A STUDY ON THE CONTRIBUTING FACTORS RESPONSIBLE FOR CLAIM DENIALS IN A HOSPITAL SETTING

Dissertation Submitted to

The IIHMR University, Jaipur

for the partial fulfillment for the award of the degree of

Master of Business Administration (MBA)

in

Hospital and Health Management

by

Naik Niyati Nikunj

Under the Supervision and Guidance of

Dr. Seema Mehta

2025

Kokilaben Dhirubhai Ambani
hospital & medical research institute
MUMBAI

Every Life Matters

KDAH/HR/OL/2025/05/654 Date: 31.05.2025

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Ms. Niyati Nikunj Naik** has successfully completed her **2 months and 20 days** period of **Internship** from 10.03.2025 to 31.05.2025 in the **Department of Clinical Administration** at **Kokilaben Dhirubhai Ambani Hospital & Medical Research Institute,** under the guidance of General Manager - Dr. Dhaval Bhatt.

She has completed her tenure entirely to the satisfaction of the departmental HOD.

We wish her all the best in her future endeavor.

Best Regards,
For Kokilaben Dhirubhai Ambani Hospital & Medical Research Institute,

Rashma Nathani
Dy. General Manager - Human Resources

IIHMR UNIVERSITY

CERTIFICATE

This is to certify that the dissertation titled "**A Study on the Contributing Factors Responsible for Claim Denials in a Hospital Setting"** is a record of the research work undertaken by **Dr Niyati Naik** in partial fulfilment of the requirements for the award of the degree of MBA (Heath and Hospital Management) from the IIHMR University, Jaipur under my guidance and supervision and ~~his~~ her approach to the research study has been sincere, scientific and analytical.

Faculty guide
Dr Seema Mehta
IIHMR University, Jaipur
DATE:17/06/2025

School Dean
IIHMR University, Jaipur
DATE:17/06/2025

DECLARATION BY STUDENT

I hereby declare that this dissertation titled 'A Study on the Contributing Factors Responsible for Claim Denials in a Hospital Setting' 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 Information derived from the published or unpublished work of others has been duly acknowledged in the text.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. Niyati Nikunj Naik

Date: 17/06/2025

ABSTRACT

TITLE: “A Study on the Contributing Factors Responsible for Claim Denials in a Hospital Setting”

BACKGROUND:

Claim denials have become a persistent challenge in the health insurance industry, affecting hospital operations and patient experience. In a high-volume tertiary care institution, such as Kokilaben Dhirubhai Ambani Hospital, analysing reasons for claim denials can aid in the development of targeted strategies for more efficient claim management and increased patient satisfaction.

This study examines 630 denied claims at the TPA desk of Kokilaben hospital, from nine insurance companies: ICICI Lombard General Insurance Company Limited, HDFC ERGO General Insurance Company Limited, TATA AIG General Insurance Company Limited, Aditya Birla Health Insurance Co. Limited, Star Health and Allied Insurance Co. Ltd, Care Health Insurance Company Limited, The New India Assurance Co. Ltd, United India Insurance Company Limited and National Insurance Company Limited.

OBJECTIVES:

- To identify trends and patterns in claim denials among different insurance companies in a hospital setting.
- To identify the key factors contributing to claim denials by insurers in a hospital setting.
- To propose strategies to minimize claim denials and improve claim processing efficiency.

METHODOLOGY:

A cross-sectional descriptive study was conducted at the TPA desk of Kokilaben Dhirubha Ambani Hospital, located in Mumbai.

The study examined 630 denied claims recorded in the hospital's MIS system 'WinClient' from November 1, 2024 and April 30, 2025. Convenience sampling was used. Data was taken from the hospital's MIS to analyse insurer-wise claim denial patterns and stated reasons for denials.

KEY RESULTS:

The denial rate among the selected insurance companies ranged from 5.04% (The New India Assurance Co. Ltd) to 17.97% (Care Health Insurance Company Limited).Denials across selected insurance companies spiked in the month December 2024, January 2025 and March 2025, possibly owing to policy renewal cycles, seasonal admission surges, or administrative delays. Care Health and Star Health relatively higher monthly denial peaks, while New India Assurance showed a relatively stable trend with high approvals (~200+) and consistently low denials.

Key contributing factors responsible for claim denials, identified at the TPA desk of Kokilaben hospital include: Procedure or treatment not covered under the insurance policy, Non-disclosure of pre-existing disease by the policyholder, Incomplete or incorrect documentation, Exhaustion of the sum insured, Policy waiting period not completed, Billing discrepancies and Other miscellaneous reasons such as claim amount lesser than the agreed deductible, unverified indication for hospitalisation, unproven treatment given, etc.

CONCLUSION:

The study revealed that the key reasons for health insurance claim denials, as well as the difference in denial rates between insurers, pointed to the lack of standardised adjudication systems. Hospitals must adopt SOPs, train staff, and devise pre-verification processes, while insurers have to ensure policy clarity and improve engagement with TPAs. Policyholders should be urged to fully disclose their health issues and understand the insurance terms. Policymakers are encouraged to standardise denial codes and promote digital claim management solutions. Future research should include multi-institutional data and explore patient perspectives to better understand the broader impact of claim denials.

KEY WORDS:

Claim denial, Health insurance, Claim management, TPA desk, Policy exclusions, Pre-existing disease

ACKNOWLEDGEMENT

This dissertation titled "A Study on the Contributing Factors Responsible for Claim Denials in a Hospital Setting" is a result of profound learning and critical analysis undertaken at Kokilaben Dhirubhai Ambani Hospital, Mumbai.

The study has been a journey of enormous professional and personal growth, which would not have been possible without the support and encouragement of several individuals to whom I am very grateful.

To begin with, I thank my organisational mentor and inspiration, **Dr. Dhaval Bhatt**, for providing me with this invaluable opportunity. His unwavering support, vision and drive throughout this project were vital in determining the direction and depth of this study.

I am also grateful to my project guides, **Mr. Vighnesh Jangle** and **Mrs. Trupti Bhatt**, from the TPA department, for their detailed feedback and guidance, which helped me grasp the real-time problems associated with claim denials.

A special thank you to my faculty mentor, **Dr. Seema Mehta**, for her expertise, motivation, and for igniting in me a desire to excel throughout my MBA journey.

Finally, I want to express my heartfelt gratitude to my parents and grandmother for their unwavering love, support and belief in my capabilities. Their presence has been my most significant source of strength and perseverance.

To everyone who contributed directly or indirectly to the success of this dissertation — thank you.

Sincerely,

Dr Niyati Nikunj Naik.

Table of contents

List of Figures

List of tables

Abbreviations

TPA	Third Party Administration
MIS	Management Information System
IRDAI	Insurance Regulatory & Development Authority of India
CSR	Claim Settlement Ratio
SOPs	Standard Operating Procedures

CHAPTER 1-INTRODUCTION

1.1 Background:

Health insurance plays a pivotal role in shielding individuals from high healthcare costs by providing financial compensation for their medical expenses. The volume and complexity of health insurance claims have increased dramatically as insured populations have grown and medical technology has advanced. In this environment, hospitals serve as mediators between patients and insurance providers, ensuring that the reimbursement process runs smoothly.[1]

1.1.1 What is a Health Insurance Claim?

A health insurance claim is a formal request filed by the policyholder to receive compensation for his or her medical expenses under the terms and conditions of the health insurance policy. Upon verification of the claim, the insurance company either settles the expenses directly with the hospital or reimburses the policyholder.[2]

There are two major categories under this:

(a) Cashless claims: The insurance provider directly pays the hospital by covering the policyholder's medical expenses.

(b) Reimbursement claims: The policyholder first pays his or her medical bill at the hospital from where medical service is availed and later seeks compensation for the same from the insurance company.

This study deals with cashless claims only.

1.1.2 What is Claims Management?

Claims management in insurance is the systematic process of handling and settling insurance claims submitted by policyholders. It is an essential function in the insurance industry, which includes everything from the initial claim submission to the final settlement or denial.[3]

In the insurance industry, claims management is critical to maintaining insurance firms' confidence and credibility. When policyholders suffer a loss or damage, they want the insurer to keep its promise quickly and fairly. Effective claims handling ensures that policyholders receive the money they deserve, increasing customer satisfaction and loyalty. It acts as the interface between policyholders' requirements and insurers' duties. In the hospital context, the TPA desk usually manages claims administration by communicating with patients, insurers, and hospital billing teams.[3]

Phases of claim management:

A) Claim Filing and Registration.

This process begins when policyholders report their claims to the insurance company. It entails obtaining critical data such as the insurance number, incident details, and contact information.

B) Claim Evaluation and Validation.

Following successful claim registration, insurers carefully analyse the claim's legitimacy. This stage is checking the policy terms and conditions to see if the claim falls under the coverage scope.

C) Documentation & Examination

A thorough documenting of the claim is required. This includes gathering evidence, witness statements, and any other pertinent details. Investigators may also be hired to evaluate complex claims involving big losses or alleged fraud.

D) Settlement

Once the claim's validity has been determined, insurers will discuss the settlement amount with the policyholder. This method seeks a fair and mutually acceptable result.

E) Claim Compensation

After agreeing to the terms, the insurance company pays the policyholder or a selected beneficiary. The payment should cover the insured's loss or damage, as specified in the policy.

F) Claims Resolution

After payment is received, the claim is formally closed. The policyholder accepts the decision, and all parties concerned consider the issue resolved.

G) Fraud Detection and Mitigation.

Detecting and avoiding fraudulent claims is an important aspect of claims management. Insurance firms employ a variety of technologies and procedures to detect fraudulent activity.

H) Effective Communication

Effective communication with policyholders throughout the claims process is critical to transparency and consumer satisfaction. Regular updates and clarity of information are critical for improving the client experience.

I) Legal Compliance

Claims management must meet regulatory and legal criteria. It should guarantee that all actions are in line with industry standards and regulatory legislation.

J) Improving Continuously

Insurance firms frequently evaluate their claims management procedures to discover opportunities for improvement. Continuous improvement provides efficiency, accuracy, and customer-centric service.

Importance of Claims Management:

Effective claim management plays a vital role in ensuring timely reimbursements for medical services, maintaining hospitals' financial health, and enhancing patient satisfaction.[4]

Efficient insurance claims processing is crucial to hospitals' operational and financial efficiency. When claims are handled properly, hospitals can maintain consistent cash flow, reduce patient complaints, and boost trust in healthcare systems. Delays or denials of claims, on the other hand, can put a financial pressure on hospitals and patients, resulting in dissatisfaction and administrative burden [3,6].

Studies suggest, over 20% of all claims are initially refused, and a significant fraction of them might be remedied with stronger documentation or timely follow-up [4]. To lower the rate of denials, hospitals must urgently implement standardised claim processing methods and technology initiatives.

1.1.3 What is the role of hospital TPA in claims management?

The hospital TPA desk is an important link in the chain of healthcare services, allowing for seamless interaction between patients, healthcare institutions, and insurance companies. These IRDAI-licensed TPA desks play an important role in assuring the seamless processing of insurance claims by effectively representing the insurer within the hospital. The hospital TPA desk's principal function is to determine whether the insured's medical health insurance policy covers the specific procedure being performed at the hospital. [5]

Role of the TPA Desk:

When a hospital has a TPA desk, patients may easily access three different services:

- Claim Settlement:

  The primary job of the hospital TPA desk is to check the health insurance coverage and aid with the claims process. If cashless claims are applicable, they work directly with the hospital to speed up treatment payments.

- 24x7 Helpdesk:

The TPA in hospital insurance desk also serves as a round-the-clock helpline, ready to assist at any time you need it. They can answer queries, confirm the policy's information, and provide updates on the status of any claims.

- Additional value services:

In today's healthcare environment, many TPA desks go beyond typical functions to provide value-added services. These services could include ambulance help, lifestyle management coaching, and well-being initiatives. It is essential to remember that the TPA provides all services at the hospital insurance desk at no additional expense.

Significance of TPA desks:

- TPA desks increase the efficiency of insurance services.
- They help to improve healthcare knowledge.
- TPA at the hospital insurance desk helps to reduce costs and minimise unnecessary delays.
- TPA desks are highly suggested because they can answer a variety of questions and provide significant support.

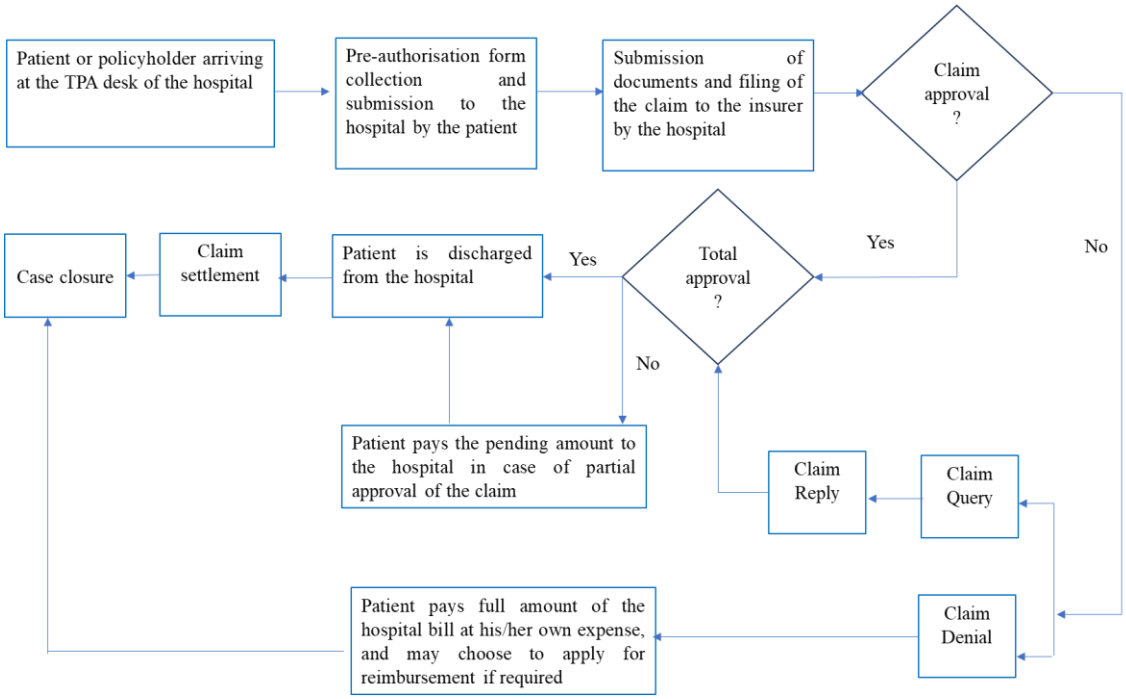

Figure 1.1

1.1.4 What is Claim Settlement?

This is the last stage of the claim management process, wherein the approved claims are financially settled.

The insurance company pays the network hospital for the medical services it has provided to the insurance policyholder.

Steps for a cashless claim settlement are as follows:

i. Select a network hospital:

Begin by picking a hospital from your insurer's network. This list can be found in your insurance documentation or on the insurer's website.[2]

ii. Pre-authorisation process:

For scheduled admissions, contact the insurer three to four days in advance and submit a completed pre-authorization form to the hospital's insurance desk.[2]

In an emergency, seek treatment at a network hospital and notify the insurer as soon as possible. Following admission, complete and submit the pre-authorization form.[2]

iii. Claim review:

The insurer reviews the provided documentation to ensure policy coverage. The claim may be fully approved, partially approved, or denied based on policy terms.[2]

iv. Final bill settlement:

Following treatment, the hospital submits the final bill to the insurer, who pays the approved amount directly. Expenses before and after hospitalisation should be claimed separately.[2]

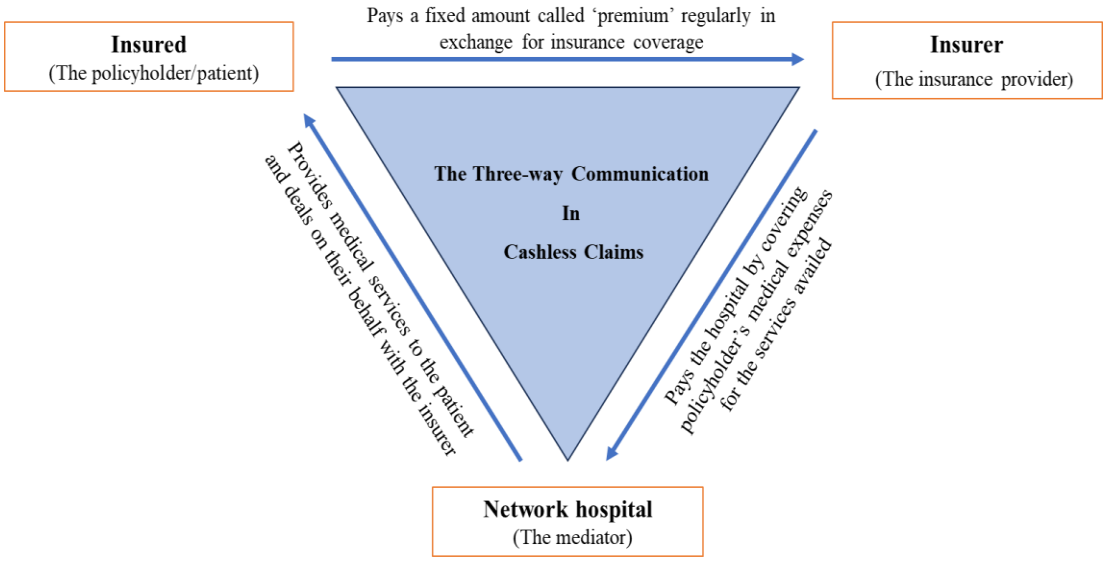

Figure 1.2

1.1.5 What is Claim Settlement Ratio?

In health insurance, the Claim Settlement Ratio, or CSR, is the proportion of total claims settled by an insurance company out of total claims received within a particular fiscal year.[12]

Claim Settlement Ratio = (Total number of claims settled/total number of claims received) × 100.

CSR serves as a performance indicator for insurance companies. It can be used to determine whether an insurance company is likely to settle your health insurance claims. The higher the claim settlement ratio, the greater the likelihood of your claim being granted.[12]

An Economic Times news article reveals the latest claim settlement ratio of health and general insurance companies released by the IRDA in 2025. The CSRs for the nine insurance companies chosen for this study, as per the news article, are:[13]

Table 1.1 Claim Settlement Ratios of Health and General Insurance Companies chosen for the study [13]

Name of Insurance Company	**Claim Settlement Ratio (%)**
ICICI Lombard General Insurance Company Limited	97.16
HDFC ERGO General Insurance Company Limited	99.16
TATA AIG General Insurance Company Limited	95.43
Aditya Birla Health Insurance Co. Limited	92.97
Star Health and Allied Insurance Co. Ltd.	82.31
Care Health Insurance Company Limited	92.77
The New India Assurance Co. Ltd	92.70
United India Insurance Company Limited.	96.33
National Insurance Company Limited.	91.18

1.2 What is Claim Denial?

Claim denials are claims that insurance companies reject. Payments for services provided to patients are withheld and not made in full.

A claim denial occurs when an insurance company declines to cover a submitted claim in part or in full. Denials might be administrative (incorrect patient information or missing paperwork) or clinical (lack of medical necessity or non-covered therapies). Claim denials have a detrimental impact on hospitals because they disrupt revenue cycles and increase the operational workload for resubmission and appeals. [6,7]

They could frustrate patients who may encounter unanticipated out-of-pocket payments, frequently without clear explanations.[8]

Claim denials have been an increasingly common issue in healthcare settings. Incomplete documentation, coding errors, a lack of pre-authorization, and policy exclusions are among the most common reasons. [9,10]

Recent global and national data show an alarming increase in claims denials. In the United States, even in-network services are being refused at an increasing rate, and despite high reversal rates, fewer than 0.2% of patients appeal these decisions.[8]

In India, the issue is exacerbated by a lack of standardisation, poorly documented policies and inconsistent pre-authorization procedures. [6,10]

According to Poland and Harihara [2022], a structured approach that includes root cause investigation, personnel training, and improved system integration is critical to reversing this trend.[7]

1.3 Need for a study on claim denials in Indian healthcare settings:

The health insurance market in India is rapidly expanding, making it the fastest growing segment of the whole insurance industry. Despite many efforts and significant progress in recent years, there is still room to improve health insurance in India, as it faces many challenges that require the effective cooperation of multiple stakeholders to resolve.

How healthcare organisations handle denials has an impact on their reputation. [12]

Given the complexity of the claim processing workflow and the participation of various stakeholders—patients, hospitals, third-party administrators (TPAs), and insurance companies—determining the root causes of claim denials is critical. There are fewer comprehensive denial management programs. [11]

Despite increased research on claim denials in Western healthcare systems, there is little literature on the specific causes and patterns of denials in Indian hospital settings. Indian hospitals have unique claims management challenges due to different insurer

practices, diverse policy designs, and varying TPA interfaces. There is a need for localized research to understand and address these issues.

1.4 Purpose of this study:

This study examines the contributing factors responsible for claim denials at the TPA desk of Kokilaben Dhirubhai Ambani Hospital, located in Mumbai. Further, it also reviews the trends and patterns in claim denial rates among selected insurance companies. The purpose of this research is to identify the reasons for claim denials at the micro level within a hospital's administrative ecosystem and to suggest strategies that can help reduce the denial rate.

1.5 Research problem:

In Indian hospital settings, there is little understanding of the trends and patterns in claim denials by various insurance providers. Documentation problems, insurance exclusions, and authorisation issues are among the major causes of these denials, and they differ greatly amongst insurers. This inconsistency causes delays, increased denial rates, and dissatisfaction among patients. There is a pressing need to investigate why these denials occur and how the claim denial rate might be lowered to increase both patient satisfaction and claim processing efficiency.

1.6 Aim and Objectives of the study:

The aim is to identify the root causes of claim denials in a hospital setting and propose actionable strategies to reduce denial rates.

Objectives:

- To identify trends and patterns in claim denials among different insurance companies in a hospital setting.
- To identify the key factors contributing to claim denials by insurers in a hospital setting.
- To propose strategies to minimize claim denials and improve claim processing efficiency.

CHAPTER 2-REVIEW OF LITERATURE

Authors (Year)	Name of the article/study	Study Location	Sample Size	Sampling Techniques	Study Methodology	Summary and findings
Hoagland A, Yu O, Horný M (2024)	Social Determinants of Health and Insurance Claim Denials for Preventive Care	United States	1535181	Not specified	Observational cohort study	This study examines how social determinants such as race, socioeconomic status, and education influence insurance claim denials for preventive care services. It finds that marginalized populations face disproportionately higher denial rates, which may worsen health disparities and limit access to timely preventive interventions. The authors advocate for policy reforms to address these systemic biases.

Ho CL, Lai G, Liao C, Lonare G (2024)	Unveiling the Black Box: Determinants of Claims Investigation, Delay Payment, and Claim Denial in Private Health Insurance	United States	Not specified	Not specified	Retrospective Observational study	Using retrospective insurance claims data, the authors apply logistic regression and machine learning models (RUSBoost, Neural Networks) to identify key factors causing claim investigations, delayed payments, and denials. Findings highlight that claim complexity, insurer policies, and patient demographics significantly affect claim outcomes. The study suggests data-driven tools to streamline claim approvals and reduce delays.
Rosenthal E (2023)	Health Insurance Claim	United States	Not applicable	Not applicable	Narrative	Discusses the increasing trend of health

	Denials Are on the Rise, to the Detriment of Patients				review/ report	insurance claim denials in the U.S., emphasizing administrative burdens and their impact on patients.
Poland L, Harihara S (2022)	Claims Denials: A Step-by-Step Approach to Resolution	United States	Not applicable	Not applicable	Narrative review	It details the process healthcare providers can follow to identify the cause of claim denials and successfully appeal them. Key findings include that many denials result from administrative errors or incomplete documentation, and timely follow-up significantly improves reimbursement rates. The article stresses the importance of a systematic approach to denial

						management for operational efficiency.
Raghupathi W, Raghupathi V (2021)	Leveraging IT to Improve Claims Management	Global	Not specified	Not specified	Literature review	The authors review the impact of information technology and advanced analytics on claims processing. They find that IT-enabled solutions reduce errors, accelerate processing time, and enable predictive analytics to anticipate and prevent claim denials. Case studies demonstrate measurable improvements in claim accuracy and financial performance, underscoring IT's vital role in modernizing claims management.

Goudarzi R et al. (2020)	Rate and Causes of Claim Denials in Iranian Hospitals: A Systematic Review and Meta-analysis	Iran	16 studies analyzed	Systematic inclusion	Systematic review & meta-analysis	This meta-analysis synthesizes studies from Iranian hospitals to determine the prevalence and causes of claim denials. The main reasons identified include incomplete documentation, non-compliance with insurer policies, and coding errors. The pooled denial rate was significant, prompting the authors to recommend staff training and standardized documentation protocols to reduce denials and improve hospital revenue cycle management.

Yusuf TO, Ajemunigbohun SS, Alli GN (2017)	A Critical Review of Insurance Claims Management	Nigeria	200 employees	Purposive sampling	Cross-sectional descriptive study	Focusing on selected Nigerian insurance companies, this review identifies challenges such as fraudulent claims, inefficient claims processing, and poor regulatory oversight. Findings highlight the need for stronger fraud detection mechanisms and streamlined workflows to improve claim approval rates and overall trust in the insurance system. The authors call for comprehensive reforms and capacity building in claims management.
Jaworski P (2015)	Sources of Insurance Claim	United States	Not specified	Purposive selection	Qualitative case study	Investigates the primary causes of claim denials in a regional medical

	Denials within a Regional Medical Group			of claims data	(Dissertation)	group. Findings reveal that operational inefficiencies, poor communication between healthcare providers and insurers, and lack of staff training contribute to high denial rates. Recommendations include process improvements, better provider-insurer collaboration, and enhanced training to reduce administrative errors and improve claim acceptance.
American Academy of Family Physicians (2015)	How to Fight Back When Your Claims Are Denied	United States	Not specified	Not applicable	Descriptive report	This article offers actionable strategies for providers facing claim denials, emphasizing the importance of accurate and complete

						documentation, understanding insurer policies, and persistent follow-up. It finds that many denials can be overturned through well-prepared appeals. The guidance aims to empower providers to protect their revenue and reduce the administrative burden caused by denials.
Marting R (2015)	The Cure for Claims Denials	Not specified	Not applicable	Not applicable	Narrative review	The article addresses a critical issue in healthcare administration: claims denials. The author explains that these denials are often preventable. She outlines six common reasons why claims get denied and provides practical solutions for

						avoiding these problems. The focus is on prevention through better practices—including accurate documentation, timely filing, staff training, and regular internal audits.

CHAPTER 3-METHODOLOGY

3.1 Research question:

What are the key factors contributing to claim denials by insurers in a hospital setting?

3.2 Research design:

Cross-sectional descriptive study design.

3.3 Study setting:

The TPA desk at Kokilaben Dhirubhai Ambani Hospital and Medical Research Institute, Mumbai

3.4 Study population:

3.4.1 Inclusion criteria:

- Denied claims recorded in the hospital's MIS, between November 1, 2024 and April 30, 2025.
- Denied claims involving hospitalization, surgeries, and daycare procedures.
- Claims that were initially denied and later approved after resubmission.

1.4.2 Exclusion criteria:

- Denied claims of insurance companies other than the ones selected for the study.
- Claims with a pending adjudication status.
- Denied claims where the policyholder withdrew the cashless facility after filing the claim.

3.4.3 Study tools:

WinClient software, which is Kokilaben hospital’s MIS.

3.4.3 Study duration:

3 months (March 10, 2025 to May 31, 2025)

3.4.4 Sample size:

630 denied claims

3.4.5 Sampling technique:

A convenience sampling technique is adopted for this study.

The insurance companies chosen for this study have been selected based on accessibility and availability of data on their denied claims in the hospital's MIS. Nine insurance companies have been chosen, and their denied claims from November 2024 to April 2025 have been analysed.

The nine insurance companies chosen for the study are:

ICICI Lombard General Insurance Company Limited, HDFC ERGO General Insurance Company Limited, TATA AIG General Insurance Company Limited, Aditya Birla Health Insurance Co. Limited, Star Health and Allied Insurance Co. Ltd, Care Health Insurance Company Limited, The New India Assurance Co. Ltd, United India Insurance Company Limited, and National Insurance Company Limited.

3.5 Study approach:

A quantitative type of approach has been employed. Numerical data has been reviewed to trace the pattern of claim denials across the chosen insurance companies and the reasons for each denied claim.

3.5.1 Operational definitions:

- Claim Denial**:** A refusal by the insurance provider to fulfill a request for payment of healthcare services availed by the policyholder, based on predefined terms and conditions.
- Contributing Factors**:** Administrative, clinical, coding, procedural, or other errors identified as causes of claim denials.

3.5.2 Data collection and analysis:

The data collection and analysis for this study were conducted systematically and sequentially to identify and categorise the contributing factors to claim denials in a hospital context. The following steps were taken:

- Data Extraction:

Retrieval of insurance claim records from the hospital's information system from November 1st, 2024 to April 30th, 2025. The dataset comprised a total number of approved and denied claims for nine insurance companies.

- Claim Segregation:
  Denied claims were segregated month-wise for each insurance company to allow for trend analysis over the six months. This enabled a comparative analysis of claim performance among insurers.

- Trend and Pattern Analysis

The denied claim data was analysed to identify periodic and patterns of denial. This assisted in identifying insurance-specific fluctuations and systemic flaws in the claim submission and adjudication processes.

- Denial Category Classification

Denied claims were further categorised into two categories:
(a) Claims that were initially denied but subsequently approved following resubmission or correction.
(b) Claims that were finalized as denied and not successfully resolved
This distinction highlights instances of preventable denial.

- Denial Reason Classification

Each refused claim was thoroughly reviewed to identify the reason for denial. Based on this study, the claims were classified into seven denial categories.

- Quantitative Analysis Using Microsoft Excel:

The cleaned and categorised data were entered into Microsoft Excel for quantitative analysis. Excel functions and pivot tables were used to calculate the frequency and proportion of claim denial reasons. Visualisation tools like bar graphs and line charts were employed to facilitate interpretation.

3.6 Ethical considerations:

This study adhered strictly to ethical research practices. No personal or irrelevant information about patients was used during data extraction and analysis, maintaining complete confidentiality and privacy. The claim data were obtained with prior consent

from hospital authorities, solely for academic purposes. All data were securely stored and used only for the purpose of this study. The study did not involve any direct patient interaction or clinical intervention.

CHAPTER 4: RESULTS

This chapter presents the results of the data analysis conducted on the claims processed by nine insurance companies at Kokilaben Dhirubhai Ambani Hospital from 1st November 2024 to 30th April 2025. A total of **5435 claims were processed** by these nine insurance companies over six months, out of which 4805 were approved, while **630 cases were denied**.

The total no. of claims processed, approved and denied at the TPA desk of the hospital during the six months was reviewed, to capture and compare the denial rates across the chosen nine insurance companies as follows:

Table 4.1 Insurance Company-wise Claim Outcomes (1st November 2024-30th April 2025)

Name of the Insurance Company	Total no. of claims processed	Total no. of claims approved	Total no. of claims denied
ICICI Lombard	390	350	40
HDFC ERGO	783	689	94
TATA AIG	179	158	21
Aditya Birla	228	196	32
Star Health	1514	1300	214
Care Health	740	607	133
New India Assurance	1249	1186	63
United India	139	125	14
National Insurance	213	194	19

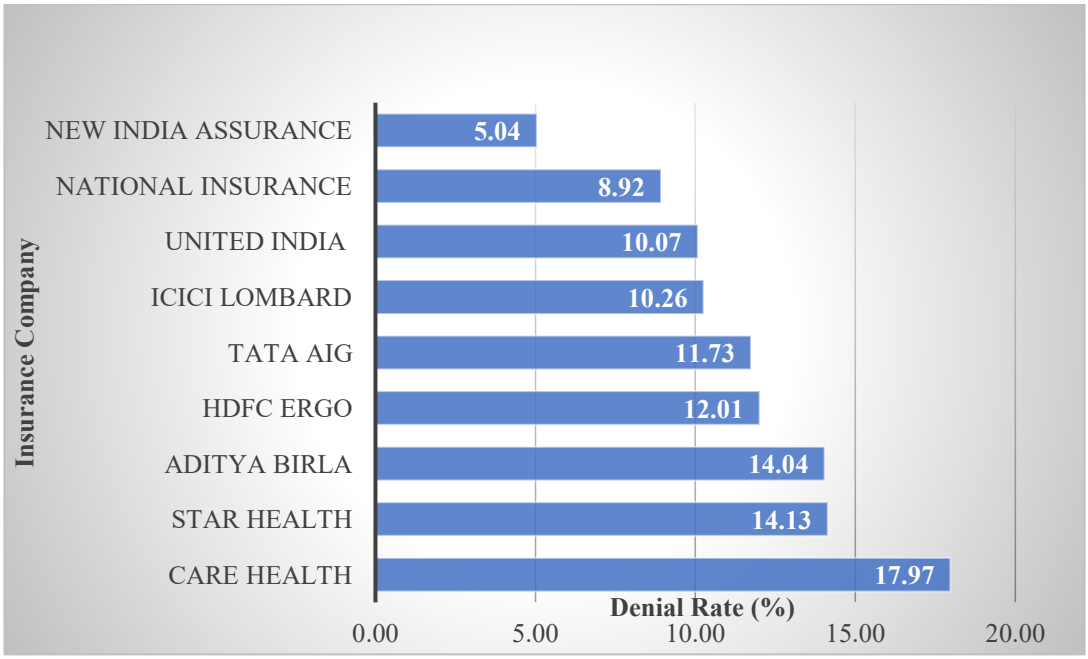

Figure 4.1 Denial rates (%) of the chosen insurance companies (1st November 2024-30th April 2025)

- Key findings:

- Care Health Insurance Company Limited had the highest denial rate at 17.97%, followed by Star Health and Allied Insurance Co. Ltd. followed with a 14.13% denial rate, and Aditya Birla at 14.04%.
- The companies HDFC ERGO, TATA AIG and United India exhibited a moderate range in their denial rates.
- While The New India Assurance Co. Ltd and National Insurance Company Limited showed relatively lower denial rates, the former with the lowest among all nine companies. (5.04%)

Further, the month-wise approval and denial trends over six months were studied for each insurance company, which are illustrated in the figures below:

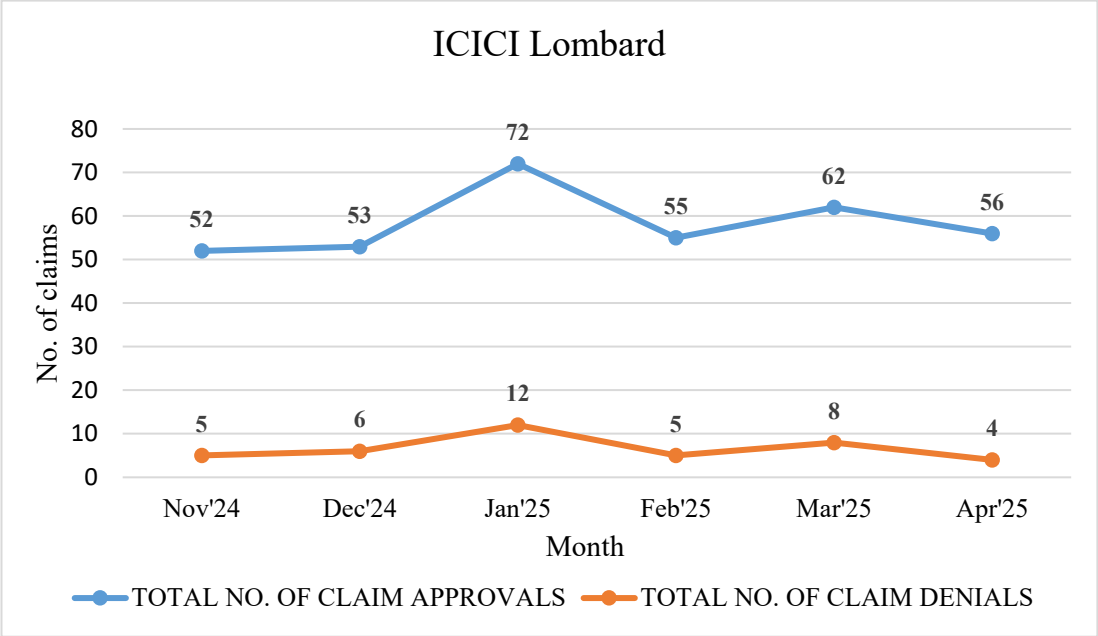

Figure 4.2 Month-wise Trends in Claim Approvals and Denials – ICICI Lombard (November 2024 to April 2025)

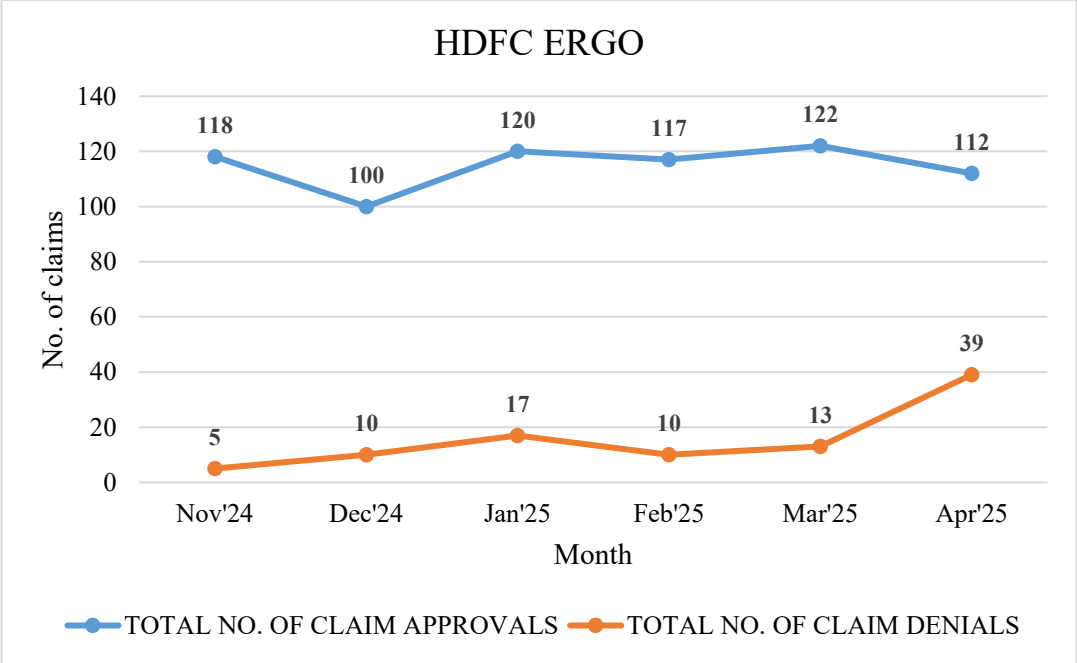

Figure 4.3 Month-wise Trends in Claim Approvals and Denials – HDFC ERGO (November 2024 to April 2025)

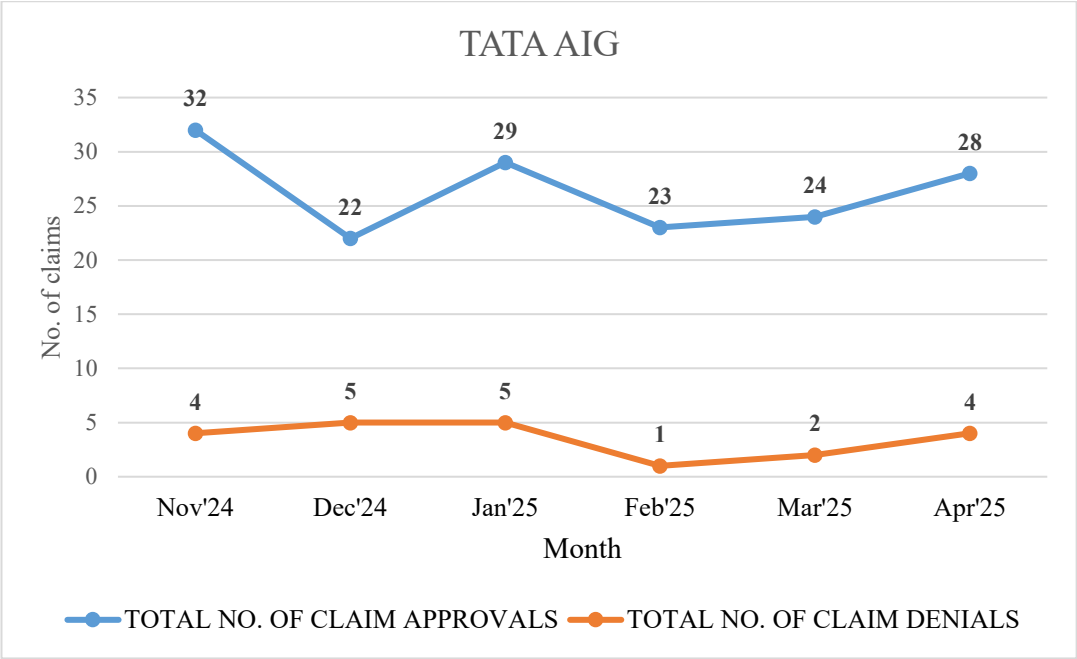

Figure 4.4 Month-wise Trends in Claim Approvals and Denials – TATA AIG (November 2024 to April 2025)

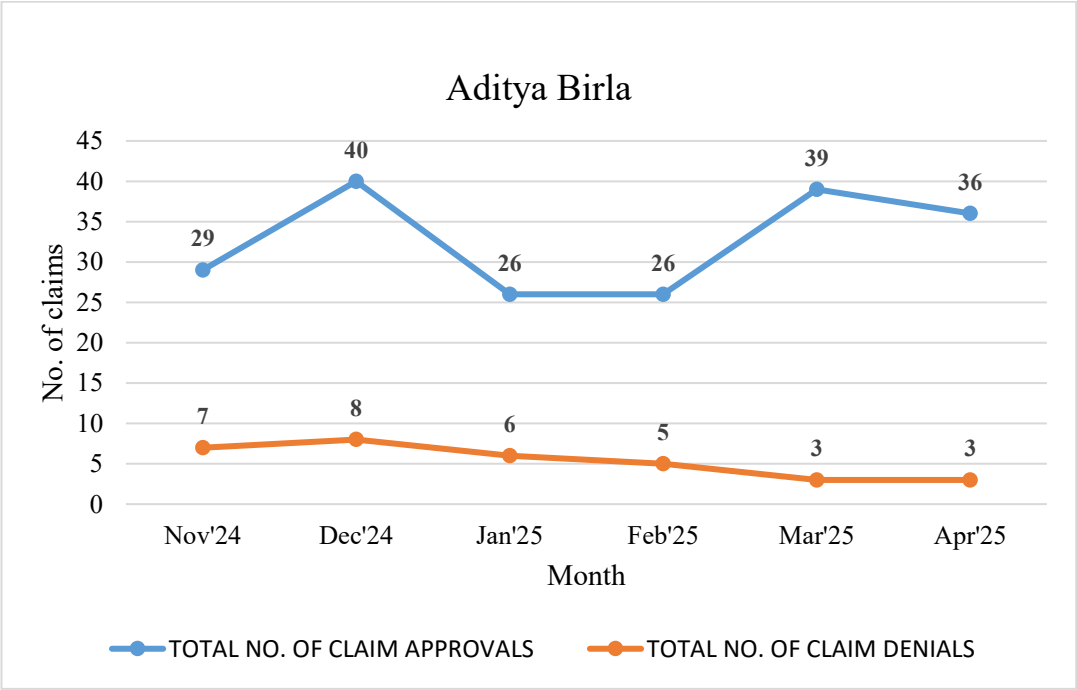

Figure 4.5 Month-wise Trends in Claim Approvals and Denials – Aditya Birla (November 2024 to April 2025)

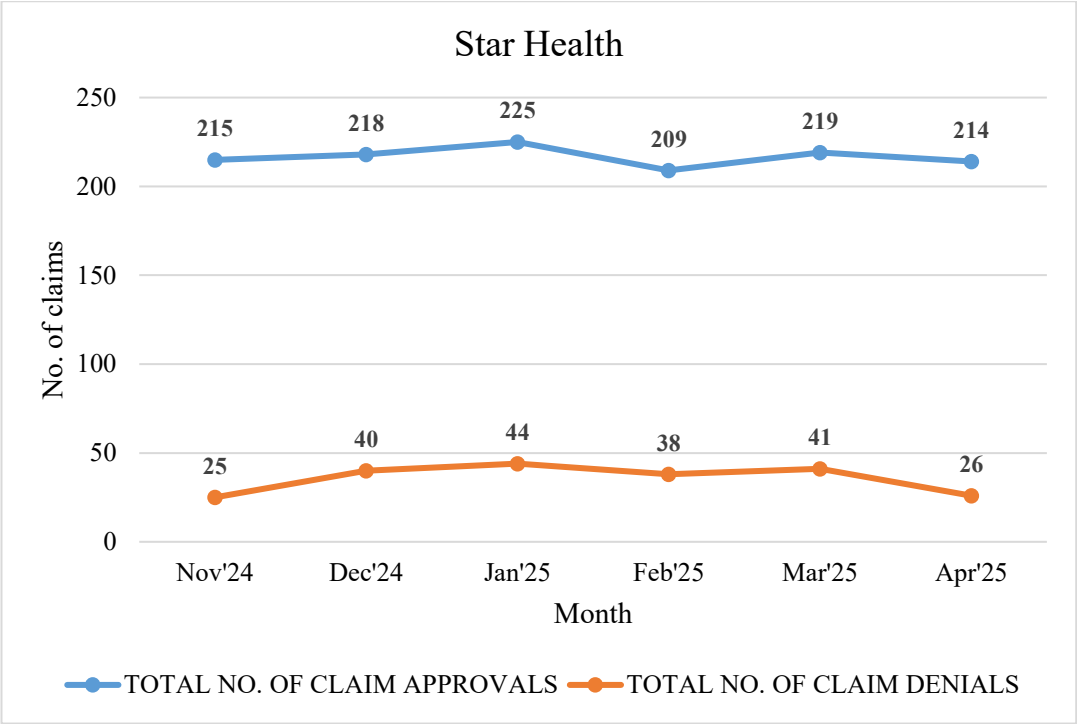

Figure 4.6 Month-wise Trends in Claim Approvals and Denials – Star Health (November 2024 to April 2025)

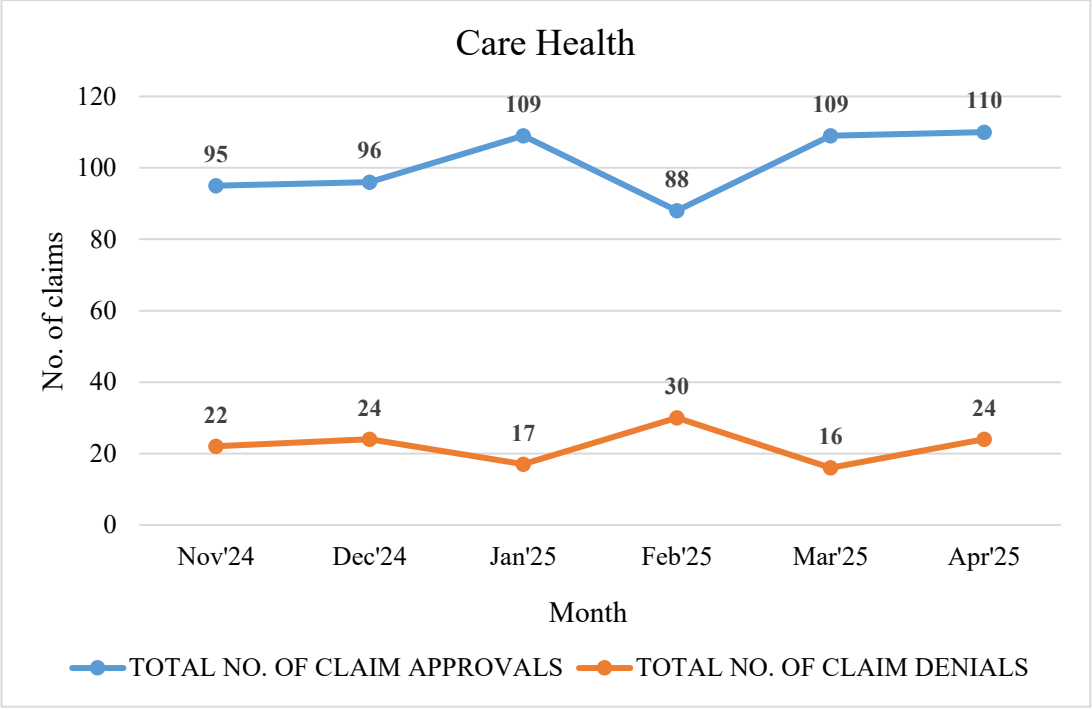

Figure 4.7 Month-wise Trends in Claim Approvals and Denials – Star Health (November 2024 to April 2025)

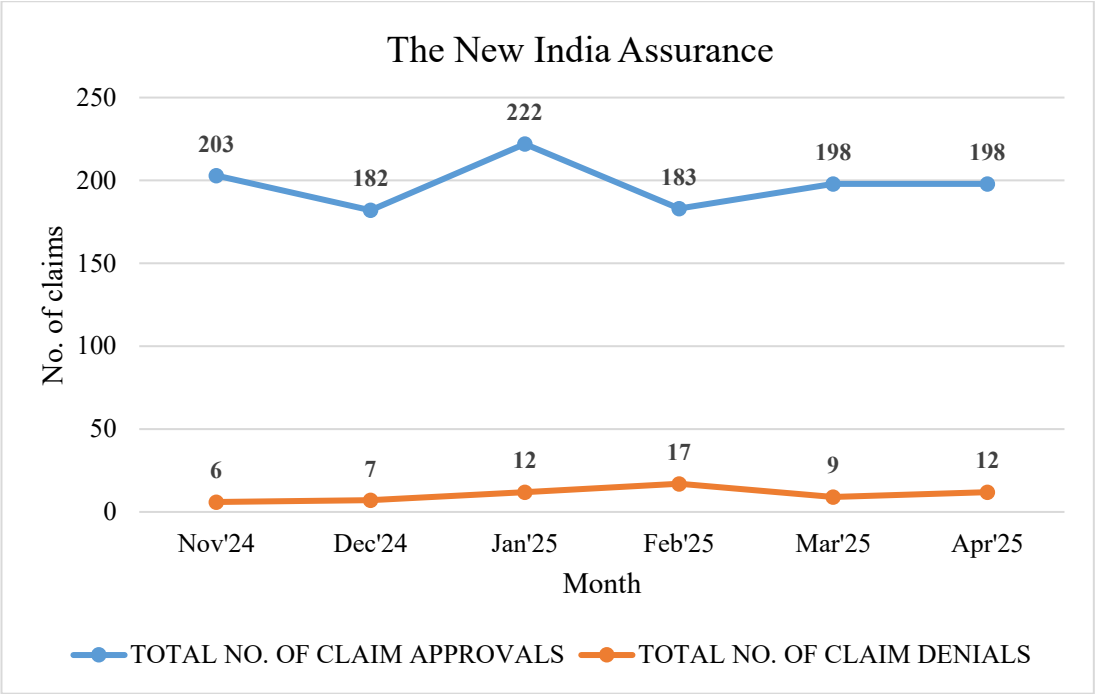

Figure 4.8 Month-wise Trends in Claim Approvals and Denials – Star Health (November 2024 to April 2025)

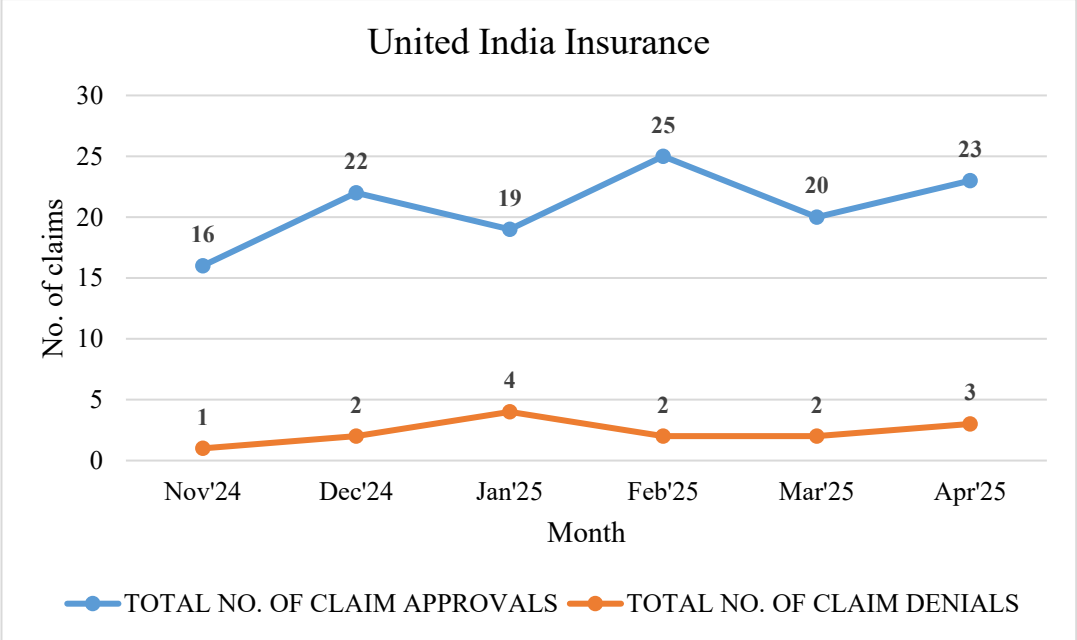

Figure 4.9 Month-wise Trends in Claim Approvals and Denials – United India (November 2024 to April 2025)

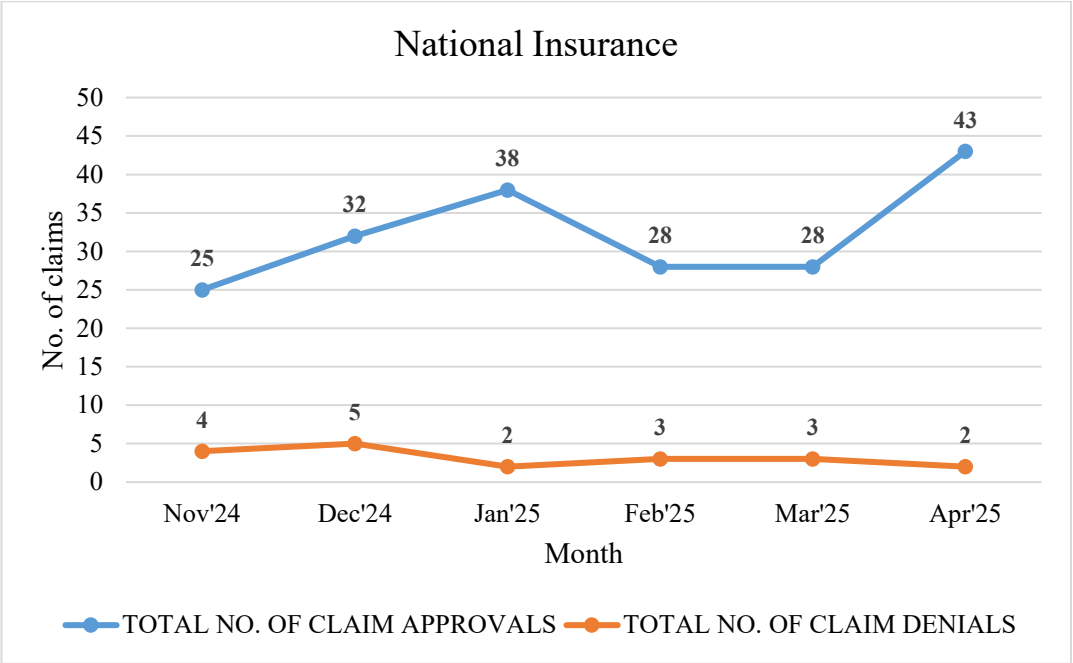

Figure 4.10 Month-wise Trends in Claim Approvals and Denials – National Insurance (November 2024 to April 2025)

- Key findings:

- Approval trends remained relatively stable across most insurers, with some monthly fluctuations seen over the six months.
- Denials spiked in December 2024, January 2025, and March 2025.
- Higher denial volumes were frequently observed when insurers handled a greater number of total claims, indicating a link between claim load and error rates.
- Care Health and Star Health had the highest monthly denial peaks.
- TATA AIG, United India, and Aditya Birla consistently reported low absolute numbers for both approvals and denials.
- New India Assurance showed a relatively stable trend with high approvals (~200+) and consistently low denials.

Following this, the denied claims were categorised as:

(a) Claims that were initially denied but subsequently approved following resubmission or correction.

(b) Claims that were finalized as denied and not successfully resolved.

Table 4.2 Denial Category Classification

Category	Number of Claims
Initially denied but finally	114
Claims finalized as denied	516
Total	630

- Key findings:
- 18% of all denied claims were later approved, suggesting a successful claim appeal or rectification.
- 82% of all denied claims were finally denied, demonstrating a low reversal rate after the initial rejection.

Lastly, the contributing factors for claim denials were identified and categorised into seven reasons as follows:

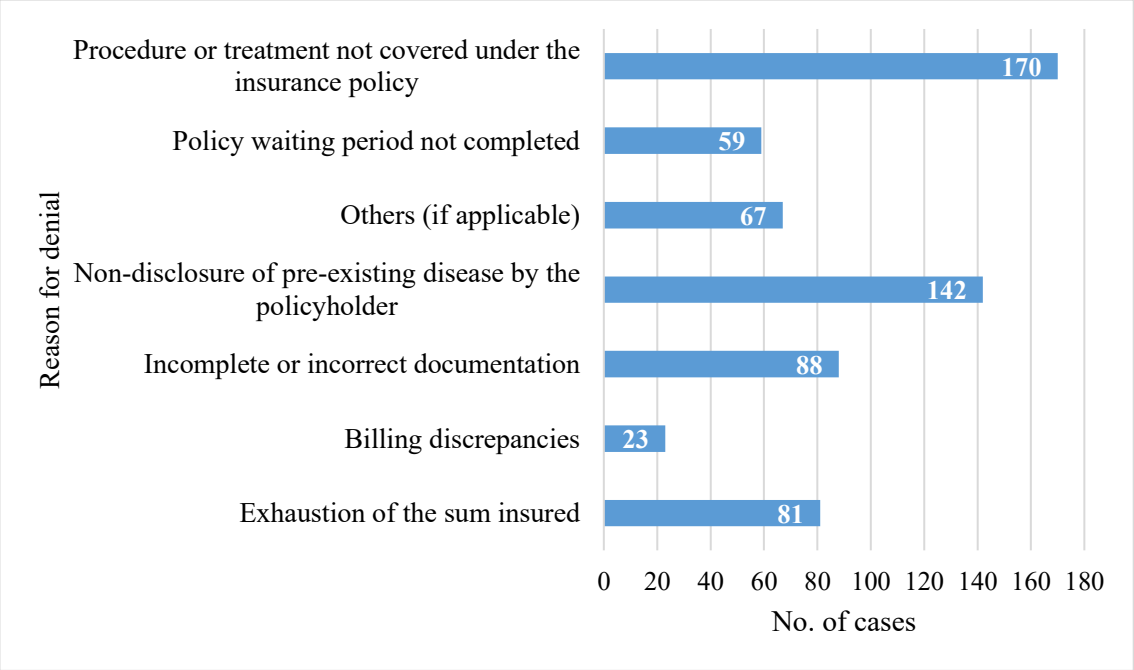

Figure 4.11 Distribution of health insurance claim denial reasons identified at the TPA desk of Kokilaben hospital (n=630)

The other reasons category (<10 cases per reason) includes miscellaneous causes for claim denial, such as:

- Claim amount is less than the agreed deductible,
- Unverifiable indication for hospitalisation,

- Unproven treatment given to the patient,
- Delay in claim intimation by the insured,
- Failure of the insured to pay an updated premium to the insurance company,
- Incorrect coding of diagnosis
- Non-cooperation exhibited by the insured, etc.

- Key findings:

- The most common reason for denial was "Procedure or treatment not covered under the insurance policy" (170 cases), implying gaps in policyholder awareness or miscommunication.
- Non-disclosure of pre-existing diseases (140+) and documentation errors (80+) were the next most frequent causes, suggesting administrative and customer transparency issues.
- Others (miscellaneous) causes and exhaustion of sum insured also contributed significantly.
- Billing discrepancies were the least stated reason (23 cases), reflecting effective hospital billing practices.

The causes identified for claim denials can also be grouped and represented along with the sub-causes as illustrated in the Fishbone diagram below:

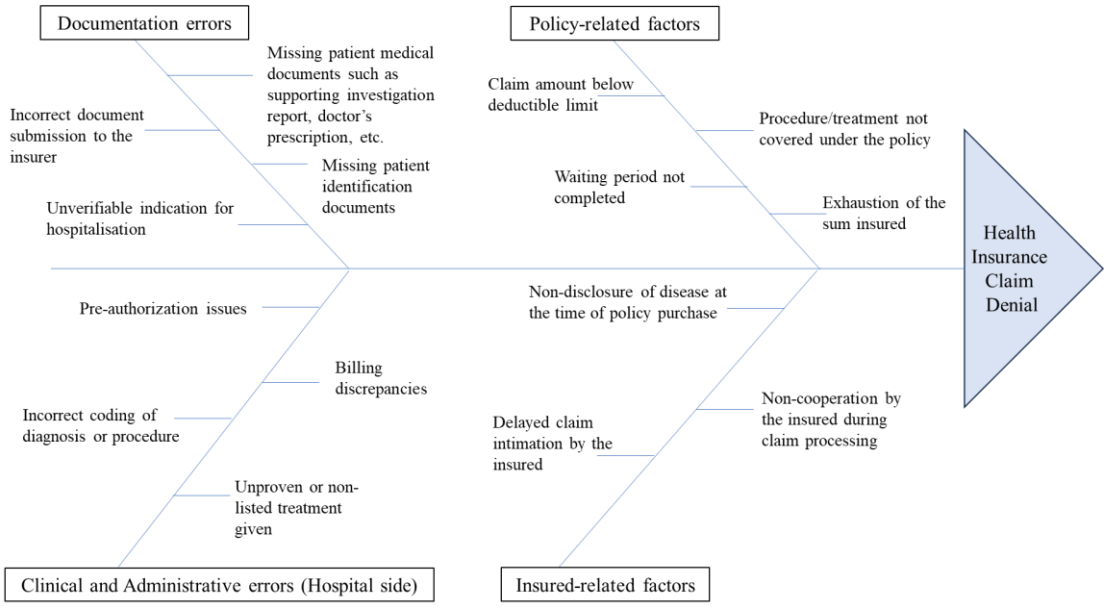

Figure 4.12 Causes and sub-causes of claim denials at the TPA desk of Kokilaben hospital

CHAPTER 5-DISCUSSION

This study explored the factors that contribute to health insurance claim denials in a hospital setting, with a focus on the TPA desk at Kokilaben Dhirubhai Ambani Hospital.

Across the nine insurance companies chosen for the study, the overall denial rate patterns showed a significant variance, with denial percentages ranging from 5.04% (New India Assurance) to 17.97% (Care Health Insurance). These numbers indicate a lack of standardisation in claim adjudication processes, pointing out the need for better alignment between hospitals and insurance providers. Furthermore, a study of month-wise denial trends found notable spikes in December, January, and March, which may be attributed to policy renewal cycles, seasonal admission surges, or administrative delays. The consistently high denial rates among certain insurers also reflect possible challenges such as unclear policy terms, poor pre-admission verifications, and inadequate documentation practices.

Additionally, 18% of claims were later approved after resubmission or rectification, however, 82% of all refused claims were not overturned, demonstrating a low reversal rate following initial rejection. This stresses the importance of proactive denial prevention strategies, shows areas for process improvement. This, in turn, can assist to eliminate delays, duplicative efforts, and additional costs for both the hospital and patients.

An analysis of 630 denied claims found multifaceted reasons, emphasising gaps in communication, paperwork, and policy awareness.

The findings showed that the most common reasons for claim denials were:
- Procedures not covered under policy
- Non-disclosure of pre-existing diseases
- Incomplete or incorrect documentation
- Exhaustion of the sum insured
- Policy waiting period not completed
- Billing discrepancies
- Miscellaneous reasons, including incorrect coding of diagnosis, unproven treatment given to the patient, claim amount lesser than the agreed deductible, etc.

These findings align with existing literature. According to Ho CL et al. (2024), claim complexity, patient demographics, and insurance policies are all important predictors of denial, which supports the multifactorial nature observed in this study's setting.[16]

Similarly, Poland and Harihara (2022) emphasise the importance of documentation errors and point out that many denials can be rectified if hospitals employ a systematic denial management plan.[7]

The disparity in denial rates between insurers, ranging from 5.04% (New India Assurance) to 17.97% (Care Health Insurance), reflects differences in policy enforcement and communication among TPAs, hospitals, and insurers. This fluctuation is consistent with Jaworski (2015), who highlighted poor provider-insurer communication and operational inefficiencies as key contributors to denial rates in a U.S. regional medical group.[17]

Furthermore, the discovery that certain claims that were first denied were later allowed following resubmission indicates preventable administrative lapses, which confirms Marting's (2015) emphasis on early filing and appropriate documentation as preventive methods.[14]

The findings of this study also corroborate the growing importance of technology in reducing denials, a point made by Raghupathi and Raghupathi (2021), who argued for IT-driven claims management to streamline processes and improve accuracy.[15]

- Strengths of the study:

- Using real hospital data (n = 630 denied claims) from an esteemed tertiary care facility improves robustness and contextual relevance.
- The inclusion of nine diverse insurance companies allows for cross-comparison of denial trends.
- Classifying preventable and final denials gives actionable insights for administrative improvements.

- Limitations of the study:

- The study's focus on a single hospital may limit its applicability to other healthcare settings.
- Convenience sampling was used, which may have introduced selection bias.
- The study did not consider patient perspectives, which could have improved understanding of communication gaps and policy understanding.

CHAPTER 6: CONCLUSION

6.1 Summary

This study identified and analyzed the major contributing factors to health insurance claim denials at Kokilaben Dhirubhai Ambani Hospital's TPA desk. The study of denied claims found that a substantial portion was attributable to policy exclusions, inadequate documentation, and policyholder-side disclosure gaps.

Denial rates differed considerably across insurers, indicating that adjudication policies are not standard. Furthermore, a significant number of previously denied claims were eventually overturned, indicating preventable administrative errors.

6.2 Implications of the study:

- To reduce denials, hospitals must prioritise internal audits, accurate coding, and timely claim submissions.
- Insurance companies should ensure that their policies are clearly communicated to patients at the time of purchase, particularly in terms of exclusions, waiting periods, and coverage limits.
- TPA desks can function as better mediators by offering patient education, proactive document verification, and pre-admission policy checks.

6.3 Recommendations:

(a) For Hospitals:

- Use the TPA desk as a platform to educate patients and policyholders about the claim-filing documentation procedure.
- Create standard operating procedures (SOPs) for claim verification and provide pre-authorization verification checklists on the TPA desk.
- Provide regular training to hospital administrative and billing staff on insurer-specific guidelines and claim protocols.

(b)For Insurance Companies:

- Improve transparency in policy wordings by making them available in local languages.
- Host policyholder education webinars.

- Improve TPA collaboration by assuring timely updates and consistency in procedural coverage.

(c) For Policyholders:

-Policyholders should be encouraged to declare all pre-existing conditions and carefully read the insurance terms and conditions.
- Raise awareness about waiting periods, deductibles, and documentation requirements.

(d) For Policymakers:

- Standardise denial codes and categories across the industry for uniformity.
- Promote digital health insurance management systems capable of proactively identifying potential claim concerns before denial.

6.4 Further scope of this study:

Future research could utilise multi-institutional data, consider both cashless and reimbursement claims, and incorporate qualitative interviews with patients to explore the impact of denials on care-seeking behaviour and financial stress.

References:

1. Institute of Medicine (US) Committee on the Consequences of Uninsurance. *Coverage matters: insurance and health care*. Washington (DC): National Academies Press (US); 2001 [cited 2025 May 21]. Available from: https://www.ncbi.nlm.nih.gov/books/NBK223643/
2. Qian Insurance Broking LLP. **Health insurance claim process in India** [Internet]. Mumbai: Qian Insurance Broking LLP; [cited 2025 May 21]. Available from: https://www.qian.co.in/insurance/general/health/claim-process/
3. Invensis. Insurance claims management: a comprehensive guide [Internet]. Plano (TX): Invensis; [cited 2025 May 21]. Available from: https://www.invensis.net/blog/what-is-claims-management-in-insurance
4. Yusuf TO, Ajemunigbohun SS, Alli GN. A critical review of insurance claims management: A study of selected insurance companies in Nigeria. *Spoudai J Econ Bus* [Internet]. 2017 [cited 2025 May 21];67(2):69–84. Available from: https://spoudai.unipi.gr/index.php/spoudai/article/view/2593
5. Policybazaar. What is the Hospital TPA Desk & How it Works? Policybazaar.com [Internet]. [cited 2025 May 22]. Available from: https://www.policybazaar.com/corporate-insurance/articles/what-is-the-hospital-tpa-desk-how-it-works/
6. Verywell Health. (n.d.). *Reasons for Health Insurance Claim Denials and What You Should Do.* https://www.verywellhealth.com/what-is-a-health-insurance-claim-denial-1738690
7. Poland, L., & Harihara, S. (2022). *Claims denials: A step-by-step approach to resolution.* Journal of AHIMA.
8. Rosenthal, E. (2023). *Analysis: Health insurance claim denials are on the rise, to the detriment of patients.* PBS NewsHour. https://www.pbs.org/newshour/health/analysis-health-insurance-claim-denials-are-on-the-rise-to-the-detriment-of-patients
9. Impact Wealth. Most common reasons for health insurance claim denials [Internet]. 2025 Jan 6 [cited 2025 May 21]. Available from: https://impactwealth.org/most-common-reasons-for-health-insurance-claim-denials/
10. Bima Samadhan. Common causes of health insurance claim rejections: an informed overview [Internet]. 2024 Sep 26 [cited 2025 May 21]. Available from:

https://bimasamadhan.zohodesk.in/portal/en/kb/articles/common-causes-of-health-insurance-claim-rejections-in-india-an-informed-overview-26-9-2024

11. Jathanna PN, Mahabal S. Health insurance claims and denials: An Indian perspective. In: *Proceedings of the Global Health Conference 2017*; 2017 Jul 10–11; Singapore. Singapore: GSTF; 2017. p. 1–6. doi:10.5176/2251-3833_GHC17.32.
12. Policybazaar. Claim Settlement Ratio vs Incurred Claim Ratio. Policybazaar [Internet]. [cited 2025 May 23]; Available from: https://www.policybazaar.com/health-insurance/general-info/articles/claim-settlement-ratio-vs-incurred-claim-ratio/
13. Puranik IA. Latest claim settlement ratio of health and general insurance companies released by IRDA in 2025. The Economic Times [Internet]. 2025 Mar 21 [cited 2025 May 23]; Available from: https://economictimes.indiatimes.com/wealth/insure/health-insurance/latest-claim-settlement-ratio-of-health-and-general-insurance-companies-released-by-irda-in-2025/articleshow/118836990.cms
14. Raghupati V, Raghupati A. Leveraging IT to Improve Claims Management. J Health Inf Manag. 2019;33(2):12-18.
15. Marting R. The Cure for Claims Denials. Med Billing Coding Today. 2021;39(4):22-2
16. Ho CL, Lai G, Liao C, Lonare G. Unveiling the black box: determinants of claims investigation, delay payment, and claim denial in private health insurance [Preprint]. Rochester (NY): SSRN; 2024 Aug 1 [cited 2025 May 25]. Available from: https://ssrn.com/abstract=5153822
17. Jaworski P. Sources of insurance claim denials within a regional medical group [dissertation]. Ann Arbor (MI): ProQuest Dissertations Publishing; 2015. Available from: https://www.proquest.com/openview/c16da3129e6ae1f1a531d0f9c0c85a38
18. Frazier R, Braddy J. Denial Management: Strategies for Success. J Revenue Cycle Manag. 2018;7(1):14-20.