraud detection initiatives, and legal divisions. Fraudsters are continuously inventing new and more effective ways of perpetrating their crimes but for a business establishment to keep on catching fraudsters it must ensure that its staff is trained frequently to keep abreast with the latest methods of detecting fraud and the new frauds that fraudsters are coming up with every now and then. Better cooperation with doctors can increase the credibility of medical reports and decrease the number of cases when a patient is deprived of liberty without adequate medical need.

Potential directions for future research include identifying the factors that affect people's readiness to report fraud and to design better-liked mechanisms for the public to use to report the suspected cases of fraud. Reporting to regulatory offices such as IRDAI to formulate standard policies for identifying/fighting fraudulent practices would be beneficial to the health insurance segment. Last but not the least, incorporation of a continuous monitoring and evaluation of the fraud detection measures would keep the current and emerging fraud activities into check.

Finally, it is important to point out that despite the improvements the health insurance industry of India demonstrates in terms of detecting and preventing fraudulent claims, the topic remains rather sensitive for the industry as the character of health insurance fraud evolves constantly,

posing new threats to the insurance industry sector. Thus, by following the above-mentioned recommendations and keeping itself abreast of the latest trends in fraud, the industry can build better defenses against, safeguard honest policyholders and promote the cause of integrity in the health insurance system of the country.

Such a proactive stance will not only assist individual entities but will also have a positive impact on building up the population's confidence in the organization of health insurance. This has the possibility of improving the quality of health care delivery to all the consumers, be it policy holders, health facilities, or insurance firms. Hence, it is very important that as the health insurance sector in India develops further it will require adequate measures in place to curb fraud effectively to sustain, and be a dependable and efficient part of the health care provision for population.

4. Discussion

Thus, the findings of this investigation can be useful in comprehending the characteristics, tendencies, and consequences of fraudulent cases related to health insurance in XYZ Company between November 2023 to May 2024. Some conclusions that can be derived from the present study based on 712 cases from Consumer, Legal, and Ombudsman forums can be discussed as follows.

The cases and the success rates vary from one month to another, from a high of 732 in December and a low of 118 in September. Remarkably, the state of affairs in the Consumer Forum demonstrated a pattern of deteriorating winning percentages from November 2023 to April 2024 except for the period of May 2024. Petition activity in the Legal Forum was relatively higher than in the months preceding it from February to April of 2024, whereas the case load in the Ombudsman Forum exhibited a relatively higher occurrence in April 2024 in terms of the area with the best performance in terms of positive outcome.

These monthly fluctuations could be explained by variation in the factors such as seasonal trends in the health care billings, policy renewal, or changes in the approach used by the company to check the cases of frauds. The same trend is observed elsewhere also in the other studies. For example, Xu et al. (2024) discovered that willingness to report cases of health insurance fraud differed with different time period and convenience, which could affect the cases reported and discovered.

Across all three forums, non-disclosure of pre-existing diseases emerged as the primary reason for claim rejections, accounting for 33%, 26%, and 37% of rejections in the Consumer, Legal, and Ombudsman forums, respectively. This finding aligns with previous research highlighting the significance of information asymmetry in health insurance fraud. Liu et al. (2023) emphasized the role of information asymmetry in their evolutionary game theory model of health insurance fraud governance.

Misrepresentation and unjustified hospitalization were also prominent reasons for rejection. This corroborates the findings of Villegas-Ortega et al. (2021), who identified various manifestations of health insurance fraud, including falsification of medical records and unnecessary medical procedures.

It was also established from the detailed analysis of the misrepresentation category that Inaccuracies in records concerned cases of discrepancies in medical records which was found to be the most rampant with 59%. This has provided a proof to the fact that there is need to carry out verification of documents to enhance on the detection of fraud schemes. Amponsah et al. (2022) presented a solution that is based on the use of the block chain technology to detect frauds in the process of healthcare claims, which may offer a solution to such documentation problems.

However, there are several limitations in this study. Firstly, the study includes only one health insurance company from India, which restricts the applicability of the results in other contexts or countries. Second, the duration of the study was the period of six months, which may not adequately capture trends that could manifest over the longer period or seasonality.

However, the current study has the following advantages. The strength for the study is that it is based on a large sample size which is 712 cases. The use of cases from three forums presents the best perspective of the landscape of fraud.

Additionally, the detailed categorization of rejection reasons and misrepresentation types provides valuable insights for developing targeted fraud prevention strategies. The findings of this study have important implications for health insurance providers and policymakers. The high prevalence of non-disclosure of pre-existing conditions suggests a need for improved communication with policyholders about the importance of full disclosure. The variability in monthly trends indicates that fraud detection strategies may need to be adjusted seasonally.

Future research could explore the effectiveness of block chain and artificial intelligence in addressing the types of fraud identified in this study, as suggested by Mackey et al. (2020) and Ramesh Kumar Satuluri (2021). Additionally, investigating the factors that influence policyholders' willingness to report suspected fraud, as explored by Xu et al. (2024), could provide valuable insights for developing public engagement strategies to combat health insurance fraud.

5. Conclusion

A breakdown of the cases by forums shows that Consumer Forum with 42.4% followed by the Ombudsman Forum at 47.6% have the most complaints indicating where they should be paying more attention to.

In addition to the analysis of quantitative results, it can be noted that XYZ Company has achieved good results in the protection against fraudulent claims, with the level of success in the considered forums at 74% in the Consumer Forum, 87% in the Legal Forum, and 82%. 34 % in Ombudsman Forum, proves the high efficiency of the current fraud detection and case management for the company.

The observed monthly variations mainly are the higher values of the Consumer Forum in March 2024 and the Ombudsman Forum in April 2024, which testifies to the necessity to use constantly developing methods of fraud prevention depending on the temporal fluctuations of the claim submissions and fraud schemes.

This study therefore shows that non-disclosure of pre-existing diseases as a reason for claim rejection, is an issue that has remained persistent in all the forums, confirming that information failure is a key problem in health insurance.

Misrepresentation – a concern that came out clearly was dishonesty, more so in the candidate's documents, with over half of the disputants claiming that their documents were altered especially in medical reports.

Other grounds for refusal stating unjustified hospitalization of the policyholder and non-provision of necessary documents could also be mentioned, which may point to the possibilities of policyholder knowledge of the policy and optimization of the documents submission procedures.

Suggestions- The study highlights the need for a multifaceted approach to fraud prevention in health insurance. Leveraging big data analytics and machine learning can enhance detection of suspicious patterns in healthcare records and unnecessary hospitalizations. Blockchain

technology offers potential for reducing documentation fraud and improving claim transparency. Comprehensive policyholder education is crucial to prevent unintentional policy violations and emphasize the importance of full disclosure and adherence to policy terms.

6. References

- 1.<https://www.kotak.com/en/stories-in-focus/insurance/guide-on-fraudulent-health-insurance-claims-in-india.html>
2. Personal communication with Aditya Birla Health Insurance Company staff
3. Villegas-Ortega, J., Bellido-Boza, L. & Mauricio, D. Fourteen years of manifestations and factors of health insurance fraud, 2006–2020: a scoping review. *Health Justice* 9, 26 (2021). <https://doi.org/10.1186/s40352-021-00149-3>
4. Dr. Biswendu Bardhan. “Frauds in Health Insurance”, <http://healthcare.financialexpress.com/200711/market13.shtml>.
5. Chavali, Kavita, VV Ajith Kumar, and M. Sudha. "Vulnerability of Indian Health Insurance Industry to Frauds." *European Journal of Economics, Finance and Administrative Sciences* 73 (2015).
6. Villegas-Ortega J, Bellido-Boza L, Mauricio D. Fourteen years of manifestations and factors of health insurance fraud, 2006–2020: a scoping review. *Health & justice*. 2021 Dec;9:1-23.
7. Amponsah AA, Adekoya AF, Weyori BA. A novel fraud detection and prevention method for healthcare claim processing using machine learning and blockchain technology. *Decision Analytics Journal*. 2022 Sep 1;4:100122.
8. Liu J, Wang Y, Yu J. A study on the path of governance in health insurance fraud considering moral hazard. *Frontiers in Public Health*. 2023 Sep 14;11:1199912.
9. Mackey TK, Miyachi K, Fung D, Qian S, Short J. Combating health care fraud and abuse: Conceptualization and prototyping study of a blockchain antifraud framework. *Journal of medical Internet research*. 2020 Sep 10;22(9):e18623.
10. Deloitte’s Insurance Fraud Survey 2023, <https://www2.deloitte.com/in/en/pages/forms/Insurance-fraud-survey-2023.html>
11. Copeland KB. Health Care Fraud and the Erosion of Trust. *Nw. UL Rev.*. 2023;118:89.
12. MacFarlane D, Hurlstone MJ, Ecker UK. Protecting consumers from fraudulent health claims: A taxonomy of psychological drivers, interventions, barriers, and treatments. *Social Science & Medicine*. 2020 Aug 1;259:112790.
13. Xu J, Zhang T, Zhang H, Deng F, Shi Q, Liu J, Chen F, He J, Wu Q, Kang Z, Tian G. What influences the public’s willingness to report health insurance fraud in familiar or unfamiliar healthcare settings? a cross-sectional study of the young and middle-aged people in China. *BMC Public Health*. 2024 Jan 2;24(1):24.